As filed with the Securities and Exchange Commission on November 8, 2013

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

CARA THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**2834**	**75-3175693**
(State or other jurisdiction of incorporation or organization)	*(Primary Standard Industrial Classification Code Number)*	*(I.R.S. Employer Identification Number)*

1 Parrott Drive
Shelton, Connecticut 06484
(203) 567-1510
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Derek Chalmers, Ph.D., D.Sc.
President and Chief Executive Officer
Cara Therapeutics, Inc.
1 Parrott Drive
Shelton, Connecticut 06484
(203) 567-1501
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

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New York, New York 10036	**Boston, Massachusetts 02116**
(212) 479-6000	**(617) 948-6000**

Approximate date of commencement of proposed sale to the public:
As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 under the Securities Exchange Act of 1934. (Check one):

Large Accelerated Filer ☐ Accelerated Filer ☐ Non-accelerated Filer ☒ Smaller Reporting Company ☐

CALCULATION OF REGISTRATION FEE

Title of Securities Being Registered	**Proposed Maximum Aggregate Offering Price(1)(2)**	**Amount of Registration Fee**
Common Stock, $0.001 par value per share	$60,000,000	$7,728

(1) In accordance with Rule 457(o) under the Securities Act of 1933, as amended, the number of shares being registered and the proposed maximum offering price per share are not included in this table.

(2) Estimated solely for purposes of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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SUBJECT TO COMPLETION, DATED NOVEMBER 8, 2013

PRELIMINARY PROSPECTUS

CARA THERAPEUTICS

Shares
Common Stock
$ per share

This is the initial public offering of Cara Therapeutics, Inc. We are offering shares of our common stock. Prior to this offering, there has been no public market for our common stock. We estimate that the initial public offering price will be between $ and $ per share.

We have applied to list our common stock on The NASDAQ Global Market under the symbol "CARA."

We are an "emerging growth company" as defined by the Jumpstart Our Business Startups Act of 2012 and, as such, we have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 10.

	Per Share	Total
Initial public offering price	$	$
Underwriting discounts and commissions	$	$
Proceeds, before expenses, to us	$	$

We have granted the underwriters a 30-day option to purchase a total of up to additional shares of common stock on the same terms and conditions set forth above.

The underwriters expect to deliver shares of common stock to purchasers on , 2013.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Stifel **Piper Jaffray**

Canaccord Genuity

Needham & Company

Janney Montgomery Scott

The date of this prospectus is , 2013.

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We have not authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses we have prepared. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of its date.

For investors outside the United States: We have not and the underwriters have not done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons who come into possession of this prospectus and any applicable free writing prospectus in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions as to this offering and the distribution of this prospectus and any such free writing prospectus applicable to that jurisdiction.

PROSPECTUS SUMMARY

This summary highlights information contained in other parts of this prospectus. Because it is only a summary, it does not contain all of the information that you should consider before investing in shares of our common stock and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere in this prospectus. You should read the entire prospectus carefully, especially "Risk Factors" and our financial statements and the related notes, before deciding to buy shares of our common stock. Unless the context requires otherwise, references in this prospectus to "Cara," "we," "us" and "our" refer to Cara Therapeutics, Inc. and its subsidiaries taken as a whole.

Overview

Our Company

We are a clinical-stage biopharmaceutical company focused on developing and commercializing new chemical entities designed to alleviate pain by selectively targeting kappa opioid receptors. We are developing a novel and proprietary class of product candidates that target the body's peripheral nervous system and have demonstrated efficacy in patients with moderate-to-severe pain without inducing many of the undesirable side effects typically associated with currently available pain therapeutics. Our most advanced product candidate, intravenous, or I.V., CR845, has demonstrated significant pain relief and a favorable safety and tolerability profile in three Phase 2 clinical trials in patients with acute postoperative pain. We plan to begin Phase 3 registration trials for I.V. CR845 in the second half of 2014. We are also developing an oral version of CR845, or Oral CR845, for acute and chronic pain, for which we have successfully completed a Phase 1 clinical trial to demonstrate the ability to deliver CR845 orally.

According to IMS Health, an independent market research firm, the total U.S. market for pain management pharmaceuticals totaled $18.2 billion in 2012. The prescription pain management market in the United States is dominated by opioid analgesics, which, according to IMS Health data, represented 71% of the 341 million analgesic prescriptions written in 2012 and accounted for sales of $8.3 billion in that year. Opioid analgesics decrease the perception of pain by stimulating mu, delta and/or kappa opioid receptors. All of these receptors are involved in modulating pain signals. The most widely used opioid analgesics, including morphine, fentanyl and hydromorphone, act primarily through the activation of mu opioid receptors in the central nervous system, or CNS. However, because of the wide distribution of mu opioid receptors throughout the brain, morphine and other mu opioid analgesics also trigger a characteristic pattern of adverse "central" side effects, including nausea and vomiting, itching and respiratory depression. Mu opioids are also known to cause euphoria, which can lead to misuse, abuse and addiction issues.

Our new chemical entity, CR845, is designed to produce pain relief by specifically stimulating kappa, rather than mu, opioid receptors. Moreover, we have designed CR845 with specific chemical characteristics to restrict its entry into the CNS and further limit CR845's mechanism of action to kappa opioid receptors in the peripheral nervous system, which consists of the nerves outside the brain and spinal cord. In addition to the side effects associated with activation of mu opioid receptors in the CNS, activation of kappa receptors in the CNS is also known to result in side effects, including acute psychiatric disorders. Since CR845 is designed to modulate pain signals without activation of mu or kappa opioid receptors in the CNS, it is not expected to produce the psychiatric side effects of centrally-active prior kappa opioids or the CNS related side effects of mu opioids. Based on the clinical trials and preclinical studies we have completed to date, we believe that product candidates based on CR845, if approved, would be attractive to both patients and physicians as a treatment for moderate-to-severe pain because of their ability to provide pain relief while significantly reducing the incidence of opioid-related adverse events and avoiding the abuse and addiction issues associated with currently approved mu opioid analgesics.

Our Product Candidates

Our current product candidate pipeline is summarized in the table below:

Product Candidate	Primary Indication(s)	Status	Commercialization Rights
I.V. CR845	Acute Pain	Phase 2 Complete	Cara (worldwide, other than Japan and South Korea) Maruishi Pharmaceuticals (Japan) Chong Kun Dang Pharmaceutical (South Korea)
Oral CR845	Acute & Chronic Pain	Phase 1	Cara (worldwide, other than Japan and South Korea) Maruishi Pharmaceuticals (Japan–for acute pain indication only) Chong Kun Dang Pharmaceutical (South Korea)
CR701	Neuropathic & Inflammatory Pain	Preclinical	Cara (worldwide)

Overview of CR845

CR845 is a peripherally-acting kappa opioid receptor agonist that we are developing for treatment of both acute and chronic pain. CR845 has been administered to over 300 human subjects in Phase 1 and Phase 2 clinical trials as an intravenous infusion, intravenous bolus injection or oral capsule and was considered to be safe and well tolerated in these clinical trials. We believe CR845-based products, if approved, have the potential to be attractive for patients with moderate-to-severe pain and their physicians due to the following attributes:

- novel, peripherally-acting, kappa opioid receptor mechanism of action;
- strong evidence of efficacy;
- potential for reducing opioid use and mu opioid-related adverse events such as nausea and vomiting;
- avoidance of mu opioid-related CNS side effects, such as respiratory depression and euphoria;
- absence of euphoria which lowers addiction or abuse potential;
- avoidance of drug-drug interactions; and
- availability in I.V. form for acute pain treatment in the hospital setting and oral form for treatment of acute and chronic pain in either a hospital or outpatient setting.

I.V. CR845

Our most advanced product candidate, I.V. CR845, is being developed for the treatment of acute pain in a hospital setting. I.V. CR845 has demonstrated tolerability and efficacy in three randomized, double-blind, placebo-controlled Phase 2 clinical trials as follows:

- Phase 2b Laparoscopic Hysterectomy Trial (*CLIN2002*): *CLIN2002* was a multicenter, double randomized, double-blind placebo-controlled trial conducted in 203 patients at 22 sites in the United States. In this trial, patients received either I.V. CR845 or placebo prior to surgery and then

I.V. CR845 or placebo after surgery. Compared to the group receiving only placebo, all groups that received I.V. CR845 exhibited a reduction in mean pain intensity relative to baseline for all time intervals measured in the trial. Importantly, in comparison to placebo, the two groups receiving postoperative I.V. CR845 exhibited a statistically significant improvement in mean 24-hour summed pain intensity differences, or SPID, a cumulative measure of pain reduction that has been recommended by the FDA as a primary endpoint in Phase 3 postoperative pain trials in support of a New Drug Application, or NDA. Patients receiving I.V. CR845 also used less morphine and had a statistically significant lower incidence of nausea and vomiting than those receiving only placebo. Clinical trial results are considered statistically significant when the probability of the results occurring by chance, rather than from the efficacy of the drug candidate, is sufficiently low.

- Phase 2 Bunionectomy Trial *(CLIN2003)*: *CLIN2003* was a randomized, double-blind, placebo-controlled trial conducted in 51 patients following bunionectomy surgery at a single site in the United States. Patients completing the trial who received multiple doses of I.V. CR845 exhibited a statistically significant improvement in SPID, compared to placebo, for both the 24 and 48 hour time periods following initiation of treatment. Patients receiving I.V. CR845 also exhibited a statistically significant reduction in nausea and vomiting compared to placebo, despite the use of similar amounts of fentanyl rescue medication, indicating a potential direct anti-vomiting and anti-nausea effect of CR845. Bunionectomy is considered a “hard tissue” surgery, in contrast to laparoscopic hysterectomy, which is considered a “soft tissue” surgery; efficacy in both types of surgery is desirable to demonstrate breadth of analgesic efficacy for regulatory approval.
- Phase 2a Laparoscopic Hysterectomy Trial (*CLIN2001*): *CLIN2001* was a randomized, double-blind, placebo-controlled, proof-of-concept trial to evaluate the analgesic efficacy and safety of I.V. CR845 during the postoperative period in 114 patients undergoing laparoscopic hysterectomy. Two cohorts were employed, with drug treatment beginning either 24 hours after surgery or immediately after randomization. In the first cohort, with a 24-hour delay in treatment, an insufficient number of patients exhibited moderate-to-severe pain to provide meaningful results. However, for the second cohort of 46 patients who received immediate postoperative treatment, CR845-treated patients exhibited statistically significantly greater reductions in pain intensity up to 6 hours following treatment compared to those receiving placebo. In addition, these CR845-treated patients used statistically significantly less morphine and exhibited a substantial reduction in nausea and vomiting, compared to patients receiving placebo. These findings provided the basis for the design of the larger Phase 2 trial noted above, *CLIN2002*.

We are currently planning our Phase 3 clinical program to seek FDA approval for I.V. CR845 in the United States for the management of acute pain in a hospital setting. Based on guidance from the FDA, we believe that we will be required to complete two Phase 3 clinical trials, one in patients with pain resulting from soft tissue surgery and one in patients with pain resulting from hard tissue surgery. We believe that the primary efficacy endpoints will be the change in SPID at either 24 or 48 hours as compared to placebo. Recent trials conducted by other companies for FDA-approved acute pain drugs have run similar Phase 3 development programs in soft and hard tissue using either SPID 24 or 48 as their endpoints. In addition to our two pivotal Phase 3 clinical studies for I.V. CR845 administered after surgery, we are also planning to run one optional supportive Phase 3 clinical trial with I.V. CR845 dosed both pre-surgery and post-surgery in patients undergoing either laparoscopic hysterectomy or bunionectomy surgery. In all three trials, patients will have access to morphine rescue medication throughout the trial. Rescue medication is an additional analgesic drug (other than study drug), which is permitted to be administered to clinical trial subjects if they feel they are not receiving sufficient pain relief at any point during the trial protocol. We expect to commence these clinical trials in the second half of 2014.

Oral CR845

We are also developing an oral version of CR845. We believe Oral CR845 will address a significant unmet medical need for a safer alternative to opioids, non-steroidal anti-inflammatory drugs, or NSAIDs, or CNS anticonvulsant agents for the treatment of moderate-to-severe chronic pain. In addition to its potential efficacy benefits, we believe a significant benefit of Oral CR845 in the chronic pain market would be its ability to avoid CNS side effects, including euphoria, which should preclude the misuse, abuse and addiction risks associated with currently approved mu opioids.

We have successfully completed a Phase 1 trial of an oral capsule version of CR845 to establish the degree to which the drug is absorbed into the circulation after swallowing, or oral bioavailability parameters. The single center, randomized, double-blind placebo-controlled, escalating single oral dose, sequential group Phase 1 trial was conducted in 50 male volunteers administered with an enteric-coated capsule of CR845 (0.5 mg, 1 mg, 3 mg, or 10 mg) or matched placebo. The level of exposure at all doses was sufficient to activate peripheral kappa receptors. Oral CR845 was well tolerated and considered safe across all doses tested. Adverse events were generally similar to those reported after I.V. administration, with the addition of mild abdominal discomfort. We subsequently developed a tablet version which we expect will provide greater predictability with respect to the relationship between amounts of drug administered and concentration in the blood, or pharmacokinetic predictability, as well as possess increased stability suitable for commercial shelf life. We have established drug substance stability and optimal pharmacokinetic characteristics for our tablet version in preclinical testing. We plan to conduct both single ascending and multiple ascending dose Phase 1 clinical trials in the first half of 2014 and, if the results of these trials are favorable, initiate a Phase 2a proof-of-concept trial in acute pain in the second half of 2014.

Our Strategy

Our strategy is to develop and commercialize a novel and first-in-class portfolio of peripheral-acting analgesics focused on kappa opioid receptor agonists, and subsequently cannabinoid receptor agonists. We have designed and are developing product candidates which have clearly defined clinical development programs and target large commercial market opportunities. The key elements of our strategy are:

- continue to advance I.V. CR845 to approval for acute pain in the United States;
- build a sales and marketing organization to commercialize I.V. CR845 for acute pain in the hospital setting in the United States;
- establish partnerships for the development and commercialization of I.V. CR845 outside of the United States; and
- advance Oral CR845 to proof-of-concept and seek a global development and commercialization partner.

Intellectual Property

CR845 was discovered by our scientists. We own six U.S. patents with claims with claims covering compositions of matter and methods of use for CR845. The earliest U.S. patent claiming CR845 compositions will expire no earlier than November 12, 2027.

Our Collaboration Agreements

We have entered into collaboration agreements for both I.V. and Oral CR845 with Maruishi Pharmaceutical Co., Ltd., or Maruishi, in Japan and Chong Kun Dang Pharmaceutical Corp., or CKD, in South Korea, which provide them with the exclusive right to develop and market CR845 for certain

indications within those territories. As of September 30, 2013, we had received approximately $24 million in payments in connection with these collaborations and were eligible to receive further payments and royalties upon the achievement of future development and commercialization milestones.

Financial Overview

Our revenue to date has been generated primarily through license transactions. We have not generated any commercial product revenue. As of September 30, 2013, we had $17.7 million of cash and cash equivalents and an accumulated deficit of $60.4 million.

Risks Associated with Our Business

Our ability to implement our business strategy is subject to numerous risks and uncertainties. As a clinical stage biopharmaceuticals company, we face many risks inherent in our business and our industry generally. You should carefully consider all of the information set forth in this prospectus and, in particular, the information under the heading "Risk Factors," prior to making an investment in our common stock. These risks include, among others, the following:

- We have incurred significant losses since our inception, anticipate that we will incur continued losses for the foreseeable future, and may never achieve or maintain profitability.
- Our short operating history makes it difficult to evaluate our business and prospects.
- We will need additional funding and may be unable to raise capital when needed, which would force us to delay, reduce or eliminate our product development programs or commercialization efforts.
- We are substantially dependent on the success of our lead product candidate, I.V. CR845, and cannot guarantee that this product candidate will successfully complete Phase 3 clinical trials, receive regulatory approval or be successfully commercialized.
- Our lead product candidate, I.V. CR845, and our second product candidate, Oral CR845, act as selective kappa opioid receptor agonists, which is a drug class that has not previously yielded a successful commercial product for pain indications.
- The regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time consuming and inherently unpredictable. If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals, we will not be able to commercialize our product candidates as expected, and our ability to generate revenue will be materially impaired.
- The FDA may determine that I.V. CR845 or any of our other product candidates have undesirable side effects that could delay or prevent their regulatory approval or commercialization.
- We face significant competition from other pharmaceutical and biotechnology companies, academic institutions, government agencies and other research organizations. Our operating results will suffer if we fail to compete effectively.
- If we are unable to establish effective marketing and sales capabilities or enter into agreements with third parties to market and sell our product candidates, if they are approved, we may be unable to generate product revenues.
- The collaboration arrangements that we are a party to, including in Japan with Maruishi, and in South Korea with CKD, or any other collaboration arrangements we may enter into in the future, may not be successful, which could adversely affect our ability to develop and commercialize our product candidates.
- We may not be able to manage our business effectively if we are unable to attract and retain key personnel.

Our Corporate Information

We were incorporated as Cara Therapeutics, Inc. in Delaware in July 2004. Our principal executive offices are located at 1 Parrott Drive, Shelton, Connecticut 06484, and our telephone number is (203) 567-1500. Our website address is www.caratherapeutics.com. The information contained on, or that

can be accessed through, our website is not a part of this prospectus. Investors should not rely on any such information in deciding whether to purchase our common stock. We have included our website address in this prospectus solely as an inactive textual reference.

We use "CARA THERAPEUTICS" as a registered service mark in the United States. This prospectus also includes references to trademarks and service marks of other entities, and those trademarks and service marks are the property of their respective owners.

Implications of Being an Emerging Growth Company

As a company with less than $1 billion in revenue during our last fiscal year, we qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from specified disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include:

- being permitted to provide only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved.

We may take advantage of these provisions for up to five years or until such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company if we have more than $1 billion in annual revenues, have more than $700 million in market value of our capital stock held by non-affiliates or issue more than $1 billion of non-convertible debt over a three-year period. We may choose to take advantage of some, but not all, of the available exemptions. We have taken advantage of some reduced reporting burdens in this prospectus. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This provision allows an emerging growth company to delay the adoption of some accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

THE OFFERING

Common stock offered by us	shares
Total common stock to be outstanding after this offering	shares
Underwriters' option	The underwriters have an option for a period of 30 days to purchase up to additional shares of our common stock.
Use of proceeds	We intend to use the net proceeds of this offering to fund the clinical trials and other development activities for I.V. and Oral CR845 and for working capital and other general corporate purposes. See "Use of Proceeds" on page 48 for a description of the intended use of proceeds from this offering.
Risk Factors	You should read the "Risk Factors" section of this prospectus beginning on page 10 for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.
Proposed Nasdaq Global Market symbol	CARA

The number of shares of our common stock to be outstanding after this offering is based on 42,106,178 shares of common stock (including preferred stock on an as-converted basis) outstanding as of September 30, 2013, and excludes:

- 49,628 shares of common stock issuable upon exercise of an outstanding warrant as of September 30, 2013 at an exercise price of $4.03 per share;
- 1,225,400 shares of common stock issuable upon exercise of stock options outstanding as of September 30, 2013 pursuant to our 2004 Stock Incentive Plan, as amended, or the 2004 Plan, at a weighted-average exercise price of $0.54 per share; and
- shares of common stock reserved for issuance under our 2013 Equity Incentive Plan, or the 2013 Plan, which will become effective upon the signing of the underwriting agreement for this offering.

Except as otherwise indicated herein, all information in this prospectus, including the number of shares that will be outstanding after this offering, assumes or gives effect to:

- a - for - reverse stock split of our common stock expected to be completed prior to the completion of this offering;
- the filing of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws immediately prior of the closing of this offering;
- the conversion of all outstanding shares of our preferred stock into an aggregate of 31,385,554 shares of our common stock, which will occur automatically upon the closing of this offering, which we refer to as the automatic preferred stock conversion; and
- no exercise of the underwriters' option to purchase additional shares in this offering.

SUMMARY FINANCIAL DATA

The following summary financial data for the years ended December 31, 2011 and December 31, 2012 have been derived from our audited financial statements included elsewhere in this prospectus. The following summary financial data for the nine months ended September 30, 2012 and 2013 and as of September 30, 2013 have been derived from our unaudited financial statements included elsewhere in this prospectus. Our unaudited financial statements have been prepared on the same basis as the audited financial statements and, in the opinion of our management, include all adjustments, consisting of normal recurring adjustments and accruals, necessary for a fair statement of the information for the interim periods. Our historical results for any prior periods are not necessarily indicative of results to be expected for a full year or for any future period.

You should read this information together with our financial statements and related notes included elsewhere in this prospectus and the information under “Selected Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

	Year Ended December 31,		Nine Months Ended September 30,	
	2011	2012	2012	2013
			(unaudited)	
	(in thousands, except share and per share data)			
Statement of Operations Data:				
Total revenue	$ —	$ 1,190	$ 1,190	$ 10,991
Operating expenses:				
Research and development	7,159	4,597	3,574	6,707
General and administrative	2,407	2,829	2,083	2,457
Total operating expenses	9,566	7,426	5,657	9,164
Operating income (loss)	(9,566)	(6,236)	(4,467)	1,827
Total other expense	(275)	(66)	(28)	(3,724)
Loss before benefit from income taxes	(9,841)	(6,302)	(4,495)	(1,897)
Benefit from income taxes	35	31	21	27
Net loss	$ (9,806)	$ (6,271)	$ (4,474)	$ (1,870)
Net loss available to common stockholders	$ (9,806)	$ (6,271)	$ (4,474)	$ (979)
Net loss per share:				
Basic	$ (1.21)	$ (0.76)	$ (0.54)	$ (0.10)
Diluted	$ (1.21)	$ (0.76)	$ (0.54)	$ (0.10)
Weighted average shares:				
Basic	8,089,370	8,249,996	8,225,901	10,202,188
Diluted	8,089,370	8,249,996	8,225,901	10,202,188

The following table presents our summary balance sheet data:

- on an actual basis as of September 30, 2013;
- on a pro forma basis to give effect to the automatic preferred stock conversion, which will occur automatically upon the closing of this offering; and
- on a pro forma as adjusted basis to give further effect to our sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma as adjusted information presented in the summary balance sheet data is illustrative only and will change based on the actual initial public offering price and other terms of this offering determined at pricing. Each $1.00 increase or decrease in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease each of cash, total assets and total stockholders' equity on a pro forma as adjusted basis by approximately $, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. Similarly, each increase or decrease of 1.0 million shares offered by us at the assumed initial public offering price would increase or decrease each of cash and cash equivalents, total assets and total stockholders' equity on a pro forma as adjusted basis by approximately $.

	As of September 30, 2013		
	Actual	Pro forma	Pro forma as adjusted
	(unaudited, in thousands)		
Balance Sheet Data:			
Cash and cash equivalents	$ 17,733	$ 17,733	$
Total assets	22,068	22,068	
Deferred revenue	4,434	4,434	
Total liabilities	8,477	8,477	
Total convertible preferred stock	65,586	—	
Total stockholders' (deficit) equity	(51,995)	13,591	

RISK FACTORS

Risks Related to Our Financial Condition and Capital Requirements

We have incurred significant losses since our inception, anticipate that we will incur continued losses for the foreseeable future, and may never achieve or maintain profitability.

We are a clinical-stage biopharmaceutical company with a limited operating history. For the last several years, we have focused our efforts primarily on developing I.V. CR845 with the goal of achieving regulatory approval. Since inception, we have incurred significant operating and net losses. Our net losses were $9.8 million and $6.3 million for the years ended December 31, 2011 and December 31, 2012, respectively. As of September 30, 2013, we had an accumulated deficit of $60.4 million. Although we recognized $11.0 million of revenue during the nine months ended September 30, 2013 pursuant to our collaboration agreement with Maruishi Pharmaceutical Co., Ltd., or Maruishi, we nevertheless generated a net loss of $1.9 million for the period, and we expect to continue to incur significant expenses and operating and net losses over the next several years, as we continue to develop I.V. CR845 and our other product candidates. In addition, we expect to incur significant sales, marketing and manufacturing expenses related to the commercialization of I.V. CR845 or our other product candidates, if they are approved by the FDA. As a result, we expect to continue to incur significant losses for the foreseeable future. We anticipate that our expenses will increase substantially as we:

- commence our planned Phase 3 and other trials for I.V. CR845;
- initiate and enroll our Phase 1 clinical trials of Oral CR845;
- discover and develop additional product candidates;
- conduct late-stage clinical trials and seek regulatory approvals for any product candidates that successfully complete early clinical trials;
- increase our I.V. CR845 manufacturing batch sizes to satisfy FDA requirements for Phase 3 clinical trials and a New Drug Application, or NDA, submission;
- establish a sales, marketing and distribution infrastructure and scale up external manufacturing capabilities to commercialize any products for which we may obtain regulatory approval and that we choose not to license to a third party;
- maintain, expand and protect our intellectual property portfolio;
- hire additional clinical, quality control and scientific personnel; and
- add operational, financial and management information systems and personnel, including personnel to support our product development and planned future commercialization efforts.

To become and remain profitable, we must succeed in developing and eventually commercializing products that generate significant revenue. This will require us to be successful in a range of challenging activities, including completing preclinical testing and clinical trials of our product candidates, discovering additional product candidates, potentially entering into collaboration and license agreements, obtaining regulatory approval for product candidates and manufacturing, marketing and selling any products for which we may obtain regulatory approval. We are only in the preliminary stages of most of these activities. We may never succeed in these activities and, even if we do, may never achieve profitability.

Because of the numerous risks and uncertainties associated with pharmaceutical product development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve profitability. If we are required by the FDA or foreign regulatory authorities, to perform studies in addition to those currently expected, or if there are any delays in completing our clinical trials or the development of any of our product candidates, our expenses could increase.

Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would depress the value of our company and could impair our ability to raise capital, expand our business, maintain our research and development efforts, diversify our product offerings or even continue our operations. A decline in the value of our company could also cause you to lose all or part of your investment.

Our short operating history makes it difficult to evaluate our business and prospects.

We commenced operations in 2004, and our operations to date have been limited to organizing and staffing our company, business planning, raising capital and developing our product candidates, including undertaking preclinical studies and conducting clinical trials of our lead product candidate, I.V. CR845. We have not yet demonstrated an ability to obtain regulatory approval for, or successfully commercialize, a product candidate. In addition, as a relatively nascent business, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown difficulties. If our product candidates are approved by the FDA, we will need to expand our capabilities to support commercial activities. We may not be successful in adding such capabilities. Consequently, any predictions about our future performance may not be as accurate as they could be if we had a history of successfully developing and commercializing pharmaceutical products.

We will need additional funding and may be unable to raise capital when needed, which would force us to delay, reduce or eliminate our product development programs or commercialization efforts.

Conducting clinical trials, pursuing regulatory approvals, establishing outsourced manufacturing relationships and successfully manufacturing and commercializing our product candidates, including I.V. CR845, is expensive. We will need to raise additional capital to:

- fund our future clinical trials if we encounter any unforeseen delays or difficulties in our planned development activities for I.V. CR845;
- fund our operations and continue our efforts to hire additional personnel and build a commercial infrastructure to prepare for the commercialization of I.V. CR845 and our other future product candidates, if approved by the FDA;
- qualify and outsource the commercial-scale manufacturing of our products under current good manufacturing practices, or cGMP;
- advance Oral CR845 beyond Phase 2 clinical trials;
- develop additional product candidates, including CR701; and
- in-license other product candidates.

We believe that with our available cash and cash equivalent balance as of September 30, 2013, along with the net proceeds from this offering, we will have sufficient funds to meet our projected operating requirements for at least the next 24 months, without giving effect to any potential milestone payments we may receive under our collaboration agreements. We have based this estimate on assumptions that may prove to be wrong and we could spend our available financial resources faster than we currently expect. Further, we may not have sufficient financial resources to meet all of our objectives if I.V. CR845 is approved, which could require us to postpone, scale back or eliminate some, or all, of these objectives, including our potential launch activities relating to I.V. CR845. Our future funding requirements will depend on many factors, including, but not limited to:

- the potential for delays in our efforts to seek regulatory approval for I.V. CR845, and any costs associated with such delays;
- the costs of establishing a commercial organization to sell, market and distribute I.V. CR845;
- the rate of progress and costs related to our Phase 1 and Phase 2 development of Oral CR845;
- the rate of progress and costs of our efforts to prepare for the submission of an NDA for any product candidates that we may in-license or acquire in the future, and the potential that we may need to conduct additional clinical trials to support applications for regulatory approval;
- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights associated with our product candidates, including any such costs we may be required to expend if our licensors are unwilling or unable to do so;
- the cost and timing of manufacturing sufficient supplies of I.V. CR845 in preparation for commercialization;
- the effect of competing technological and market developments;
- the terms and timing of any collaborative, licensing, co-promotion or other arrangements that we may establish;
- defending our intellectual property and patent rights; and
- the success of the commercialization of I.V. CR845 and our other product candidates.

Future capital requirements will also depend on the extent to which we acquire or invest in additional complementary businesses, products and technologies. Until we can generate a sufficient amount of product revenue, if ever, we expect to finance future cash needs through public or private equity offerings, debt financings, product supply revenue and royalties, corporate collaboration and licensing arrangements, as well as through interest income earned on cash and investment balances. We cannot be certain that additional funding will be available on acceptable terms, or at all. If adequate funds are not available, we may be required to delay, reduce the scope of, or eliminate, one or more of our development programs or our commercialization efforts.

Risks Related to Our Business and the Development of Our Product Candidates

We are substantially dependent on the success of our lead product candidate, I.V. CR845, and cannot guarantee that this product candidate will successfully complete Phase 3 clinical trials, receive regulatory approval or be successfully commercialized.

We currently have no products approved for commercial distribution. We have invested a significant portion of our efforts and financial resources in the development of our most advanced product candidate, I.V. CR845. Our business depends entirely on the successful development and commercialization of our product candidates, and in particular, I.V. CR845, which may never occur. Our ability to generate revenues in the near term is substantially dependent on our ability to develop, obtain regulatory approval for, and then successfully commercialize I.V. CR845. We currently generate no revenues from sales of any products, and we may never be able to develop or commercialize a marketable product.

Our lead product candidate, I.V. CR845, will require additional clinical development, regulatory approval, commercial manufacturing arrangements, establishment of a commercial organization, significant marketing efforts and further investment before we generate any revenues from product sales. We are not permitted to market or promote any of our product candidates, including I.V. CR845, before we receive regulatory approval from the FDA or comparable foreign regulatory authorities, and we may never receive such regulatory approval for any of our product candidates. If we do not receive FDA approval for, and successfully commercialize, I.V. CR845, we will not be able to generate revenue from I.V. CR845 in the United States in the foreseeable future, or at all. Any significant delays in obtaining approval for and commercializing I.V. CR845 will have a substantial adverse impact on our business and financial condition.

We have not previously submitted an NDA to the FDA, or similar drug approval filings to comparable foreign authorities, for any product candidate, and we cannot be certain that I.V. CR845 or any of our other product candidates will be successful in clinical trials or receive regulatory approval. Even though I.V. CR845 has completed three Phase 2 clinical trials, it is, nonetheless, susceptible to the risks of failure inherent at any stage of product development, including the appearance of unexpected adverse events or failure to achieve its primary endpoints in subsequent clinical trials, including our planned Phase 3 clinical trials. Further, our product candidates, including I.V. CR845, may not receive regulatory approval even if they are successful in clinical trials. If approved for marketing by applicable regulatory authorities, our ability to generate revenues from I.V. CR845 will depend on our ability to:

- create market demand for I.V. CR845 through our own marketing and sales activities, and any other arrangements to promote this product candidate we may otherwise establish;
- hire, train and deploy a sales force to commercialize I.V. CR845 in the United States;
- manufacture I.V. CR845 in sufficient quantities and at acceptable quality and manufacturing cost to meet commercial demand at launch and thereafter;
- establish and maintain agreements with wholesalers, distributors and group purchasing organizations on commercially reasonable terms;
- create partnerships with, or offer licenses to, third parties to promote and sell I.V. CR845 in foreign markets where we receive marketing approval;
- maintain patent and trade secret protection and regulatory exclusivity for I.V. CR845;
- launch commercial sales of I.V. CR845, whether alone or in collaboration with others;
- achieve market acceptance of I.V. CR845 by patients, the medical community and third-party payors;

- achieve appropriate reimbursement for I.V. CR845;
- effectively compete with other therapies; and
- maintain a continued acceptable safety profile of I.V. CR845 following launch.

As we continue to develop our other product candidates, including Oral CR845 and CR701, we expect to face similar risks to our ability to develop, obtain regulatory approval for and successfully commercialize such product candidates as we face with I.V. CR845.

Our lead product candidate, I.V. CR845, and our second product candidate, Oral CR845, act as selective kappa opioid receptor agonists, which is a drug class that has not previously yielded a successful commercial product for pain indications.

The development of product candidates based on peripheral kappa opioid receptor agonists is an emerging field, and the scientific discoveries that form the basis for our efforts to discover and develop product candidates that work through this mechanism are relatively recent. The scientific evidence to support the feasibility of developing differentiated product candidates based on these discoveries is both preliminary and limited. We believe that we are amongst a relatively small group of companies that are pursuing the development of a product candidates based on peripherally acting kappa opioid receptor agonists. In addition, we believe that companies that previously explored the development of kappa opioid receptor agonists abandoned these efforts because those prior generation kappa agonists, which were centrally active, resulted in psychiatric side effects. Although CR845 is a peripherally acting kappa opioid receptor agonist and these side effects have not been observed in any of our clinical trials to date, it is possible that we could observe similar side effects, or other unacceptable adverse events. As a result, our approach to developing product candidates based on peripheral kappa opioid receptor agonists may not be successful and may never lead to marketable products.

We may expend our limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus on developing product candidates for specific indications that we identify as most likely to succeed, in terms of both its regulatory approval and commercialization. As such, we are currently primarily focused on the development of I.V. CR845 for acute postoperative pain. As a result, we may forego or delay pursuit of opportunities with other product candidates or for other indications that may prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate.

If we fail to supply CR845 to our collaboration partners we could lose revenues and be in breach of our obligations.

In connection with our agreements with Maruishi Pharmaceutical Co., Ltd, or Maruishi, and Chong Kun Dang Pharmaceutical Corp., or CKD, we are obligated to negotiate in good faith to enter into supply agreements, pursuant to which, subject to certain conditions, we have obligations to supply CR845 to these parties for commercialization. At this time, our suppliers for I.V. CR845 include Polypeptide Laboratories, or Polypeptide, for the active pharmaceutical ingredient, and Patheon UK Limited, for manufacturing of the finished clinical trial material. Under the terms of our agreement with Polypeptide, it has agreed to manufacture and supply to us quantities of active pharmaceutical ingredient according to mutually agreed upon specifications for clinical trial purposes. In addition, under the terms of our agreement with Patheon, we have agreed to supply Patheon with sufficient quantities of active pharmaceutical ingredient, which it in turn manufactures into clinical trial material for use in our clinical trials. If we are unable to obtain an adequate

supply of CR845 product from third-party suppliers to meet our obligations to Maruishi and/or CKD, we will be in breach of our supply obligations under the agreements, and may be liable for damages, which could also hurt our business and reputation. In addition, our failure to supply our partners with CR845 will inhibit their ability to commercialize CR845 products, which, in turn will result in a loss of revenue for us.

Our future growth may depend on our ability to identify and develop products and if we do not successfully identify and develop product candidates or integrate them into our operations, we may have limited growth opportunities.

A component of our business strategy is to continue to develop a pipeline of product candidates by developing products that we believe are a strategic fit with our focus on pain therapeutics. However, these business activities may entail numerous operational and financial risks, including:

- difficulty or inability to secure financing to fund development activities for such development;
- disruption of our business and diversion of our management's time and attention;
- higher than expected development costs;
- exposure to unknown liabilities;
- difficulty in managing multiple product development programs; and
- inability to successfully develop new products or clinical failure.

We have limited resources to identify and execute the development of products. Moreover, we may devote resources to potential development that are never completed, or we may fail to realize the anticipated benefits of such efforts. If we do not successfully develop and commercialize product candidates, we may not be able to obtain product revenues in future periods.

The regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time consuming and inherently unpredictable. If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals, we will not be able to commercialize our product candidates as expected, and our ability to generate revenue will be materially impaired.

The time required to obtain approval by the FDA and comparable foreign authorities is unpredictable but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. We have not obtained regulatory approval for any product candidate and it is possible that none of our existing product candidates, including I.V. CR845 and Oral CR845, or any product candidates we may seek to develop in the future, will ever obtain regulatory approval.

Our product candidates and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, are subject to comprehensive regulation by the FDA and other regulatory agencies in the United States and by the European Medicines Agency and similar regulatory authorities outside the United States. Failure to obtain marketing approval for a product candidate will prevent us from commercializing the product candidate. We have no experience in filing and supporting the applications necessary to gain marketing approvals and expect to rely on third-party CROs and consultants to assist us in this process. Securing marketing approval requires the submission of extensive preclinical and clinical data and supporting information to regulatory authorities for each therapeutic indication to establish the product candidate's safety and efficacy for that indication. Securing marketing approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the regulatory authorities.

Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. The results of preclinical studies and early clinical trials of our product candidates may not be predictive of the results of later-stage clinical trials. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and initial clinical trials. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles,

notwithstanding promising results in earlier trials. Our future clinical trial results may not be successful. We may also experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent our ability to receive marketing approval or commercialize our product candidates, including:

- regulators or institutional review boards may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- we may experience delays in reaching, or fail to reach, agreement on acceptable clinical trial contracts or clinical trial protocols with prospective trial sites;
- clinical trials of our product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon product development programs;
- the number of patients required for clinical trials of our product candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials at a higher rate than we anticipate;
- our third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- we may have to suspend or terminate clinical trials of our product candidates for various reasons, including a finding that the participants are being exposed to unacceptable health risks;
- regulators or institutional review boards may require that we or our investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or a finding that the participants are being exposed to unacceptable health risks;
- changes in marketing approval policies during the development period;
- changes in or the enactment of additional statutes or regulations;
- changes in regulatory review for each submitted product application;
- the cost of clinical trials of our product candidates may be greater than we anticipate;
- the supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates may be insufficient or inadequate; and
- our product candidates may have undesirable side effects or other unexpected characteristics, causing us or our investigators, regulators or institutional review boards to suspend or terminate the trials.

Moreover, if we are required to conduct additional clinical trials or other testing of our product candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical trials of our product candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we may:

- be delayed in obtaining marketing approval for our product candidates;
- not obtain marketing approval at all;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings;
- be subject to additional post-marketing testing requirements; or
- have the product removed from the market after obtaining marketing approval.

Furthermore, regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that our data is insufficient for approval and require additional preclinical, clinical or other studies. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent marketing approval of a product candidate. Any marketing approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

Finally, even if we were to obtain approval, regulatory authorities may approve any of our product candidates for fewer or more limited indications than we request, may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a product candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate. Any of these scenarios could compromise the commercial prospects for our product candidates to assure safe use of the product candidates, either as a condition of product candidate approval or on the basis of new safety information.

If we experience delays in obtaining approval, if we fail to obtain approval of a product candidate or if the label for a product candidate does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate, the commercial prospects for such product candidate may be harmed and our ability to generate revenues will be materially impaired.

The FDA may determine that I.V. CR845 or any of our other product candidates have undesirable side effects that could delay or prevent their regulatory approval or commercialization.

Undesirable side effects caused by our product candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other comparable foreign authorities. For example, if concerns are raised regarding the safety of a new drug as a result of undesirable side effects identified during clinical testing, the FDA may order us to cease further development, decline to approve the drug or issue a letter requesting additional data or information prior to making a final decision regarding whether or not to approve the drug. The number of such requests for additional data or information issued by the FDA in recent years has increased, and resulted in substantial delays in the approval of several new drugs. Undesirable side effects caused by I.V. CR845 or any of our other product candidates could also result in denial of regulatory approval by the FDA or other regulatory authorities for any or all targeted indications or the inclusion of unfavorable information in our product labeling, and in turn prevent us from commercializing and generating revenues from the sale of I.V. CR845 or any other product candidate.

To date, the side effects observed in the completed I.V. CR845 clinical trials include dizziness, transient facial tingling, a state of near-sleep, or somnolence, and hypernatremia, an electrolyte disturbance that is defined by an elevated sodium level in the blood, which we believe is secondary, at least in part, to another side effect, aquaresis, that is defined as electrolyte-free urination. Prolonged aquaresis can result in a negative fluid balance if the excreted water is not replaced by oral or intravenous water, and although we will recommend such prevention of dehydration, we cannot be certain that such instructions will be followed by healthcare providers and/or patients, and failure to follow such instructions may be accompanied by adverse events associated with dehydration, including disability and death. We believe that one such adverse event, which has been observed, postural tachycardia, an elevation of heart rate upon standing up, is a physiological reflex that can be triggered as a result of decreased intravascular volume caused by a negative fluid balance. We have observed transient prolactin elevations, which are brief increases in the concentration of the hormone prolactin in the bloodstream, in response to I.V. CR845, which we have measured as a nonselective opioid biomarker since both kappa and mu opioids elicit this effect. We cannot be certain that such elevations in prolactin will be transient, safe, and well tolerated in all patients. In addition, kappa opioid agonists, the class of drugs that I.V. CR845 belongs to, have been associated with poorly tolerated psychiatric side effects, such as a feeling of emotional and mental discomfort, or dysphoria, and hallucinations, at high doses, particularly for prior generations of kappa opioid agonists with substantially unrestricted or only partially restricted entry to the CNS. Although we have not observed psychiatric side effects in any CR845 clinical trials to date, we cannot be certain that these side effects or others will not be observed in the future, or that the FDA will not require additional trials or impose more severe labeling restrictions due to these side effects or other concerns. The drug-related side effects could affect patient recruitment or the ability of enrolled patients to complete the trial or result in potential product liability claims. Any of these occurrences may harm our business, financial condition and prospects significantly.

Additionally if one or more of our product candidates receives marketing approval, and we or others later identify undesirable side effects caused by such products, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw approvals of such product;
- regulatory authorities may require additional warnings on the label;
- we may be required to create a medication guide outlining the risks of such side effects for distribution to patients, if not already required pursuant to a Risk Evaluation and Mitigation Strategy, or REMS;
- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular product candidate, if approved, and could significantly harm our business, results of operations and prospects.

If we experience delays or difficulties in the enrollment of patients in clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.

We may not be able to initiate or continue conducting clinical trials for our product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these trials as required by the FDA or similar regulatory authorities outside the United States. Some of our competitors have ongoing clinical trials for product candidates that treat the same indications as our product candidates, and patients who would otherwise be eligible for our clinical trials may instead enroll in clinical trials of our competitors' product candidates. Patient enrollment is affected by other factors including:

- the size and nature of the patient population;
- the severity of the disease under investigation;
- the eligibility criteria for, and design of, the trial in question;
- the perceived risks and benefits of the product candidate under study;
- competition in recruiting and enrolling patients in clinical trials;
- the efforts to facilitate timely enrollment in clinical trials;
- the patient referral practices of physicians;
- the ability to monitor patients adequately during and after treatment; and
- the proximity and availability of clinical trial sites for prospective patients.

Our inability to enroll a sufficient number of patients for our clinical trials would result in significant delays and could require us to abandon one or more clinical trials altogether. Our current development plan for I.V. CR845 contemplates recruiting and enrolling more than a thousand patients for our Phase 3 clinical trials. We may encounter difficulties and/or delays in completing our planned enrollments. Enrollment delays in our clinical trials may result in increased development costs for our product candidates, or the inability to complete development of our product candidates, which would cause the value of our company to decline, limit our ability to obtain additional financing, and materially impair our ability to generate revenues.

Our lead product candidate, I.V. CR845, and our second product candidate, Oral CR845, if approved, will compete in the marketplace with mu opioid products that are subject to restrictive marketing and distribution regulations, which if applied to our product candidates would restrict their use and harm our ability to generate profits.

The FDA Amendments Act of 2007 implemented safety-related changes to product labeling and provided the FDA with expanded authority to require the adoption of a Risk Evaluation and Mitigation Strategy, or REMS, as part of an NDA or after approval. Many currently approved mu opioid receptor agonists require REMS. REMS programs may require medication guides for patients, special communication plans to healthcare professionals or elements to assure safe use, such as restricted distribution methods, patient registries and/or other risk minimization tools. While CR845 has been safe and well tolerated in clinical trials to date and has not shown any evidence of the euphoria that has led to misuse, abuse and addiction of mu opioids, the FDA may still determine that CR845-based products require a REMS program. We cannot predict whether REMS will be required as part of the FDA's approval of our product candidates and, if required, what those requirements might be. Any limitations on approval or marketing could restrict the commercial promotion, distribution, prescription or dispensing of our product candidates, if approved. If a REMS program is required, depending on the extent of the REMS requirements, the program might significantly increase our costs to commercialize these product candidates. Furthermore, risks of our product candidates that are not adequately addressed through proposed REMS for such product candidates may also prevent or delay their approval for commercialization.

In addition, currently approved mu opioids with which CR845-based products may compete are controlled substances, which are subject to state, federal and foreign laws and regulations regarding their manufacture, use, sale, importation, exportation and distribution. Controlled substances are regulated under the federal Controlled Substances Act of 1970, or CSA, and regulations of the DEA. The DEA regulates controlled substances as Schedule I, II, III, IV or V substances. Schedule I substances by definition have no established medicinal use and may not be marketed or sold in the United States. A pharmaceutical product may be listed as

Schedule II, III, IV or V, with Schedule II substances considered to present the highest risk of abuse and Schedule V substances the lowest relative risk of abuse among such substances. While CR845-based products have not demonstrated any evidence of the euphoria that has led to misuse, abuse, and addiction of mu opioids, and while CR845-based products are not being treated as a controlled substance in clinical trials, it is possible that the DEA could determine that CR845-based products should be regulated as controlled substances.

Various states also independently regulate controlled substances. Though state controlled substances laws often mirror federal law, because the states are separate jurisdictions, they may separately schedule drugs as well. While some states automatically schedule a drug when the DEA does so, in other states there must be rulemaking or a legislative action. State scheduling may delay commercial sale of any controlled substance drug product for which we obtain federal regulatory approval and adverse scheduling could impair the commercial attractiveness of such product. We or our collaborators may also be requested to obtain separate state registrations in order to be able to obtain, handle and distribute controlled substances for clinical trials or commercial sale, and failure to meet applicable regulatory requirements could lead to enforcement and sanctions from the states in addition to those from the DEA or otherwise arising under federal law.

If any of our product candidates are classified as controlled substances, we and our suppliers, manufacturers, contractors, customers and distributors would be required to obtain and maintain applicable registrations from state, federal and foreign law enforcement and regulatory agencies and comply with state, federal and foreign laws and regulations regarding the manufacture, use, sale, importation, exportation and distribution of controlled substances. Also, if any of our product candidates that were classified as controlled substances, there is a risk that DEA regulations could limit the supply of the compounds used in clinical trials and, in the future, the ability to produce and distribute our products in the volume needed to meet commercial demand.

Regulations associated with controlled substances govern manufacturing, labeling, packaging, testing, dispensing, production and procurement quotas, record keeping, reporting, handling, shipment and disposal. These regulations increase the personnel needs and the expense associated with development and commercialization of product candidates including controlled substances. The DEA, and some states, conduct periodic inspections of registered establishments that handle controlled substances. Failure to obtain and maintain required registrations or comply with any applicable regulations could delay or preclude us from developing and commercializing our product candidates containing controlled substances and subject us to enforcement action. The DEA may seek civil penalties, refuse to renew necessary registrations or initiate proceedings to revoke those registrations. In some circumstances, violations could lead to criminal proceedings. Because of the restrictive nature of these regulations, if it was determined that our product candidates are subject to these restrictions, the commercialization of our product candidates could be limited.

Failure to obtain marketing approval in international jurisdictions would prevent our product candidates from being marketed abroad.

In order to market and sell our products in the European Union and many other jurisdictions, we or our third-party collaborators must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The regulatory approval process outside the United States generally includes all of the risks associated with obtaining FDA approval. In addition, in many countries outside the United States, it is required that the product be approved for reimbursement before the product can be approved for sale in that country. We or these third parties may not obtain approvals from regulatory authorities outside the United States on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the United States does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. However, the failure to obtain approval in one jurisdiction may compromise our ability to obtain approval elsewhere. We may not be able to file for marketing approvals and may not receive necessary approvals to commercialize our products in any market.

Regulatory approval is limited by the FDA to those specific indications and conditions for which clinical safety and efficacy have been demonstrated, and we may be subject to fines, penalties or injunctions if we are determined to be promoting the use of our products for unapproved or "off-label" uses, resulting in damage to our reputation and business.

When FDA or comparable foreign regulatory authorities issue regulatory approval for a product candidate, the regulatory approval is limited to those specific indications for which a product is approved. If we are not able to obtain FDA approval for any desired future indications for our products and product candidates, our ability to effectively market and sell our products may be reduced and our business may be adversely affected.

While physicians may choose to prescribe drugs for uses that are not described in the product's labeling and for uses that differ from those tested in clinical studies and approved by the regulatory authorities, we are prohibited from marketing and promoting the products for indications that are not specifically approved by the FDA. These "off-label" uses are common across medical specialties and may constitute an appropriate treatment for some patients in varied circumstances. Regulatory authorities in the United States generally do not restrict or regulate the behavior of physicians in their choice of treatment within the practice of medicine. Regulatory authorities do, however, restrict communications by pharmaceutical companies on off-label use. If the FDA determines that our promotional activities constitute promotion of an off-label use, it could request that we modify our promotional materials or subject us to regulatory or enforcement actions, including issuance of warning letters or untitled letters, suspension or withdraw an approved product from the market, mandatory or voluntary recalls, civil fines, disgorgement of money, operating restrictions, injunctions or criminal prosecution, any of which could significantly harm our business.

Even if one of our CR845-based product candidates receives regulatory approval, we will be subject to ongoing obligations and continued regulatory review, which may result in significant additional expense. Additionally, our product candidates, if approved, could be subject to labeling and other restrictions and market withdrawal and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our products.

Any product candidate for which we obtain marketing approval, along with the manufacturing processes, post-approval clinical data, labeling, packaging, distribution, adverse event reporting, storage, recordkeeping, export, import, advertising and promotional activities for such product, will be subject to extensive and ongoing requirements of and review by the FDA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, registration and listing requirements, continued compliance with cGMP requirements relating to manufacturing, quality control, quality assurance and corresponding maintenance of records and documents, requirements regarding the distribution of samples to physicians and recordkeeping and cGCPs for any clinical trials that we conduct post-approval. Even if marketing approval of a product candidate is granted, the approval may be subject to limitations on the indicated uses for which the product may be marketed or to the conditions of approval, including any requirement to implement a REMS. If any of our product candidates receives marketing approval, the accompanying label may limit the approved use of our drug, which could limit sales of the product.

The FDA may also impose requirements for costly post-marketing studies or clinical trials and surveillance to monitor the safety or efficacy of the product. The FDA closely regulates the post-approval marketing and promotion of drugs to ensure drugs are marketed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA imposes stringent restrictions on manufacturers' communications regarding off-label use and if we do not market our products for their approved indications, we may be subject to enforcement action for off-label marketing. Violations of the Federal Food, Drug, and Cosmetic Act relating to the promotion of prescription drugs may lead to investigations alleging violations of federal and state health care fraud and abuse laws, as well as state consumer protection laws.

In addition, later discovery of previously unknown adverse events or other problems with our products, manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may yield various results, including:

- restrictions on manufacturing such products;
- restrictions on the labeling or marketing of a product;

- restrictions on product distribution or use;
- requirements to conduct post-marketing studies or clinical trials;
- warning letters;
- withdrawal of the products from the market;
- refusal to approve pending applications or supplements to approved applications that we submit;
- recall of products;
- fines, restitution or disgorgement of profits or revenues;
- suspension or withdrawal of marketing approvals;
- refusal to permit the import or export of our products;
- product seizure; or
- injunctions or the imposition of civil or criminal penalties.

The FDA's policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained.

Risks Related to the Commercialization of Our Product Candidates

We face significant competition from other pharmaceutical and biotechnology companies, academic institutions, government agencies and other research organizations. Our operating results will suffer if we fail to compete effectively.

The development and commercialization of new drug products is highly competitive. We face competition with respect to our current product candidates, and will face competition with respect to any product candidates that we may seek to develop or commercialize in the future, from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. There are a number of large pharmaceutical and biotechnology companies that currently market and sell products or are pursuing the development of products for the treatment of pain. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization.

Specifically, there are a large number of companies developing or marketing therapies for the treatment and management of postoperative acute pain, moderate to severe chronic pain and neuropathic pain, including many major pharmaceutical and biotechnology companies. Among the companies that currently market or are developing therapies that, if approved, our product candidates would potentially compete with include: Pfizer, Cumberland Pharmaceuticals, Cadence Pharmaceuticals, Mallinckrodt, Actavis, Purdue Pharma, Janssen Pharmaceuticals, Celgene, Endo Pharmaceuticals, Depomed and Acorda Therapeutics.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. In addition, our ability to compete may be affected in many cases by insurers or other third-party payors seeking to encourage the use of generic products. Generic products are currently on the market for the indications that we are pursuing, and additional products are expected to become available on a generic basis over the coming years. If our product candidates achieve marketing approval, we expect that they will be priced at a significant premium over competitive generic products.

Many of the companies against which we are competing or against which we may compete in the future have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources

being concentrated among a smaller number of our competitors. Early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

If we are unable to establish effective marketing and sales capabilities or enter into agreements with third parties to market and sell our product candidates, if they are approved, we may be unable to generate product revenues.

We currently do not have a commercial infrastructure for the marketing, sale and distribution of pharmaceutical products. If approved, in order to commercialize our products, we must build our marketing, sales and distribution capabilities or make arrangements with third parties to perform these services. We may not be successful in doing so. If I.V. CR845 is approved by the FDA, we plan to build a commercial infrastructure, including our own specialty sales force, to launch I.V. CR845 in the hospital setting in the United States. We may seek to further penetrate the U.S. market in the future by expanding our sales force or through collaborations with other pharmaceutical or biotechnology companies or third-party manufacturing and sales organizations. If approved for marketing outside the United States, we intend to commercialize I.V. CR845 and Oral CR845 outside the United States with a marketing and sales collaborator or collaborators, rather than with our own sales force.

We have no prior experience in the marketing, sale and distribution of pharmaceutical products, and there are significant risks involved in the building and managing of a commercial infrastructure. The establishment and development of our own sales force and related compliance plans to market any products we may develop will be expensive and time consuming and could delay any product launch, and we may not be able to successfully develop this capability. We, or our future collaborators, will have to compete with other pharmaceutical and biotechnology companies to recruit, hire, train, manage and retain marketing and sales personnel. In the event we are unable to develop a marketing and sales infrastructure, we may not be able to commercialize I.V. CR845 or any of our other product candidates, which would limit our ability to generate product revenues. Factors that may inhibit our efforts to commercialize I.V. CR845 or our other product candidates on our own include:

- our inability to recruit, train, manage and retain adequate numbers of effective sales and marketing personnel;
- the inability of sales personnel to obtain access to physicians or persuade adequate numbers of physicians to prescribe I.V. CR845 or our other product candidates;
- our inability to effectively oversee a geographically dispersed sales and marketing team;
- the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and
- unforeseen costs and expenses associated with creating an independent sales and marketing organization.

Although our current plan is to hire most of our sales and marketing personnel only if I.V. CR845 is approved by the FDA, we will incur expenses prior to product launch in recruiting this sales force and developing a marketing and sales infrastructure. If the commercial launch of I.V. CR845 is delayed as a result of FDA requirements or other reasons, we would incur these expenses prior to being able to realize any revenue from sales of I.V. CR845. Even if we are able to effectively hire a sales force and develop a marketing and sales infrastructure, our sales force and marketing teams may not be successful in commercializing I.V. CR845 or any of our other product candidates.

In the event we are unable to collaborate with a third-party marketing and sales organization to commercialize any approved product candidates outside the United States, our ability to generate product revenues may be limited. To the extent we rely on third parties to commercialize any products for which we obtain regulatory approval, we may receive less revenues than if we commercialized these products ourselves. In addition, we would have less control over the sales efforts of any other third parties involved in our commercialization efforts.

If I.V. CR845 does not achieve broad market acceptance, the revenues that we generate from its sales will be limited.

We have never commercialized a product candidate for any indication. Even if I.V. CR845, or any of our other product candidates, including Oral CR845, is approved by the appropriate regulatory authorities for marketing and sale, it may not gain acceptance among physicians, hospitals, patients and third-party payors. If any product candidates for which we obtain regulatory approval do not gain an adequate level of market acceptance, we may not generate significant product revenues or become profitable. Market acceptance of I.V. CR845 and any of our other product candidates by physicians, hospitals, patients and third-party payors will depend on a number of factors, some of which are beyond our control. The degree of market acceptance of any of our product candidates, and in particular I.V. CR845, will depend on a number of factors, including:

- the prevalence and severity of adverse events associated with such product candidate;
- limitations or warnings contained in the product's FDA-approved labeling, including potential limitations or warnings for such product candidate, that may be more restrictive than other pain management products;
- changes in the standard of care for the targeted indications for such product candidate, which could reduce the marketing impact of any claims that we could make following FDA approval, if obtained;
- the relative convenience and ease of administration of such product candidate;
- cost of treatment versus economic and clinical benefit in relation to alternative treatments or therapies;
- the availability of adequate coverage or reimbursement by third parties, such as insurance companies and other healthcare payors, and by government healthcare programs, including Medicare and Medicaid;
- the extent and strength of our marketing and distribution of such product candidate;
- the safety, efficacy and other potential advantages over, and availability of, alternative treatments already used to treat acute and/or chronic pain;
- distribution and use restrictions imposed by the FDA with respect to such product candidate or to which we agree as part of a mandatory risk evaluation and mitigation strategy or voluntary risk management plan;
- the timing of market introduction of such product candidate, as well as competitive products;
- our ability to offer such product candidate for sale at competitive prices;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies; and
- the clinical indications for such product candidate is approved.

Our ability to effectively promote and sell I.V. CR845 and any of our other product candidates will also depend on pricing and cost effectiveness, including our ability to produce a product at a competitive price and achieve acceptance of the product onto hospital formularies, and our ability to obtain sufficient third-party coverage or reimbursement. Generally, before we can attempt to sell I.V. CR845 in a hospital, I.V. CR845 must be approved for addition to that hospital's list of drugs approved for use in that hospital, or formulary list. In evaluating drugs for inclusion on the formulary list, hospitals evaluate a variety of factors, including cost. The frequency with which hospitals add and remove drugs from their formulary lists varies from hospital to hospital, and hospitals often require additional information prior to adding new drugs to their formulary, which may result in substantial delays in our receiving formulary approval for I.V. CR845. Since many hospitals are members of group purchasing organizations, which leverage the purchasing power of a group of entities to obtain discounts based on the collective buying power of the group, our ability to attract customers in the hospital marketplace will also depend on our ability to effectively promote our product candidates to group purchasing organizations. We will also need to demonstrate acceptable evidence of safety and efficacy, as well as relative convenience and ease of administration. Market acceptance could be limited depending on the prevalence and severity of any expected or unexpected adverse side effects associated with our product candidates.

Our efforts to educate the medical community and third-party payors on the benefits of our product candidates may require significant resources and may never be successful. Even if the medical community accepts that one of our product candidates is safe and effective for its approved indications, physicians and

patients may not immediately be receptive to such product candidate and may be slow to adopt it as an accepted treatment of pain. It is unlikely that any labeling approved by the FDA will contain claims that one of our product candidates is safer or more effective than competitive products or will permit us to promote such product candidate as being superior to competing products. Further, the availability of inexpensive generic forms of pain management products for acute pain and over-the-counter alternatives for chronic pain may also limit acceptance of our product candidates among physicians, patients and third-party payors. If I.V. CR845, or any of our other product candidates, is approved but does not achieve an adequate level of acceptance among physicians, patients and third-party payors, we may not generate meaningful revenues from I.V. CR845, or such other product candidate, and we may not become profitable.

We face potential product liability exposure, and if successful claims are brought against us, we may incur substantial liability for I.V. CR845 or other product candidates that we may develop and may have to limit their commercialization.

The use of I.V CR845 and any of our other product candidates in clinical trials and the sale of any products for which we obtain regulatory approval expose us to the risk of product liability claims. We face inherent risk of product liability related to the testing of our product candidates in human clinical trials and will face an even greater risk if we commercially sell any products that we may develop. For example, we may be sued if any product we develop allegedly causes injury or is found to be otherwise unsuitable during clinical testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability or a breach of warranties. Product liability claims might be brought against us by consumers, healthcare providers or others using, administering or selling our products. If we cannot successfully defend ourselves against these claims, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- loss of revenue from decreased demand for our products and/or product candidates;
- impairment of our business reputation or financial stability;
- costs of related litigation;
- substantial monetary awards to patients or other claimants;
- diversion of management attention;
- loss of revenues;
- withdrawal of clinical trial participants and potential termination of clinical trial sites or entire clinical programs;
- the inability to commercialize our product candidates;
- significant negative media attention;
- initiation of investigations by regulators; and
- product recalls, withdrawals or labeling, marketing or promotional restrictions.

We have obtained limited product liability insurance coverage for our products and our clinical trials with a $5.0 million annual aggregate coverage limit. However, our insurance coverage may not reimburse us or may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive, and, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. We intend to expand our insurance coverage to include the sale of commercial products if we obtain FDA approval for our product candidates in development, but we may be unable to obtain commercially reasonable product liability insurance for any products approved for marketing, or at all. On occasion, large judgments have been awarded in class action lawsuits based on drugs that had unanticipated side effects. A successful product liability claim or series of claims brought against us could cause our stock price to fall and, if judgments exceed our insurance coverage, could decrease our cash and adversely affect our business.

Risks Related to Our Dependence on Third Parties

We rely, and expect to continue to rely, on third parties to conduct our preclinical studies and clinical trials, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials.

We rely on third-party clinical research organizations, or CROs, to conduct our preclinical and clinical trials for our product candidates, including I.V. CR845, and do not plan to independently conduct clinical trials of any other potential product candidates. We expect to continue to rely on third parties, such as CROs, clinical data management organizations, medical institutions and clinical investigators, to conduct our preclinical studies and clinical trials. These agreements might terminate for a variety of reasons, including a failure to perform by the third parties. If we need to enter into alternative arrangements, that would delay our product development activities and adversely affect our business.

Our reliance on these third parties for development activities will reduce our control over these activities. Nevertheless, we are responsible for ensuring that each of our studies is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards and our reliance on the CROs does not relieve us of our regulatory responsibilities. For example, we will remain responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the trial and for ensuring that our preclinical trials are conducted in accordance with good laboratory practice, or GLP as appropriate. Moreover, the FDA and comparable foreign regulatory authorities require us to comply with standards, commonly referred to as good clinical practices, or GCPs, for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. Regulatory authorities enforce these requirements through periodic inspections of trial sponsors, clinical investigators and trial sites. If we or any of our CROs fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials complies with GCP regulations. In addition, our clinical trials must be conducted with product produced under cGMP regulations. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process. We also are required to register certain clinical trials and post the results of certain completed clinical trials on a government-sponsored database, ClinicalTrials.gov, within specified timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions.

Our CROs may also have relationships with other entities, some of which may be our competitors. In addition, our CROs are not our employees, and except for remedies available to us under our agreements with such CROs, we cannot control whether or not they devote sufficient time and resources to our on-going clinical, non-clinical and preclinical programs. If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our preclinical studies or clinical trials in accordance with regulatory requirements or our stated protocols, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements or for other reasons, our clinical trials may be extended, delayed or terminated and we may not be able to obtain, or may be delayed in obtaining, marketing approvals for our product candidates and will not be able to, or may be delayed in our efforts to, successfully commercialize our product candidates. As a result, our results of operations and the commercial prospects for our product candidates would be harmed, our costs could increase and our ability to generate revenues could be delayed.

If any of our relationships with these third-party CROs terminate, we may not be able to enter into arrangements with alternative CROs or to do so on commercially reasonable terms. Switching or adding additional CROs involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new CRO commences work. As a result, delays could occur, which could compromise our ability to meet our desired development timelines. Though we carefully manage our relationships with our CROs, there can be no assurance that we will not encounter similar challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition and prospects.

If the manufacturers upon whom we rely fail to produce our product candidates in the volumes that we require on a timely basis, or to comply with stringent regulations applicable to pharmaceutical drug manufacturers, we may face delays in the development and commercialization of, or be unable to meet demand for, our products and may lose potential revenues.

We do not manufacture any of our product candidates, and we do not currently plan to develop any capacity to do so. We do not yet have agreements established regarding commercial supply of our product candidates and may not be able to establish or maintain commercial manufacturing arrangements on commercially reasonable terms for I.V. CR845, if approved, or any of our other product candidates, for which we obtain approval in the future. Any problems or delays we experience in preparing for commercial-scale manufacturing of a product candidate may result in a delay in FDA approval of the product candidate or may impair our ability to manufacture commercial quantities, which would adversely affect our business. For example, our manufacturers will need to produce specific batches of our product candidates to demonstrate acceptable stability under various conditions and for commercially viable lengths of time. We and our contract manufacturers will need to demonstrate to the FDA and other regulatory authorities this acceptable stability data for our product candidates, as well as validate methods and manufacturing processes, in order to receive regulatory approval to commercialize I.V. CR845 or any of our other product candidates. Furthermore, if our commercial manufacturers fail to deliver the required commercial quantities of bulk drug substance or finished product on a timely basis and at commercially reasonable prices, we would likely be unable to meet demand for our products and we would lose potential revenues.

We only have one contract manufacturer for each of I.V. CR845 and Oral CR845 for use in our clinical trials. In addition, we do not have any long-term commitments from our suppliers of clinical trial material or guaranteed prices for our product candidates. The manufacture of pharmaceutical products requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls. Manufacturers of pharmaceutical products often encounter difficulties in production, particularly in scaling up initial production. These problems include difficulties with production costs and yields, quality control, including stability of the product candidate and quality assurance testing, shortages of qualified personnel, as well as compliance with strictly enforced federal, state and foreign regulations. Our manufacturers may not perform as agreed. If our manufacturers were to encounter any of these difficulties, our ability to provide product candidates to patients in our clinical trials would be jeopardized.

Further, we may rely on proprietary technology developed by our contract manufacturers for purposes of manufacturing certain of our product candidates and our failure to negotiate the long term use of any such proprietary technology may lead to regulatory approval and/or commercializing delays or interruptions, as well as increased costs. For example, we have developed a formulation of Oral CR845 based on proprietary technology of Enteris Biopharma Inc., or Enteris. Under our agreement with Enteris, it is developing, testing and providing to us clinical supplies for an oral tablet formulation of CR845 on a fee for service basis. Under the agreed scope of work for this agreement, Enteris will use its proprietary formulation technology for oral delivery of peptides to develop a tablet formulation of CR845 with suitable characteristics to use in clinical testing. We have not yet negotiated terms related to our use of such technology for commercial manufacturing of Oral CR845 and we may not be able to do so on commercially reasonable terms, or at all. If we fail to enter into an agreement to use such proprietary technology, we may be forced to reformulate Oral CR845 which could result in significantly delaying commercializing Oral CR845 and require us to incur additional costs to in connection with such reformulation and potentially needed to seek additional approvals from the FDA.

In addition, all manufacturers of our product candidates must comply with cGMP requirements enforced by the FDA through its facilities inspection program. These requirements include quality control, quality assurance and the maintenance of records and documentation. Manufacturers of our product candidates may be unable to comply with these cGMP requirements and with other FDA, state and foreign regulatory requirements. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or other regulatory authorities, they will not be able to secure and/or maintain regulatory approval for their manufacturing facilities. We have little control over our manufacturers' compliance with these regulations and standards. If the FDA or a comparable foreign regulatory authority does not approve these facilities for the manufacture of our product candidates or if it withdraws any such approval in the future, we

may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for or market our product candidates, if approved. A failure to comply with these requirements may result in fines and civil penalties, suspension of production, suspension, delay or denial of product approval, product seizure or recall, or withdrawal of product approval. If the safety of any quantities supplied is compromised due to our manufacturers' failure to adhere to applicable laws or for other reasons, we may not be able to obtain regulatory approval for or successfully commercialize our product candidates.

We may rely on third parties to perform many essential services for any products that we commercialize, including services related to warehousing and inventory control, distribution, customer service, accounts receivable management, cash collection and adverse event reporting. If these third parties fail to perform as expected or to comply with legal and regulatory requirements, our ability to commercialize I.V. CR845, and our other product candidates, will be significantly impacted and we may be subject to regulatory sanctions.

We may retain third-party service providers to perform a variety of functions related to the sale and distribution of I.V. CR845 and our other product candidates, key aspects of which will be out of our direct control. These service providers may provide key services related to warehousing and inventory control, distribution, customer service, accounts receivable management and cash collection, and, as a result, most of our inventory may be stored at a single warehouse maintained by one such service provider. If we retain this provider, we would substantially rely on it as well as other third-party providers that perform services for us, including entrusting our inventories of products to their care and handling. If these third-party service providers fail to comply with applicable laws and regulations, fail to meet expected deadlines, or otherwise do not carry out their contractual duties to us, or encounter physical or natural damage at their facilities, our ability to deliver product to meet commercial demand would be significantly impaired. In addition, we may engage third parties to perform various other services for us relating to adverse event reporting, safety database management, fulfillment of requests for medical information regarding our product candidates and related services. If the quality or accuracy of the data maintained by these service providers is insufficient, or these third parties otherwise fail to comply with regulatory requirements related to adverse event reporting, we could be subject to regulatory sanctions.

We are dependent on our collaboration agreements for certain revenues, and if such agreements are terminated, we could lose revenues.

In April 2013, we entered into an agreement with Maruishi under which we granted Maruishi an exclusive license to develop, manufacture and commercialize products containing CR845 in Japan. Also, in April 2012, we entered into an agreement with CKD under which we granted CKD an exclusive license to develop, manufacture and commercialize products containing CR845 in South Korea. Both Maruishi and CKD are required to use commercially reasonable efforts, at their expense, to develop, obtain regulatory approval for and commercialize CR845 in Japan and South Korea, respectively. Our receipt of milestone payments and royalties under these agreements is dependent on the continued efforts by Maruishi and CKD, respectively, and their failure to adequately develop or commercialize the licensed products could harm our revenues and business.

Any collaboration arrangements that we are a party to or may enter into in the future may not be successful, which could adversely affect our ability to develop and commercialize our product candidates.

Our business model is to commercialize our product candidates in the United States and generally to seek collaboration arrangements with pharmaceutical or biotechnology companies for the development or commercialization of our product candidates in the rest of the world. We have entered into license agreements with Maruishi and CKD to develop, manufacture and commercialize products containing CR845 (both I.V. and Oral) in Japan and South Korea, respectively. In addition to our existing agreements covering Japan and Korea, we may enter into additional collaboration arrangements in the future on a selective basis. Our existing collaborations and future collaboration arrangements may not be successful. The success of our existing and future collaboration arrangements will depend heavily on the efforts and activities of our collaborators. Collaborators generally have significant discretion in determining the efforts and resources that they will apply to these collaboration arrangements. Disagreements between parties to a collaboration arrangement regarding clinical development and commercialization matters can lead to delays in the development process or commercializing the applicable product candidate and, in some cases, termination of the collaboration arrangement. These disagreements can be difficult to resolve if neither of the parties has final decision making authority.

Collaborations with pharmaceutical companies and other third parties often are terminated or allowed to expire by the other party. For example, both the Maruishi and CKD agreements may be terminated by our collaborator for our breach or insolvency, Maruishi may terminate its agreement with us at will, and CKD may terminate its agreement with us in certain circumstances relating to patent invalidity or unenforceability or generic entry by a third party, as further described in the "Business — Commercial Partnerships" section of this prospectus. Any such termination or expiration would adversely affect us financially and could harm our business reputation. Our current collaborations and any future collaborations we might enter into may pose a number of risks, including the following:

- collaborators may not perform their obligations as expected;
- collaborators may not pursue development and commercialization of any product candidates that achieve regulatory approval or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the collaborators' strategic focus or available funding, or external factors, such as an acquisition, that divert resources or create competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- collaborators could fail to make timely regulatory submissions for a product candidate;
- collaborators may not comply with all applicable regulatory requirements or may fail to report safety data in accordance with all applicable regulatory requirements;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products or product candidates if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;
- product candidates discovered in collaboration with us may be viewed by our collaborators as competitive with their own product candidates or products, which may cause collaborators to cease to devote resources to the commercialization of our product candidates;
- a collaborator with marketing and distribution rights to one or more of our product candidates that achieve regulatory approval may not commit sufficient resources to the marketing and distribution of such product or products;
- disagreements with collaborators, including disagreements over proprietary rights, contract interpretation or the preferred course of development, might cause delays or termination of the research, development or commercialization of product candidates, might lead to additional responsibilities for us with respect to product candidates, or might result in litigation or arbitration, any of which would be time-consuming and expensive;
- collaborators may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential litigation;
- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability; and
- collaborations, including our collaboration with Maruishi, may be terminated for the convenience of the collaborator and, if terminated, we could be required to raise additional capital to pursue further development or commercialization of the applicable product candidates.

If our current collaborations or any other collaborations we might enter into in the future do not result in the successful development and commercialization of products or if one of our collaborators terminates its agreement with us, we may not receive any future research funding or milestone or royalty payments under the collaboration. If we do not receive the funding we expect under these agreements, our development of our product candidates could be delayed and we may need additional resources to develop our product candidates and our product platform. All of the risks relating to our product development, regulatory approval and commercialization described in this prospectus also apply to the activities of our collaborators in their respective jurisdictions.

Additionally, if any current or future collaborator of ours is involved in a business combination, the collaborator might deemphasize or terminate development or commercialization of any product candidate licensed to it by us. If one of our collaborators terminates its agreement with us, we may find it more difficult to attract new collaborators and our reputation in the business and financial communities could be adversely affected.

For I.V. CR845 and any other product candidates, we may in the future determine to collaborate with additional pharmaceutical and biotechnology companies for their development and potential commercialization. We face significant competition in seeking appropriate collaborators. Our ability to reach a definitive agreement for collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. If we are unable to reach agreements with suitable collaborators on a timely basis, on acceptable terms, or at all, we may have to curtail the development of a product candidate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to fund and undertake development or commercialization activities on our own, we may need to obtain additional expertise and additional capital, which may not be available to us on acceptable terms or at all. If we fail to enter into collaborations and do not have sufficient funds or expertise to undertake the necessary development and commercialization activities, we may not be able to further develop our product candidates or bring them to market or continue to develop our product platform and our business may be materially and adversely affected.

We are dependent on third parties to decide to utilize I.V. CR845 and to make it readily available at the point of care throughout their hospitals.

In addition to extensive internal efforts, the successful commercialization of I.V. CR845 will require many third parties, over whom we have no control, to decide to utilize I.V. CR845 and to make it readily available at the point of care throughout their hospitals. These third parties include physicians, pharmacists, and hospital pharmacy and therapeutics committees, which are commonly referred to as P&T committees. Generally, before we can attempt to sell I.V. CR845 in a hospital, I.V. CR845 must be approved for addition to that hospital's list of approved drugs, or formulary list, by the hospital's P&T committee. A hospital's P&T committee typically governs all matters pertaining to the use of medications within the institution, including review of medication formulary data and recommendations for the appropriate use of drugs within the institution to the medical staff. The frequency of P&T committee meetings at various hospitals varies considerably, and P&T committees often require additional information to aid in their decision-making process, so we may experience substantial delays in obtaining formulary approvals. Additionally, hospital pharmacists may be concerned that the cost of acquiring I.V. CR845 for use in their institutions will adversely impact their overall pharmacy budgets, which could cause pharmacists to resist efforts to add I.V. CR845 to the formulary, or to implement restrictions on the usage of the drug in order to control costs, either initially or later, when the increasing use of I.V. CR845 within their institution begins to significantly impact their budgets. We cannot guarantee that we will be successful in getting the approvals we need from enough P&T committees and overcoming any financial objections raised by hospital pharmacists quickly enough to maintain and grow hospital sales of I.V. CR845.

Risks Related to Legal and Compliance Matters

If we fail to comply with federal and state healthcare laws, including fraud and abuse and health information privacy and security laws, we could face substantial penalties and our business, results of operations, financial condition and prospects could be adversely affected.

As a pharmaceutical company, even though we do not and will not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third-party payors, certain federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights are and will be applicable to our business. We would be subject to healthcare fraud and abuse and patient privacy regulation by both the federal government and the states in which we conduct our business. The laws that may affect our ability to operate include, but are not limited to:

- the federal Anti-Kickback Statute, which regulates, among other things, our marketing practices, educational programs, pricing policies, and relationships with healthcare providers or other entities, by

prohibiting, among other things, any person or entity from knowingly and willfully soliciting, receiving, offering or paying any remuneration, directly or indirectly, overtly or covertly, in cash or in kind, to induce, or in return for, the purchase, recommendation, lease, order or furnishing of an item or service reimbursable, in whole or in part, under a federal healthcare program, such as the Medicare and Medicaid programs;

- federal civil and criminal false claims laws and civil monetary penalty laws, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment or approval from Medicare, Medicaid, or other third-party payors that are false or fraudulent;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created new federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or to obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any health care benefit program, regardless of the payor (e.g. public or private) and knowingly and willfully falsifying, concealing, or covering up by any trick, scheme or device a material fact or making any materially false statements in connection with the delivery of, or payment for, health care benefits, items or services relating to healthcare matters;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and its implementing regulations, and as amended again by the final HIPAA omnibus rule, Modifications to the HIPAA Privacy, Security, Enforcement, and Breach Notification Rules Under HITECH and the Genetic Information Nondiscrimination Act; Other Modifications to HIPAA, published in January 2013, which imposes certain requirements relating to the privacy, security and transmission of individually identifiable health information without appropriate authorization by entities subject to the rule, such as health plans, healthcare clearinghouses and healthcare providers;
- Federal transparency laws, including the federal Physician Payment Sunshine Act, that requires disclosure of payments and other transfers of value provided to physicians and teaching hospitals; and
- state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

Because of the breadth of these laws and the narrowness of the statutory exceptions and safe harbors available under the U.S. federal Anti-Kickback Statute, it is possible that some of our business activities could be subject to challenge under one or more of such laws. Pharmaceutical and other healthcare companies continue to be prosecuted under the federal false claims laws for numerous activities, including those related to research, sales, marketing and promotional programs. In addition, recent health care reform legislation has strengthened these laws. For example, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, which we refer to collectively as the Health Care Reform Law among other things, amends the intent requirement of the federal anti-kickback and criminal healthcare fraud statutes. A person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it. Moreover, the Health Care Reform Law provides that the government may assert that a claim including items or services resulting from a violation of the federal anti-kickback statute constitutes a false or fraudulent claim for purposes of the False Claims Act. To the extent that any product we make is sold in a foreign country, we may be subject to similar foreign laws and regulations. If we or our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines, exclusion from participation in U.S. federal or state health care programs, and the curtailment or restructuring of our operations, any of which could materially

adversely affect our ability to operate our business and our financial results. Although an effective compliance program can mitigate the risk of investigation and prosecution for violations of these laws, the risks cannot be entirely eliminated. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. Moreover, achieving and sustaining compliance with applicable federal and state privacy, security and fraud laws may prove costly. If any of the physicians or other healthcare providers or entities with whom we expect to do business, including our collaborators, is found not to be in compliance with applicable laws, it may be subject to criminal, civil or administrative sanctions, including but not limited to, exclusions from participation in government healthcare programs, which could also materially affect our business.

If the government or third-party payors fail to provide coverage and adequate coverage and payment rates for I.V. CR845 or any of our other product candidates, if any, or if hospitals choose to use therapies that are less expensive, our revenue and prospects for profitability will be limited.

In both domestic and foreign markets, sales of our future products will depend in part upon the availability of coverage and reimbursement from third-party payors. Such third-party payors include government health programs such as Medicare and Medicaid, managed care providers, private health insurers and other organizations. Coverage decisions may depend upon clinical and economic standards that disfavor new drug products when more established or lower cost therapeutic alternatives are already available or subsequently become available. Assuming coverage is approved, the resulting reimbursement payment rates might not be adequate. In particular, many U.S. hospitals receive a fixed reimbursement amount per procedure for certain surgeries and other treatment therapies they perform, or a predetermined rate for all hospital inpatient care provided as payment in full. Because this amount may not be based on the actual expenses the hospital incurs, hospitals may choose to use therapies which are less expensive when compared to our product candidates. Accordingly, I.V. CR845 or any of our other product candidates, if approved, will face competition from other therapies and drugs for these limited hospital financial resources. We may need to conduct post-marketing studies in order to demonstrate the cost-effectiveness of any future products to the satisfaction of hospitals, other target customers and their third-party payors. Such studies might require us to commit a significant amount of management time and financial and other resources. Our future products might not ultimately be considered cost-effective. Adequate third-party coverage and reimbursement might not be available to enable us to maintain price levels sufficient to realize an appropriate return on investment in product development.

Third party payors, whether foreign or domestic, or governmental or commercial, are developing increasingly sophisticated methods of controlling healthcare costs. In addition, in the United States, no uniform policy of coverage and reimbursement for drug products exists among third-party payors. Therefore, coverage and reimbursement for drug products can differ significantly from payor to payor. Further, we believe that future coverage and reimbursement will likely be subject to increased restrictions both in the United States and in international markets. Third-party coverage and reimbursement for our products or product candidates for which we receive regulatory approval may not be available or adequate in either the United States or international markets, which could have a negative effect on our business, results of operations, financial condition and prospects.

We are subject to new legislation, regulatory proposals and healthcare payor initiatives that may increase our costs of compliance and adversely affect our ability to market our products, obtain collaborators and raise capital.

In March 2010, the President signed the Health Care Reform Law, which includes provisions that have the potential to significantly change health care financing and the delivery of health care in the United States. Among the provisions of the Health Care Reform Law of greatest importance to the pharmaceutical industry are the following:

- an annual, nondeductible fee on any entity that manufactures or imports certain branded prescription drugs and biologic agents, apportioned among these entities according to their market share in certain government healthcare programs, that began in 2011;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% and 13% of the average manufacturer price for most branded and generic drugs, respectively;

- addresses a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D, that began in 2011;
- extension of manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals beginning in April 2010 and by adding new mandatory eligibility categories for certain individuals with income at or below 133% of the Federal Poverty Level beginning in 2014, thereby potentially increasing both the volume of sales and manufacturers' Medicaid rebate liability;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- new requirements under the federal Physician Payment Sunshine Act, and its implementing regulations, for drug manufacturers and others to report information related to payments and other "transfers of value" made or distributed to physicians and teaching hospitals as well as ownership investment interests held by physicians and their immediate family members;
- a new requirement to annually report certain drug samples that manufacturers and distributors provide to licensed practitioners, or to pharmacies of hospitals or other healthcare entities;
- a licensure framework for follow-on biologic products;
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research;
- creation of the Independent Payment Advisory Board which will have authority to recommend certain changes to the Medicare program that could result in reduced payments for prescription drugs and those recommendations could have the effect of law even if Congress does not act on the recommendations, such recommended reports could begin in 2014;
- establishment of a Center for Medicare & Medicaid Innovation at the Centers for Medicare & Medicaid Services to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending, that began on January 1, 2011; and
- expansion of healthcare fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statute, new government investigative powers and enhanced penalties for non-compliance.

In addition, other legislative changes have been proposed and adopted since the Health Care Reform Law was enacted. These changes include, among other things, aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, which went effective on April 1, 2013. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, further reduced Medicare payments to several providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other healthcare funding, which could have a material adverse effect on customers for our drugs, if approved, and, accordingly, our financial operations.

We expect that the Health Care Reform Law, as well as other federal and state healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved drug. Any reduction in reimbursement from Medicare or other government healthcare programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability or commercialize our drugs.

Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for drugs. We cannot be sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by

the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing testing and other requirements.

These measures could result in decreased net revenues from our pharmaceutical products and decrease potential returns from our development efforts. Many of the details regarding the implementation of the Health Care Reform Law are yet to be determined, and at this time, the full effect that the Health Care Reform Law would have on our business remains unclear.

In addition, there have been a number of other legislative and regulatory proposals aimed at changing the pharmaceutical industry. In particular, California has enacted legislation that requires development of an electronic pedigree to track and trace each prescription drug at the saleable unit level through the distribution system. California's electronic pedigree requirement is scheduled to take effect on a staggered basis, with 50 percent of a manufacturer's products by January 1, 2015 and the remaining 50 percent by 2016. Compliance with California and future federal or state electronic pedigree requirements may increase our operational expenses and impose significant administrative burdens. As a result of these and other new proposals, we may determine to change our current manner of operation, provide additional benefits or change our contract arrangements, any of which could have a material adverse effect on our business, financial condition and results of operations.

Governments outside the United States tend to impose strict price controls, which may adversely affect our revenues, if any.

In international markets, reimbursement and health care payment systems vary significantly by country, and many countries have instituted price ceilings on specific products and therapies. In some countries, particularly the countries of the European Union, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain coverage and reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. There can be no assurance that our products will be considered cost-effective by third-party payors, that an adequate level of reimbursement will be available or that the third-party payors' reimbursement policies will not adversely affect our ability to sell our products profitably. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be harmed, possibly materially.

Our employees may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could have a material adverse effect on our business.

We are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with FDA regulations, provide accurate information to the FDA, report financial information or data accurately or disclose unauthorized activities to us. Employee misconduct could also involve the improper use or misrepresentation of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and financial results, including the imposition of significant fines or other sanctions.

Our business involves the use of hazardous materials and we must comply with environmental laws and regulations, which can be expensive and restrict how we do business.

Our manufacturing activities involve the controlled storage, use and disposal of hazardous materials, including the components of our products, product candidates and other hazardous compounds. We are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling, release and disposal of, and exposure to, these hazardous materials. Violation of these laws and regulations could lead to substantial fines and penalties. Although we believe that our safety procedures for handling and disposing of

these materials comply with the standards prescribed by these laws and regulations, we cannot eliminate the risk of accidental contamination or injury from these materials. In the event of an accident, state or federal authorities may curtail our use of these materials and interrupt our business operations. In addition, we could become subject to potentially material liabilities relating to the investigation and cleanup of any contamination, whether currently unknown or caused by future releases.

Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological, hazardous or radioactive materials.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Our failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Risks Related to Intellectual Property

It is difficult and costly to protect our proprietary rights and as a result we may not be able to ensure their protection and all patents will eventually expire.

Our commercial success will depend in part on obtaining and maintaining patent protection and trade secret protection for CR845 and for any other product candidates that we may develop, license or acquire and the methods we use to manufacture them, as well as successfully defending these patents and trade secrets against third-party challenges. We will only be able to protect our technologies from unauthorized use by third parties to the extent that valid and enforceable patents or trade secrets cover them.

The patent prosecution process is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Moreover, should we enter into additional collaborations we may be required to consult with or cede control to collaborators regarding the prosecution, maintenance and enforcement of our patents. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in pharmaceutical or biotechnology patents has emerged to date in the United States. The patent situation outside the United States is even more uncertain. Changes in either the patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents. The degree of future protection for our proprietary rights is uncertain, because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. Moreover, the patent application process is also subject to numerous risks and uncertainties, and there can be no assurance that we or any of our future development partners will be successful in protecting CR845 and any other product candidates that we may develop, license or acquire by obtaining and defending patents. For example:

- we may not have been the first to make the inventions covered by each of our pending patent applications and issued patents;
- we may not have been the first to file patent applications for these inventions;
- others may independently develop similar or alternative technologies or duplicate any of our product candidates or technologies;
- it is possible that none of the pending patent applications will result in issued patents;
- the issued patents covering our product candidates may not provide a basis for commercially viable active products, may not provide us with any competitive advantages, or may be challenged by third parties;

- we may not develop additional proprietary technologies that are patentable;
- patents of others may have an adverse effect on our business;
- noncompliance with governmental patent agencies requirements can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction, potentially allowing competitors to enter the market earlier than would otherwise have been the case;
- our competitors, many of whom have substantially greater resources than we do and many of whom have made significant investments in competing technologies, may seek or may have already obtained patents that will limit, interfere with, or eliminate our ability to make, use, and sell our potential product candidates; or
- there may be significant pressure on the U.S. government and international governmental bodies to limit the scope of available patent protection both inside and outside the United States for disease treatments that prove successful, as a matter of public policy regarding worldwide health concerns.

Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. On September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law. The Leahy-Smith Act includes a number of significant changes to United States patent law. These include provisions that affect the way patent applications are prosecuted and may also affect patent litigation. The United States Patent Office recently developed new regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first to file provisions, only became effective on March 16, 2013. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business and financial condition.

Patent applications in the United States are maintained in confidence for at least 18 months after their earliest effective filing date. Consequently, we cannot be certain we were the first to invent or the first to file patent applications on CR845 or any other product candidates that we may develop, license or acquire. In the event that a third party has also filed a U.S. patent application relating to our product candidates or a similar invention, we may have to participate in interference proceedings declared by the U.S. Patent and Trademark Office to determine priority of invention in the United States. The costs of these proceedings could be substantial and it is possible that our efforts would be unsuccessful, resulting in a material adverse effect on our U.S. patent position. The results of these types of proceedings may reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates. Such results could have a material adverse effect on our results of operations.

In addition, the patentability of claims in pending patent applications covering a CR845-based product can be challenged by third parties during prosecution in the U.S. Patent and Trademark Office, for example by third party observations and derivation proceedings, and the validity of claims in issued patents can be challenged by third parties in various post-grant proceedings such as Post-Grant Review, Inter-partes Reexamination, and Inter-partes Review proceedings.

Furthermore, we may not have identified all United States and foreign patents or published applications that affect our business either by blocking our ability to commercialize our drugs or by covering similar technologies that affect our drug market. In addition, some countries, including many in Europe, do not grant patent claims directed to methods of treating humans, and in these countries patent protection may not be available at all to protect our product candidates. Even if patents issue, we cannot guarantee that the claims of those patents will be valid and enforceable or provide us with any significant protection against competitive products, or otherwise be commercially valuable to us.

We also rely on trade secrets to protect our technology, particularly where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. While we use reasonable efforts to protect our trade secrets, our licensors, employees, consultants, contractors, outside scientific collaborators and other advisors may unintentionally or willfully disclose our information to competitors. Enforcing a claim that a third party illegally obtained and is using our trade secrets is expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States are sometimes less willing to protect trade secrets. Moreover, our competitors may independently develop equivalent knowledge, methods and know-how.

If we fail to obtain or maintain patent protection or trade secret protection for CR845 or any other product candidate that we may develop, license or acquire, third parties could use our proprietary information, which could impair our ability to compete in the market and adversely affect our ability to generate revenues and achieve profitability.

Even if our patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors from competing with us or otherwise provide us with any competitive advantage. Our competitors may be able to circumvent our owned or licensed patents by developing similar or alternative technologies or products in a non-infringing manner.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our owned and licensed patents may be challenged in the courts or patent offices in the United States and abroad. Such challenges may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and products. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such product candidates might expire before or shortly after such product candidates are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

If we or any current or future collaboration partner are sued for infringing intellectual property rights of third parties, it will be costly and time consuming, and an unfavorable outcome in any litigation would harm our business.

Our ability to develop, manufacture, market and sell I.V. CR845 or any of our other product candidates depends upon our ability to avoid infringing the proprietary rights of third parties, and our commercial success depends upon our ability, and the ability of our collaborators, to develop, manufacture, market and sell our product candidates and use our proprietary technologies without infringing the proprietary rights of third parties. There is considerable intellectual property litigation in the biotechnology and pharmaceutical industries. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the general field of pain management and cover the use of numerous compounds and formulations in our targeted markets. Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future. Because of the uncertainty inherent in any patent or other litigation involving proprietary rights, we and our licensors may not be successful in defending intellectual property claims by third parties, which could have a material adverse effect on our results of operations. Regardless of the outcome of any litigation, defending the litigation may be expensive, time-consuming and distracting to management. In addition, because patent applications can take many years to issue, there may be currently pending applications, unknown to us, which may later result in issued patents that I.V. CR845 or our other product candidates may infringe. There could also be existing patents of which we are not aware that I.V. CR845 or our other product candidates may inadvertently infringe.

There is a substantial amount of litigation involving patent and other intellectual property rights in the biotechnology and biopharmaceutical industries generally. If a third party claims that we infringe on their products or technology, we could face a number of issues, including:

- infringement and other intellectual property claims which, with or without merit, can be expensive and time consuming to litigate and can divert management’s attention from our core business;

- substantial damages for past infringement which we may have to pay if a court decides that our product infringes on a competitor's patent;
- a court prohibiting us from selling or licensing our product unless the patent holder licenses the patent to us, which it would not be required to do;
- if a license is available from a patent holder, we may have to pay substantial royalties or grant cross licenses to our patents; and
- redesigning our processes so they do not infringe, which may not be possible or could require substantial funds and time.

If we are found to infringe a third party's intellectual property rights, we could be required to obtain a license from such third party to continue developing and marketing our products and technology. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. We could be forced, including by court order, to cease commercializing the infringing technology or product. In addition, we could be found liable for monetary damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our business operations, which could materially harm our business. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business.

We may be involved in lawsuits to protect or enforce our patents or the patents of our licensors, which could be expensive, time consuming and unsuccessful.

Competitors may infringe our issued patents or other intellectual property. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time consuming. Any claims we assert against perceived infringers could provoke these parties to assert counterclaims against us alleging that we infringe their patents. In addition, in a patent infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, in whole or in part, construe the patent's claims narrowly or refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation.

Most of our competitors are larger than we are and have substantially greater resources. They are, therefore, likely to be able to sustain the costs of complex patent litigation longer than we could. In addition, the uncertainties associated with litigation could have a material adverse effect on our ability to raise the funds necessary to continue our clinical trials, continue our internal research programs, in-license needed technology, or enter into development partnerships that would help us bring our product candidates to market.

We may need to license certain intellectual property from third parties, and such licenses may not be available or may not be available on commercially reasonable terms.

A third party may hold intellectual property, including patent rights that are important or necessary to the development or commercialization of our products. It may be necessary for us to use the patented or proprietary technology of third parties to commercialize our products, in which case we would be required to obtain a license from these third parties. Such a license may not be available on commercially reasonable terms or at all, which could materially harm our business.

We may be subject to claims that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

As is common in the biotechnology and pharmaceutical industry, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that these employees or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information

of their former employers. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

We may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and further, may export otherwise infringing products to territories where we have patent protection, but enforcement rights are not as strong as those in the United States. These products may compete with our product candidates and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries do not favor the enforcement of patents and other intellectual property protection, which could make it difficult for us to stop the infringement of our patents generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

The validity and enforceability of the patents and applications that cover our CR845 product can be challenged by competitors.

If I.V. CR845 is approved by the FDA, one or more third parties may challenge the patents covering this product, which could result in the invalidation of, or render unenforceable, some or all of the relevant patent claims. For example, if a third party files an Abbreviated New Drug Application, or ANDA, for a generic drug product containing CR845, and relies in whole or in part on studies conducted by or for us, the third party will be required to certify to the FDA that either: (1) there is no patent information listed in the FDA's Orange Book with respect to our NDA for I.V. CR845; (2) the patents listed in the Orange Book have expired; (3) the listed patents have not expired, but will expire on a particular date and approval is sought after patent expiration; or (4) the listed patents are invalid or will not be infringed by the manufacture, use or sale of the third-party's generic drug product. A certification that the new product will not infringe the Orange Book-listed patents for CR845, or that such patents are invalid, is called a paragraph IV certification. If the third party submits a paragraph IV certification to the FDA, a notice of the paragraph IV certification must also be sent to us once the third-party's ANDA is accepted for filing by the FDA. We may then initiate a lawsuit to defend the patents identified in the notice. The filing of a patent infringement lawsuit within 45 days of receipt of the notice automatically prevents the FDA from approving the third-party's ANDA until the earliest of 30 months or the date on which the patent expires, the lawsuit is settled, or the court reaches a decision in the infringement lawsuit in favor of the third party. If we do not file a patent infringement lawsuit within the required 45-day period, the third-party's ANDA will not be subject to the 30-month stay. Litigation or other proceedings to enforce or defend intellectual property rights are often very complex in nature, may be very expensive and time-consuming, may divert our management's attention from our core business, and may result in unfavorable results that could adversely impact our ability to prevent third parties from competing with our products.

Risks Related to Employee Matters, Managing Growth and Becoming a Public Company

We will need to significantly increase the size of our organization, and we may experience difficulties in managing growth.

As of September 30, 2013, we had only 10 employees. We will need to substantially expand our managerial, commercial, financial, manufacturing and other personnel resources in order to manage our operations and prepare for the commercialization of I.V. CR845, if approved. Our management, personnel, systems and facilities currently in place may not be adequate to support this future growth. In addition, we may not be able to recruit and retain qualified personnel in the future, particularly for sales and marketing positions, due to competition for personnel among pharmaceutical businesses, and the failure to do so could have a significant negative impact on our future product revenues and business results. Our need to effectively manage our operations, growth and various projects requires that we:

- continue the hiring and training of an effective commercial organization in anticipation of the potential approval of I.V. CR845, and establish appropriate systems, policies and infrastructure to support that organization;
- ensure that our consultants and other service providers successfully carry out their contractual obligations, provide high quality results, and meet expected deadlines;
- continue to carry out our own contractual obligations to our licensors and other third parties; and
- continue to improve our operational, financial and management controls, reporting systems and procedures.

We may be unable to successfully implement these tasks on a larger scale and, accordingly, may not achieve our development and commercialization goals.

We may not be able to manage our business effectively if we are unable to attract and retain key personnel.

We may not be able to attract or retain qualified management and commercial, scientific and clinical personnel due to the intense competition for qualified personnel among biotechnology, pharmaceutical and other businesses. If we are not able to attract and retain necessary personnel to accomplish our business objectives, we may experience constraints that will significantly impede the achievement of our development objectives, our ability to raise additional capital and our ability to implement our business strategy.

Our industry has experienced a high rate of turnover of management personnel in recent years. We are highly dependent on the skills and leadership of our management team, including Derek Chalmers, our President and Chief Executive Officer. Our senior management may terminate their employment with us at any time. If we lose one or more members of our senior management team, our ability to successfully implement our business strategy could be seriously harmed. Replacing these employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to develop, gain regulatory approval of and commercialize products successfully. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate additional key personnel. We do not maintain “key person” insurance for any of our executives or other employees.

We will incur increased costs as a result of operating as a public company.

As a public company, and particularly after we are no longer an emerging growth company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. The Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of The NASDAQ Global Market and other applicable securities rules and regulations impose various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect that these rules and regulations may make it more difficult and more expensive for us to

obtain director and officer liability insurance, which in turn could make it more difficult for us to attract and retain qualified members of our board of directors. We currently estimate that we will incur incremental annual costs, including costs for additional personnel, of approximately $1 million associated with operating as a public company, although it is possible that our actual incremental annual costs will be higher than we currently estimate.

We are evaluating these rules and regulations, and cannot predict or estimate the amount of additional costs we may incur or the timing of such costs. These rules and regulations are often subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

If we fail to maintain proper and effective internal controls, our ability to produce accurate financial statements on a timely basis could be impaired.

After the completion of this offering, we will be subject to the reporting requirements of the Securities Exchange Act of 1934, the Sarbanes-Oxley Act of 2002 and the rules and regulations of The NASDAQ Global Market. Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404, we will be required to furnish a report by our management on our internal control over financial reporting. However, while we remain an emerging growth company, we will not be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. Commencing with our fiscal year ending December 31, 2014, we must perform system and process evaluation and testing of our internal control over financial reporting to allow management to report on the effectiveness of our internal controls over financial reporting in our Form 10-K filing for that year, as required by Section 404.

To achieve compliance with Section 404 within the prescribed period, we will be engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants and adopt a detailed work plan to assess and document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are functioning as documented and implement a continuous reporting and improvement process for internal control over financial reporting. Despite our efforts, there is a risk that we will not be able to conclude, within the prescribed timeframe or at all, that our internal control over financial reporting is effective as required by Section 404. Prior to this offering, we have never been required to test our internal controls within a specified period, and, as a result, we may experience difficulty in meeting these reporting requirements in a timely manner.

We may discover weaknesses in our system of internal financial and accounting controls and procedures that could result in a material misstatement of our financial statements. Our internal control over financial reporting will not prevent or detect all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected. If we are not able to comply with the requirements of Section 404 in a timely manner, or if we identify one or more material weaknesses in our internal controls, investors could lose confidence in the reliability of our financial statements, the market price of our stock could decline and we could be subject to sanctions or investigations by The NASDAQ Global Market, the SEC or other regulatory authorities.

Our business and operations would suffer in the event of system failures.

Despite our implementation of security measures, our internal computer systems and those of our CROs and other contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our product candidate development programs. For example, the loss of clinical trial data from completed, ongoing or planned clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of or damage to our data or applications, or inappropriate disclosure of personal, confidential or proprietary information, we could incur liability and the further development of any of our product candidates could be delayed.

Risks Related to this Offering and Ownership of Our Common Stock

There is no established public market for our stock and a public market may not be obtained or be liquid and therefore you may not be able to sell your shares.

Prior to this offering, there has not been a public market for our common stock. If an active trading market for our common stock does not develop following this offering, you may not be able to sell your shares quickly or at the market price. The initial public offering price for the shares will be determined by negotiations between us and representatives of the underwriters and may not be indicative of prices that will prevail in the subsequent trading market.

The market price of our common stock may be highly volatile, and you may not be able to resell your shares at or above the initial public offering price.

The trading price of our common stock is likely to be volatile. As a result of this volatility, investors may not be able to sell their common stock at or above the price paid for the shares. The market price for our common stock may be influenced by many factors, including:

- delays in the commencement, enrollment and ultimate completion, of Phase 3 clinical trials for I.V. CR845;
- any delay or refusal on the part of the FDA in approving an NDA for I.V. CR845 or our other product candidates;
- the commercial success of I.V. CR845 or our other product candidates, if approved by the FDA;
- results of clinical trials of I.V. CR845 or our other product candidates or those of our competitors;
- actual or anticipated variations in quarterly or annual operating results;
- failure to meet or exceed financial projections we provide to the public;
- failure to meet or exceed the estimates and projections of the investment community, including securities analysts;
- introduction of competitive products or technologies;
- changes or developments in laws or regulations applicable to our product candidates;
- the perception of the pharmaceutical industry by the public, legislatures, regulators and the investment community;
- general economic and market conditions and overall fluctuations in U.S. equity markets;
- developments concerning our sources of manufacturing supply, warehousing and inventory control;
- disputes or other developments relating to patents or other proprietary rights;
- additions or departures of key scientific or management personnel;
- announcements of investigations or regulatory scrutiny of our operations or lawsuits filed against us;
- capital commitments;
- investors' general perception of our company and our business;
- announcements and expectations of additional financing efforts, including the issuance of debt, equity or convertible securities;
- sales of our common stock, including sales by our directors and officers or significant stockholders;
- changes in the market valuations of companies similar to us;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, or divestitures;
- general conditions or trends in our industry; and
- the other factors described in this "Risk Factors" section.

In addition, the stock market in general, and the market for small pharmaceutical and biotechnology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance.

Further, in the past, stockholders have initiated class action lawsuits against pharmaceutical and biotechnology companies following periods of volatility in the market prices of these companies' stock. Such litigation, if instituted against us, could cause us to incur substantial costs and divert management's attention and resources from our business.

If equity research analysts do not publish research or reports, or publish unfavorable research or reports, about us, our business or our market, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that equity research analysts publish about us and our business. We do not currently have and may never obtain research coverage by equity research analysts. Equity research analysts may elect not to provide research coverage of our common stock after the completion of this offering, and such lack of research coverage may adversely affect the market price of our common stock. In the event we do have equity research analyst coverage, we will not have any control over the analysts or the content and opinions included in their reports. The price of our stock could decline if one or more equity research analysts downgrade our stock or issue other unfavorable commentary or research. If one or more equity research analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which in turn could cause our stock price or trading volume to decline.

Our quarterly operating results may fluctuate significantly.

We expect our operating results to be subject to quarterly fluctuations. Our net loss and other operating results will be affected by numerous factors, including:

- whether the FDA requires us to complete additional, unanticipated studies, tests or other activities prior to approving I.V. CR845 or our other product candidates, which would likely further delay any such approval;
- if I.V. CR845 or any of our other product candidates is approved, our ability to establish the necessary commercial infrastructure to launch this product candidate without substantial delays, including hiring sales and marketing personnel and contracting with third parties for warehousing, distribution, cash collection and related commercial activities;
- our ability to identify and enter into third party manufacturing arrangements capable of manufacturing I.V. CR845 or our other product candidates in commercial quantities;
- our execution of other collaborative, licensing or similar arrangements and the timing of payments we may make or receive under these arrangements;
- variations in the level of expenses related to our future development programs;
- any product liability or intellectual property infringement lawsuit in which we may become involved;
- regulatory developments affecting I.V. CR845, our other product candidates, or the product candidates of our competitors; and
- if I.V. CR845 or other product candidates receives regulatory approval, the level of underlying hospital demand for such product candidate and wholesaler buying patterns.

If our quarterly or annual operating results fall below the expectations of investors or securities analysts, the price of our common stock could decline substantially. Furthermore, any quarterly or annual fluctuations in our operating results may, in turn, cause the price of our stock to fluctuate substantially. We believe that quarterly comparisons of our financial results are not necessarily meaningful and should not be relied upon as an indication of our future performance.

Raising additional funds by issuing securities may cause dilution to existing stockholders and raising funds through lending and licensing arrangements may restrict our operations or require us to relinquish proprietary rights.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, grants and license and development agreements in connection with any collaborations. We do not have any committed external source of funds. To the extent that we raise additional capital by issuing equity securities, our existing stockholders' ownership will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us. Any debt financing we enter into may involve covenants that restrict our operations. These restrictive covenants may include limitations on additional borrowing and specific restrictions on the use of our assets as well as prohibitions on our ability to create liens, pay dividends, redeem our stock or make investments. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Our principal stockholders and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

Upon completion of this offering, our executive officers, directors and 5% stockholders and their affiliates will beneficially own approximately of our outstanding voting stock, excluding any shares of common stock that our existing stockholders may purchase in this offering. As a result, these stockholders will have significant influence and may be able to determine all matters requiring stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This concentration of ownership could delay or prevent any acquisition of our company on terms that other stockholders may desire.

Some of these persons or entities may have interests different than yours. For example, because many of these stockholders purchased their shares at prices substantially below the price at which shares are being sold in this offering and have held their shares for a longer period, they may be more interested in selling our company to an acquirer than other investors, or they may want us to pursue strategies that deviate from the interests of other stockholders.

Sales of a substantial number of shares of our common stock in the public market by our existing stockholders could cause our stock price to fall.

Sales of a substantial number of shares of our common stock in the public market or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise adequate capital through the sale of additional equity securities. We are unable to predict the effect that sales may have on the prevailing market price of our common stock.

Upon completion of this offering, we will have outstanding shares of common stock, assuming no exercise of outstanding options or warrants. Of these shares, the shares sold in this offering and additional shares will be freely tradable, additional shares of common stock will be eligible for sale in the public market beginning 90 days after the date of this prospectus, subject to volume, manner of sale and other limitations of Rule 144 and Rule 701, additional shares of common stock will be available for sale in the public market beginning 180 days after the date of this prospectus following the expiration of lock-up agreements between some of our stockholders and the underwriters, and shares issued or issuable upon exercise of options and warrants vested as of the expiration of the lock-up period will be eligible for sale at that time. The representatives of the underwriters may release these stockholders from their lock-up agreements with the underwriters at any time and without notice, which would allow for earlier sales of shares in the public market. Sales of stock by these stockholders could have a material adverse effect on the market price of our common stock.

In addition, promptly following the completion of this offering, we intend to file one or more registration statements on Form S-8 registering the issuance of approximately shares of common stock subject to options or other equity awards issued or reserved for future issuance under our 2004 Plan and our 2013 Plan. Shares registered under these registration statements on Form S-8 will be available for sale in the public market subject to vesting arrangements and exercise of options, the lock-up agreements described above and the restrictions of Rule 144 in the case of our affiliates. Holders of approximately shares of our common stock are entitled to rights with respect to the registration of their shares under the Securities Act of 1933, as

amended, or the Securities Act, subject to the 180-day lock-up arrangement described above. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock.

Our management will have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds from this offering and our stockholders will not have the opportunity as part of their investment decision to assess whether the net proceeds are being used appropriately. You may not agree with our decisions, and our use of the proceeds may not yield any return on your investment. Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. Our failure to apply the net proceeds of this offering effectively could compromise our ability to pursue our growth strategy and we might not be able to yield a significant return, if any, on our investment of these net proceeds. You will not have the opportunity to influence our decisions on how to use our net proceeds from this offering. Pending their use, we may invest the net proceeds from this offering in short-term, investment-grade, interest-bearing instruments and U.S. government securities. These temporary investments are not likely to yield a significant return.

If you purchase our common stock in this offering, you will incur immediate and substantial dilution in the book value of your shares.

The initial public offering price is substantially higher than the net tangible book value per share of our common stock. Investors purchasing common stock in this offering will pay a price per share that substantially exceeds the book value of our tangible assets after subtracting our liabilities. Based on an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, you will experience immediate dilution of $ per share, representing the difference between our pro forma net tangible book value per share, after giving effect to this offering, and the assumed initial public offering price. In addition, purchasers of common stock in this offering will have contributed approximately % of the aggregate price paid by all purchasers of our stock but will own only approximately % of our common stock outstanding after this offering. In addition, as of September 30, 2013, options and warrants to purchase an aggregate of 1,275,028 shares of our common stock at a weighted average exercise price of $0.67 per share were outstanding. The exercise of any of these options or warrants would result in additional dilution. As a result of the dilution to investors purchasing shares in this offering, investors may receive significantly less than the purchase price paid in this offering, if anything, in the event of a liquidation or sale of our company.

We are an "emerging growth company" and as a result of the reduced disclosure and governance requirements applicable to emerging growth companies, our common stock may be less attractive to investors.

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, or JOBS Act, and we intend to take advantage of some of the exemptions from reporting requirements that are applicable to other public companies that are not emerging growth companies, including not being required to comply with the auditor attestation requirements of Section 404, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We may take advantage of these reporting exemptions until we are no longer an emerging growth company. We cannot predict if investors will find our common stock less attractive because we will rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the completion of this offering, (b) in which we have total annual gross revenue of at least $1.0 billion, or (c) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds $700 million as of the prior June 30th, and (2) the date on which we have issued more than $1.0 billion in non-convertible debt during the prior three-

year period. To the extent we are no longer eligible to use exemptions from various reporting requirements under the JOBS Act, we may be unable to realize our anticipated cost savings from these exemptions, which could have a material adverse impact on our operating results.

The use of our net operating loss carryforwards and research tax credits may be limited.

Our net operating loss carryforwards and research and development tax credits may expire and not be used. As of December 31, 2012, we had federal and state net operating loss carryforwards of approximately $55.5 million and $50.8 million, respectively, and we also had federal and state research and development tax credit carryforwards of approximately $1.8 million and $0.6 million, respectively. Our net operating loss carryforwards will begin expiring in 2027 for federal purposes and 2028 for state purposes if we have not used them prior to that time, and our federal tax credits will begin expiring in 2025 unless previously used. To the extent we have not exchanged our Connecticut research tax credits for a tax refund, those tax credits carryforward indefinitely. Additionally, our ability to use any net operating loss and credit carryforwards to offset taxable income or tax, respectively, in the future will be limited under Internal Revenue Code Sections 382 and 383, respectively, if we have a cumulative change in ownership of more than 50% within a three-year period. The completion of this offering, together with private placements and other transactions that have occurred, may trigger, or may have already triggered such an ownership change. In addition, since we will need to raise substantial additional funding to finance our operations, we may undergo further ownership changes in the future. We have never completed an analysis as to whether such a change of ownership has occurred, but in such an event, we will be limited regarding the amount of net operating loss carryforwards and research tax credits that could be utilized annually in the future to offset taxable income or tax, respectively. Any such annual limitation may significantly reduce the utilization of the net operating loss carryforwards and research tax credits before they expire. In addition, certain states have suspended use of net operating loss carryforwards for certain taxable years, and other states are considering similar measures. As a result, we may incur higher state income tax expense in the future. Depending on our future tax position, continued suspension of our ability to use net operating loss carryforwards in states in which we are subject to income tax could have an adverse impact on our results of operations and financial condition.

Because we do not intend to pay dividends on our common stock, your returns will be limited to any increase in the value of our stock.

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings to support our operations and finance the growth and development of our business and do not anticipate declaring or paying any cash dividends on our common stock for the foreseeable future. Any return to stockholders will therefore be limited to the appreciation of their stock, if any. Investors seeking cash dividends should not purchase our common stock.

Provisions in our corporate charter documents and under Delaware law may prevent or frustrate attempts by our stockholders to change our management and hinder efforts to acquire a controlling interest in us, and the market price of our common stock may be lower as a result.

There are provisions in our certificate of incorporation and bylaws as they will be in effect following this offering that may make it difficult for a third party to acquire, or attempt to acquire, control of our company, even if a change in control was considered favorable by you and other stockholders. For example, our board of directors will have the authority to issue up to shares of preferred stock and to fix the price, rights, preferences, privileges, and restrictions of the preferred stock without any further vote or action by our stockholders. The issuance of shares of preferred stock may delay or prevent a change in control transaction. As a result, the market price of our common stock and the voting and other rights of our stockholders may be adversely affected. An issuance of shares of preferred stock may result in the loss of voting control to other stockholders.

Our charter documents will also contain other provisions that could have an anti-takeover effect, including:

- our board of directors will be divided into three classes, with only one class of directors elected each year;
- our stockholders will be entitled to remove directors only for cause upon a 66 2/3% vote;

- our stockholders will not be permitted to take actions by written consent;
- our stockholders will not be permitted to call a special meeting of stockholders; and
- our stockholders must give us advance notice of their intent to nominate directors or submit proposals for consideration at stockholder meetings.

In addition, we are subject to the anti-takeover provisions of Section 203 of the Delaware General Corporation Law, which regulates corporate acquisitions by prohibiting Delaware corporations from engaging in specified business combinations with particular stockholders of those companies. These provisions could discourage potential acquisition proposals and could delay or prevent a change in control transaction. They could also have the effect of discouraging others from making tender offers for our common stock, including transactions that may be in your best interests. These provisions may also prevent changes in our management or limit the price that investors are willing to pay for our stock.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve substantial risks and uncertainties. The forward-looking statements are contained principally in the sections of this prospectus titled “Prospectus Summary,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business,” but are also contained elsewhere in this prospectus. In some cases, you can identify forward-looking statements by the words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “objective,” “ongoing,” “plan,” “predict,” “project,” “potential,” “should,” “will,” or “would,” and or the negative of these terms, or other comparable terminology intended to identify statements about the future. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus, we caution you that these statements are based on a combination of facts and factors currently known by us and our expectations of the future, about which we cannot be certain. Forward-looking statements include statements about:

The forward-looking statements in this prospectus include, among other things, statements about:

- the success and timing of our preclinical studies and clinical trials, including our planned Phase 3 clinical trials for I.V. CR845;
- our plans to develop and commercialize I.V. CR845 and our other product candidates, including Oral CR845;
- our ability to obtain and maintain regulatory approval of our product candidates, including I.V. CR845 and Oral CR845, and the labeling under any approval we may obtain;
- the anticipated commercial launch of our lead product candidate, I.V. CR845;
- the performance of our current and future collaborators, including Maruishi and CKD, and our ability to maintain such collaborations;
- our ability to establish additional collaborations for our product candidates;
- the continued service of our key scientific or management personnel;
- our ability to establish commercialization and marketing capabilities;
- the size and growth of the potential markets for pain management, including the postoperative and chronic pain markets, and our other product candidates and our ability to serve those markets;
- regulatory developments in the United States and foreign countries;
- the rate and degree of market acceptance of any approved products;
- our expectations regarding the period during which we will be an emerging growth company under the JOBS Act;
- our use of the proceeds from this offering, and the clinical milestones we expect to fund with such proceeds;
- the accuracy of our estimates regarding expenses, future revenues and capital requirements;
- our ability to obtain funding for our operations;
- our ability to obtain and maintain intellectual property protection for our product candidates and our ability to operate our business without infringing on the intellectual property rights of others;
- the success of competing drugs that are or become available; and
- the performance of third-party manufacturers and clinical research organizations.

You should refer to the “Risk Factors” section of this prospectus for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

We obtained the industry and market data in this prospectus from our own research as well as from industry and general publications and surveys and studies conducted by third parties. Industry and general publications, studies and surveys generally state that the information contained therein has been obtained from sources believed to be reliable. These third parties may, in the future, alter the manner in which they conduct surveys and studies regarding the markets in which we operate our business. As a result, you should carefully consider the inherent risks and uncertainties associated with the industry and market data contained in this prospectus, including those discussed under the heading “Risk Factors.”

USE OF PROCEEDS

We estimate that the net proceeds from our issuance and sale of shares of common stock in this offering will be approximately $ million, or approximately $ million if the underwriters exercise their option to purchase additional shares in full, based on an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share would increase (decrease) our expected net proceeds from this offering by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. We may also increase or decrease the number of shares we are offering. Each increase (decrease) of 1.0 million in the number of shares we are offering would increase (decrease) the net proceeds to us from this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $ million, assuming the assumed initial public offering price stays the same.

We currently estimate that we will use the net proceeds from this offering as follows:

- approximately $44.0 million to conduct our planned Phase 3 clinical trials and other development activities for I.V. CR845;
- approximately $2.1 million to conduct our planned Phase 1 clinical trial for Oral CR845;
- approximately $4.6 million to conduct our planned Phase 2a clinical trials and other development activities for Oral CR845; and
- the remainder for working capital and other general corporate purposes.

These expected uses represent our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development, the status of and results from clinical trials, as well as any new collaborations that we may enter into with third parties for our product candidates, and any unforeseen cash needs.

As a result, our management will have broad discretion in the application of the net proceeds from this offering, and investors will be relying on the judgment of our management regarding the application of the net proceeds from this offering. The timing and amount of our actual expenditures will be based on many factors, including cash flows from operations and the anticipated growth of our business. Pending these uses, we plan to invest these net proceeds in short-term, interest bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the United States. The goal with respect to the investment of these net proceeds is capital preservation and liquidity so that such funds are readily available to fund our operations.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings to support our operations and finance the growth and development of our business. We do not intend to pay cash dividends on our common stock for the foreseeable future. Any future determination related to dividend policy will be made at the discretion of our board of directors and will depend on, among other factors, our results of operations, financial condition, capital requirements, contractual restrictions, business prospects and other factors our board of directors may deem relevant.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and our capitalization as of September 30, 2013:

- on an actual basis;
- on a pro forma basis to reflect the automatic preferred stock conversion; and
- on a pro forma as adjusted basis to further reflect the filing of our amended and restated certificate of incorporation prior to the closing of this offering and our issuance and sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this table together with our financial statements and the related notes appearing at the end of this prospectus and the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of this prospectus.

	As of September 30, 2013		
	Actual	Pro forma	Pro forma as adjusted
	(in thousands, except share and per share data) (unaudited)		
Cash and cash equivalents	$ 17,733	$ 17,733	$
Convertible preferred stock:			
Convertible Series A preferred stock, $0.001 par value; 1,677,118 shares authorized, issued and outstanding, actual; no shares designated, issued or outstanding, pro forma and pro forma as adjusted	1,677	—	
Convertible Series B preferred stock, $0.001 par value; 2,254,417 shares authorized, issued and outstanding, actual; no shares designated, issued or outstanding, pro forma and pro forma as adjusted	4,509	—	
Convertible Series C preferred stock, $0.001 par value; 10,930,946 shares authorized, issued and outstanding, actual; no shares designated, issued or outstanding, pro forma and pro forma as adjusted	33,886	—	
Convertible Series D preferred stock, $0.001 par value; 12,260,845 shares authorized, 12,045,574 shares issued and outstanding, actual; no shares designated, issued or outstanding, pro forma and pro forma as adjusted	17,518	—	
Convertible Junior A preferred stock, $0.001 par value; 2,105,263 shares authorized, issued and outstanding, actual; no shares designated, issued or outstanding, pro forma and pro forma as adjusted	7,642	—	
Convertible Junior preferred stock, $0.001 par value; 173,611 shares authorized, issued and outstanding, actual; no shares designated, issued or outstanding, pro forma and pro forma as adjusted	354	—	
Total convertible preferred stock	65,586	—	
Stockholders' (deficit) equity:			
Common stock, $0.001 par value; 50,000,000 shares authorized, 10,720,624 shares issued and outstanding, actual; 50,000,000 shares authorized, 42,106,178 shares issued and outstanding, pro forma; shares authorized, shares issued and outstanding, pro forma as adjusted	11	42	
Additional paid-in capital	8,357	73,912	
Accumulated deficit	(60,363)	(60,363)	
Total stockholder deficit	(51,995)	13,591	
Total capitalization	$ 13,591	$ 13,591	$

(1) A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, additional paid-in capital, total stockholders' deficit and total capitalization by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. Each increase (decrease) of 1.0 million in the number of shares we are offering would increase (decrease) the pro forma adjusted amount of each of cash and cash equivalents, additional paid-in capital, total stockholders' deficit and total capitalization by approximately $ million, assuming that the assumed initial public offering price stays the same.

The number of shares of our common stock to be outstanding after this offering is based on 42,106,178 shares of our common stock (including preferred stock on an as-converted basis) outstanding as of September 30, 2013, and excludes:

- 49,628 shares of common stock issuable upon exercise of an outstanding warrant as of September 30, 2013 at an exercise price of $4.03 per share;
- 1,225,400 shares of common stock issuable upon exercise of stock options outstanding as of September 30, 2013 pursuant to our 2004 Plan at a weighted-average exercise price of $0.54 per share; and
- shares of common stock reserved for issuance under our 2013 Plan, which will become effective upon the signing of the underwriting agreement for this offering.

DILUTION

If you invest in our common stock, your interest will be diluted immediately to the extent of the difference between the initial public offering price per share you will pay in this offering and the pro forma as adjusted net tangible book value per share of our common stock after this offering. Net tangible book value per share represents our total tangible assets less total liabilities, divided by the number of shares of our common stock outstanding.

As of September 30, 2013, our net tangible book value was $13.6 million, or $1.27 per share of common stock. On a pro forma basis, after giving effect to the automatic preferred stock conversion, our tangible book value would have been $13.6 million, or $0.32 per share of common stock. After giving further effect to our issuance and sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, the pro forma as adjusted net tangible book value as of September 30, 2013 would have been $ million, or $ per share. This represents an immediate increase in pro forma net tangible book value to existing stockholders of $ per share and an immediate dilution to new investors purchasing common stock in this offering of $ per share.

The following table illustrates this per share dilution to the new investors purchasing shares of common stock in this offering:

Assumed initial public offering price per share		$
Net tangible book value per share at September 30, 2013	$ 1.27	
Decrease in pro forma net tangible book value per share attributable to the automatic preferred stock conversion	(0.95)	
Pro forma net tangible book value per share as of September 30, 2013	0.32	
Increase in net tangible book value per share attributable to new investors purchasing shares in this offering		
Pro forma as adjusted net tangible book value per share after this offering		
Dilution per share to new investors in this offering		$

A $1.00 increase or decrease in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease the pro forma as adjusted net tangible book value after this offering by $ per share and the dilution in net tangible book value per share to investors in this offering by $ per share, assuming that the number of shares offered by us, as set forth on the cover of this prospectus, remains the same. Each increase or decrease of 1.0 million shares in the number of shares offered by us would increase or decrease our pro forma as adjusted net tangible book value per share after this offering by approximately $ per share and decrease or increase the dilution to investors participating in this offering by approximately $ per share, assuming that the assumed initial public offering price remains the same.

If the underwriters exercise their option to purchase additional shares in full, the pro forma as adjusted net tangible book value will increase to $ per share, representing an immediate increase in pro forma net tangible book value to existing stockholders of $ per share and an immediate dilution in pro forma net tangible book value of $ per share to new investors.

The following table summarizes, on the pro forma as adjusted basis described above as of September 30, 2013, the differences between the number of shares of common stock purchased from us, the total consideration paid to us, and the average price per share paid or to be paid by existing stockholders and by new investors purchasing shares of common stock in this offering. The calculation below is based on an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, before the deduction of estimated underwriting discounts and commissions and estimated offering expenses payable by us:

	Shares Purchased		Total Consideration		Average Price per Share
	Number	Percent	Amount	Percent	
Existing stockholders		%		%	
New investors					
Total		%		%	

The foregoing table and calculations are based on 42,106,178 shares of our common stock (including preferred stock on an as-converted basis) outstanding as of September 30, 2013 and exclude:

- 49,628 shares of common stock issuable upon exercise of an outstanding warrant as of September 30, 2013 at an exercise price of $4.03 per share;
- 1,225,400 shares of common stock issuable upon exercise of stock options outstanding as of September 30, 2013 pursuant to our 2004 Plan at a weighted-average exercise price of $0.54 per share; and
- shares of common stock reserved for issuance under our 2013 Plan, which will become effective upon the signing of the underwriting agreement for this offering.

To the extent that options or warrants are exercised or new equity awards are issued under our 2013 Plan, there will be further dilution to investors participating in this offering. In addition, we may choose to raise additional capital in the future because of market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

SELECTED FINANCIAL DATA

The following selected financial data as of and for the years ended December 31, 2011 and December 31, 2012 have been derived from our audited financial statements included elsewhere in this prospectus. The following selected financial data for the nine months ended September 30, 2012 and 2013 and as of September 30, 2013 have been derived from our unaudited financial statements included elsewhere in this prospectus. Our unaudited financial statements have been prepared on the same basis as the audited financial statements and, in the opinion of our management, include all adjustments, consisting of normal recurring adjustments and accruals, necessary for a fair statement of the information for the interim periods. Our historical results for any prior periods are not necessarily indicative of results to be expected for a full year or for any future period.

You should read the following selected financial data in conjunction with our financial statements and the related notes appearing elsewhere in this prospectus and the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of this prospectus.

	Year Ended December 31,		Nine Months Ended September 30,	
	2011	2012	2012	2013
			(unaudited)	
	(in thousands, except share and per share data)			
Statement of Operations Data:				
Total revenue	$ —	$ 1,190	$ 1,190	$ 10,991
Operating expenses:				
Research and development	7,159	4,597	3,574	6,707
General and administrative	2,407	2,829	2,083	2,457
Total operating expenses	9,566	7,426	5,657	9,164
Operating income (loss)	(9,566)	(6,236)	(4,467)	1,827
Total other expense	(275)	(66)	(28)	(3,724)
Loss before benefit from income taxes	(9,841)	(6,302)	(4,495)	(1,897)
Benefit from income taxes	35	31	21	27
Net loss	$ (9,806)	$ (6,271)	$ (4,474)	$ (1,870)
Net loss available to common stockholders	$ (9,806)	$ (6,271)	$ (4,474)	$ (979)
Net loss per share:				
Basic	$ (1.21)	$ (0.76)	$ (0.54)	$ (0.10)
Diluted	$ (1.21)	$ (0.76)	$ (0.54)	$ (0.10)
Weighted average shares:				
Basic	8,089,370	8,249,996	8,225,901	10,202,188
Diluted	8,089,370	8,249,996	8,225,901	10,202,188
Pro forma loss per share available to common stockholders (unaudited):				
Basic		$ (0.17)		$ (0.03)
Diluted		$ (0.17)		$ (0.03)
Pro forma weighted average shares outstanding (unaudited):				
Basic		37,034,970		38,601,062
Diluted		37,034,970		38,601,062

	As of December 31,		As of September 30,
	2011	2012	2013
		(in thousands)	(unaudited)
Balance Sheet Data:			
Cash and cash equivalents	$ 4,097	$ 1,117	$ 17,733
Total assets	10,685	5,537	22,068
Deferred revenue	—	—	4,434
Total liabilities	4,581	3,098	8,477
Total convertible preferred stock	58,168	58,522	65,586
Total stockholders' (deficit) equity	(52,064)	(58,133)	(51,995)

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with our financial statements and the related notes appearing at the end of this prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. You should read the "Risk Factors" section of this prospectus for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

We are a clinical-stage biopharmaceutical company focused on developing and commercializing new chemical entities designed to alleviate pain by selectively targeting kappa opioid receptors. We are developing a novel and proprietary class of product candidates that target the body's peripheral nervous system and have demonstrated efficacy in patients with moderate-to-severe pain without inducing many of the undesirable side effects associated with currently available pain therapeutics. Our most advanced product candidate, intravenous, or I.V., CR845, has demonstrated significant pain relief and favorable tolerability in three Phase 2 clinical trials in patients with acute postoperative pain. We plan to begin Phase 3 registration trials for I.V. CR845 in the second half of 2014. We are also developing an oral version of CR845, or Oral CR845, for acute and chronic pain, for which we have successfully completed a Phase 1 clinical trial to demonstrate the ability to deliver CR845 orally.

We commenced operations in 2004, and our primary activities to date have been organizing and staffing our company, developing our product candidates, including conducting preclinical studies and clinical trials of CR845-based product candidates and raising capital. To date, we have financed our operations primarily through sales of our equity and debt securities and payments from license agreements. We have no products currently available for sale, and substantially all of our revenue to date has been revenue from license agreements, although we have received nominal amounts of revenue under research grants.

Since our inception and through September 30, 2013, we have received net proceeds of $65.9 million from the sale of various series of convertible preferred stock, $3.9 million from the issuance of convertible promissory notes and $3.8 million from the issuance of long-term debt. In addition to our financing activities, we have received aggregate payments of $28.8 million pursuant to license agreements related to CR845 and an earlier product candidate for which development efforts ceased in 2007. In April 2013, we received $15.0 million as an upfront payment pursuant to a license agreement with Maruishi Pharmaceutical Co., Ltd., or Maruishi, in connection with the license of rights to CR845 in Japan. In 2012, we received aggregate upfront and milestone payments of $1.2 million pursuant to a license agreement with Chong Kun Dang Pharmaceutical Corporation, or CKD, in connection with the license of rights to CR845 in South Korea.

Since inception, we have incurred significant operating and net losses. Our net losses were $9.8 million and $6.3 million for the years ended December 31, 2011 and December 2012, respectively. We generated a net loss of $1.9 million for the nine months ended September 30, 2013, although we recognized $11.0 million of revenue for the period in connection with the Maruishi license, and we expect to continue to incur significant expenses and operating and net losses over at least the next several years. As of September 30, 2013, we had an accumulated deficit of $60.4 million. Our net losses may fluctuate significantly from quarter to quarter and year to year, depending on the timing of our clinical trials, the receipt of milestone payments, if any, under our collaborations with Maruishi and CKD, the receipt of payments under any future collaborations we may enter into, and our expenditures on other research and development activities. We anticipate that our expenses will increase substantially as we:

- initiate our planned Phase 3 clinical trials of I.V. CR845, beginning in the second half of 2014;

- continue the research and development of our Oral CR845 and other product candidates;
- seek regulatory approvals for I.V. CR845 and any product candidates that successfully complete clinical trials;
- establish a sales, marketing and distribution infrastructure and scale up external manufacturing capabilities to commercialize any products for which we may obtain regulatory approval;
- maintain, expand and protect our global intellectual property portfolio;
- hire additional clinical, quality control and scientific personnel; and
- add operational, financial and management information systems and personnel, including personnel to support our drug development and potential future commercialization efforts.

To fund further operations, we will need to raise capital in addition to the net proceeds of this offering. As of September 30, 2013, we had cash and cash equivalents of approximately $17.7 million. We may obtain additional financing in the future through the issuance of our common stock, through other equity or debt financings or through collaborations or partnerships with other companies. We may not be able to raise additional capital on terms acceptable to us, or at all, and any failure to raise capital as and when needed could compromise our ability to execute on our business plan. Although it is difficult to predict future liquidity requirements, we believe that the net proceeds from this offering and our existing cash, cash equivalents and short-term investments, together with interest thereon, will be sufficient to fund our operations for at least the next 24 months. However, our ability to successfully transition to profitability will be dependent upon achieving a level of revenues adequate to support our cost structure. We cannot assure you that we will ever be profitable or generate positive cash flow from operating activities.

Collaborations with Maruishi and CKD

To date, we have entered into two license agreements relating to the development of CR845.

In April 2013, we entered into a license agreement with Maruishi under which we granted Maruishi an exclusive license to develop, manufacture and commercialize drug products containing CR845 in Japan in the acute pain and uremic pruritus fields. We and Maruishi are required to use commercially reasonable efforts, at our respective expense, to develop, obtain regulatory approval for and commercialize CR845 in the United States and Japan, respectively. In addition, we will provide Maruishi specific clinical development services for CR845 in Maruishi's field of use. Under the terms of the agreement, we received a non-refundable and non-creditable upfront license fee of $15.0 million and are eligible to receive up to an aggregate of $6.0 million in clinical development milestones and $4.5 million in regulatory milestones. We are also eligible to receive tiered royalties, with percentages ranging from the low double digits to the low twenties, based on net sales of products containing CR845 in Japan, if any, and share in any sub-license fees. In addition, in connection with the license agreement, Maruishi purchased 2,105,263 shares of our Junior A Preferred Stock for $3.80 per share, for an aggregate purchase price of $8.0 million.

In April 2012, we entered into a license agreement with CKD under which we granted CKD an exclusive license to develop, manufacture and commercialize drug products containing CR845 in South Korea. We and CKD are required to use commercially reasonable efforts, at our respective expense, to develop, obtain regulatory approval for and commercialize CR845 in the United States and South Korea, respectively. Under the terms of the agreement, we received a non-refundable and non-creditable upfront license fee of $0.6 million and are eligible to receive up to an aggregate of $2.3 million in clinical development milestones and $1.5 million in regulatory milestones. We also issued 173,611 shares of our Junior Preferred Stock to CKD in consideration for $0.4 million. During 2012, we received $0.6 million from CKD upon the achievement of clinical development milestones under the license agreement. We are also eligible to receive tiered royalties with percentages ranging from the high single digits to high teens, based on net sales of products containing CR845 in South Korea, if any, and share in any sub-license fees.

Components of Operating Results

Revenue

To date, we have not generated any revenue from product sales and do not expect to generate any revenue from the sale of products in the near future. Substantially all of our revenue recognized to date has consisted of upfront payments under license agreements with Maruishi and CKD for CR845, as well as license agreements for CR665, our first generation drug program for which development efforts have ceased. During 2012, we also received $0.6 million of clinical development milestone payments under our license agreement with CKD. During the nine months ended September 30, 2013 (unaudited), we received revenue from the sale of clinical compound and earned a portion of the Maruishi deferred revenue. However, we have not received any other significant development or regulatory milestone payments, or any royalties, under these collaborations.

Research and Development

To date, our research and development expenses have related primarily to the development of CR845. Research and development expenses consist of expenses incurred in performing research and development activities, including compensation and benefits for full-time research and development employees, facilities expenses, including laboratory build-out costs, overhead expenses, cost of laboratory supplies, clinical trial and related clinical manufacturing expenses, third-party formulation expenses, fees paid to contract research organizations, or CROs, and other consultants, stock-based compensation for research and development employees and other outside expenses. Our research and development expenses also include expenses related to preclinical activities, such as drug discovery, target validation and lead optimization for CR845 and our other, earlier stage programs.

Research and development costs are expensed as incurred. Non-refundable advance payments for goods or services to be received in the future for use in research and development activities are deferred and capitalized. The capitalized amounts are expensed as the related goods are delivered or the services are performed.

Most of our research and development costs have been external costs, which we track on a program-by-program basis. Our internal research and development costs are primarily compensation expenses for our full-time research and development employees. We do not track internal research and development costs on a program-by-program basis.

Research and development activities are central to our business model. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. We expect our research and development expenses to increase significantly over the next several years as we seek to progress I.V. CR845 through Phase 3 trials and the FDA approval process. However, it is difficult to determine with certainty the duration and completion costs of our current or future preclinical programs and clinical trials of our product candidates, or if, when or to what extent we will generate revenues from the commercialization and sale of any of our product candidates that obtain regulatory approval. We may never succeed in achieving regulatory approval for any of our product candidates.

The duration, costs and timing of clinical trials and development of our product candidates will depend on a variety of factors including:

- per patient trial costs;
- the number of patients that participate in the trials;
- the number of sites included in the trials;
- the countries in which the trial is conducted;
- the length of time required to enroll eligible patients;

- the number of doses that patients receive;
- the drop-out or discontinuation rates of patients;
- potential additional safety monitoring or other studies requested by regulatory agencies;
- the duration of patient follow-up; and
- the efficacy and safety profile of the product candidate.

In addition, the probability of success for each product candidate will depend on numerous factors, including competition, manufacturing capability and commercial viability. We will determine which programs to pursue and how much to fund each program in response to the scientific and clinical success of each product candidate, as well as an assessment of each product candidate's commercial potential.

General and Administrative

General and administrative expenses consist primarily of salaries and other related costs, including stock-based compensation, for personnel in executive, finance, accounting, business development and human resources functions. Other significant costs include facility costs not otherwise included in research and development expenses, legal fees and fees for accounting and consulting services.

We anticipate that our general and administrative expenses will increase in the future to support our continued research and development activities, potential commercialization of our product candidates and the increased costs of operating as a public company. These increases will likely include increased costs related to the hiring of additional personnel and fees to outside consultants, lawyers and accountants, as well as expenses related to services associated with maintaining compliance with NASDAQ listing rules and SEC requirements, insurance, and investor relations costs. In addition, if I.V. CR845 or any future product candidate obtains regulatory approval for marketing, we expect to incur expenses associated with building a sales and marketing team.

Interest Expense, Net

Interest expense, net, consists of interest paid on debt instruments, amortized deferred financing costs and amortized debt discount, as offset by any interest income earned on our cash and cash equivalents. The debt discount primarily consists of the intrinsic value of the beneficial conversion feature embedded in the convertible promissory notes we issued in December 2012 and February 2013.

Other Income (Expense), Net

Other income (expense), net, consists of the change in the fair value of the investor rights and obligations related to our Series D Convertible Preferred Stock financing, which we refer to as the investor right/obligation. This financing was completed in four tranches of $5.0 million, $3.0 million, $2.0 million and $5.0 million in July 2010, March 2011, July 2011 and August 2011, respectively. In connection with the first closing of the Series D Convertible Preferred Stock financing, we granted investors the right and, pursuant to the terms and conditions of the financing, such investors committed, to purchase additional shares of Series D Convertible Preferred Stock in subsequent closings. In accordance with GAAP, the investor right/obligation represented a free-standing financial instrument, which we recorded at its fair value of $733,900 as a liability on the date of the first closing. We then marked this liability to market at each subsequent reporting date that the instrument remained outstanding, reflecting the increase (decrease) in the value of the investor right/obligation as other (expense) income in our results of operations. Because the rights and obligations related to the Series D Convertible Preferred Stock financing terminated upon the final closing of Series D Convertible Preferred Stock in August 2011, we no longer record other income (expense) in connection with the investor right/obligation from that point forward.

Benefit from Income Taxes

The benefit from income taxes relates to state research and development tax credits exchanged for cash pursuant to the Connecticut Research and Development Tax Credit Exchange Program, which permits qualified

small businesses engaged in research and development activities within Connecticut to exchange their unused research and development tax credits for a cash amount equal to 65% of the value of the exchanged credits.

Results of Operations

Comparison of the Nine Months Ended September 30, 2012 and 2013

The following table sets forth our results of operations for the nine months ended September 30, 2012 and 2013 (in thousands).

	Nine months ended September 30,		Period-to-Period Change
	2012	2013	
	(unaudited)		(unaudited)
Revenue	$ 1,190	$10,991	$ 9,801
Cost and expenses:			
Research and development	3,574	6,707	3,133
General and administrative	2,083	2,457	374
	5,657	9,164	3,507
Operating income (loss)	(4,467)	1,827	6,294
Interest (expense), net	(28)	(3,724)	(3,696)
Loss before benefit from income taxes	(4,495)	(1,897)	2,598
Benefit from income taxes	21	27	6
Net loss	$(4,474)	$ (1,870)	$ 2,604

Revenue

Revenue increased $9.8 million, to $11.0 million, for the nine months ended September 30, 2013, compared to the same period of 2012. The increase was primarily a result of our recognition as revenue of a portion of the upfront payment received upon entry into the license agreement with Maruishi in April 2013. The revenue recognized in the 2012 period represents the revenue recognized in connection with the license agreement with CKD in April 2012.

Research and development expenses

Research and development expenses increased by $3.1 million to $6.7 million, for the nine months ended September 30, 2013, compared to the same period of 2012. The increase was primarily a result of a $0.2 million increase in payroll and recruiting costs, a $0.2 million increase in consultant services in support of preclinical studies and clinical trials, a $2.9 million increase in direct preclinical studies and clinical trial costs and a $0.1 million increase in travel costs, partially offset by an aggregate $0.2 million decrease in facility costs and depreciation and amortization expense. The increase in clinical trial costs resulted from the completion of the Phase 2 bunionectomy trial.

The following table summarizes our research and development expenses by product candidate for the nine months ended September 30, 2012 and 2013 (in thousands):

	Nine Months Ended September 30,	
	2012	2013
External research and development expenses:		
I.V. CR845	$1,320	$ 3,352
Oral CR845	168	1,194
Internal research and development expenses	2,086	2,161
Total research and development expenses	$3,574	$ 6,707

General and administrative expenses

General and administrative expenses increased by $0.4 million, to $2.5 million, for the nine months ended September 30, 2013, compared to the same period of 2012. The increase was primarily attributable to consulting services incurred in connection with the Maruishi license agreement of $0.4 million and a $0.1 million increase in payroll costs.

Interest expense, net

Interest expense, net, increased by $3.7 million, to $3.7 million, for the nine months ended September 30, 2013, compared to the same period of 2012. The increase in expense was due to $3.7 million of non-cash expenses in connection with the convertible promissory notes, including the accretion of debt discount relating to the intrinsic value of the beneficial conversion feature embedded in the notes and amortization of deferred financing costs, and accrued interest expense on the convertible promissory notes we issued in December 2012 and February 2013.

Comparison of the years ended December 31, 2011 and 2012

The following table sets forth our results of operations for the years ended December 31, 2011 and 2012 (in thousands).

	Year Ended December 31,		Period-to-Period Change
	2011	2012	
Revenue	$ —	$ 1,190	$ 1,190
Cost and expenses:			
Research and development	7,159	4,597	(2,562)
General and administrative	2,407	2,829	422
	9,566	7,426	(2,140)
Operating loss	(9,566)	(6,236)	3,330
Other (expense):			
Interest (expense), net	(95)	(66)	29
Other (expense)	(180)	—	180
	(275)	(66)	209
Loss before benefit from income taxes	(9,841)	(6,302)	3,539
Benefit from income taxes	35	31	(4)
Net loss	$(9,806)	$(6,271)	$ 3,535

Revenue

Revenue for the year ended December 31, 2012 was $1.2 million, consisting of $0.6 million, net of foreign taxes, related to the upfront payment received from CKD and $0.6 million, net of foreign withholding taxes, received from CKD upon the achievement of clinical development milestones under the agreement. We did not generate any revenue in 2011.

Research and development expenses

Research and development expenses decreased by $2.6 million, to $4.6 million, for the year ended December 31, 2012, compared to 2011. The decrease resulted primarily from a $2.1 million decrease in expenses related to our Phase 2 clinical trial of I.V. CR845, which was completed in early 2012, a $0.1 million decrease in payroll costs as a result of a workforce reduction effected in 2011 and a $0.1 million reduction in depreciation expense.

The following table summarizes our research and development expenses by product candidate for the years ended December 31, 2011 and 2012 (in thousands):

	Year Ended December 31,	
	2011	2012
External research and development expenses:		
I.V. CR845	$3,123	$1,570
Oral CR845	874	351
Internal research and development expenses	3,162	2,676
Total research and development expenses	$7,159	$4,597

General and administrative expenses

General and administrative expenses increased by $0.4 million, to $2.8 million, for the year ended December 31, 2012, compared to 2011. The increase resulted primarily from a $0.3 million increase in consulting expenses as a result of the engagement of consultants for business development efforts and a $0.3 million loss on the sale of fixed assets consisting of idle laboratory equipment, partially offset by a $0.2 million reduction in payroll costs as a result of a workforce reduction in 2011.

Interest expense, net

Interest expense, net, decreased by $29,000, to $66,000, for the year ended December 31, 2012, compared to 2011. The decrease resulted primarily from a reduction in the outstanding principal balance on our loan from Connecticut Innovations Inc., or CII.

Other expense

Other expense for the year ended December 31, 2011 was $0.2 million. This expense related to an increase in the fair value of the investor right/obligation. There was no corresponding other expense incurred in 2012, as the investor right/obligation was terminated upon the date of the last closing of our Series D Convertible Preferred Stock financing in 2011.

Liquidity and Capital Resources

Sources of Liquidity

Since our inception and through September 30, 2013, we have raised an aggregate of $102.8 million to fund our operations, of which $28.9 million consisted of upfront and milestone payments under our license agreements, primarily with Maruishi and CKD, $65.9 million consisted of proceeds from the sale of shares of our convertible preferred stock and $7.7 million consisted of net proceeds from debt financings. As of September 30, 2013, we had $17.7 million in cash and cash equivalents.

In addition to our existing cash and cash equivalents, we are potentially eligible to earn a significant amount of milestone payments and royalties under our license agreements with Maruishi and CKD. Our ability to earn these payments and their timing is dependent upon the outcome of I.V. and Oral CR845 development activities and, potentially, commercialization. As a result, our receipt of any such amounts is uncertain at this time and we may never receive any of these amounts.

Convertible Promissory Notes

In December 2012 and February 2013, we issued an aggregate of $4.0 million principal amount of convertible promissory notes due August 28, 2013. The notes bore interest at 8% per annum and included both optional and mandatory conversion features. The optional conversion feature allowed each note holder, at any

time prior to maturity, to elect to convert the balance of the note plus accrued interest into shares of our Series D Convertible Preferred Stock at a conversion price of approximately $1.44 per share. The mandatory conversion feature of the notes provided that, if we issued or sold equity securities of not less than $10.0 million on or before the maturity date, the notes plus all accrued interest thereon would automatically convert into shares of the issued class of equity securities at a price per share equal to 90% of the cash price paid by the investors in the new equity securities.

We did not need to complete an equity financing prior to August 28, 2013, which would have triggered the mandatory conversion of the notes. In August 2013, certain holders of notes elected to convert notes in the aggregate amount of $3.9 million in principal plus accrued interest into 2,692,291 shares of Series D Preferred Stock. Subsequent to September 30, 2013, we repaid the remaining notes in the aggregate amount of $311,000 in principal and accrued interest.

Connecticut Innovations, Inc. Term Loan

In September 2007, we entered into a $4.0 million term loan with CII. The loan bore interest at 7.0% rate and was payable in monthly installments over five years. In connection with the loan, we also issued a warrant to CII to purchase 49,628 shares of common stock at an exercise price of $4.03. In September 2012, we amended the terms of the loan to defer all payments due between July 1, 2012 and December 31, 2012 until January 2, 2013 and to increase the interest rate on the loan to 8.5%. We repaid all outstanding amounts under the loan from CII, including accrued interest, in April 2013. The warrant remains outstanding and expires September 25, 2014.

Funding Requirements

Our primary uses of capital have been, and we expect will continue to be, compensation and related expenses, third-party clinical research and development services, laboratory and related supplies, clinical costs, legal and other regulatory expenses and general overhead costs.

The successful development of any of our product candidates is highly uncertain. As such, at this time, we cannot reasonably estimate or know the nature, timing and costs of the efforts that will be necessary to complete the development of I.V. CR845, Oral CR845 or our other current and future product candidates. We are also unable to predict when, if ever, we will generate any further material net cash inflows from CR845. This is due to the numerous risks and uncertainties associated with developing medicines, including the uncertainty of:

- successful enrollment in, and completion of clinical trials;
- receipt of marketing approvals from applicable regulatory authorities;
- establishing commercial manufacturing capabilities or making arrangements with third-party manufacturers;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our product candidates;
- launching commercial sales of the products, if and when approved, whether alone or in collaboration with others;
- achieving meaningful penetration in the markets which we seek to serve; and
- obtaining adequate coverage or reimbursement by third parties, such as commercial payors and government healthcare programs, including Medicare and Medicaid.

A change in the outcome of any of these variables with respect to the development of I.V. CR845, Oral CR845 or any of our future product candidates would significantly change the costs and timing associated with the development of that product candidate.

Because our product candidates are still in the early stages of clinical and preclinical development and the outcome of these efforts is uncertain, we cannot estimate the actual amounts necessary to successfully complete the development and commercialization of our product candidates or whether, or when, we may achieve profitability. Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity or debt financings and collaboration arrangements, including our existing collaboration agreements with Maruishi and CKD.

We may require additional capital beyond our currently anticipated amounts and this additional capital may not be available when needed, on reasonable terms, or at all. To the extent that we raise additional capital through the future sale of equity or debt, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our existing common stockholders. If we raise additional funds through the issuance of debt securities, these securities could contain covenants that would restrict our operations. If we raise additional funds through collaboration arrangements in the future, we may have to relinquish valuable rights to our technologies, future revenue streams or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our drug development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Outlook

Based on our research and development plans and our timing expectations related to the progress of our programs, we expect that the net proceeds from this offering, together with our existing cash and cash equivalents as of September 30, 2013, will enable us to fund our operating expenses and capital expenditure requirements for at least the next 24 months, without giving effect to any potential milestone payments we may receive under our collaboration agreements. Because the process of testing product candidates in clinical trials is costly and the timing of progress in these trials is uncertain, it is possible that the assumptions upon which we have based this estimate may prove to be wrong, and we could use our capital resources sooner than we presently expect.

Cash Flows

The following is a summary of cash flows for the years ended December 31, 2011 and 2012 and the nine months ended September 30, 2012 and 2013 (in thousands).

	Year Ended December 31,		Nine Months Ended September 30,	
	2011	2012	2012	2013
			(unaudited)	
Net cash (used in) provided by operating activities	$(6,845)	$(6,031)	$(4,536)	$ 7,893
Net cash (used in) provided by investing activities	45	511	511	(4)
Net cash provided by financing activities	9,136	2,540	49	8,727
Net (decrease) increase in cash and cash equivalents	$ 2,336	$(2,980)	$(3,976)	$16,616

Net cash (used in) provided by operating activities

Net cash provided by operating activities was $7.9 million for the nine months ended September 30, 2013. Net cash provided by operating activities for the period consisted primarily of net loss of $1.9 million, a $5.5 million cash inflow from net changes in operating assets and liabilities and $4.2 million of net non-cash charges. Net non-cash charges primarily consisted of $3.6 million of aggregate non-cash interest and amortization of beneficial conversion feature on our convertible promissory notes and depreciation and amortization expense of $0.6 million, partially offset by deferred rent costs of $0.2 million. The net change in operating assets and liabilities primarily consisted of $4.4 million of deferred revenue from the Maruishi license transaction and a $1.2 million increase in accounts payable and accrued expenses.

Net cash used in operating activities was $4.5 million for the nine months ended September 30, 2012. Net cash used in operating activities for the period consisted primarily of net loss of $4.5 million and a $1.0 million cash outflow from net changes in operating assets and liabilities, partially offset by $1.0 million of net non-cash charges. Net non-cash charges primarily consisted of $0.8 million of depreciation and amortization expense, partially offset by deferred rent costs of $0.1 million. The net change in operating assets and liabilities primarily consisted of a $1.4 million decrease in accounts payable and accrued expenses, partially offset by a $0.3 million decrease in restricted cash and a $0.1 million decrease in prepaid expenses.

Net cash used in operating activities was $6.0 million for the year ended December 31, 2012. Net cash used in operating activities for the period consisted primarily of net loss of $6.3 million and a $0.9 million cash outflow from net changes in operating assets and liabilities, partially offset by $1.2 million of net non-cash charges. Net non-cash charges primarily consisted of $1.0 million of depreciation and amortization expense, a $0.3 million loss on the sale of assets and $0.1 million of stock-based compensation expense, partially offset by deferred rent costs of $0.2 million. The net change in operating assets and liabilities primarily consisted of a $1.3 million decrease in accounts payable and accrued expenses, comprised mainly of clinical trial payments, partially offset by a decrease in restricted cash of $0.3 million.

Net cash used in operating activities was $6.8 million for the year ended December 31, 2011. Net cash used in operating activities for the period consisted primarily of net loss of $9.8 million, partially offset by a $1.7 million cash inflow from net changes in operating assets and liabilities and $1.2 million of net non-cash charges. Net non-cash charges primarily consisted of $1.2 million of depreciation and amortization expense, a $0.2 million increase in the fair value of our investor right/obligation and $0.1 million of stock-based compensation expense, partially offset by deferred rent costs of $0.2 million. The net change in operating assets and liabilities primarily consisted of a $1.5 million increase in accounts payable and accrued expenses, comprised mainly of clinical trial costs incurred, and a decrease in restricted cash of $0.3 million.

Net cash provided by (used in) investing activities

Net cash provided by investing activities was $0.5 million, $0.5 million and $45,000 for the nine months ended September 30, 2012, the year ended December 31, 2012 and the year ended December 31, 2011, respectively. For all periods, net cash provided by investing activities generally consisted of the proceeds received on the sale of laboratory equipment, which, for the year ended December 31, 2011, was partially offset by cash used to purchase office equipment. Net cash used in investing activities was $4,000 for the nine months ended September 30, 2013, representing the purchase of office equipment.

Net cash provided by financing activities

Net cash provided by financing activities was $8.7 million for the nine months ended September 30, 2013, which consisted primarily of $7.6 million of net proceeds from the sale of Junior A Convertible Preferred Stock to Maruishi and $1.4 million of net proceeds received on the issuance of convertible promissory notes, partially offset by the $0.3 million final principal payment under our loan agreement with CII.

Net cash provided by financing activities was $0.1 million for the nine months ended September 30, 2012, which consisted primarily of $0.4 million of net proceeds from the sale of Junior Convertible Preferred Stock to CKD, $0.1 million of proceeds from the exercise of stock options and $0.1 million of proceeds from the sale of common stock, partially offset by $0.4 million in principal payments under our loan agreement with CII.

Net cash provided by financing activities was $2.5 million for the year ended December 31, 2012, which consisted primarily of $2.5 million of net proceeds from the issuance of convertible promissory notes, $0.4 million of net proceeds from the sale of Junior Convertible Preferred Stock to CKD, $0.1 million of proceeds from the exercise of stock options and $0.1 million of proceeds from the sale of common stock, partially offset by $0.4 million in principal payments under our loan agreement with CII.

Net cash provided by financing activities was $9.1 million for the year ended December 31, 2011, which consisted primarily of the net proceeds of $10.0 million from the issuance of Series D Convertible Preferred Stock, partially offset by $0.8 million in principal payments made under our loan agreement with CII.

Contractual Obligations

The following summarizes our significant contractual obligations as of December 31, 2012 (in thousands).

		Payment due by period			
Contractual Obligations	**Total**	**Less than 1 year**	**1-3 years**	**3-5 years**	**More than 5 years**
Operating lease obligations	$4,234	$ 835	$ 2,659	$ 740	$ —
Long-term debt(1)	307	307	—	—	—
Convertible promissory notes(2)	473	473	—	—	—
Total	$5,014	$ 1,615	$ 2,659	$ 740	$ —

(1) Represents borrowings under our term loan from CII. All outstanding borrowings under this term loan were repaid in April 2013.

(2) The majority of these convertible notes were converted into Series D Preferred Stock in the third quarter of 2013, with the balance repaid in October 2013.

We have no material non-cancelable purchase commitments with contract manufacturers or service providers, as we have generally contracted on a cancelable purchase order basis.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined under SEC rules.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of financial condition and results of operations is based upon our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States, or U.S. GAAP. The preparation of these financial statements requires us to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities as of the date of the balance sheets and the reported amounts of license revenue and expenses during the reporting periods. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances at the time such estimates are made. Actual results and outcomes may differ materially from our estimates, judgments and assumptions. We periodically review our estimates in light of changes in circumstances, facts and experience. The effects of material revisions in estimates are reflected in the financial statements prospectively from the date of the change in estimate.

We define our critical accounting policies as those accounting principles generally accepted in the United States that require us to make subjective estimates and judgments about matters that are uncertain and are likely to have a material impact on our financial condition and results of operations as well as the specific manner in which we apply those principles. We believe the critical accounting policies used in the preparation of our financial statements which require significant estimates and judgments are as follows:

Revenue Recognition

In general, we recognize revenue when all of the following criteria are met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; our price to the customer is fixed or determinable and collectability is reasonably assured.

We have entered into license agreements to develop, manufacture and commercialize drug products. The terms of these agreements typically contain multiple elements, including licenses and research and development services. Payments to us under these agreements may include non-refundable upfront license fees, payments for research activities, payments based upon the achievement of certain clinical development and regulatory milestones and royalties on any resulting net product sales. There are no performance, cancellation, termination or refund provisions in any of the arrangements that contain material financial consequences to us.

We record revenue related to these agreements in accordance with ASC 605-25, *Revenue Recognition Multiple-Element Arrangements*. In order to account for these agreements, we identify the deliverables included within arrangement and evaluate which deliverables represent separate units of accounting based on whether certain criteria are met, including whether the delivered element has stand-alone value to the counterparty. The consideration received is then allocated among the separate units of accounting based on each unit's relative selling price. The identification of individual elements in a multiple-element arrangement and the estimation of the selling price of each element involves significant judgment, including consideration as to whether each delivered element has standalone value.

We determine the estimated selling price for deliverables within each agreement using vendor specific objective evidence, or VSOE, of selling price, if available, or third party evidence, or TPE. of selling price if VSOE is not available, or our best estimate of selling price, if neither VSOE nor TPE is available. Determining the best estimate of selling price for a deliverable requires significant judgment. Because we do not have VSOE or TPE of selling price to determine the estimated selling price of a license to our proprietary technology, we typically uses our best estimate of a selling price to estimate the selling prices for licenses to our proprietary technology. In making these estimates, we consider market conditions and entity-specific factors, including those contemplated in negotiating the agreements, as well as internally developed estimates that include assumptions related to the market opportunity, estimated development costs, probability of success and the time needed to commercialize a product candidate pursuant to the license. In validating our best estimate of selling price, we evaluate whether changes in the key assumptions used to determine our best estimate of selling price will have a significant effect on the allocation of arrangement consideration between deliverables. We recognize consideration allocated to an individual element when all other revenue recognition criteria are met for that element.

Arrangement consideration allocated to license deliverables that represent separate units of accounting are recognized as revenue at the outset of the agreement assuming the general criteria for revenue recognition noted above have been met. Arrangement consideration allocated to license deliverables which do not represent separate units of accounting are deferred. We have determined that our license deliverables represent separate units of accounting.

Arrangement consideration allocated to research and development services which represent separate units of accounting are recognized as the services are performed, assuming the general criteria for revenue recognition noted above have been met. We have determined that our research and developments services deliverables, as applicable, represent separate units of accounting.

Our license agreements have contingent milestone payments related to specified clinical development milestones and regulatory milestones. Development milestones are payable when a product candidate initiates or advances into different clinical trial phases. Regulatory milestones are payable upon submission for marketing approval with the FDA or other countries' regulatory authorities or on receipt of actual marketing approvals for the compound or for additional indications. At the inception of each agreement that includes milestone payments, we evaluate whether each milestone is substantive and at risk to both parties on the basis of the contingent nature of the milestone in accordance with ASC 605-28, *Revenue Recognition – Milestone Method*. This evaluation includes an assessment of whether (a) the consideration is commensurate with either (1) the entity's performance to achieve the milestone, or (2) the enhancement of the value of the delivered item(s) as a result of a specific outcome resulting from the entity's performance to achieve the milestone, (b) the consideration relates solely to past performance and (c) the consideration is reasonable relative to all of

the deliverables and payment terms within the arrangement. We evaluate factors such as the scientific, regulatory, commercial and other risks that must be overcome to achieve the respective milestone, the level of effort and investment required to achieve the respective milestone and whether the milestone consideration is reasonable relative to all deliverables and payment terms in the arrangement in making this assessment.

We generally consider non-refundable development and regulatory milestones that we expect to be achieved as a result of our efforts during the period of our performance obligations under the license and research agreements to be substantive and recognize them as revenue upon the achievement of the milestone, assuming all other revenue recognition criteria are met. If not considered to be substantive, we initially defer milestones and recognize them over the remaining term of our performance obligations. If no such performance obligation exist, milestones that are not considered substantive because we do not contribute effort to the achievement of such milestones are generally recognized as revenue upon achievement, assuming all other revenue recognition criteria are met.

Royalty revenue is recognized when earned. To date, no royalties have been earned or were otherwise due to us.

Stock-Based Compensation

We grant stock options to employees and non-employees as compensation for services performed. Employee awards of stock-based compensation are accounted for in accordance with ASC 718, *Stock Compensation*. ASC 718 requires all share-based payments to employees, including grants of employee stock options, to be recognized in the statements of operations based on their grant date fair values. We estimate the grant date fair value of stock options using the Black-Scholes option valuation model and the common stock values obtained with the assistance of an independent third party valuation firm.

We account for options issued to non-employees under ASC 505, *Equity-Based Payments to Non-Employees*. As such, the value of such options is periodically remeasured and income or expense is recognized during their vesting terms. Compensation cost relating to awards with service-based graded vesting schedules is recognized using the straight-line method.

We did not issue any stock options during the year ended December 31, 2012 or the nine months ended September 30, 2013.

Convertible Promissory Notes

In December 2012 and February 2013, we issued an aggregate of $4.0 million principal amount of convertible promissory notes due August 28, 2013. The sale was consummated through two closings. The initial closing was on December 28, 2012 for $2.5 million in aggregate principal amount, and the final closing was on February 28, 2013 for $1.5 million in aggregate principal amount.

The notes accrued interest at an annual rate of 8%. In accordance with the terms of the notes, each note holder, any time prior to the maturity date, could elect to convert the balance of the note plus accrued interest into shares of our Series D Preferred Stock at a conversion price of $1.44 per share. In accordance with U.S. GAAP, we determined that the intrinsic value of the beneficial conversion feature embedded in the notes issued in the initial closing was approximately $2.0 million, based on the estimated fair value of the Series D Preferred Stock as of December 31, 2012 of $2.61 per share. This intrinsic value was recorded as debt discount. We determined that the intrinsic value of the beneficial conversion feature of the notes issued in the final closing was $1.4 million, based on the estimated fair value of the Series D Preferred Stock as of February 28, 2013 of $2.81 per share, and recorded this amount as additional debt discount. The debt discount was accreted to interest expense over the term of the notes.

Prior to the maturity date of the notes, we received notice from note holders to convert notes in the aggregate amount of $3.9 million in principal plus accrued interest into 2,692,291 shares of Series D Preferred Stock, and the remaining notes in the aggregate amount of approximately $311,000 in principal and accrued interest were

repaid in October 2013. For the nine months ended September 30, 2013, we amortized $3.4 million of debt discount to interest expense.

The holders of preferred stock who did not participate in the convertible promissory note financing described above had their shares of preferred stock converted into common stock at their respective then applicable conversion rates. As a result, as of February 2013, 2,246,743 shares of preferred stock were converted into 2,398,867 shares of common stock. The company determined that this conversion represented an extinguishment of the preferred stock under U.S. GAAP and, accordingly, recorded a $0.9 million gain on extinguishment within accumulated deficit which represented the difference between the carrying value of the preferred stock and the fair value of the common stock issued upon conversion.

Preferred Stock Issuances

In connection with collaboration agreements with Maruishi and CKD, we have issued equity securities to our collaborative partners at the time of entering into our license agreements with the counterparties. In each instance, we issued shares of a newly designated series of preferred stock. Due to the absence of an active market for these shares of preferred stock, we utilized methodologies in accordance with the framework of the *Practice Aid* and the assistance of an independent third party valuation firm to estimate the fair value of the shares issued to Maruishi and CKD as of the date of issuance. Each valuation includes estimates and assumptions that require our judgment. These estimates include assumptions regarding future performance, including the probability of successful completion of preclinical studies and clinical trials and FDA approval of product candidates containing CR845, the probability and estimated time to complete financing and collaborative transactions. Significant changes to the key assumptions used in the valuations could result in different fair values of the preferred stock at the respective valuation dates.

In the Maruishi transaction, we received an upfront non-refundable, non-creditable license fee of $15.0 million. In addition to this upfront payment, Maruishi also purchased 2,105,263 shares of our newly designated Junior A Preferred Stock pursuant to a stock purchase agreement at a purchase price of $3.80 per share, for total consideration of $8.0 million. Subsequent to the agreement, we had an independent third party valuation performed to value of the Junior A Preferred Stock, and we estimate that the fair value of the Junior A Preferred Stock was $3.64 per share at the date of issuance. Based on this valuation, we assigned a value to the Junior A Preferred Stock issued to Maruishi of $7.7 million. As a result, we allocated an additional $0.3 million to the values of the license and research and development services elements under the Maruishi license arrangement. In the CKD transaction, we received an upfront non-refundable, no-creditable license fee $1.0 million and, as partial consideration, issued CKD 173,611 shares of our newly designated Junior Preferred Stock. Based on our estimated fair value of the shares of Junior Preferred Stock issued in the transaction of $2.04 per share, or the aggregate of $354,000, we recorded the remaining proceeds of $646,000 as license revenue. In each instance, we are accounting for the values allocated to the respective license arrangements in accordance with our revenue recognition policies described above. A description of these preferred stock valuations is set forth immediately below.

Preferred Stock Valuations

As described above, in connection with the issuance of the convertible promissory notes, we estimated the fair value of our Series D Preferred Stock as of the respective dates of the issuance of the notes. We also estimated the fair value of our Junior Preferred Stock and Junior A Preferred Stock as of their respective dates of issuance. These estimates of fair value were determined with the assistance of an independent third party valuation firm. The valuation reports have been used as part of our analysis in reaching our conclusion on stock values. We reviewed the valuation methodologies, which took into consideration the guidance prescribed by the *American Institute of Certified Public Accountants Technical Practice Aid, Valuation of Privately-Held Company Equity Securities Issued as Compensation*, or Practice Aid, and we believe the methodologies used are appropriate and the valuation results are representative of the fair values of our Series D Preferred Stock, Junior Preferred Stock and Junior A Preferred Stock, as applicable.

For each of the valuations described below, we utilized the income approach, consisting of a discounted cash flow, or DCF, analysis, to derive an estimated market value of the company’s equity capital. The income

approach estimates the value of our company based on our expected future cash flows discounted to present value at a rate of return commensurate with the risks associated with the cash flows. Cash flows are estimated for future periods based on projected revenue and costs. These future cash flows are discounted to their present values using a risk adjusted discount rate. Because the cash flows are only projected over a limited number of years, it is also necessary under the income approach to compute a terminal value as of the last period for which discrete cash flows are projected. This terminal value capitalizes the future cash flows beyond the projection period and is determined by taking the projected revenue for the final year of the projection and applying a terminal exit multiple. This amount is then discounted to its present value using a discount rate to arrive at the present value of the terminal value. The discounted projected cash flows and terminal value are summed together to arrive at an indicated aggregate equity value under the income approach. In applying the income approach, we derived the discount rate from an analysis of the cost of capital of our comparable industry peer companies as of each valuation date and adjusted it to reflect the risks inherent in our business cash flows. We derived the terminal exit multiple from an analysis of the revenue multiples of our comparable industry peer companies as of each valuation date.

After deriving the indicated equity value, we then employed an option-pricing method, or OPM, as prescribed by the Practice Aid, to allocate the equity value across the various classes and series of our outstanding equity securities. The OPM treats common stock and preferred stock as call options on the enterprise's equity value, with exercise prices based on the liquidation preferences of the preferred stock.

May 15, 2012—Junior Preferred Stock

In connection with the issuance of shares of our newly designated Junior Preferred Stock to CKD on May 15, 2012, we estimated the fair value of our equity capital, using the DCF approach, to be $103.0 million. In deriving this value, we utilized management projections of future debt-free net cash flows, based on a number of assumptions we believed to be reasonable, and applied a discount rate of 23% to the projected cash flows. After deriving the estimated valuation of our equity capital, we used the OPM to derive a valuation of the Junior Preferred Stock on a controlling-interest, marketable basis of $2.52 per share. In applying the OPM, the time to liquidity was estimated as 1.5 years based on then-current plans and estimates of management regarding a liquidity event. The risk free rate of 0.25% was estimated using a continuously compounded interest rate on U.S Treasury STRIPS having a maturity similar to 1.5 years. The annual volatility was estimated to be 60% which was based on a group of publicly traded companies that are comparable to us. After applying a 5% discount for lack of control and a 15% discount for lack of marketability, we derived an estimated fair value of our Junior Preferred Stock of $2.04 per share as of May 15, 2012.

December 31, 2012—Series D Preferred Stock

In connection with the issuance of convertible promissory notes in December 2012, we estimated the fair value of our equity capital, using the DCF approach, to be $104.9 million. In deriving this value, we utilized management projections of future debt-free net cash flows, based on a number of assumptions we believed to be reasonable, and applied a discount rate of 23.5% to the projected cash flows. After deriving the estimated valuation of our equity capital, we used the OPM to derive a valuation of the Series D Preferred Stock on a controlling-interest, marketable basis of $3.05 per share. In applying the OPM, the time to liquidity was estimated as one year based on then-current plans and estimates of management regarding a liquidity event. The risk free interest rate was 0.22%. The annual volatility was estimated to be 60%. After applying a 5% discount for lack of control and a 10% discount for lack of marketability, we derived an estimated fair value of our Series D Preferred Stock of $2.61 per share as of December 31, 2012.

February 28, 2013—Series D Preferred Stock

In connection with the issuance of convertible promissory notes in February 2013, we estimated the fair value of our equity capital, using the DCF approach, to be $111.9 million. In deriving this value, we utilized management projections of future debt-free net cash flows, based on a number of assumptions we believed to be reasonable, and applied a discount rate of 23.5% to the projected cash flows. After deriving the estimated valuation of our equity capital, we used the OPM to derive a valuation of the Series D Preferred Stock on a controlling-interest, marketable basis of $3.29 per share. In applying the OPM, the time to liquidity was

estimated as one year based on then-current plans and estimates of management regarding a liquidity event. The risk free interest rate was 0.18%. The annual volatility was estimated to be 60%. After applying a 5% discount for lack of control and a 10% discount for lack of marketability, we derived an estimated fair value of our Series D Preferred Stock of $2.81 per share as of February 28, 2013.

April 25, 2013—Junior A Preferred Stock

In connection with the issuance of shares of our newly designated Junior A Preferred Stock to Maruishi on April 25, 2013, we estimated the fair value of our equity capital, using the DCF approach, to be $163.4 million. In deriving this value, we utilized management projections of future debt-free net cash flows, based on a number of assumptions we believed to be reasonable, and applied a discount rate of 23% to the projected cash flows. After deriving the estimated valuation of our equity capital, we used the OPM to derive a valuation of the Junior A Preferred Stock on a controlling-interest, marketable basis of $4.25 per share. In applying the OPM, the time to liquidity was estimated as one year based on then-current plans and estimates of management regarding a liquidity event. The risk free interest rate was 0.12%. The annual volatility was estimated to be 60%. After applying a 5% discount for lack of control and a 10% discount for lack of marketability, we derived an estimated fair value of our Junior A Preferred Stock of $3.64 per share as of April 25, 2013.

Common Stock Valuation

Due to the absence of an active market for our common stock, we have utilized methodologies in accordance with the framework of the Practice Aid and an independent third party valuation firm to estimate the fair value of our common stock at various reporting dates. Each valuation includes estimates and assumptions that require our judgment. These estimates include assumptions regarding future performance, including the probability of successful completion of preclinical studies and clinical trials and FDA approval of product candidates containing CR845, the probability and estimated time to complete financing and collaborative transactions. Significant changes to the key assumptions used in the valuations could result in different fair values of common stock at each valuation date.

We have not issued shares of common stock, options or warrants to purchase common stock or, except as described above, any other instruments convertible into common stock, since January 1, 2012, other than the issuance of common stock upon the exercise of outstanding stock options. However, we have estimated the fair value of our common stock as of December 31, 2011 and December 31, 2012 for purposes of revaluing outstanding options held by consultants and adjusting compensation expense accordingly during the vesting period of those options as required by U.S. GAAP. We also estimated the fair value of our common stock as of February 28, 2013 for purposes of accounting for the conversion of preferred stock as described above.

As with the valuations of our preferred stock described above, we estimated the fair value of our common stock as of these dates with the assistance of an independent third party valuation firm, incorporating the guidance prescribed by the Practice Aid. For our December 31, 2011 valuation, we employed a combination of the income approach, described above, and the market approach, which took into account the value implied by our July 2010 Series D Preferred Stock financing. For our December 31, 2012 valuation, we employed solely the income approach, as we determined that the company's conditions had changed significantly since our most recent equity financing such that use of the market approach would be inappropriate.

December 31, 2011

In connection with our estimate of the fair value of our common stock as of December 31, 2011, the DCF analysis yielded an estimated fair value of our equity capital to be $79.1 million. In deriving this value, we utilized management projections of future debt-free net cash flows, based on a number of assumptions we believed to be reasonable, and applied a discount rate of 25% to the projected cash flows. The market approach, based on the valuation of our July 2010 Series D Preferred Stock financing, implied an estimated fair value of our equity capital to be $49.6 million. Because of the time that had passed since the completion of the Series D Preferred Stock financing and the progress that we had made with respect to our clinical trial programs, we

determined that it was appropriate to apply a 75% weighting to the valuation implied by the DCF analysis and a 25% weighting to the value implied by the market approach. The resulting estimated fair value of our equity capital was $71.7 million. After deriving the estimated valuation of our equity capital, we used the OPM to derive a valuation of the common stock on a controlling-interest, marketable basis of $1.13 per share. In applying the OPM, the time to liquidity was estimated as 1.75 years based on then-current plans and estimates of management regarding a liquidity event. The risk free interest rate was 0.17%. The annual volatility was estimated to be 70%. After applying a 10% discount for lack of control and a 25% discount for lack of marketability, we derived an estimated fair value of our common stock of $0.77 per share as of December 31, 2011.

December 31, 2012

In connection with our estimate of the fair value of our common stock as of December 31, 2012, we estimated the fair value of our equity capital, using the DCF approach, to be $104.9 million. After deriving the estimated valuation of our equity capital, we used the OPM to derive a valuation of the common stock on a controlling-interest, marketable basis of $1.68 per share. In applying the OPM, the time to liquidity was estimated as one year based on then-current plans and estimates of management regarding a liquidity event. The risk free interest rate was 0.22%. The annual volatility was estimated to be 60%. After applying a 10% discount for lack of control and a 15% discount for lack of marketability, we derived an estimated fair value of our common stock of $1.29 per share as of December 31, 2012. Factors that contributed to an increase in the value of our common stock from the estimated value as of December 31, 2011 include our successful completion of our Phase 2b trial of I.V. CR845 in laparoscopic hysterectomy patients and our entry into the license agreement with CKD.

February 28, 2013

Concurrent with the February 28, 2013 closing of the convertible promissory notes, certain holders of our preferred stock that did not elect to participate in the note financing had their shares of preferred stock mandatorily converted to common stock at their respective conversion rates. We recorded the issuance of the common stock on February 28, 203 at fair value. Similar to the preferred stock valuation discussion above, after deriving the estimated valuation of our equity capital, we used the OPM to derive a valuation of the common stock on a controlling-interest, marketable basis of $1.94 per share. In applying the OPM, the time to liquidity was estimated as one year based on then-current plans and estimates of management regarding a liquidity event. The risk free interest rate was 0.18%. The annual volatility was estimated to be 60%. After applying a 10% discount for lack of control and a 15% discount for lack of marketability, we derived an estimated fair value of our common stock of $1.49 per share as of February 28, 2013.

JOBS Act

In April 2012, the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, was enacted. Section 107(b) of the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this extended transition period, and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

Quantitative and Qualitative Disclosures about Market Risk

The market risk inherent in our financial instruments and in our financial position represents the potential loss arising from adverse changes in interest rates. As of December 31, 2011 and 2012 and September 30, 2013, we had cash and cash equivalents of $4.1 million, $1.1 million and $17.7 million, respectively. We generally hold our cash equivalents in interest-bearing money market accounts. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates. Due to the short-term maturities of our cash equivalents and the low risk profile of our investments, an immediate 100 basis point change in interest rates would not have a material effect on the fair market value of our cash equivalents.

BUSINESS

Overview

We are a clinical-stage biopharmaceutical company focused on developing and commercializing new chemical entities designed to alleviate pain by selectively targeting kappa opioid receptors. We are developing a novel and proprietary class of product candidates that target the body's peripheral nervous system and have demonstrated efficacy in patients with moderate-to-severe pain without inducing many of the undesirable side effects typically associated with currently available pain therapeutics. Our most advanced product candidate, intravenous, or I.V., CR845, has demonstrated significant pain relief and a favorable safety and tolerability profile in three Phase 2 clinical trials in patients with acute postoperative pain. We plan to begin Phase 3 registration trials for I.V. CR845 in the second half of 2014. We are also developing an oral version of CR845, or Oral CR845, for acute and chronic pain, for which we have successfully completed a Phase 1 clinical trial to demonstrate the ability to deliver CR845 orally.

According to IMS Health, an independent market research firm, the total U.S. market for pain management pharmaceuticals totaled $18.2 billion in 2012. The prescription pain management market in the United States is dominated by opioid analgesics, which, according to IMS Health data, represented 71% of the 341 million analgesic prescriptions written in 2012 and accounted for sales of $8.3 billion in that year. Opioid analgesics decrease the perception of pain by stimulating mu, delta and/or kappa opioid receptors. All of these receptors are involved in modulating pain signals. The most widely used opioid analgesics, including morphine, fentanyl and hydromorphone, act primarily through the activation of mu opioid receptors in the central nervous system, or CNS. However, because of the wide distribution of mu opioid receptors throughout the brain, morphine and other mu opioid analgesics also trigger a characteristic pattern of adverse "central" side effects, including nausea and vomiting, itching and respiratory depression. Mu opioids are also known to cause euphoria, which can lead to misuse, abuse and addiction issues.

Our new chemical entity, CR845, is designed to produce pain relief by specifically stimulating kappa, rather than mu, opioid receptors. Moreover, we have designed CR845 with specific chemical characteristics to restrict its entry into the CNS and further limit CR845's mechanism of action to kappa opioid receptors in the peripheral nervous system, which consists of the nerves outside the brain and spinal cord. In addition to the side effects associated with activation of mu opioid receptors in the CNS, activation of kappa receptors in the CNS is also known to result in side effects, including acute psychiatric disorders. Since CR845 is designed to modulate pain signals without activation of mu or kappa opioid receptors in the CNS, it is not expected to produce the psychiatric side effects of centrally-active prior kappa opioids or the CNS related side effects of mu opioids. Based on the clinical trials and preclinical studies we have completed to date, we believe that product candidates based on CR845, if approved, will be attractive to both patients and physicians as a treatment for moderate-to-severe pain because of their ability to provide pain relief while significantly reducing the incidence of opioid-related adverse events or abuse and addiction issues associated with currently approved mu opioid analgesics.

Our most advanced product candidate is an I.V. version of CR845 intended for the treatment of acute pain in a hospital setting. I.V. CR845 has been well tolerated and demonstrated consistent efficacy in three randomized, double-blind, placebo-controlled Phase 2 clinical trials. Two of these trials were in patients undergoing a laparoscopic hysterectomy, a soft tissue surgical procedure, and a third trial was in patients undergoing a bunionectomy, a hard tissue surgical procedure. I.V. CR845 administration resulted in statistically significant reductions in pain intensity, as measured by the sum of pain intensity difference, or SPID, the FDA-recommended endpoint. In addition, in both surgical models, I.V. CR845 exhibited an ability to decrease the opioid-related adverse events, or AEs, of nausea and vomiting associated with current therapies with no evidence of drug-related respiratory depression. According to research conducted at Duke University, post operative AEs associated with currently approved opioids, such as nausea and vomiting, increase the length of time that a patient spends in the hospital and increases the cost of caring for those patients. Therefore, we believe that I.V. CR845 has the potential to significantly reduce the length of hospital stays, thereby reducing overall healthcare costs.

The safety profile of CR845 has been documented in seven clinical trials, including four Phase 1 and three Phase 2 studies. CR845 has been administered to over 300 human subjects at single or repeat doses ranging from 0.002 mg/kg to 0.125 mg/kg over a 24 hour period in the form of I.V. infusion, I.V. bolus injection or oral capsule. CR845 was considered to be generally safe and well tolerated in all of these clinical trials. The most common treatment-emergent adverse events, or TEAEs, across evaluated populations were transient facial tingling or numbness, dizziness and fatigue. In addition, a transient increase in urine output in the absence of electrolyte loss, otherwise known as aquaresis, was also observed, which in some subjects was accompanied by asymptomatic elevations in plasma sodium that were generally considered to be clinically unimportant. No clinically significant changes in electrocardiogram characteristics have been observed in any of these studies. Importantly, there appeared to be no cases of the characteristic CNS-related adverse events, such as acute psychiatric side effects, typically observed with prior-generation CNS-active kappa agonists.

In addition to I.V. CR845, we are also developing an oral formulation of CR845 that we believe could be used to provide pain relief to patients with acute or chronic pain in an outpatient setting and also as an I.V.-to-oral transition, or step-down, therapy for hospital patients being prepared for discharge. We have successfully completed a Phase 1 trial of an oral capsule formulation of CR845 to establish oral bioavailability parameters and anticipate commencing additional Phase 1 clinical trials with an oral tablet formulation of CR845 in the first half of 2014. We are also developing a peripherally-acting cannabinioid receptor agonist, CR701, which has demonstrated potent activity in preclinical models of inflammatory and neuropathic pain without producing CNS-related side effects.

CR845 and CR701 were discovered by our scientists. We own six U.S. patents with claims covering compositions of matter and methods of use for CR845. The earliest U.S. patent claiming CR845 compositions will expire no earlier than November 12, 2027. We also own two issued U.S. patents that cover the compound CR701, CR701 as a member of a class of related compounds and methods of using these compounds. These U.S. patents are due to expire no earlier than June 20, 2028.

We anticipate developing a distribution capability and commercial organization in the United States to market and sell our I.V. product candidates in the hospital setting, while out-licensing commercialization rights in certain geographical territories outside of the United States. For Oral CR845, we plan to explore late-stage development and commercialization partnerships both in the United States and worldwide. We have entered into collaboration agreements for both I.V. and Oral CR845 with Maruishi Pharmaceuticals in Japan and Chong Kun Dang Pharmaceutical Corp. in South Korea, which provide them the exclusive right to develop and market CR845 for certain indications within those territories. As of September 30, 2013, we had received approximately $24 million in payments in connection with these collaborations and were eligible to receive further payments and royalties upon the achievement of future development and commercialization milestones.

Our current product candidate pipeline is summarized in the table below:

Product Candidate	Primary Indication(s)	Status	Commercialization Rights
I.V. CR845	Acute Pain	Phase 2 Complete	Cara (worldwide, other than Japan and South Korea) Maruishi Pharmaceutical (Japan) Chong Kun Dang Pharmaceutical (South Korea)
Oral CR845	Acute & Chronic Pain	Phase 1	Cara (worldwide, other than Japan and South Korea) Maruishi Pharmaceutical (Japan – for acute pain indication only) Chong Kun Dang Pharmaceutical (South Korea)
CR701	Neuropathic & Inflammatory Pain	Preclinical	Cara (worldwide)

The Market Opportunity

Pain is generally categorized by its duration as either acute or chronic, by its severity, as mild, moderate or severe, and its type and/or causality, such as postoperative or neuropathic. Acute pain is typically caused by an injury resulting in nerve, tissue or bone damage and is expected to subside in severity when the injury heals. Postoperative pain is a subset of the acute pain market. Chronic pain, on the other hand, is prolonged, and can be the long-term result of an acute injury or an ongoing disease condition, such as neuropathic pain associated with diabetes. According to a recent Institute of Medicine report, chronic pain affects approximately 100 million U.S. adults, while millions of others experience acute pain caused by events such as surgery, injury, childbirth and illness. According to IMS Health, the total U.S. market for pain management pharmaceuticals was $18.2 billion in 2012. In 2011, according to Decision Resources, an independent industry research company, total sales for pain therapies in the seven major pharmaceutical markets, which include the United States, France, Germany, Italy, Spain, United Kingdom and Japan, exceeded $37 billion.

The severity of pain is the key factor in determining the appropriate therapy. Mild or mild-to-moderate pain is generally treated with OTC products, such as stand-alone oral formulations of aspirin, acetaminophen and ibuprofen. Moderate-to-severe pain, on the other hand, is typically treated with products containing traditional mu opioids. Mu opioid analgesics are effective to some degree for many patients, but have a poor side effect and abuse liability profile, which limits or precludes their use in treating less severe pain. For many people with moderate-to-severe pain, opioid analgesics are the only effective method of treating pain. As a result, these opioid analgesics are among the largest prescription drug classes in the United States. According to IMS Health, opioid analgesics represented approximately 71% of the nearly 341 million analgesic prescriptions written in 2012, accounting for $8.3 billion in sales.

Postoperative Pain Market

Postoperative pain represents a substantial part of the overall acute pain market. According to the International Association for the Study of Pain, more than 46 million inpatient and 53 million outpatient surgeries are performed annually in the United States. Moderate-to-severe pain in a hospital or other medical setting is most often treated with injectable analgesics. The U.S. I.V./injectable analgesic therapy market primarily consists of mu opioid agonists, such as morphine, hydromorphone and fentanyl, and certain non-opioid analgesics, such as Toradol (and related generic I.V. ketorolac products), Caldolor (I.V. ibuprofen), and Ofirmev (I.V. acetaminophen). According to GBI Research, a research organization, the postoperative pain relief market, with sales of $5.9 billion in 2010, accounted for approximately 20% of the total pain management therapeutics market.

According to recently updated Practice Guidelines developed by the American Society of Anesthesiologists, the standard of care for treating acute postoperative pain is multimodal analgesia, which includes the administration of two or more drugs that act by different mechanisms for providing analgesia in a manner that will minimize the occurrence of adverse events. When patients are ready for discharge, a transition is typically made to a prescription oral pain medication, allowing patients to self-administer relatively strong analgesics after being discharged home. This transition from an I.V. pain medication to an oral pain medication is commonly referred to as I.V.-to-oral “step-down” therapy.

Strong mu opioid analgesics, such as morphine, fentanyl, and hydromorphone, are mainstays of pain treatment in the immediate postoperative period, and are used as part of a multimodal analgesic approach. However, the use of strong mu opioid analgesics is associated with an array of unwanted and serious side effects, including postoperative opioid-induced respiratory depression, or POIRD, postoperative nausea and vomiting, or PONV, and opioid-induced bowel dysfunction, or OBD, which contributes to the severity of postoperative ileus, or POI. According to Anesthesiology News, a trade journal, the incidence of POIRD may be as high as 29%, can occur unexpectedly in even the healthiest of patients, and exerts a disproportionately high toll on length of stay and hospital costs due to the significant expenses associated with the treatment of POIRD. According to an article published in Best Practice & Research Clinical Anaesthesiology, a trade journal, PONV occurs in approximately one-third of surgical patients overall, and is one of the most important factors in determining length of stay after surgery, resulting in estimated annual costs in the U.S. in the range of $1 billion. These mu opioid-related adverse events not only significantly increase the cost of care, but also reduce a patient’s quality of care and lead to sub-optimal recovery.

Nonopioid analgesics formulated for injection or infusion, including I.V. acetaminophen and NSAIDs, such as I.V. ibuprofen, are available as alternatives to mu opioids to relieve acute pain, but their use is limited in a postoperative care setting as a result of their limited efficacy. I.V. acetaminophen and NSAIDs also have side effects that limit their use at higher, more efficacious doses. Acetaminophen is associated with risk of liver toxicity, which can be fatal, and NSAIDs are associated with risks of bleeding, serious gastrointestinal side effects including ulcers, kidney damage, and serious cardiovascular thrombotic events such as stroke and heart attack, which can be fatal.

Chronic Pain Market

The most common causes of moderate-to-severe chronic pain are musculoskeletal problems and inflammatory conditions. Injuries from accidents resulting in fractures, dislocations or soft tissue injury, as well as lower back pain, are the most frequent causes of musculoskeletal pain. Although these injuries are mostly non-fatal, the cost in terms of long-term disability, medical expense and lost productivity is large. Moderate-to-severe chronic pain is typically treated with prescription products including immediate release and long-acting opioids, such as the branded products Oxycontin (oxycodone) and Opana (oxymorphone), and combination products that include an opioid combined with an NSAID or acetaminophen, such as the branded products Vicodin (hydrocodone and acetaminophen) and Percocet (oxycodone and acetaminophen). Prescription products for chronic pain are usually in oral tablet or capsule form because the vast majority of these patients are taking these medications outside of the hospital setting.

On April 7, 2005, the FDA announced a decision to require boxed warnings of potential cardiovascular risk for all NSAIDs. The 2005 FDA warning related to cardiovascular adverse events associated with NSAIDs and the increased awareness of the risk of liver toxicity associated with high doses of acetaminophen have led to increased use of mu opioid analgesics for the treatment of chronic pain. However, the use of mu opioid analgesics carries significant additional risks. Chronic opioid use causes patients to develop tolerance for the opioid, which results in the patient needing increasing opioid doses to achieve the same level of pain relief. For the most commonly prescribed analgesic combination products, the need for increasing doses to achieve the same level of pain relief means exposure to increasing amounts of NSAIDs or acetaminophen, which carry the risks attendant to these therapeutics. Moreover, due to their CNS activity, mu opioids produce feelings of euphoria, which can give rise to abuse and addiction. Underlining the severity of this issue, in September 2013, the FDA announced class-wide safety labeling changes and new postmarket study requirements for all extended-release and long-acting mu opioid analgesics intended to treat pain. In support of this action, the FDA Commissioner stated that “[t]he FDA is invoking its authority to require safety labeling changes and postmarket studies to combat the crisis of misuse, abuse, addiction, overdose, and death from these potent drugs that have harmed too many patients and devastated too many families and communities.” In addition, as a result of their potential for misuse, abuse and addiction, currently approved mu opioids are strictly regulated by the United States Drug Enforcement Agency, or DEA, under the Controlled Substances Act, which imposes strict registration, record keeping and reporting requirements, security control and restrictions on prescriptions – all of which significantly increase the costs and the liability attendant to prescription opioid analgesics.

The Unmet Need in Pain Management

Despite the size of the pain management market, there has been little innovation in the development of new analgesics, with nearly all recent new drug approvals limited to reformulations and improved methods of delivery of existing therapeutics. Mu opioids continue to be the most prescribed drugs for pain management, despite their side effects and the potential for misuse, abuse and addiction. These concerns often cause healthcare providers to administer or prescribe less than optimal doses of mu opioids, or patients to take lower than prescribed doses, resulting in inadequate pain relief. Consequently, we believe that the pain market represents a therapeutic area with substantial unmet needs for patients in pain, for physicians who must balance pain control with risks of causing severe adverse events, and for healthcare organizations that bear the costs of managing the consequences of undertreated pain and drug-related adverse events. We believe that CR845, with its novel mechanism of action, will be attractive to patients and physicians, as well as hospitals and payors, as a treatment for moderate-to-severe pain because of its ability to provide pain relief without opioid-related adverse events or abuse and addiction issues associated with currently approved mu opioid analgesics.

Our Product Candidates

Overview of CR845

CR845 is a peripherally-acting kappa opioid receptor agonist that we are developing for treatment of both acute and chronic pain. Our most advanced product candidate, I.V. CR845, has demonstrated significant pain relief and a favorable safety and tolerability profile in three Phase 2 clinical trials in patients with acute postoperative pain. Due to its selectivity for the kappa opioid receptor and ability to decrease mu opioid use, CR845 has demonstrated a consistent ability to decrease the acute opioid-related AEs of nausea and vomiting with no evidence of drug-related respiratory depression. CR845 has been administered to over 300 human subjects in Phase 1 and Phase 2 clinical trials as an intravenous infusion, intravenous bolus injection or oral capsule and was considered to be safe and well tolerated in these clinical trials.

We believe CR845-based products, if approved, have the potential to be attractive for patients with moderate-to-severe pain and their physicians due to the following attributes:

- novel, peripherally-acting, kappa opioid receptor mechanism of action;
- strong evidence of efficacy;
- potential for reducing mu opioid use and opioid-related AEs, such as nausea and vomiting;
- avoidance of mu opioid-related CNS side effects, such as respiratory depression and euphoria;
- absence of euphoria which lowers addiction or abuse potential;
- avoidance of drug-drug interactions because, as a peptide composed of four non-natural D-amino acids that is not metabolized in the liver, CR845 does not interact with the liver enzymes responsible for the metabolism of most commonly used classes of drugs; and
- availability in I.V. form for acute pain treatment in the hospital setting and oral form for treatment of acute and chronic pain in either a hospital or out patient setting.

We are currently planning the Phase 3 pivotal trials for I.V. CR845, which we expect to commence in the second half of 2014. We have successfully completed a Phase 1 clinical trial of a capsule formulation of Oral CR845 and are preparing to advance a tablet formulation of Oral CR845 into Phase 1 clinical trials in early 2014.

I.V. CR845

Our most advanced product candidate, I.V. CR845, is an injectable version of our first-in-class, kappa opioid receptor-based peripheral analgesic which is designed to provide pain relief without stimulating mu opioid receptors and therefore without mu opioid-related side effects, such as nausea, vomiting, respiratory depression and euphoria. I.V. CR845 has demonstrated efficacy and tolerability in three randomized, double-blind, placebo-controlled Phase 2 clinical trials in patients undergoing soft tissue (laparoscopic hysterectomy) and hard tissue (bunionectomy) surgery. In both the laparoscopic hysterectomy and bunionectomy clinical trials, CR845 administration resulted in statistically significant reductions in pain intensity, as measured by summed pain intensity differences, or SPID, which is the FDA-recommended acute pain endpoint.

Phase 2b Laparoscopic Hysterectomy (CLIN2002)

Our *CLIN2002* clinical trial was a multicenter, double-randomized, double-blind, placebo-controlled trial conducted in 203 patients at 22 sites in the United States. The trial enrolled female patients, ages 21 to 65, scheduled for elective laparoscopic hysterectomy under general anesthesia. In this trial, patients were administered either placebo or one dose of 0.04 mg/kg I.V. CR845 preoperatively. Following surgery, if they were medically stable and had a pain intensity score ^{3}40 on a 100 point pain scale based on the visual analog scale, or VAS, they were re-randomized to receive either placebo or one dose of 0.04 mg/kg I.V. CR845. Efficacy was measured using time-specific 24 hour pain intensity differences. Pain intensity, or PI, is measured at various times by asking patients to rate their pain on a 100-point scale, where “0” is absence of pain and “100” is the worst possible pain. PID, or pain intensity difference, is the difference between the PI measured prior to treatment and at subsequent times of measurement. SPID, or the summed pain intensity difference, is the time-weighted sum of all of the PID scores, from the pretreatment level to a subsequent time of measurement, such as 24 hours after the pretreatment baseline pain measurement. Both PID and SPID are FDA-recognized endpoints for acute pain clinical trials. Additional endpoints included the amount of morphine

consumption over 24 hours, time-specific total pain relief and patient global evaluation of study medication. Of the 203 patients that participated in the trial, 183 received a post operative dose; however, two subjects did not record baseline pain scores and were not included in calculated PID and SPID values.

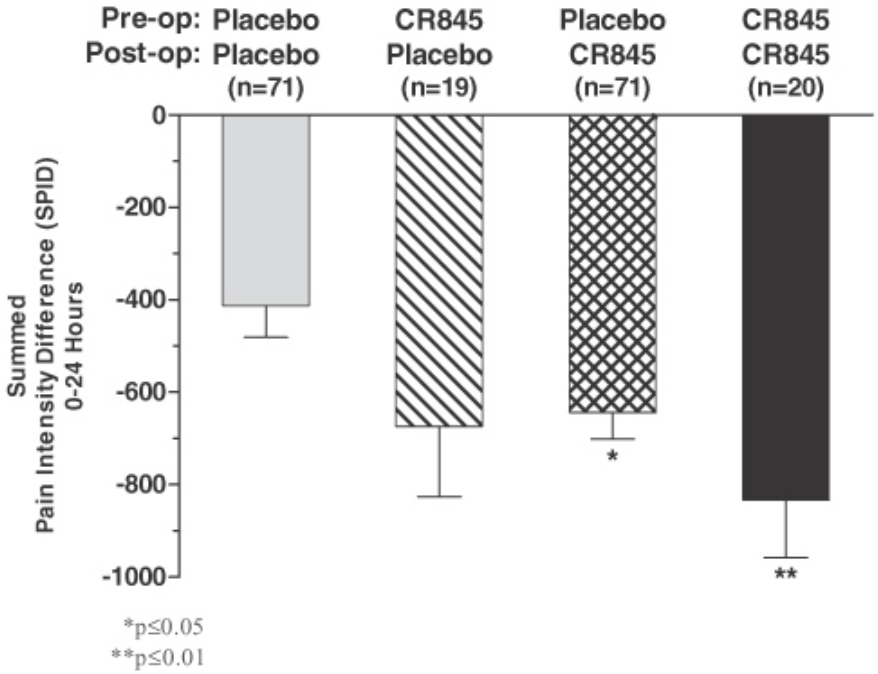
Accordingly, four treatment groups resulted from preoperative and postoperative randomization:

(1) I.V. CR845 administered both preoperatively and postoperatively (CR845/CR845);
(2) placebo administered preoperatively and I.V. CR845 administered postoperatively (Placebo/CR845);
(3) I.V. CR845 administered preoperatively and placebo administered postoperatively (CR845/Placebo); and
(4) placebo administered both preoperatively and postoperatively (Placebo/Placebo).

The CR845/CR845 group exhibited a statistically significant reduction in pain over a 24-hour time period, as indicated by an improvement in 0-24 hour mean SPID, compared to the Placebo/Placebo group (p£0.01). The Placebo/CR845 group also exhibited a statistically significant improvement in 0-24 hour mean SPID compared to the Placebo/Placebo group (p£0.05). The CR845/Placebo group exhibited an improved 0-24 hour mean SPID compared to the Placebo/Placebo group, but this difference did not reach statistical significance, which we believe was due to the small number of patients. Figure 1 below illustrates the 0-24 hour mean SPIDs of the four treatment groups listed above.

Clinical trial results are considered statistically significant when the probability of the results occurring by chance, rather than from the efficacy of the drug candidate, is sufficiently low. Statistical significance is measured by the probability value, or p-value. A clinical trial result with a p-value of equal to or less than 0.05 means that the probability of the same trial results occurring randomly or by chance is equal to or less than 5%, and is generally considered to be statistically significant.

Figure 1: Phase 2b Laparoscopic Hysterectomy – Summed Pain Intensity Difference from 0-24 Hours ($SPID_{0-24}$) Following Postoperative Treatment



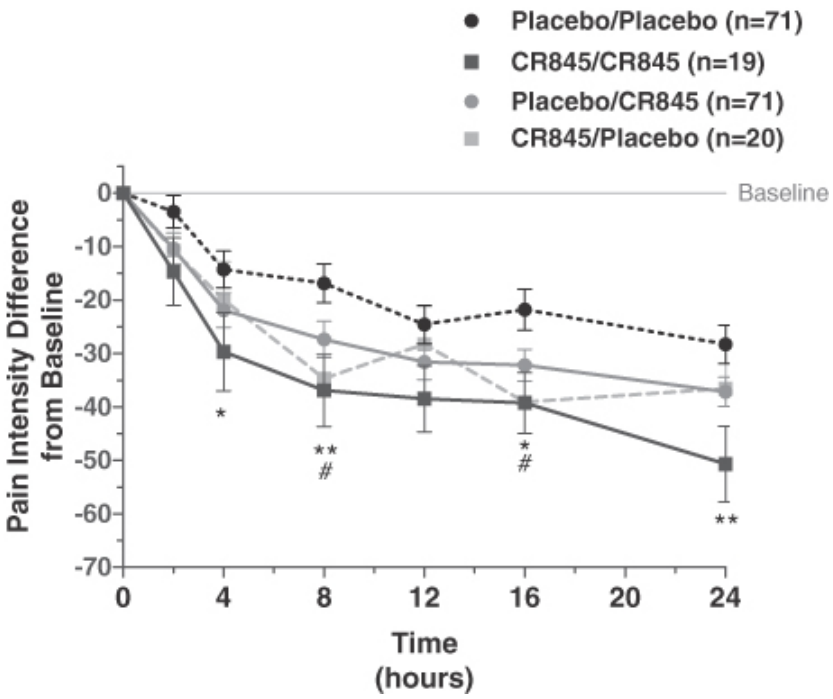
*p≤0.05
**p≤0.01

Values represent mean ± Standard Error of Mean (or SEM)
(A p value of ≤ 0.05 is commonly used as the threshold for statistical significance)

Similar observations were made for different time periods after treatment. For example, over the 0-4 hour time period, in the CR845/CR845 group, there was a statistically significant 3.5-fold improvement in mean SPID values compared to the Placebo/Placebo group (p£0.05). In addition, over the 0-8, 0-12 and 0-16 time periods, patients in the Placebo/CR845 group also exhibited reduced pain intensity compared to the Placebo/Placebo group in a statistically significant manner (p£0.05), based on improved SPID values.

The mean PID from baseline at each time interval was numerically superior across all groups that received I.V. CR845 preoperatively and/or postoperatively relative to the Placebo/Placebo group. Compared to the Placebo/Placebo group, patients in the CR845/CR845 group exhibited an approximately 60% greater reduction in pain intensity at 24 hours, which was determined to be statistically significant (p£0.01), as well as statistically significant improvements for the 0-4, 0-8 and 0-16 hour time intervals (p£0.05, p£0.01 and p£0.05, respectively). Patients in the CR845/Placebo and Placebo/CR845 groups also exhibited statistically significant decreases in pain intensity for the 0-8 and 0-16 hour time intervals, compared to patients in the Placebo/Placebo group (p£0.05). Figure 2 below illustrates the PID relative to postoperative baseline in patients in the four treatment groups.

Figure 2: Phase 2b Laparoscopic Hysterectomy – Pain Intensity Difference (PID) at Specific Times Relative to Postoperative Baseline Pain Intensity

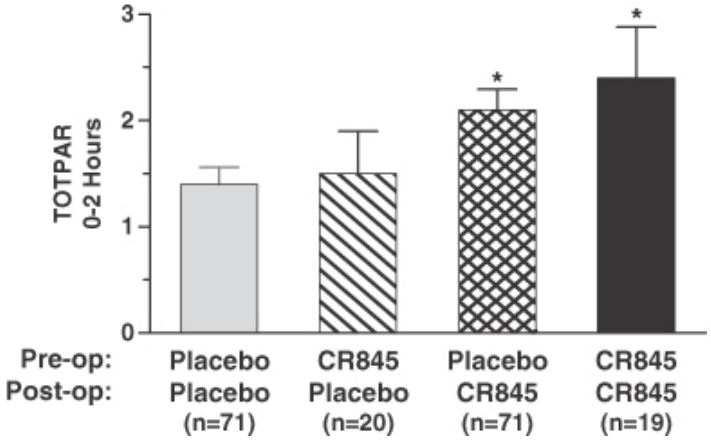


*p£0.05
**p£0.01 for CR845/CR845
#p£0.05 for both Placebo/CR845 and CR845/Placebo.
Values represent mean ± SEM

At the same time points at which pain intensity measurements were taken, patients' perceived pain relief scores were recorded using a 5 point subjective Likert scale (0-4), where zero corresponds to no relief and a score of four represents total relief. The "TOTPAR" score is calculated as the "total pain relief score", which is a time-weighted sum of pain relief scores over any given time period following post operative treatment with CR845 or placebo. TOTPAR is an FDA-recognized endpoint commonly used in acute pain trials. Mean TOTPAR scores were numerically superior across all intervals for the CR845/CR845 and Placebo/CR845 groups relative to the Placebo/Placebo group. The patients in the CR845/CR845 group and Placebo/CR845 exhibited statistically superior pain

relief as compared to the Placebo/Placebo group within the first 2 hours following postoperative randomization, as indicated by increased mean $TOTPAR_{0-2}$ values (p£0.05). Figure 3 below depicts the mean TOTPAR scores for the first 2 hour period for each of the four treatment groups listed above.

Figure 3: Phase 2b Laparoscopic Hysterectomy – Total Pain Relief Within the First 2 Hours ($TOTPAR_{0-2}$) Following Postoperative Treatment

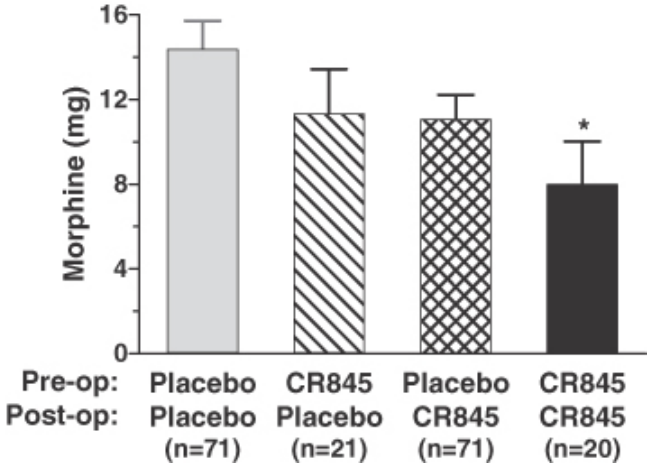


*p£0.05
Values represent mean + SEM

Statistically significant improvements in pain relief were also reported in the CR845/CR845 and Placebo/CR845 groups compared to the Placebo/Placebo group for the 0-4 ($p<0.01$ for both groups), 2-4 ($p<0.04$ & $p<0.03$ for CR845/CR845 and Placebo/CR845 respectively) and 0-8 ($p<0.02$ for both groups) hour time periods. In addition, the improvement in mean TOTPAR also reached statistical significance for the 0-12 hour interval for the CR845/CR845 group relative to the Placebo/Placebo group (p£0.05).

Intravenous morphine was available as rescue medication to all treatment groups upon patient request. Calculations of morphine consumption per treatment group in the 2-24 hour period, after patients leave the post-anesthesia care unit, or PACU, indicated that patients in the CR845/CR845 group used approximately 45% less morphine than those in the Placebo/Placebo group (p£0.05), and patients in the Placebo/CR845 and CR845/Placebo groups used approximately 23% less morphine than those in the Placebo/Placebo group. Figure 4 below depicts the morphine usage in each of the treatment groups between hours 2-24.

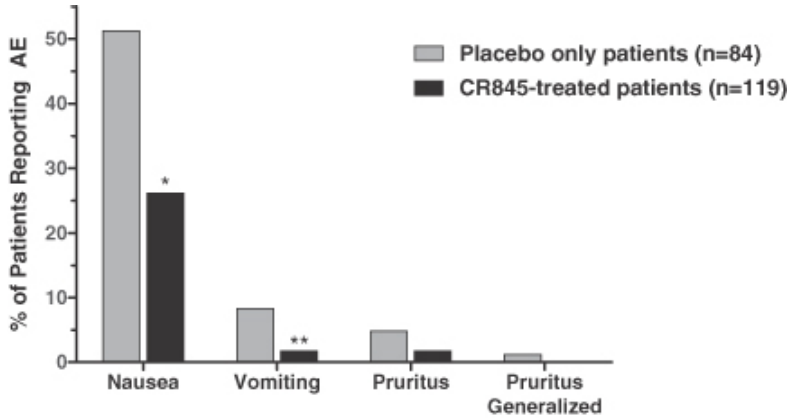
Figure 4: Phase 2b Laparoscopic Hysterectomy – Morphine Consumption For 2-24 hours Post-Treatment in Patients



*p£0.05
Values represent mean + SEM

Concurrently with the observed reduction in morphine use, patients treated with I.V. CR845 exhibited a statistically significant lower incidence of opioid-related AEs through 24 hours after the start of the first infusion compared to patients who received only placebo. The incidence of nausea was reduced by approximately 50% (only 26.1% of patients administered CR845 experienced nausea as compared to 51.2% for placebo, p£0.001) and the incidence of vomiting was reduced nearly 80% (only 1.7% of patients administered CR845 experienced vomiting, as compared to 8.3% for placebo, p=0.035). There was also less pruritus, or itching sensation, reported in patients treated with CR845 compared to placebo. Figure 5 below depicts the percentage of patients reporting opioid-related adverse events of nausea, vomiting and pruritus.

Figure 5: Phase 2b Laparoscopic Hysterectomy – Incidence of Opioid-Related Adverse Events Over 24 hours

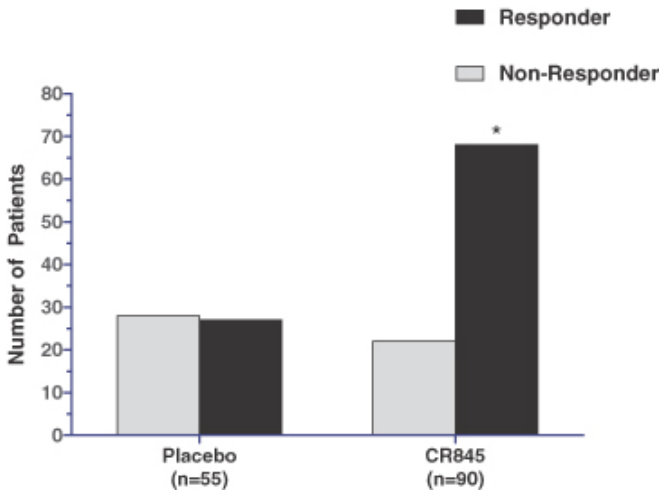


*p£0.001
**p£0.05

In addition to the reduction of opioid-related adverse events, a standard responder analysis indicated that a higher percentage of patients who received I.V. CR845 were characterized as “Responders” as compared to those receiving placebo (p=0.001). Responders included patients who rated their medication “Excellent” or

"Very Good" and Non-Responders as those who rated their medication "Fair" or "Poor". We believe that the lower overall pain intensity scores at the end of the study period for CR845-treated patients and the significant reduction in nausea and vomiting reported in these patients contributed to patients' greater satisfaction with I.V. CR845 treatment compared to placebo. Figure 6 below depicts the number of patients classified as Responders or Non-Responders in the I.V. CR845-treated patients compared to the patients receiving only placebo.

Figure 6: Phase 2b Laparoscopic Hysterectomy – Responder Analysis of Global Evaluation of Study Medication



*p=0.001

In this trial, intravenous administration of 0.04 mg/kg of I.V. CR845 preoperatively and/or postoperatively was safe and generally well tolerated. The placebo and CR845 treatment patient groups showed a similar overall incidence of treatment-emergent adverse events, or TEAEs, the majority of which were mild to moderate in severity. The most frequent TEAEs, reported in 10% or more of total patients, were nausea, hypotension, flatulence, blood sodium increase, or hypernatremia, and headache. There were no apparent consistent differences between CR845 and placebo groups in clinical laboratory results, vital signs, electrocardiogram, or oxygen saturation results, with the exception of blood sodium increase, which was evident only in CR845 treatment groups (14% of total patients). We believe that the increase in blood sodium levels, or hypernatremia, observed in CR845 treatment groups was likely a result of the aquaretic effect of I.V. CR845 at this dose and the replacement of fluid loss with sodium-containing intravenous solutions, rather than water or low to no sodium-containing fluids. In subsequent trials, fluid replacement with water or I.V. solutions with low or no sodium were used and no evidence of hypernatremia was observed.

Phase 2 Bunionectomy (CLIN2003)

A bunionectomy is a surgical procedure to remove a bunion, which is an enlargement of the joint at the base of the big toe and includes bone and soft tissue. The procedures typically result in intense pain requiring significant postoperative analgesic care, typically beginning with local anesthetic infusion and ongoing administration of a strong opioid, such as morphine or fentanyl, for several days afterwards.

Our *CLIN2003* clinical trial was a randomized, double-blind, placebo-controlled trial conducted in 51 patients following bunionectomy surgery at a single site in the U.S. The trial enrolled female and male patients, ages 18 years and older, scheduled for elective bunionectomy under regional anesthesia. Using a standard clinical trial protocol in which local anesthetic infusion was terminated on the day after surgery, patients were randomized into one of two treatment groups (CR845 or Placebo, in a 2:1 ratio) after reporting moderate-to-severe pain, defined as a pain intensity score ³ 40 on a 100-point pain scale. Patients randomized to receive I.V. CR845 were administered an I.V. injection at a dose of 0.005 mg/kg, and additional doses on an as-needed basis 30-60 minutes later, and then no more frequently than every 8 hours through a 48-hour dosing period. The results were analyzed

separately for the per protocol population, or “Completers”, which includes only patients who completed the trial, and the modified Intent-to-Treat, or mITT, population, which includes Completers and all patients who discontinued the trial, or “non-Completers”. In the Completer group, CR845 treatment resulted in a statistically significant reduction in pain intensity compared to placebo, as measured by the SPID score over the initial 24 hour time period ($SPID_{0-24}$; $p<0.05$). This reduction in pain intensity after CR845 dosing was also statistically significant over a 36 hour time period ($SPID_{0-36}$, $p<0.03$), as well as over the entire two-day dosing period ($SPID_{0-48}$, $p<0.03$), compared to placebo-treated patients (see Figure 7a below). Numerical improvements in SPID scores in the CR845 group as compared to placebo were also evident across the same time periods when analyzing the mITT population of Completers together with non-Completers (see Figure 7b below).

Figure 7a: Phase 2 Bunionectomy – Summed Pain Intensity Difference From 0-24 Hours ($SPID_{0-24}$), 0-36 Hours (p $SPID_{0-36}$) and 0-48 Hours ($SPID_{0-48}$) in Completer Population

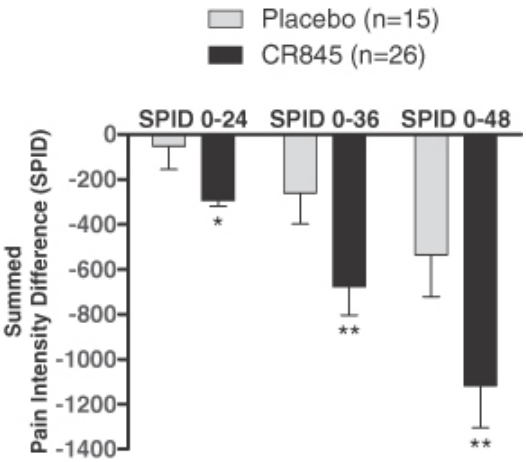
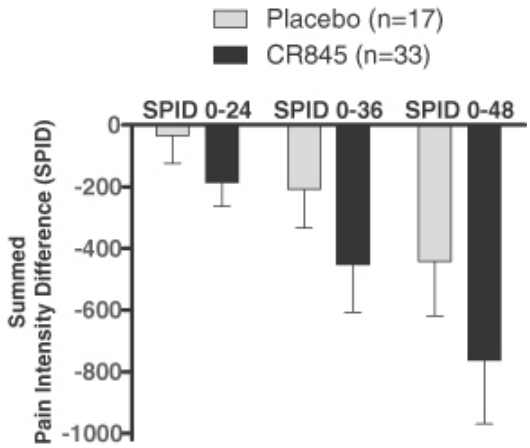


Figure 7b: Phase 2 Bunionectomy – Summed Pain Intensity Difference From 0-24 Hours ($SPID_{0-24}$), 0-36 Hours ($SPID_{0-36}$) and 0-48 Hours ($SPID_{0-48}$) in mITT Population (Completers Plus Non-Completers)

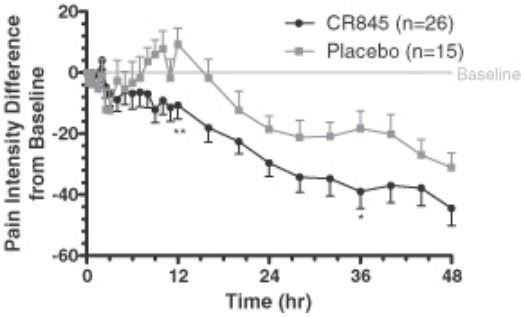


*p£0.05 – One-sided Analysis of Variance with Treatment Group as a Main Effect (mean +/- s.e.m.)
**p£0.03 – One-sided Analysis of Variance with Treatment Group as a Main Effect (mean +/- s.e.m.)

We believe that the Completer analysis is indicative of the actual efficacy of I.V. CR845, under conditions where patients are exposed to the drug as specified in the protocol, while the mITT analysis is indicative of the actual variability that will be encountered in the mITT populations. Our understanding of this variability will serve as the basis for determining the appropriate number of patients for enrollment in our Phase 3 clinical trials.

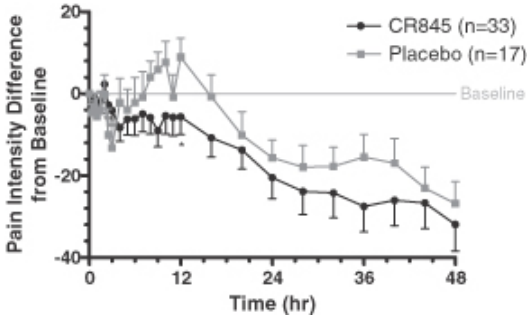
In this trial, we also measured mean PID from baseline at each time interval, which was numerically superior across the 48 hour trial period in the I.V. CR845 treatment group relative to the placebo group for both the Completer and mITT populations (see Figures 8a and 8b below). Statistically significant reductions in pain intensity differences in the CR845 group versus placebo were evident in the 0-12 hour time interval for both the Completer and mITT populations (p£0.01 and p£0.05 respectively) and for the 0-36 hour time interval for the Completer populations (p£0.05), consistent with the findings with the primary SPID endpoints.

Figure 8a: Phase 2 Bunionectomy – Pain Intensity Difference Relative to Baseline in CR845 and Placebo Completer Treatment Groups Across 48 Hours.



* p£0.05 (0-36 hours)
** p£0.01 (0-12 hours)

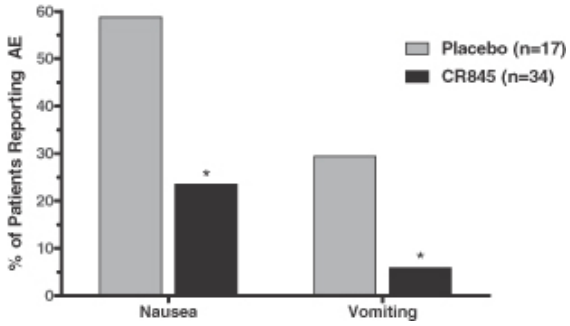
Figure 8b: Phase 2 Bunionectomy – Pain Intensity Difference Relative to Baseline in CR845 and Placebo Treatment Groups in mITT Populations Across 48 Hours.



*p£0.05 (0-12 hours)

Fentanyl was available to both CR845 and placebo treatment groups upon patient request. While there was no difference in mean fentanyl use between the placebo and CR845 groups, the incidence of opioid-related AEs of nausea and vomiting was significantly reduced (by 60% and 80%, respectively; p£0.05) in patients who received CR845 compared to placebo during the 48 hour period after randomization (see Figure 9 below).

Figure 9: Phase 2 Bunionectomy – CR845 Suppression of Nausea and Vomiting



*p£0.05

We believe the ability of I.V. CR845 to reduce nausea and vomiting despite not meaningfully reducing fentanyl usage is due to a direct anti-vomiting or anti-nausea effect resulting from its kappa opioid agonist mechanism of action. We believe that the ability to provide postsurgical analgesia and simultaneously reduce opioid-related side effects will make I.V. CR845 an attractive treatment option for postoperative patients and their physicians.

In this bunionectomy trial, repeated intravenous administration of I.V. CR845 at a dose of 0.005 mg/kg was safe and generally well tolerated. The most frequent TEAEs (greater than 10%) observed in the CR845 treatment group were transient facial tingling and somnolence, a state of near-sleep. Of the seven cases of somnolence reported, the clinical trial's investigator reported four as "mild" and/or "related to drug" and three as "moderate" and/or "not related to drug". The mean plasma sodium concentration in CR845-treated patients exhibited an approximately 3% rise over 24 hours from baseline levels, but was not outside the normal physiological range at either 24 or 48 hours post-CR845 administration. This lack of clinically significant hypernatremia was likely a result of both utilizing a lower dose of I.V. CR845 and replacing transient fluid loss with oral water or sodium-free intravenous fluid. In addition, consistent with our prior studies, there was no evidence of acute psychiatric side effects that were observed with prior-generation CNS-active kappa opioid agonists.

Phase 2a Laparoscopic Hysterectomy (CLIN2001)

Our *CLIN2001* trial was a randomized, double-blind, placebo-controlled, proof-of-concept trial to evaluate the analgesic efficacy and safety of I.V. CR845 during the postoperative period in 114 patients undergoing laparoscopic hysterectomy. In the first of two cohorts, two single doses of I.V. CR845 (0.008 mg/kg and 0.024 mg/kg) were evaluated versus placebo in 68 patients who were maintained on patient-controlled analgesia, or PCA, morphine for 24 hours after surgery prior to randomization to receive treatment with CR845 or placebo. However, more than 50% of the patients (CR845 and placebo) in this cohort did not request any rescue medication before at least 4 hours after randomization and 30% of placebo patients required no narcotic for 24 hours after randomization. Therefore, it was concluded that the magnitude of pain the day after surgery appeared to be insufficient to allow separation between treatment groups and no clinical conclusions regarding the efficacy of I.V. CR845 could be made from this cohort.

In the second cohort, 46 patients were administered a single dose of I.V. CR845 (0.04 mg/kg) or placebo within three hours following recovery from surgery. In this group, CR845-treated patients exhibited statistically significant reductions in pain intensity up to six hours post-infusion versus placebo (p£0.05). Moreover, PCA morphine use was approximately 49% lower in the CR845-treated group compared to placebo starting at four hours post-infusion and lasting through an additional 12 hours (p£0.01) with a concomitant reduction in nausea and vomiting. The results for this proof-of-concept trial indicated that CR845 treatment could reduce pain intensity and morphine consumption post-surgery and informed the study timeline and design of the larger Phase 2 clinical trial (*CLIN2002*) described above.

In this Phase 2a Laparoscopic Hysterectomy clinical trial, administration of all three doses of I.V. CR845 was considered safe and generally well tolerated. Most of the TEAEs were comparable across groups, mild to moderate in severity, and nearly all were considered by the investigators to be unrelated, or to have an unlikely relationship, to study treatment. Transient facial tingling was the primary TEAE reported in CR845-treated groups in Cohort 1. Other AEs occurring in more than 10% in any group included headache, flatulence, nausea, pyrexia, urinary tract infection, dizziness and pruritus, most of which occurred in only one or two subjects per group.

CR845 Phase 1 Clinical Trials and Pre-clinical Studies

In addition to the three Phase 2 clinical trials, the safety of CR845 has been demonstrated in four Phase 1 clinical trials. CR845 was generally well tolerated in all of these clinical trials. The most common TEAEs across evaluated populations were transient facial tingling or numbness, dizziness, fatigue and a transient increase in urine output in the absence of electrolyte loss, or aquaresis. Some of the subjects with aquaresis also exhibited an increase in heart rate upon standing up, or postural tachycardia, which was not accompanied by a decrease in blood pressure, resolved without intervention, and was classified as mild by the Investigator. We have demonstrated that this elevation in heart rate was a physiological consequence of the subject's fluid deficit rather than a direct effect of the drug. No other changes in vital signs, including supine pulse rate, blood pressure, respiratory rate, oral body temperature, or oxygen saturation were reported, nor were any clinically significant changes observed in electrocardiogram characteristics. In addition, the CNS adverse events characteristic of prior-generation CNS-active kappa agonists, such as acute psychiatric side effects, were not observed with CR845. The potential to cause sedation was assessed using the Ramsey Sedation Scale in the

ascending dose-tolerance Phase 1 trial (Study 2048-001) of I.V. CR845, which included 54 subjects (17 on placebo; 37 on CR845). CR845 was considered to not cause sedation in this population of normal, healthy subjects in this trial.

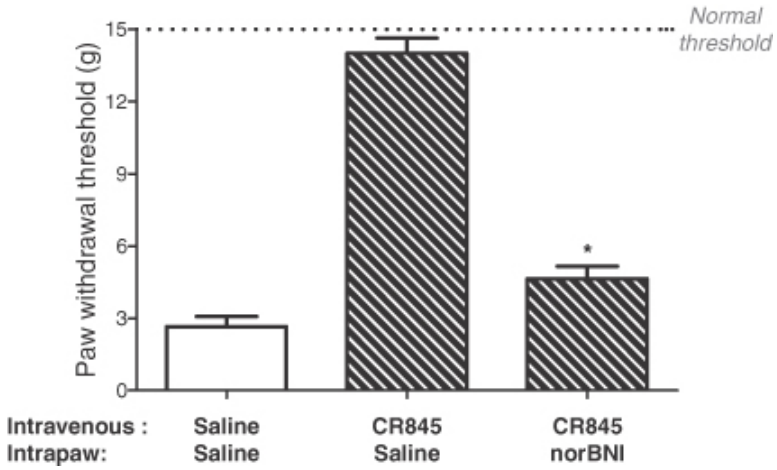
A significant amount of preclinical work has been completed for CR845 in order to further define its characteristics. In standard preclinical pain models, CR845 attenuated acute and chronic visceral, inflammatory and neuropathic pain in a dose-dependent manner (see Table 1 below). The analgesic effect of CR845 was recordable within 15 minutes post-administration and lasted for up to 18 hours following single-dose administration. CR845 also decreased the production and release of pro-inflammatory mediators, which we believe is likely due to the direct activation of kappa opioid receptors expressed on immune cells that synthesize and secrete these substances.

Table 1: CR845 Exhibits a Broad Spectrum of Activity in Multiple Types of Industry Standard Preclinical Pain Models

Model		Species	ED50 (I.V., mg/kg)	Duration of Action
Somato – Visceral Inflammatory Pain	Acetic Acid Writhing – somatic and visceral pain	Mouse	0.07	>18 h
Chronic Inflammatory Pain	Complete Freund's Adjuvant – mechanical hyperalgesia	Rat	0.08	>2 h
Acute Inflammatory Pain	Carrageenan – mechanical hyperalgesia	Rat	0.3	>1h
Neuropathic Pain	L5/6 Spinal Nerve Ligation – tactile allodynia	Rat	0.3	>8 h

The peripheral mechanism of action of CR845 has been supported preclinically by both biochemical measurement and functional pharmacological studies. In pharmacokinetic studies, animals administered analgesic and supra-analgesic doses of CR845 exhibited no measurable concentrations of drug in extracted brain tissue indicating that the CNS was not the site of action for CR845. Moreover, in standard preclinical pain models, such as the "Chung Model" of neuropathic pain, our scientists confirmed that the analgesic action of CR845 can be blocked with kappa opioid receptor antagonists administered directly to the local site of injury, indicating a peripheral site of action for CR845 (Figure 10 below). In the "Chung Model", neuropathic pain is induced experimentally by ligating spinal nerves mediating sensation for a hind limb. This results in a type of neuropathic pain, referred to as allodynia. Experimental animals with allodynia exhibit a "paw withdrawal reflex" upon contact with a relatively thin filament on the injured site. Sets of different thickness filaments are used to test sensitivity, each of which is designed to produce a given force (in grams) upon bending after contact. By testing with these filaments, the minimum force to evoke a withdrawal response defines the paw withdrawal threshold. The nerve injury produces a marked reduction in paw withdrawal thresholds (increased sensitivity to force) in response to probing with the filaments. I.V. administration of CR845 reduces this neuropathic pain as demonstrated by a subsequent increase in the withdrawal threshold (see Figure 10 below). Administration of a low dose of the selective peripherally-acting kappa opioid receptor antagonist nor-binaltorphamine, or nor-BNI, into the plantar surface of the injured paw significantly reduces the effect of CR845, whereas injection of saline had no effect on the efficacy of CR845. Because nor-BNI was only able to block local peripheral kappa opioid receptors in this experiment, we believe these results show that the effect of CR845 is a result of activation of kappa opioid receptors located at the peripheral site of injury rather than in the CNS.

Figure 10: Efficacy of CR845 in "Chung Model" of Neuropathic Pain is Blocked With Peripheral (Intrapaw) Administration of a Kappa Antagonist (norBNI) in Rats



* denotes p£0.001 compared to vehicle-treated controls (two-way analysis of variance).
Vehicle or Nor-BNI was administered intraplantarly (0.2 mg) 15 min prior to CR845
Injection (1 mg/kg).
N=6 male rats/group, mean ± SEM.

I.V. CR845 – Phase 3 Clinical Development Plan

We are currently planning our Phase 3 clinical program to seek FDA approval for I.V. CR845 in the United States for the management of acute pain in a hospital setting. Based on guidance from the FDA, we believe that we will be required to complete two Phase 3 clinical trials, one in patients with pain resulting from soft tissue surgery and one in patients with pain resulting from hard tissue surgery. We believe that the primary efficacy endpoints will be the change in SPID at either 24 or 48 hours as compared to placebo. Recent trials conducted by other companies for FDA-approved acute pain drugs have run similar Phase 3 development programs in soft and hard tissue using either SPID 24 or SPID 48 as their endpoints. In addition to our two pivotal Phase 3 clinical studies for I.V. CR845 administered after surgery, we are also planning to run one optional supportive Phase 3 clinical trial with I.V. CR845 dosed both pre-surgery and post-surgery in patients undergoing either laparoscopic hysterectomy or bunionectomy surgery. In all three trials, patients will have access to morphine rescue medication throughout the trial. We expect to commence these clinical trials in the second half of 2014 and file a New Drug Application, or NDA, with the FDA following the completion of these trials.

These planned clinical trials will be similar in design to our Phase 2 clinical trials:

- *CLIN3001*: This clinical trial is expected to be a randomized, double-blind, placebo-controlled trial in approximately 600 female patients with postoperative pain after laparoscopic hysterectomy. The patients will be assigned to receive one of three doses of I.V. CR845 or placebo. The primary efficacy endpoint of the trial is expected to be the SPID at 24 hours. Secondary endpoints will include morphine use, SPID at other time points, TOPAR at 24 hours and occurrence of nausea and vomiting.
- *CLIN3002*: This clinical trial is expected to be a randomized, double-blind, placebo-controlled trial in approximately 600 male or female patients with postoperative pain after bunionectomy surgery. The patients will be assigned to receive one of three doses of I.V. CR845 or placebo. The primary efficacy endpoint of the trial is expected to be the SPID at 48 hours. Secondary endpoints will include morphine use, SPID at other time points, TOPAR at 24 and 48 hours, and occurrence of nausea and vomiting.
- *CLIN3003*: This clinical trial is expected to be a supportive trial in approximately 450 patients with postoperative pain following either laparoscopic hysterectomy or bunionectomy surgery. This trial will be

designed to compare the efficacy of I.V. CR845 when dosed both pre-surgery and post-surgery as compared with receiving I.V. CR845 only post-surgery. Patients will be randomized to receive either I.V. CR845 pre-surgery and post-surgery, or I.V. CR845 post-surgery only, or placebo. The primary efficacy endpoint of the trial is expected to be at either $SPID_{24}$ or $SPID_{48}$ hours. Secondary endpoints will include morphine use, SPID at other time points, TOPAR at 24 and 48 hours, and occurrence of nausea and vomiting.

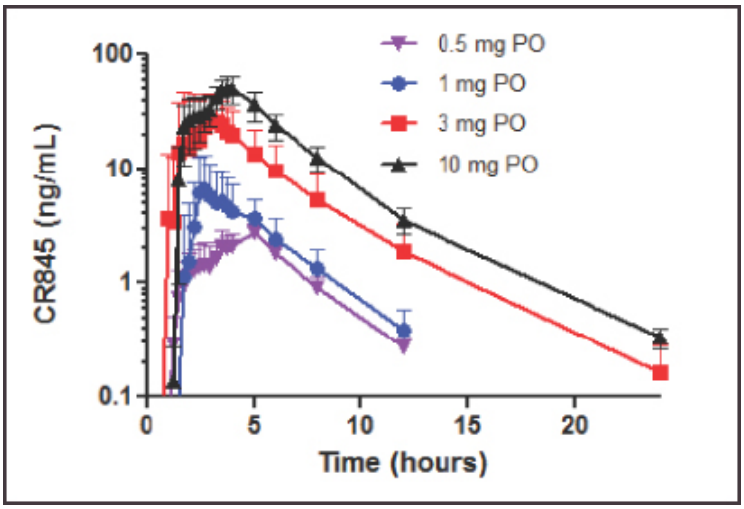
To further confirm the lack of CNS euphoric effects and the non-abusability of CR845, we are also planning to complete a "Human Abuse Liability Study" in 2014. These studies are FDA-recommended and use non-dependent, recreational drug users to predict how likely it is that a test drug will be attractive to abusers. The results of this trial would be submitted as part of the I.V. CR845 NDA. Based on guidance from the FDA, we will require 1,500 total exposures to I.V. CR845 prior to filing an NDA. We believe our planned clinical trials and our clinical trials completed to date will result in sufficient exposures to support an NDA filing.

Oral CR845

We are also developing an oral version of CR845. We believe Oral CR845 will address a significant unmet medical need for a safer alternative to opioids, NSAIDs or CNS anticonvulsant agents for the treatment of moderate-to-severe acute and chronic pain. In addition to the efficacy benefits that CR845 has previously demonstrated, we believe a significant benefit of Oral CR845 in the chronic pain market would be its lack of CNS side effects, including euphoria, which should preclude the misuse, abuse and addiction risks associated with currently approved mu opioids.

We have developed a capsule formulation of CR845 using a third party proprietary formulation technology that is suitable for proof-of-concept clinical testing. A single center, randomized, double-blind placebo-controlled, escalating single oral dose, sequential group Phase 1 trial of Oral CR845 (Study 1001-PO) was conducted in 50 male volunteers administered with an enteric-coated capsule of CR845 (0.5, 1, 3, or 10 mg) or matched placebo. Oral bioavailability was estimated to be approximately 16%, with maximal plasma concentration and overall exposure increasing in a linear fashion at ascending doses, with a time to maximal concentration of approximately 3 hours (see Figure 11 below). The level of exposure at all doses was sufficient to activate peripheral kappa receptors, as indicated by an increase in serum prolactin, a known biomarker of kappa receptor activation. Oral CR845 was well tolerated and considered safe across all doses tested. Adverse events were similar to those reported after I.V. administration, with the addition of mild abdominal discomfort, which we believe to be related to the acidity of the excipients used in the oral capsule. None of the test subjects displayed any of the dysphoric or psychotomimetic side effects that have hindered the development of prior generations of centrally active kappa agonists. We believe this oral bioavailability, confirmed kappa activity at even the lowest capsule concentrations and early favorable safety profile to be an attractive basis for oral drug development.

Figure 11: Phase 1a Pharmacokinetic Profiles of Ascending Concentrations of CR845 Capsules in Human Subjects.



Oral CR845 – Clinical Development Plan

Having established a proof-of-concept for oral delivery of CR845 with a capsule version, we subsequently developed a tablet version which will provide greater predictability with respect to the relationship between amounts of drug administered and concentration in the blood, or pharmacokinetic predictability, as well as possess increased stability suitable for commercial shelf life. We have established drug substance stability and optimal pharmacokinetic characteristics for our tablet version in preclinical testing. We plan to conduct both single ascending and multiple ascending dose Phase 1 clinical trials in the first half of 2014 and, if the results of these trials are favorable, initiate a Phase 2a proof-of-concept trial in acute pain in the second half of 2014.

We are planning the following two Phase 1 clinical trials to determine the safety and pharmacokinetic profile of Oral CR845 when dosed in healthy subjects.

- *CLIN1002-PO*: This clinical trial will be a single ascending dose trial with 10 subjects per cohort, eight of whom will receive Oral CR845 and two of whom will receive placebo. It is anticipated that there will be up to 100 subjects in this trial with doses ranging from 0.1 mg up to 20 mg.
- *CLIN1003-PO*: This clinical trial is expected to be a multiple ascending dose trial with subjects divided into three cohorts based on low, mid and high doses with 15 subjects per cohort, 10 of whom will receive Oral CR845 and five of whom will receive placebo.

Upon successful completion of the Phase 1 clinical trials, we are planning a Phase 2a proof-of-concept trial in patients with moderate-to-severe pain following bunionectomy surgery. We expect this trial will be a randomized, double-blind, placebo-controlled trial that will explore multiple doses of Oral CR845. The primary endpoint of the trial is anticipated to be the SPID at 48 hours.

CR701 Overview

In addition to our CR845 family of peripheral kappa agonists, we have discovered and are developing lead molecules that selectively modulate peripheral cannabinoid receptors. Studies on the effects of cannabis have led to the discovery of an endogenous system of ligands in humans involved in a number of physiological processes, including pain and inflammation. The main naturally occurring ligands for this system, anandamide and 2-arachidonoylglycerol (2-AG), activate a number of cannabinoid receptors, including CB1 and CB2 receptors. Like opioid receptors, CB1 and CB2 receptors are members of the G protein-coupled receptor superfamily. CB1 receptors and associated ligands are mainly localized in the brain whereas CB2 receptors are found mainly in peripheral tissues, particularly immune cells such as leukocytes and mast cells, which have been shown to be involved in pain and inflammatory responses. We are developing lead molecules that

selectively modulate peripheral CB receptors without targeting CNS cannabinoid receptors. Our most advanced CB compound, CR701, is a peripherally-restricted, mixed-CB1/CB2 receptor agonist that selectively interacts with these cannabinoid receptor subtypes with no-off target activities. The compound is orally bioavailable, active in preclinical models of inflammatory and neuropathic pain, and does not produce the side effects characteristic of centrally-active cannabinoids, such as sedation and hypothermia.

Our Strategy

Our strategy is to develop and commercialize a novel and first-in-class portfolio of peripheral-acting analgesics focused on kappa opioid receptor agonists, and subsequently cannabinoid receptor agonists. We have designed and are developing product candidates which have clearly defined clinical development programs and target large commercial market opportunities. The key elements of our strategy are as follows:

Continue to advance I.V. CR845 to approval for acute pain in the United States. We are currently planning a Phase 3 program for I.V. CR845 based on prior FDA guidance. We believe that we will be required to complete two Phase 3 clinical trials, one in patients with pain resulting from soft tissue surgery and one in patients with pain resulting from hard tissue surgery. In addition to our two pivotal Phase 3 clinical trials using I.V. CR845 administered after surgery, we are also planning to run one optional supportive Phase 3 clinical trial with I.V. CR845 administered prior to and after surgery to patients undergoing hysterectomy or bunionectomy. We expect to commence these trials in the second half of 2014.

Build a sales and marketing organization to commercialize I.V. CR845 for acute pain in the hospital setting in the United States. We are planning to establish a hospital-based sales force to market I.V. CR845 to physicians in the United States. We believe that a sales force of approximately 80 sales professionals can reach a large majority of our target market. We also intend to build sales and medical liaison organizations and a reimbursement infrastructure to support our sales and marketing efforts.

Establish partnerships for development and commercialization of I.V. CR845 outside of the United States. We do not intend to build a sales and marketing infrastructure outside the United States. We will seek partnerships and collaborations with companies that have development and commercialization expertise for the commercialization of I.V. CR845 in countries or regions outside of the United States. We have already signed development and commercialization agreements with Maruishi for I.V. CR845 and acute indications of Oral CR845 in the Japanese market and Chong Kun Dang for I.V. and Oral CR845 in the South Korean market.

Advance Oral CR845 to proof-of-concept and seek a global development and commercialization partner. The market for oral chronic pain medications is large and requires a significant sales and marketing infrastructure that other global pharmaceutical partners are better positioned to provide than we are. We intend to advance Oral CR845 through our Phase 2a proof of concept trial and then seek a global or regional partner for continued development and future commercialization of Oral CR845 internationally. We would intend to retain rights to co-promote Oral CR845 in the U.S. for patients who receive I.V. CR845 in the hospital and step down to the oral formulation as they leave the hospital.

Commercial Partnerships

Maruishi Pharmaceutical Co., Ltd.

In April 2013, we entered into a license agreement with Maruishi under which we granted Maruishi an exclusive license to develop, manufacture and commercialize drug products containing CR845 in Japan in the acute pain and uremic pruritus fields. Maruishi has a right of first negotiation for any other indications for which we develop CR845 and, under certain conditions, Maruishi may substitute another pruritus indication for the uremic pruritus indication originally included in its license from us. If we abandon development of CR845 and begin development of another kappa opioid receptor agonist that is covered by the claims of the patents we licensed to Maruishi, such other agonist will automatically be included in the license to Maruishi. Maruishi is required to use commercially reasonable efforts, at its expense, to develop, obtain regulatory approval for and commercialize CR845 in Japan. We are required to use commercially reasonable efforts, at our expense, to develop, obtain regulatory approval for and commercialize CR845 in the United States. We also agreed to use commercially reasonable efforts to supply Maruishi with its requirements of drug product containing CR845 or,

at Maruishi's election, CR845 drug substance. Maruishi may choose instead to manufacture its own requirements of CR845 drug product and/or drug substance.

Under the terms of the agreement, we received a non-refundable and non-creditable upfront license fee of $15.0 million and are eligible to receive up to an aggregate of $10.5 million in clinical development and regulatory milestones and a one time sales milestone of one billion Yen (approximately $10 million) when a certain sales level is attained. We also receive a mid-double digit percentage of all non-royalty payments received by Maruishi from its sublicensees, if any. We are also eligible to receive tiered, low double digit royalties based on net sales, if any, subject to certain deductions and adjustments. Maruishi's obligation to pay us royalties continues, on a product-by-product basis, until the expiration of the last-to-expire licensed patent covering such product or the later expiration of any market exclusivity period. The agreement continues until terminated. Either we or Maruishi may terminate the agreement for the other party's breach of the agreement or bankruptcy. Maruishi may terminate the agreement at any time at will. We may terminate the agreement as a whole if Maruishi challenges the licensed patent rights, and we may terminate the agreement with respect to any indication if Maruishi discontinues its development activities. In addition, in connection with the license agreement, Maruishi made an $8.0 million equity investment in our company.

Chong Kun Dang Pharmaceutical Corporation

In April 2012, we entered into a license agreement with Chong Kun Dang Pharmaceutical Corp., or CKD, under which we granted CKD an exclusive license to develop, manufacture and commercialize drug products containing CR845 in South Korea. CKD is required to use commercially reasonable efforts, at its expense, to develop, obtain regulatory approval for and commercialize CR845 in South Korea. We are required to use commercially reasonable efforts, at our expense, to develop, obtain regulatory approval for and commercialize CR845 in the United States. We also agreed to supply CKD with its requirements of CR845 drug substance.

Under the terms of the agreement, we received a non-refundable and non-creditable $0.6 million upfront payment and are eligible to earn up to an aggregate of $3.8 million in development and regulatory milestones. In addition, in connection with the license agreement, CKD made a $0.4 million equity investment in our company. We will also receive a mid double digit percentage of all non-royalty payments received by CKD from its sublicensees, if any. We are also eligible to receive tiered, high single digit to low double digit royalties based on net sales, if any. CKD's obligation to pay us royalties continues, on a product-by-product basis, until the expiration of the last-to-expire licensed patent covering such product or the later expiration of any market exclusivity period. During 2012, we received an additional $0.6 million from CKD upon the achievement of clinical development milestones under the license agreement. The agreement continues until CKD no longer has any obligation to pay us royalties on any product. Either we or CKD may terminate the agreement for the other party's breach of the agreement or bankruptcy. CKD may terminate the agreement if any of the licensed patent rights is invalid, unenforceable, is narrowed in scope or is deemed unpatentable, except as a result of a challenge by CKD, or a third party commercializes a product containing a compound identical to CR845 without infringing any of the licensed patent rights in South Korea. We may terminate the agreement if CKD challenges the licensed patent rights or if a third party in South Korea owns an issued patent that claims CR845 and CKD's sale of products would infringe that patent.

Sales and Marketing

In executing our strategy, our goal is to have significant control over the development process and commercial execution for I.V. CR845 in the United States. We anticipate developing a distribution capability and commercial organization in the United States to market and sell our I.V. product candidates in the hospital setting, while out-licensing commercialization rights in certain geographical territories outside of the United States. For Oral CR845, we plan to explore late-stage development and commercialization partnerships both in the United States and worldwide.

We have commissioned market research for I.V. CR845 that suggests it would be well received by physicians, if approved. This research indicated that in addition to providing pain relief, reducing side effects such as nausea and vomiting, were among the highest unmet needs in the postoperative setting. In our three Phase 2 trials, I.V. CR845 demonstrated statistically significant pain relief and statistically significant

reductions in nausea and vomiting. As a result, we believe I.V. CR845 is well positioned to address unmet needs in the postoperative pain market.

Intellectual Property

We strive to protect the proprietary technologies that we believe are important to our business, including seeking and maintaining patent protection intended to cover the composition of matter of our product candidates, their methods of use, related technology and other inventions that are important to our business. As more fully described below, patent applications have been filed covering compositions of matter for and methods of using CR845. Six U.S. patents directed to CR845 have issued and the first of these is expected to expire no earlier than 2027. We also rely on trade secrets and careful monitoring of our proprietary information to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection.

Our success will depend significantly on our ability to obtain and maintain patent and other proprietary protection for commercially important technology, inventions and know-how related to our business, defend and enforce our patents, maintain our licenses to use intellectual property owned by third parties, preserve the confidentiality of our trade secrets and operate without infringing valid and enforceable patents and other proprietary rights of third parties. We also rely on know-how, and continuing technological innovation to develop, strengthen, and maintain our proprietary position in the field of peripheral analgesia.

A third party may hold intellectual property, including patent rights, which are important or necessary to the development of our products. It may be necessary for us to use the patented or proprietary technology of third parties to commercialize our products, in which case we would be required to obtain a license from these third parties on commercially reasonable terms, or our business could be harmed, possibly materially. If we were not able to obtain a license, or were not able to obtain a license on commercially reasonable terms, our business could be harmed, possibly materially.

We plan to continue to expand our intellectual property estate by filing patent applications directed to novel peripheral analgesics. We anticipate seeking patent protection in the United States and internationally for compositions of matter covering the compounds, the chemistries and processes for manufacturing these compounds and the use of these compounds in a variety of therapies.

The patent positions of biopharmaceutical companies like us are generally uncertain and involve complex legal, scientific and factual questions. In addition, the coverage claimed in a patent application can be significantly reduced before the patent is issued, and the patent’s scope can be modified after issuance. Consequently, we do not know whether any of our product candidates will be protectable or remain protected by enforceable patents. We cannot predict whether the patent applications we are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient proprietary protection from competitors. Any patents that we hold may be challenged, circumvented or invalidated by third parties.

Because patent applications in the United States and certain other jurisdictions are maintained in secrecy for 18 months, and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain of our entitlement to the inventions covered by pending patent applications. Moreover, we may have to participate in interference proceedings declared by the United States Patent and Trademark Office (USPTO) to determine priority of invention, or in post-grant challenge proceedings in the USPTO or a foreign patent office such as oppositions, inter-partes review, post grant review, or a derivation proceeding, that challenge our entitlement to an invention or the patentability of one or more claims in our patent applications or issued patents. Such proceedings could result in substantial cost, even if the eventual outcome is favorable to us.

The patent portfolios for our most advanced programs are summarized below.

CR845

Our synthetic peptide amide kappa opioid agonist patent portfolio is wholly owned by us. The portfolio includes eight issued U.S. patents (U.S. Patent Nos. 7,402,564; 7,713,937; 7,727,963; 7,842,662; 8,217,007; 8,236,766; 8,486,894 and 8,536,131) with claims to compositions of a wide range of synthetic peptide amide kappa opioid agonists, including CR845 or related molecules, as well as methods of using these compounds. U.S. Patent No. 7,402,564, which is the earliest issued U.S. patent claiming CR845 compositions is due to expire November 12, 2027, although under certain circumstances the patent term may be extended for up to a further five (5) years based upon the Hatch-Waxman Act. The CR845 patent portfolio also includes pending U.S. patent applications which claim additional uses and methods of administering CR845. Related foreign applications were filed in more than 40 other countries and national patents have been granted in 32 European countries, as well as in Australia, China, Hong Kong, Japan, Malaysia, Mexico, New Zealand, Russia, Singapore and South Africa. These granted foreign patents with claims to CR845 are due expire no earlier than November 12, 2027. Patent applications claiming CR845 are pending in Brazil, Canada, Israel, India and South Korea.

CR701

Our imidazoheterocycle cannabinoid compound patent portfolio, which is wholly owned by us, includes U.S. Patent Nos. 7,517,874 and 8,431,565; and a pending U.S. patent application claiming CR701, related compounds, and methods of using these compounds. These U.S. patents are due to expire no earlier than June 20, 2028. A related international PCT application was filed and sixteen national and European and Eurasian regional patent applications have been filed based on the PCT application. The European regional patent has been granted as have national patents in Hong Kong, Israel, Malaysia, Mexico, New Zealand, Singapore and South Africa. These and any other patents resulting from the pending national patent applications, if issued, expire June 20, 2028.

Other Cara Patents and Patent Applications

We also own several other U.S. Patents including U.S. Patent Nos. 7,504,538; 7,741,350; 7,960,376; 7,960,377 and 8,211,926 with claims to other cannabinoid compounds and U.S. Patent No. 8,217,000 and a pending U.S. patent application with claims to regulation of prolactin in mammals including humans.

In addition, our kappa receptor opioid peptide patent portfolio, which is wholly owned by us, includes U.S. Patent No. 5,965,701 claiming CR665, our first generation kappa opioid receptor agonist, related compounds, and methods of using these compounds. U.S. Patent No. 5,965,701 is due to expire no earlier than December 23, 2017. A related international PCT application was filed and national patent applications have been granted in over 40 other countries. Granted patents with claims to CR665 in Canada, China, France, Germany, India, Italy, Japan, Mexico, Russia, Spain, South Korea and U.K. are due to expire December 22, 2018.

The term of individual patents depends upon the legal term of the patents in the countries in which they are obtained. In most countries in which we file, the patent term is 20 years from the earliest date of filing a PCT application or a non-provisional patent application. The term of a patent in the United States can be adjusted and extended due to the failure of the United States Patent and Trademark Office following certain statutory and regulation deadlines for issuing a patent.

In the United States, the patent term of a patent that covers an FDA-approved drug may also be eligible for patent term extension, which permits patent term restoration as compensation for a portion of the patent term lost during the FDA regulatory review process. The Hatch-Waxman Act permits a patent term extension of up to five years beyond the expiration of the patent. The length of the patent term extension is related to the length of time the drug is under regulatory review. Patent extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval and only one patent applicable to an approved drug may be extended. Similar provisions are available in Europe and other non-United States jurisdictions to extend the term of a patent that covers an approved drug. In the future, if and when our pharmaceutical products receive FDA
approval, we expect to apply for patent term extensions on patents covering those products. Although, we intend to seek patent term extensions to any of our issued patents in any jurisdiction where these are available there is no

guarantee that the applicable authorities, including the FDA in the United States, will agree with our assessment of whether such extensions should be granted, and even if granted, the length of such extensions.

We also rely on trade secret protection for our confidential and proprietary information. Although we take steps to protect our proprietary information and trade secrets, including through contractual means with our employees and consultants, third parties may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose our technology. Thus, we may not be able to meaningfully protect our trade secrets. It is our policy to require our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. These agreements provide that all confidential information concerning our business or financial affairs developed or made known to the individual during the course of the individual's relationship with us is to be kept confidential and not disclosed to third parties except in specific circumstances. In the case of employees, the agreements provide that all inventions conceived by the individual, and which are related to our current or planned business or research and development or made during normal working hours, on our premises or using our equipment or proprietary information, are our exclusive property.

Competition

The biotechnology and pharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. While we believe that our technology, knowledge, experience and scientific resources provide us with competitive advantages, we face potential competition from many different sources, including large pharmaceutical and biotechnology companies, specialty pharmaceutical and generic drug companies, and medical technology companies. Any product candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future.

There are a large number of companies developing or marketing pain therapies for the indications that we are pursuing. Many of our competitors, including many of the organizations named below, have substantially greater financial, technical and human resources than we do and significantly greater experience in the development of product candidates, obtaining FDA and other regulatory approvals of products and the commercialization of those products. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of competitors. Small or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. We also compete with these companies in recruiting and retaining qualified scientific personnel and establishing clinical trial sites and patient registration for clinical trials.

We believe the key competitive factors that will affect the development and commercial success of our product candidates, if approved for marketing, are likely to be their safety, efficacy and tolerability profile, reliability, convenience of dosing, price and reimbursement from government and third party payors. Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. In addition, our ability to compete may be affected in many cases by insurers or other third party payors seeking to encourage the use of generic products. Generic products that broadly address these indications are currently on the market for the indications that we are pursuing, and additional products are expected to become available on a generic basis over the coming years. If our product candidates achieve marketing approval, we expect that they will be priced at a significant premium over competitive generic products.

If our product candidates are approved for the indications for which we are currently undertaking clinical trials, they will compete with the therapies and currently marketed drugs discussed below:

I.V. CR845. We are developing I.V. CR845 for the management of acute postoperative pain in adult patients. The market for management of postoperative pain is highly fragmented and can be segmented into three general classes of products:

- mu opioid-based products, such as morphine, fentanyl, hydrocodone, and hydromorphone, all of which are available generically;
- local anesthetic-based products, such as lidocaine and bupivacaine, which are available generically; and
- adjunctive analgesics, which are defined as non-mu opioid pain-relieving drugs that provide additional control of postoperative pain.

There has been a trend in recent years for anesthesiologists to a use all three classes of products to manage postoperative pain, often referred to as "multimodal analgesia." If approved, I.V. CR845 would be competing within the overall acute postoperative pain market, although we expect that it would compete primarily with adjunctive analgesics, particularly in multimodal analgesic treatment approaches. Common adjunctive analgesics include: ketorolac, an injectable NSAID, which is available generically; Caldolor, an injectable ibuprofen marketed by Cumberland Pharmaceuticals; and Ofirmev, an injectable acetaminophen marketed by Cadence Pharmaceuticals.

In addition to the above products approved for use as adjunctive analgesics for moderate-to-severe pain, there have been clinical reports that generic drugs originally approved for other indications, such as gabapentin and pregabalin, as well as dexmedetomidine, dextromethorphan, and clonidine may exhibit efficacy in the treatment of postoperative pain, and these and other such drugs may be used off-label for this purpose and, therefore, also compete with I.V. CR845. Additionally, numerous companies are developing additional product candidates for the treatment of acute postoperative pain.

Oral CR845. We are developing Oral CR845 for use as a step-down therapy, as well as the management of moderate-to-severe chronic pain. The market for step-down therapies and for management of moderate-to-severe chronic pain is highly fragmented and includes numerous generic as well as brand name products, including oral formulations of NSAIDs and controlled-release mu opioids. Common NSAIDs include Celebrex, which is marketed by Pfizer, and naproxen and ibuprofen, which are available generically. Common oral mu opioids include, among others: Avinza, an extended-release morphine sulfate capsule marketed by Pfizer; EXALGO, an extended-release hydromorphone hydrochloride tablet marketed by Mallinckrodt; Kadian, an extended-release morphine sulfate capsule marketed by Actavis; and OxyContin, a controlled-release oxycodone hydrochloride tablet marketed by Purdue Pharma. In addition to oral therapies, Janssen Pharmaceuticals markets Duragesic, a fentanyl transdermal patch.

Because of the size of the chronic pain market and the substantial unmet need for products that are safe and effective, there are a large number of companies involved in the discovery, development, and/or marketing of such products. These product candidates include immediate release and extended release formulations of various NSAIDs and mu opioids. These include combination products that include mu opioid combined with an NSAID or acetaminophen, such as Vicodin (hydrocodone and acetaminophen) and Percocet (oxycodone and acetaminophen). Other product candidates in development are based on compounds with non-opioid mechanisms of action, including apremilast, an anti-inflammatory compound being studied in Phase 3 clinical trials by Celgene.

CR701. We plan to develop CR701 for neuropathic pain indications such as postherpetic neuralgia, or PHN, and neuropathic pain associated with diabetic peripheral neuropathy, or DPN. If approved for marketing, CR701 will compete against more established products that have been approved for treatment of various neuropathic pain indications. One of the most widely-prescribed drug in the United States for treatment of neuropathic pain is gabapentin, which is marketed by Pfizer and is also available generically. Gralise, a once-daily tablet formulation of gabapentin for the treatment of PHN, is marketed by Depomed. Pfizer markets Lyrica, an oral anticonvulsant, for use in the treatment of PHN and neuropathic pain associated with DPN. Janssen Pharmaceuticals markets Nucynta, an extended-release mu opioid tablet, for neuropathic pain associated with

DPN. Topical prescription products currently marketed in the United States for neuropathic pain indications include Lidoderm, a lidocaine patch marketed by Endo Pharmaceuticals for PHN, and Qutenza, a capsaicin patch marketed by Acorda Therapeutics for PHN. Acorda Therapeutics is also developing a topical capsaicin cream, which is reportedly Phase 3 ready.

In addition to the foregoing products and product candidates, a number of products that are approved for treatment of other diseases are used by physicians to treat PHN, and it is possible that other such products will be shown to exhibit efficacy in the future and thereby emerge as competitors to CR701 for the treatment of different types of neuropathic pain. There are many other companies working to develop new drugs and other therapies to treat neuropathic pain.

Manufacturing

We do not have any manufacturing facilities. We currently rely, and expect to continue to rely, on third parties for the manufacture of our product candidates for preclinical and clinical testing, as well as for commercial manufacture if our product candidates receive marketing approval. At this time, none of our contract manufacturing agreements limit where, or with whom we can contract for commercial manufacture or distribution. It is our intention that by the time of any regulatory approvals for commercialization, we will have negotiated long-term commitments with at least one primary and one secondary supplier for each manufacturing and distribution function.

All of our product candidates are either small peptides or organic small molecules and are manufactured in reliable and reproducible synthetic processes from readily available starting materials. The chemistry is amenable to scale up and does not require any special equipment or technology in the manufacturing process. We expect to continue to develop product candidates that can be produced cost-effectively at contract manufacturing facilities.

Government Regulation and Product Approval

Government authorities in the United States, at the federal, state and local level, and in other countries extensively regulate, among other things, the research, development, testing, manufacture, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, import and export of pharmaceutical products such as those we are developing. The processes for obtaining regulatory approvals in the United States and in foreign countries, along with subsequent compliance with applicable statutes and regulations, require the expenditure of substantial time and financial resources.

FDA Regulation

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and its implementing regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations requires the expenditure of substantial time and financial resources. Failure to comply with the applicable United States requirements at any time during the product development process, approval process or after approval, may subject an applicant to a variety of administrative or judicial sanctions, such as the FDA's refusal to approve pending NDAs, withdrawal of an approval, imposition of a clinical hold, issuance of warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement or civil or criminal penalties.

The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests, animal studies and formulation studies in compliance with the FDA's good laboratory practice, or GLP, regulations;
- submission to the FDA of an IND which must become effective before human clinical trials may begin;
- approval by an independent institutional review board, or IRB, at each clinical site before each trial may be initiated;

- performance of human clinical trials, including adequate and well-controlled clinical trials, in accordance with good clinical practices, or cGCP, to establish the safety and efficacy of the proposed drug product for each indication;
- submission to the FDA of an NDA;
- satisfactory completion of an FDA advisory committee review, if applicable;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with current good manufacturing practices, or cGMP, and to assure that the facilities, methods and controls are adequate to preserve the drug's identity, strength, quality and purity, as well as satisfactory completion of an FDA inspection of selected clinical sites to determine cGCP compliance;
- FDA review and approval of the NDA; and
- potential DEA review and scheduling activities prior to launch for some of our product candidates.

Preclinical Studies. Preclinical studies include laboratory evaluation of drug substance chemistry, toxicity and drug product formulation, as well as animal studies to assess potential safety and efficacy. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data and any available clinical data or literature, among other things, to the FDA as part of an IND. Manufacture of drug substance, drug product and the labeling and distribution of clinical supplies must all comply with cGMP standards. Some preclinical testing may continue even after the IND is submitted. An IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions related to one or more proposed clinical trials and places the trial on a clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. As a result, submission of an IND may not result in the FDA allowing clinical trials to commence.

Clinical Trials. Clinical trials involve the administration of the investigational new drug to human subjects under the supervision of qualified investigators in accordance with cGCP requirements, which include the requirement that all research subjects provide their informed consent in writing for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. A protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. In addition, an IRB at each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution, and the IRB must continue to oversee the clinical trial while it is being conducted. Information about certain clinical trials must be submitted within specific timeframes to the National Institutes of Health, or NIH, for public dissemination on their ClinicalTrials.gov website.

Human clinical trials are typically conducted in three sequential phases, which may overlap or be combined. In Phase 1, the drug is initially introduced into healthy human subjects or patients with the target disease or condition and tested for safety, dosage tolerance, absorption, metabolism, distribution, excretion and, if possible, to gain an initial indication of its effectiveness. In Phase 2, the drug typically is administered to a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage. In Phase 3, the drug is administered to an expanded patient population, generally at geographically dispersed clinical trial sites, in well-controlled clinical trials to generate enough data to statistically evaluate the efficacy and safety of the product for approval, to establish the overall risk-benefit profile of the product and to provide adequate information for the labeling of the product.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently if serious adverse events occur. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. Furthermore, the FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients.

Marketing Approval. Assuming successful completion of the required clinical testing, the results of the preclinical and clinical studies, together with detailed information relating to the product's chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of an NDA requesting approval to market the product for one or more indications. In most cases, the submission of an NDA is subject to a substantial application user fee. Under the Prescription Drug User Fee Act, or PDUFA, guidelines that are currently in effect, the FDA has agreed to certain performance goals regarding the timing of its review of an application.

In addition, under the Pediatric Research Equity Act, or PREA, an NDA or supplement to an NDA must contain data that are adequate to assess the safety and effectiveness of the drug for the claimed indications in all relevant pediatric subpopulations, and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements.

The FDA also may require submission of a risk evaluation and mitigation strategy, or REMS, to mitigate any identified or suspected serious risks and ensure safe use of the drug. The REMS plan could include medication guides, physician communication plans, assessment plans, and elements to assure safe use, such as restricted distribution methods, patient registries or other risk minimization tools.

The FDA conducts a preliminary review of all NDAs within the first 60 days after submission, before accepting them for filing, to determine whether they are sufficiently complete to permit substantive review. The FDA may request additional information rather than accept an NDA for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA reviews an NDA to determine, among other things, whether the drug is safe and effective and whether the facility in which it is manufactured, processed, packaged or held meets standards designed to assure the product's continued safety, quality and purity.

The FDA may refer an application for a novel drug to an external advisory committee. An advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an NDA, the FDA typically will inspect the facility or facilities where the product is manufactured, referred to as a Pre-Approval Inspection. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the FDA will typically inspect one or more clinical trial sites to assure compliance with cGCP.

The testing and approval process for an NDA requires substantial time, effort and financial resources, and each may take several years to complete. Data obtained from preclinical and clinical testing are not always conclusive and may be susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. The FDA may not grant approval of an NDA on a timely basis, or at all.

After evaluating the NDA and all related information, including the advisory committee recommendation, if any, and inspection reports regarding the manufacturing facilities and clinical trial sites, the FDA may issue an approval letter, or, in some cases, a complete response letter. A complete response letter generally contains a statement of specific conditions that must be met in order to secure final approval of the NDA and may require additional clinical or preclinical testing in order for FDA to reconsider the application. Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval. If and when those conditions have been met to the FDA's satisfaction, the FDA may issue an approval letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. For some products, an additional step of DEA review and scheduling is required.

Even if the FDA approves a product, it may limit the approved indications for use of the product, require that contraindications, warnings or precautions be included in the product labeling, including a boxed warning, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess a drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms under a REMS which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-marketing studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes, and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Post-Approval Requirements. Drugs manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion, reporting of adverse experiences with the product, and compliance with any post-approval requirements imposed as a condition of approval, such as Phase 4 clinical trials and surveillance to assess safety and effectiveness after commercialization. After approval, most changes to the approved product, such as adding new indications or other labeling claims are subject to prior FDA review and approval. There also are continuing, annual user fee requirements for any marketed products and the establishments at which such products are manufactured, as well as new application fees for supplemental applications with clinical data. In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and state agencies, and are subject to periodic announced and unannounced inspections by the FDA and these state agencies for compliance with cGMP requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting and documentation requirements upon the sponsor and any third party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain cGMP compliance.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market.

Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in mandatory revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- fines, warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve pending NDAs or supplements to approved NDAs, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Although physicians, in the practice of medicine, may prescribe approved drugs for unapproved indications, pharmaceutical companies generally are required to promote their drug products only for the approved indications and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability.

In addition, the distribution of prescription pharmaceutical products is subject to the Prescription Drug Marketing Act, or PDMA, which regulates the distribution of drugs and drug samples at the federal level, and

sets minimum standards for the registration and regulation of drug distributors by the states. Both the PDMA and state laws limit the distribution of prescription pharmaceutical product samples and impose requirements to ensure accountability in distribution.

DEA Regulation

I.V. CR845, Oral CR845 or our other product candidates, if approved, may be regulated as a ‘‘controlled substance’’ as defined in the Controlled Substances Act of 1970, or CSA, which establishes registration, security, recordkeeping, reporting, storage, distribution and other requirements administered by the DEA. The DEA is concerned with the control of handlers of controlled substances, and with the equipment and raw materials used in their manufacture and packaging, in order to prevent loss and diversion into illicit channels of commerce.

The DEA regulates controlled substances as Schedule I, II, III, IV or V substances. Schedule I substances by definition have no established medicinal use, and may not be marketed or sold in the United States. A pharmaceutical product may be listed as Schedule II, III, IV or V, with Schedule II substances considered to present the highest risk of abuse and Schedule V substances the lowest relative risk of abuse among such substances. The manufacture, shipment, storage, sale and use of Schedule II substances are subject to a high degree of regulation.

Annual registration is required for any facility that manufactures, distributes, dispenses, imports or exports any controlled substance. The registration is specific to the particular location, activity and controlled substance schedule. For example, separate registrations are needed for import and manufacturing, and each registration will specify which schedules of controlled substances are authorized.

The DEA typically inspects a facility to review its security measures prior to issuing a registration. Security requirements vary by controlled substance schedule, with the most stringent requirements applying to Schedule I and Schedule II substances. Required security measures include background checks on employees and physical control of inventory through measures such as cages, surveillance cameras and inventory reconciliations. Records must be maintained for the handling of all controlled substances, and periodic reports made to the DEA, for example distribution reports for Schedule I and II controlled substances, Schedule III substances that are narcotics, and other designated substances. Reports must also be made for thefts or losses of any controlled substance, and to obtain authorization to destroy any controlled substance. In addition, special authorization and notification requirements apply to imports and exports.

In addition, a DEA quota system controls and limits the availability and production of controlled substances in Schedule I or II. Distributions of any Schedule I or II controlled substance must also be accompanied by special order forms, with copies provided to the DEA. The DEA may adjust aggregate production quotas and individual production and procurement quotas from time to time during the year, although the DEA has substantial discretion in whether or not to make such adjustments. Our quota of an active ingredient may not be sufficient to meet commercial demand or complete clinical trials. Any delay or refusal by the DEA in establishing our quota for controlled substances could delay or stop our clinical trials or product launches.

To meet its responsibilities, the DEA conducts periodic inspections of registered establishments that handle controlled substances. Individual states also regulate controlled substances, and we and our collaborators will be subject to state regulation with respect to the distribution of these products.

Fraud and Abuse, Data Privacy and Security and Transparency Laws and Regulations

In addition to FDA restrictions on marketing of pharmaceutical products, federal and state fraud and abuse laws restrict business practices in the biopharmaceutical industry. These laws include, among other things, anti-kickback and false claims laws and regulations as well as data privacy and security laws and regulations.

The federal Anti-Kickback Statute prohibits, among other things, any person or entity, from knowingly and willfully offering, paying, soliciting or receiving any remuneration, directly or indirectly, overtly or covertly, in cash or in kind, to induce or in return for purchasing, leasing, ordering, or arranging for or recommending the purchase, lease, or order of any item or service reimbursable under Medicare, Medicaid or other federal

healthcare programs. The term “remuneration” has been interpreted broadly to include anything of value. The Anti-Kickback Statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand and prescribers, purchasers, and formulary managers on the other. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution. Practices that involve remuneration that may be alleged to be intended to induce prescribing, purchases, or recommendations may be subject to scrutiny if they do not qualify for an exception or safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the Anti-Kickback Statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all of its facts and circumstances.

Additionally, the intent standard under the Anti-Kickback Statute was also amended by the Health Care Reform Law, as defined above, to a stricter standard such that a person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. In addition, the Health Care Reform Law provided that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal civil False Claims Act.

The federal civil False Claims Act prohibits, among other things, any person or entity from knowingly presenting, or causing to be presented, a false or fraudulent claim for payment to, or approval by, the federal government or knowingly making, using, or causing to be made or used a false record or statement material to a false or fraudulent claim to the federal government. A claim includes “any request or demand” for money or property presented to the U.S. government. The civil False Claims Act has been used to assert liability on the basis of kickbacks and other improper referrals, improperly reported government pricing metrics such as Best Price or Average Manufacturer Price, improper use of Medicare provider or supplier numbers when detailing a provider of services, improper promotion of off-label uses not expressly approved by FDA in a drug’s label, and allegations as to misrepresentations with respect to the services rendered. Additionally, the civil monetary penalties statute, which, among other things, imposes fines against any person who is determined to have presented, or caused to be presented, claims to a federal healthcare program that the person knows, or should know, is for an item or service that was not provided as claimed or is false or fraudulent. The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created new federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud or to obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, including private third party payors and knowingly and willfully falsifying, concealing or covering up by trick, scheme or device a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services relating to healthcare matters. Also, many states have similar fraud and abuse statutes or regulations that apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor.

In addition, we may be subject to data privacy and security regulation by both the federal government and the states in which we conduct our business. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and their respective implementing regulations, including the final omnibus rule published on January 25, 2013, imposes specified requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes security standards and certain privacy standards directly applicable to business associates. HITECH also created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorney’s fees and costs associated with pursuing federal civil actions. In addition, state laws may govern the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

Additionally, federal transparency laws, including the federal Physician Payment Sunshine Act created under Section 6002 of the Health Care Reform Law and its implementing regulations, require that manufacturers of

drugs for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) report annually to CMS information related to "payments or other transfers of value" made or distributed to physicians (defined to include doctors of medicine, dentists, optometrists, podiatrists and chiropractors), generally, with some exceptions, and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, the physicians and teaching hospitals. Additionally, applicable manufacturers and applicable group purchasing organizations are required to report annually to CMS certain ownership and investment interests held by physicians (as defined above) and their immediate family members, with data collection required as of August 1, 2013, and reporting to CMS is required by March 31, 2014 (and by the 90th day of each subsequent calendar year). Disclosure of such information is to be made on a publicly available website beginning in September 2014.

There are also an increasing number of analogous state laws that require manufacturers to file reports with states on pricing and marketing information, such as tracking and reporting of gifts, compensations, other remuneration and items of value provided to healthcare professionals and healthcare entities. Many of these laws contain ambiguities as to what is required to comply with such laws. For example, several states have enacted legislation requiring pharmaceutical companies to, among other things, establish and implement commercial compliance programs, file periodic reports with the state, make periodic public disclosures on sales, marketing, pricing, clinical trials and other activities and/or register their sales representatives. Certain state laws also regulate manufacturers' use of prescriber-identifiable data. These laws may affect our future sales, marketing and other promotional activities by imposing administrative and compliance burdens. In addition, given the lack of clarity with respect to these laws and their implementation, our reporting actions once we commercialize could be subject to the penalty provisions of the pertinent state and federal authorities.

If our operations are found to be in violation of any of the health regulatory laws described above or any other laws that apply to us, we may be subject penalties, including criminal and significant civil monetary penalties, damages, fines, imprisonment, exclusion from participation in government healthcare programs, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. To the extent that any of our products are sold in a foreign country, we may be subject to similar foreign laws and regulations, which may include, for instance, applicable post-marketing requirements, including safety surveillance, anti-fraud and abuse laws, and implementation of corporate compliance programs and reporting of payments or transfers of value to healthcare professionals.

Coverage and Reimbursement Generally

The commercial success of our product candidates and our ability to commercialize any approved product candidates successfully will depend in part on the extent to which governmental payor programs at the federal and state levels, including Medicare and Medicaid, private health insurers and other third-party payors provide coverage for and establish adequate reimbursement levels for our product candidates. Government authorities, private health insurers and other organizations generally decide which drugs they will pay for and establish reimbursement levels for healthcare. In particular, in the United States, private health insurers and other third party payors often provide reimbursement for products and services based on the level at which the government provides reimbursement through the Medicare or Medicaid programs for such products and services. In the United States, the European Union and other potentially significant markets for our product candidates, government authorities and third party payors are increasingly attempting to limit or regulate the price of medical products and services, particularly for new and innovative products and therapies, which often has resulted in average selling prices lower than they would otherwise be. Further, the increased emphasis on managed healthcare in the United States and on country and regional pricing and reimbursement controls in the European Union will put additional pressure on product pricing, reimbursement and utilization, which may adversely affect our future product sales and results of operations. These pressures can arise from rules and practices of managed care groups, judicial decisions and governmental laws and regulations related to Medicare, Medicaid and healthcare reform, pharmaceutical coverage and reimbursement policies and pricing in general. Patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third-party payors to reimburse all or part of the associated healthcare costs. Sales of our product candidates will therefore depend substantially, both domestically and abroad, on the extent to which

the costs of our products will be paid by health maintenance, managed care, pharmacy benefit and similar healthcare management organizations, or reimbursed by government health administration authorities, such as Medicare and Medicaid, private health insurers and other third-party payors.

Third party payors are increasingly imposing additional requirements and restrictions on coverage and limiting reimbursement levels for medical products, including pharmaceuticals. For example, federal and state governments reimburse covered prescription drugs at varying rates generally below average wholesale price. These restrictions and limitations influence the purchase of healthcare services and products. Third party payors are developing increasingly sophisticated methods of controlling healthcare costs. Third-party payors may limit coverage to specific drug products on an approved list, or formulary, which might not include all of the FDA-approved drug products for a particular indication. Third-party payors are increasingly challenging the price and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. We may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of our products, in addition to the costs required to obtain the FDA approvals. Our product candidates may not be considered medically necessary or cost-effective. Moreover, a payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in drug development. Legislative proposals to reform healthcare or reduce costs under government insurance programs may result in lower reimbursement for our products and product candidates or exclusion of our products and product candidates from coverage. The cost containment measures that healthcare payors and providers are instituting and any healthcare reform could significantly reduce our revenues from the sale of any approved product candidates. We cannot provide any assurances that we will be able to obtain and maintain third party coverage or adequate reimbursement for our product candidates in whole or in part.

Coverage, Reimbursement, and Pricing Developments

In the United States and some foreign jurisdictions, the legislative landscape continues to evolve. There have been a number of legislative and regulatory changes to the healthcare system that could affect our ability to sell our products profitably. Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives. For example, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, imposed new requirements for the distribution and pricing of prescription drugs for Medicare beneficiaries. Under Part D, Medicare beneficiaries may enroll in prescription drug plans offered by private entities that provide coverage of outpatient prescription drugs. Part D plans include both standalone prescription drug benefit plans and prescription drug coverage as a supplement to Medicare Advantage plans. Unlike Medicare Part A and B, Part D coverage is not standardized. Part D prescription drug plan sponsors are not required to pay for all covered Part D drugs, and each drug plan can develop its own drug formulary that identifies which drugs it will cover and at what tier or level. However, Part D prescription drug formularies must include drugs within each therapeutic category and class of covered Part D drugs, though not necessarily all the drugs in each category or class. Any formulary used by a Part D prescription drug plan must be developed and reviewed by a pharmacy and therapeutic committee. Government payment for some of the costs of prescription drugs may increase demand for any products for which we receive marketing approval. However, any negotiated prices for our future products covered by a Part D prescription drug plan will likely be lower than the prices we might otherwise obtain. Moreover, while the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own payment rates. Any reduction in payment that results from Medicare Part D may result in a similar reduction in payments from non-governmental payors.

The American Recovery and Reinvestment Act of 2009 provides funding for the federal government to compare the effectiveness of different treatments for the same illness. A plan for the research will be developed by the Department of Health and Human Services, the Agency for Healthcare Research and Quality and the

National Institutes for Health, and periodic reports on the status of the research and related expenditures will be made to Congress. Although the results of the comparative effectiveness studies are not intended to mandate coverage policies for public or private payors, it is not clear what effect, if any, the research will have on the sales of any product, if any such product or the condition that it is intended to treat is the subject of a study. It is also possible that comparative effectiveness research demonstrating benefits in a competitor's product could adversely affect the sales of our product candidates. If third party payors do not consider our product candidates to be cost-effective compared to other available therapies, they may not cover our product candidates, once approved, as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products on a profitable basis.

The Health Care Reform Law was passed in March 2010 and includes provisions that have to the potential to substantially change healthcare financing by both governmental and private insurers. Among other cost containment measures, the Health Care Reform Law, among other things, revised the methodology by which rebates owed by manufacturers to the state and federal government for covered outpatient drugs under the Medicaid Drug Rebate Program are calculated, increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program, extended the Medicaid Drug Rebate program to utilization of prescriptions of individuals enrolled in Medicaid managed care organizations, subjected manufacturers to new annual fees and taxes for certain branded prescription drugs, and provided incentives to programs that increase the federal government's comparative effectiveness research.

In addition, other legislative changes have been proposed and adopted since the Health Care Reform Law was enacted. In August 2011, the President signed into law the Budget Control Act of 2011, as amended, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend proposals in spending reductions to Congress. The Joint Select Committee on Deficit Reduction did not achieve its targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, triggering the legislation's automatic reductions to several government programs. These reductions include aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, starting in 2013. Under the Budget Control Act of 2011, as amended, federal budget "sequestration" Medicare payment reductions became effective on April 1, 2013 and automatically reduced payments under various government programs, including, for example, certain Medicare provider and supplier reimbursement payments. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, further reduced Medicare payments to several providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These and other healthcare reform initiatives may result in additional reductions in Medicare and other healthcare funding, which could have a material adverse effect on our financial operations. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could further limit the prices we are able to charge, or the amounts of reimbursement available, for our product candidates once they are approved.

Foreign Regulation

In order to market any product outside of the United States, we would need to comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy and governing, among other things, clinical trials, marketing authorization, commercial sales and distribution of our products. For example, in the European Union, we must obtain authorization of a clinical trial application, or CTA, in each member state in which we intend to conduct a clinical trial. Whether or not we obtain FDA approval for a product, we would need to obtain the necessary approvals by the comparable regulatory authorities of foreign countries before we can commence clinical trials or marketing of the product in those countries. The approval process varies from country to country and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries might differ from and be longer than that required to obtain FDA approval. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may negatively impact the regulatory process in others.

Research and Development

Conducting research and development is central to our business model. We have invested and expect to continue to invest significant time and capital in our research and development operations. Our research and development expenses were $4.8 million, $7.2 million and $4.6 million in 2010, 2011 and 2012, respectively, and $6.7 million for the nine months ended September 30, 2013. We plan to increase our research and development expenses for the foreseeable future as we seek to complete the development of I.V. CR845 and Oral CR845 and subsequently advance the development of CR701.

Employees

As of September 30, 2013, we had 10 employees, all of whom are located in the United States. None of our employees is represented by a labor union or covered by a collective bargaining agreement. We consider our relationship with our employees to be good.

Facilities

Our principal offices occupy approximately 53,000 square feet of leased office and laboratory space in Shelton, Connecticut pursuant to a lease agreement that expires in 2017. We believe that our current facilities are suitable and adequate to meet our current needs. We intend to add new facilities or expand existing facilities as we add employees, and we believe that suitable additional or substitute space will be available as needed to accommodate any such expansion of our operations.

Legal Proceedings

From time to time, we are subject to litigation and claims arising in the ordinary course of business. We are not currently a party to any material legal proceedings and we are not aware of any pending or threatened legal proceeding against us that we believe could have a material adverse effect on our business, operating results or financial condition.

MANAGEMENT

Executive Officers and Directors

The following table sets forth information regarding our executive officers and directors as of September 30, 2013:

Name	Age	Position
Derek Chalmers, Ph.D., D.Sc.	49	President, Chief Executive Officer and Director
Josef Schoell	63	Chief Financial Officer
Frédérique Menzaghi, Ph.D.	47	Vice President – Research and Development
Michael E. Lewis, Ph.D.	61	Chief Scientific Advisor
Ed Hurwitz	50	Director
Charles Moller, Ph.D.	60	Director
Dean Slagel	43	Director
Martin Vogelbaum	50	Director

(1) Member of our audit committee.
(2) Member of our nominating and corporate governance committee.
(3) Member of our compensation committee.

Executive Officers

Derek Chalmers, Ph.D., D.Sc. Dr. Chalmers, one of our founders, has served as our President and Chief Executive Officer since September 2004 and has served as a member of our board of directors since July 2004. Dr. Chalmers has over 19 years experience in the biotechnology industry with increasing levels of corporate and business responsibilities. Prior to founding our company, Dr. Chalmers co-founded Arena Pharmaceuticals, Inc. (NASDAQ: ARNA), a drug discovery and development company, and served as its Vice President and Executive Director from June 1997 until May 2004. Dr. Chalmers holds a B.Sc. and Ph.D. in Pharmacology from the University of Glasgow. Dr. Chalmers' qualifications to sit on our board of directors include his leadership, executive, managerial and business experience, historical knowledge of our company and his background and experience in the biotechnology industry, including having been a founder of a prior biotechnology company.

Josef Schoell. Mr. Schoell has served as our Chief Financial Officer since May 2006. He joined us in May 2005 and served as our Controller between then and May 2006. Mr. Schoell has over 20 years of financial and accounting experience, including 18 years in the biotechnology industry. From 2003 until joining our company in May 2005, Mr. Schoell was a consultant with Robert Half Management Resources, a provider of accounting and financial professionals. From 1995 to 2002, he served as the Chief Financial Officer and Vice President – Finance, of American Biogenetic Sciences Inc., a biotechnology company. Mr. Schoell received a B.S. in Accounting from the New York University Stern School of Business and is a Certified Public Accountant. Mr. Schoell is a member of the American Institute of Certified Public Accountants and Financial Executives International.

Frédérique Menzaghi, Ph.D. Dr. Menzaghi, one of our founders, has served as our Vice President – Research and Development since September 2004. Dr. Menzaghi has over 20 years of drug development and management experience in biotechnology. From 1999 to 2003, Dr. Menzaghi served as the Research Director of In Vivo Pharmacology at Arena Pharmaceuticals, Inc. (NASDAQ: ARNA) and from 2003 to 2004, was the Vice President – Pharmacology and Business Development, at Psychogenics Inc., a preclinical central nervous system service provider. Dr. Menzaghi received her Ph.D. in Neurosciences from the Louis Pasteur University, Strasbourg, France and a M.Sc. in Clinical Psychology from the University of Nancy.

Michael E. Lewis, Ph.D. Dr. Lewis, one of our founders, has served as our Chief Scientific Advisor since September 2004, during which time he has provided services to us through BioDiligence Partners, Inc., or BDP, a consulting firm controlled by Dr. Lewis. Dr. Lewis also served as a member of our board of directors from September 2004 to July 2010. Prior to joining us, Dr. Lewis co-founded Arena Pharmaceuticals (NASDAQ: ARNA), and served as Arena's Chief Scientific Advisor from 1997 to 2004, also serving as a director of Arena from 1997 to 2000. Prior to co-founding Arena, Dr. Lewis co-founded and served as Chief Scientific Advisor of

Adolor Corporation (NASDAQ: ADLR) from 1994 to 1997. Prior to that, Dr. Lewis co-founded Cephalon, Inc. (NASDAQ: CEPH), serving as Director of Pharmacology from 1988 to 1992 and Senior Director of Scientific Affairs from 1992 to 1993. Dr. Lewis received a Ph.D. in Psychology from Clark University and post doctoral training at the University of Cambridge, the National Institutes of Mental Health, and the University of Michigan, with a focus on opioid receptor research.

Non-Employee Directors

Ed Hurwitz. Mr. Hurwitz has served as a member of our board of directors since November 2006. Mr. Hurwitz has served as a Director of Alta Partners, a venture capital firm, since June 2002. Mr. Hurwitz also served as a director of Sunesis Pharmaceuticals, Inc., a publicly held company, from April 2009 to September 2013 and serves as a director of several privately-held companies. Mr. Hurwitz's financial and scientific expertise, as well as his deep understanding of the biotechnology industry provide him with the qualifications and skills to serve on our board of directors.

Dr. Charles Moller. Dr. Moller has served as a member of our board of directors since June 2008. Dr. Moller is a founder and General Partner of Devon Park Bioventures, L.P., a venture capital organization founded in February 2006. In 1990, Dr. Moller joined Radnor Venture Partners, a TL Ventures predecessor fund. For 16 years, from 1992 to 2008, he led the TL Ventures biotechnology group and was responsible for evaluating, selecting and managing biotech companies in TL Ventures' portfolio. Dr. Moller earned a Ph.D. in Immunology from the University of Pennsylvania and was a post-doctoral fellow at the Roche Institute for Molecular Biology. He also holds a B.A. in Chemistry from Pomona College. Dr. Moller's experience working with life sciences companies, scientific expertise and his experience working in the venture capital industry provide him with the qualifications and skills to serve on our board of directors.

Dean Slagel. Mr. Slagel has served as a member of our board of directors since February 2005. Mr. Slagel is the Managing Director of Esperante BV and Esperante AB, life sciences venture investment companies founded in September 2004 and June 2005, respectively. From September 1995 to September 2004, Mr. Slagel served as the Global Business Development Director of Ferring Pharmaceuticals, a specialty biopharmaceutical group then based principally in the UK, France and Denmark. He received an MBA from the ENPC Business School in Paris, France, in 2000. Mr. Slagel's more than 20 years of international pharmaceutical industry and life science companies' investment experience provide him with the qualifications and skills to serve on our board of directors.

Martin Vogelbaum. Mr. Vogelbaum has served as a member of our board of directors since July 2010. Mr. Vogelbaum has served as a partner of Rho Ventures since 2005 and primarily focuses on investments in biotechnology, biopharmaceuticals and medical devices. He has more than 19 years of experience investing in the life sciences sector, having been involved with companies at all stages of development, including co-founding more than a half dozen companies. From 2007 to 2010, Mr. Vogelbaum served as a member of the board of directors of Middlebrook Pharmaceuticals, Inc. Prior to his venture capital career, he was a research associate in the bone marrow transplantation unit at Memorial-Sloan Kettering Hospital, where he conducted research in graft-versus-host-disease (GVHD). Mr. Vogelbaum received his A.B. in biology and history from Columbia University. Mr. Vogelbaum's experience in the life sciences industry as a venture capitalist provides him with the qualifications and skills to serve on our board of directors.

Each of our executive officers serves at the discretion of our board of directors and holds office until his or her successor is duly elected and qualified or until his or her earlier resignation or removal. There are no family relationships among any of our directors or executive officers.

Board Composition

Our business and affairs are managed under the direction of our board of directors, which currently consists of five members. The members of our board of directors were elected in compliance with the provisions of our amended and restated certificate of incorporation and a voting agreement among certain of our stockholders, as amended. The voting agreement will terminate upon the closing of this offering and none of our stockholders will have any special rights regarding the election or designation of members of our board of directors.

Our board of directors will consist of members upon completion of this offering. In accordance with our amended and restated certificate of incorporation to be filed in connection with this offering, immediately after this offering, our board of directors will be divided into three classes with staggered three-year terms. At each annual general meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. Our directors will be divided among the three classes as follows:

- The Class I directors will be , and , and their terms will expire at our first annual meeting of stockholders to be held following completion of this offering;
- The Class II directors will be , and , and their terms will expire at our second annual meeting of stockholders to be held following completion of this offering; and
- The Class III directors will be , and , and their terms will expire at our third annual meeting of stockholders to be held following completion of this offering.

We expect that additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control.

Director Independence

Under the listing requirements and rules of The NASDAQ Global Market, independent directors must comprise a majority of a listed company's board of directors within a specified period of time after this offering.

Our board of directors has undertaken a review of its composition, the composition of its committees, and the independence of each director. Based upon information requested from and provided by each director concerning his or her background, employment, and affiliations, including family relationships, our board of directors has determined that each of our directors, except Dr. Chalmers, are "independent" as that term is defined under the applicable rules and regulations of the Securities and Exchange Commission, or the SEC, and the listing requirements and rules of The NASDAQ Global Market. In making this determination, our board of directors considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

Committees of the Board of Directors

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee, each of which has the composition and responsibilities described below. From time to time, the board may establish other committees to facilitate the management of our business.

Audit Committee

Our audit committee reviews our internal accounting procedures and consults with and reviews the services provided by our independent registered public accountants. Our audit committee consists of three directors, Messrs. , and , and our board of directors has determined that each of them is independent within the meaning of the applicable stock exchange listing requirements and the independence requirements contemplated by Rule 10A-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act. is the chairman of the audit committee and our board of directors has determined that is an "audit committee financial expert" as defined by SEC rules and regulations. Our board of directors has determined that the composition of our audit committee meets the criteria for independence under, and the functioning of our audit committee complies with, the applicable requirements of the Sarbanes-Oxley Act, applicable stock exchange listing requirements and SEC rules and regulations. We intend to continue to evaluate the requirements applicable to us and we intend to comply with the future requirements to the extent that they become applicable to our audit committee. The principal duties and responsibilities of our audit committee include:

- appointing and retaining an independent registered public accounting firm to serve as independent auditor to audit our financial statements, overseeing the independent auditor's work and determining the independent auditor's compensation;

- approving in advance all audit services and non-audit services to be provided to us by our independent auditor;
- establishing procedures for the receipt, retention and treatment of complaints received by us regarding accounting, internal accounting controls, auditing or compliance matters, as well as for the confidential, anonymous submission by our employees of concerns regarding questionable accounting or auditing matters;
- reviewing and discussing with management and our independent auditor the results of the annual audit and the independent auditor's review of our quarterly financial statements; and
- conferring with management and our independent auditor about the scope, adequacy and effectiveness of our internal accounting controls, the objectivity of our financial reporting and our accounting policies and practices.

Compensation Committee

Our compensation committee reviews and determines the compensation of all our executive officers. Our compensation committee consists of three directors, , and , each of whom is a non-employee member of our board of directors as defined in Rule 16b-3 under the Exchange Act. is the chairman of the compensation committee. Our board of directors has determined that the composition of our compensation committee satisfies the applicable independence requirements under, and the functioning of our compensation committee complies with the applicable requirements of, stock exchange listing rules and SEC rules and regulations. We intend to continue to evaluate and intend to comply with all future requirements applicable to our compensation committee. The principal duties and responsibilities of our compensation committee include:

- establishing and approving, and making recommendations to the board of directors regarding, performance goals and objectives relevant to the compensation of our chief executive officer, evaluating the performance of our chief executive officer in light of those goals and objectives and setting, or recommending to the full board of directors for approval, the chief executive officer's compensation, including incentive-based and equity-based compensation, based on that evaluation;
- setting the compensation of our other executive officers, based in part on recommendations of the chief executive officer;
- exercising administrative authority under our stock plans and employee benefit plans;
- establishing policies and making recommendations to our board of directors regarding director compensation;
- reviewing and discussing with management the compensation discussion and analysis that we may be required from time to time to include in SEC filings; and
- preparing a compensation committee report on executive compensation as may be required from time to time to be included in our annual proxy statements or annual reports on Form 10-K filed with the SEC.

Nominating and Corporate Governance Committee

The nominating and corporate governance committee consists of three directors, , and . is the chairman of the nominating and corporate governance committee. Our board of directors has determined that the composition of our nominating and corporate governance committee satisfies the applicable independence requirements under, and the functioning of our nominating and corporate governance committee complies with the applicable requirements of, stock exchange listing standards and SEC rules and regulations. We will continue to evaluate and will comply with all future requirements applicable to our nominating and corporate governance committee. The nominating and corporate governance committee's responsibilities include:

- assessing the need for new directors and identifying individuals qualified to become directors;
- recommending to the board of directors the persons to be nominated for election as directors and to each of the board's committees;
- assessing individual director performance, participation and qualifications;
- developing and recommending to the board corporate governance principles;
- monitoring the effectiveness of the board and the quality of the relationship between management and the board; and

- overseeing an annual evaluation of the board's performance.

Code of Business Conduct and Ethics for Employees, Executive Officers and Directors

Effective upon completion of this offering, we will adopt a Code of Business Conduct and Ethics, or the Code of Conduct, applicable to all of our employees, executive officers and directors. Following the completion of this offering, the Code of Conduct will be available on our website at *www.caratherapeutics.com*. The nominating and corporate governance committee of our board of directors will be responsible for overseeing the Code of Conduct and must approve any waivers of the Code of Conduct for employees, executive officers and directors. We expect that any amendments to the Code of Conduct, or any waivers of its requirements, will be disclosed on our website.

Compensation Committee Interlocks and Insider Participation

None of our directors who currently serve as members of our compensation committee is, or has at any time during the past year been, one of our officers or employees. None of our executive officers currently serves, or in the past year has served, as a member of the board of directors or compensation committee of any other entity that has one or more executive officers serving on our board of directors or compensation committee.

Non-Employee Director Compensation

We have not historically paid cash retainers or other compensation with respect to service on our board of directors, except for reimbursement of direct expenses incurred in connection with attending meeting of the board or committees. In addition, none of our non-employee directors held any stock options as of December 31, 2012.

None of our non-employee directors received compensation for service on our board of directors during the year ended December 31, 2012 and, accordingly, we have not included a 2012 Director Compensation Table. Dr. Chalmers, our Chief Executive Officer, is also a director but does not receive any additional compensation for his service as a director. Dr. Chalmers' compensation as an executive officer is set forth below under "Executive Compensation – 2012 Summary Compensation Table."

We expect that our board of directors will adopt a director compensation plan for non-employee directors to be effective following the completion of this offering.

EXECUTIVE COMPENSATION

This section discusses the material components of the executive compensation program for our executive officers who are named in the 2012 Summary Compensation Table below. In 2012, our president and chief executive officer and our two other highest-paid executive officers, which we collectively refer to as our named executive officers, were as follows:

- Derek Chalmers, Ph.D., our President and Chief Executive Officer;
- James B. Jones, M.D., PharmD, FACEP, our former Chief Medical Officer; and
- Frédérique Menzaghi, Ph.D., Vice President – Research and Development.

This discussion contains forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt following the completion of this offering may differ materially from the currently planned programs summarized in this discussion.

2012 Summary Compensation Table

The following table provides information regarding the compensation earned during the year ended December 31, 2012 by our named executive officers.

Name and Principal Position	Salary ($)	Bonus ($)	Option Awards ($)	Non-Equity Incentive Plan Compensation($)	Total ($)
Derek Chalmers, Ph.D., D.Sc.(1) *President and Chief Executive Officer*	400,000	—	—	—	400,000
James B. Jones, M.D., PharmD, FACEP(2) *Former Chief Medical Officer*	325,000	—	—	—	325,000
Frédérique Menzaghi, Ph.D. *Vice President – Research and Development*	275,000	—	—	—	275,000

(1) Dr. Chalmers is also a member of our board of directors but does not receive any additional compensation in his capacity as a director.
(2) Dr. Jones' employment with the company terminated on September 6, 2013.

Outstanding Equity Awards as of December 31, 2012

The following table sets forth information regarding outstanding stock options held by our named executive officers as of December 31, 2012.

Name	Grant Date	Number of Securities Underlying Unexercised Options Exercisable(#)	Number of Securities Underlying Unexercised Options Unexercisable(#)	Option Exercise Price ($)	Option Expiration Date
Derek Chalmers, Ph.D. *President and Chief Executive Officer*	11/7/2007	100,000	—	$ 0.99	11/7/2017
James B. Jones, M.D., PharmD, FACEP *Former Chief Medical Officer*	4/28/2011	167,500	234,500(1)	$ 0.34	4/28/2021
Frédérique Menzaghi, Ph.D.	7/11/2005	50,000	—	$ 0.10	7/11/2015
Vice President – Research and Development	11/7/2007	50,000	—	$ 0.99	11/7/2017
	8/14/2008	25,000	—	$ 0.90	8/14/2018
	10/15/2010	54,166	45,834(2)	$ 0.82	10/15/2020

(1) This stock option was originally scheduled to vest over a four-year period as follows: 25% of the shares underlying the option vested on the first anniversary of the date of grant, with the remainder vesting in equal monthly installments over the 36 months thereafter, provided that 50% of the unvested shares underlying the

option would vest upon a change of control of the company, and all shares underlying the option would vest if a termination of Dr. Jones without cause or a departure by Dr. Jones with good reason occurred in the twelve month period following a change of control. Dr. Jones' employment with us terminated effective September 6, 2013. At the time of such separation, a total of 234,500 shares underlying the option were vested and the balance of the option lapsed. Dr. Jones has through December 3, 2013 to exercise the option.

(2) This stock option vests over a four-year period as follows: 25% of the shares underlying the option vested on the first anniversary of the date of grant, with the remainder vesting in equal monthly installments over the 36 months thereafter.

Executive Employment Arrangements and Potential Payments upon Termination or Change in Control

We have entered into offer letters with each of the executive officers in connection with his or her employment with us. These agreements provide for "at will" employment and set forth the terms and conditions of employment of each named executive officer, including base salary, target annual bonus opportunity, if any, standard employee benefit plan participation, the terms of the executive officer's initial stock option grant and vesting provisions with respect to the initial stock option grant, if any. These offer letters were each subject to the executive officers' execution of our standard confidential information and invention assignment agreement.

None of our executive officers' offer letters or stock option grants contain provisions for payments upon a termination or change in control, except that Dr. Jones' option grant provided for accelerated vesting upon a change in control or the happening of certain events after a change in control. However, Dr. Jones' employment with us terminated, and his vesting ceased, effective September 6, 2013.

Equity Incentive Plans

2013 Equity Incentive Plan

Our board of directors adopted, and our stockholders subsequently approved, our 2013 Equity Incentive Plan, or 2013 Plan, in . The 2013 Plan will become effective immediately upon the signing of the underwriting agreement for this offering. The 2013 Plan will terminate on 2023, unless sooner terminated by our board of directors. Our board of directors may amend or suspend the 2013 Plan at any time, although no such action may impair the rights under any then-outstanding award without the holder's consent. We will obtain stockholder approval for any amendments to the 2013 Plan as required by law.

Types of Awards. The 2013 Plan provides for the grant of incentive stock options, nonstatutory stock options, restricted stock awards, restricted stock unit awards, stock appreciation rights, performance stock awards and other forms of equity compensation, or collectively, stock awards. Additionally, the 2013 Plan provides for the grant of performance cash awards. Incentive stock options may be granted only to employees. All other awards may be granted to employees, including officers, non-employee directors, and consultants.

Share Reserve. Initially, the aggregate number of shares of our common stock that may be issued pursuant to stock awards under the 2013 Plan is shares. Additionally, the number of shares of our common stock reserved for issuance under the 2013 Plan will automatically increase on January 1 of each year, beginning on January 1, (assuming the 2013 Plan becomes effective before such date) and continuing through and including January 1, , by % of the total number of shares of our capital stock outstanding on December 31 of the preceding calendar year, or a lesser number of shares determined by our board of directors. The maximum number of shares that may be issued pursuant to the exercise of incentive stock options under the 2013 Plan is shares.

Section 162(m) Limits. No person may be granted awards covering more than million shares of our common stock under the 2013 Plan during any calendar year pursuant to an appreciation-only stock award. An appreciation-only stock award is a stock award whose value is determined by reference to an increase over an exercise or strike price of at least 100% of the fair market value of our common stock on the date of grant. A stock option with an exercise price equal to the value of the stock on the date of grant is an example of an appreciation-only award. Additionally, no person may be granted in a calendar year a performance stock award covering more than million shares or a performance cash award having a maximum value in excess of million. Such limitations are designed to help assure that any deductions to which we would otherwise

be entitled with respect to such awards will not be subject to the $1 million limitation on the income tax deductibility of compensation paid per covered executive officer imposed by Section 162(m) of the Code.

Reversion of Shares. If a stock award granted under the 2013 Plan expires or otherwise terminates without being exercised in full, or is settled in cash, the shares of our common stock not acquired pursuant to the stock award will again become available for subsequent issuance under the 2013 Plan. In addition, the following types of shares under the 2013 Plan will become available for the grant of new stock awards under the 2013 Plan:

- shares that are forfeited to or repurchased by us prior to becoming fully vested;
- shares withheld to satisfy income and employment withholding taxes; and
- shares used to pay the exercise price or purchase price of a stock award.

Shares issued under the 2013 Plan may be previously unissued shares or reacquired shares bought on the open market. No awards have been granted and no shares of our common stock have been issued under the 2013 Plan.

Administration. Our board of directors, or a duly authorized committee thereof, has the authority to administer the 2013 Plan. Our board of directors may also delegate to one or more of our officers the authority to (1) designate employees (other than other officers) to be recipients of certain stock awards, and (2) determine the number of shares of common stock to be subject to such stock awards. Subject to the terms of the 2013 Plan, our board of directors or the authorized committee, referred to herein as the plan administrator, determines recipients, dates of grant, the numbers and types of stock awards to be granted and the terms and conditions of the stock awards, including the period of their exercisability and vesting schedule applicable to a stock award. Subject to the limitations set forth below, the plan administrator will also determine the exercise price, strike price or purchase price of awards granted and the types of consideration to be paid for the award.

The plan administrator has the authority to modify outstanding awards under our 2013 Plan. Subject to the terms of our 2013 Plan, the plan administrator has the authority to reduce the exercise, purchase or strike price of any outstanding stock award, cancel any outstanding stock award in exchange for new stock awards, cash or other consideration, or take any other action that is treated as a repricing under generally accepted accounting principles, with the consent of any adversely affected participant.

Stock Options. Incentive and nonstatutory stock options are granted pursuant to stock option agreements adopted by the plan administrator. The plan administrator determines the exercise price for a stock option, within the terms and conditions of the 2013 Plan, provided that the exercise price of an incentive stock option and nonstatutory stock option generally cannot be less than 100% of the fair market value of our common stock on the date of grant. Options granted under the 2013 Plan vest at the rate specified by the plan administrator.

The plan administrator determines the term of stock options granted under the 2013 Plan, up to a maximum of ten years. Unless the terms of an optionee's stock option agreement provide otherwise, if an optionee's service relationship with us, or any of our affiliates, ceases for any reason other than a termination for cause or other than a termination because of disability or death, the optionee may exercise the vested portion of any options for a period of three months following the cessation of service. If an optionee's service relationship with us, or any of our affiliates, ceases due to disability or death or an optionee dies within a specified period following cessation of service, the optionee or a beneficiary may exercise the vested portion of any options for a period of 12 months in the event of disability and 18 months in the event of death. In the event of a termination of an optionee's service for cause, the option will terminate upon the occurrence of the event giving rise to the termination for cause and the optionee may not exercise the option following such termination. The option term may be further extended in the event that exercise of the option following termination of service is prohibited by applicable securities laws, or the sale of any common stock received upon exercise of the option would violate our insider trading policy. In no event, however, may an option be exercised beyond the expiration of its term.

Acceptable consideration for the purchase of common stock issued upon the exercise of a stock option will be determined by the plan administrator and may include cash or check, a broker-assisted cashless exercise, the

tender of common stock previously owned by the optionee, a net exercise of the option if it is a nonstatutory stock option, and other legal consideration approved by the plan administrator.

Unless the plan administrator provides otherwise, options generally are not transferable except by will, the laws of descent and distribution, or pursuant to a domestic relations order. An optionee may designate a beneficiary, however, who may exercise the option following the optionee's death.

Tax Limitations on Incentive Stock Options. Incentive stock options may be granted only to our employees. The aggregate fair market value, determined at the time of grant, of shares of our common stock with respect to which incentive stock options that are exercisable for the first time by an optionee during any calendar year under all of our stock plans may not exceed $100,000. No incentive stock option may be granted to any person who, at the time of the grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any of our affiliates unless the option exercise price is at least 110% of the fair market value of the stock subject to the option on the date of grant, and the term of the incentive stock option does not exceed five years from the date of grant.

Restricted Stock Awards. Restricted stock awards are granted pursuant to restricted stock award agreements adopted by the plan administrator. Restricted stock awards may be granted in consideration for cash or check, past or future services rendered to us or our affiliates, or any other form of legal consideration. Shares of common stock acquired under a restricted stock award may, but need not, be subject to a share repurchase option in our favor in accordance with a vesting schedule to be determined by the plan administrator. Rights to acquire shares under a restricted stock award may be transferred only upon such terms and conditions as set by the plan administrator.

Restricted Stock Unit Awards. A restricted stock unit is a promise by us to issue shares of our common stock, or to pay cash equal to the value of shares of our common stock, equivalent to the number of units covered by the award at the time of vesting of the units or thereafter. Restricted stock unit awards are granted pursuant to restricted stock unit award agreements adopted by the plan administrator. Restricted stock unit awards may be granted in consideration for any form of legal consideration. A restricted stock unit award may be settled by cash, delivery of stock, a combination of cash and stock as deemed appropriate by the plan administrator, or in any other form of consideration set forth in the restricted stock unit award agreement. Additionally, dividend equivalents may be credited in respect to shares covered by a restricted stock unit award. Except as otherwise provided in the applicable award agreement, restricted stock units that have not vested will be forfeited upon the participant's cessation of continuous service for any reason.

Stock Appreciation Rights. A stock appreciation right entitles the participant to a payment equal in value to the appreciation in the value of the underlying shares of our common stock for a predetermined number of shares over a specified period. Stock appreciation rights are granted pursuant to stock appreciation right agreements adopted by the plan administrator. The plan administrator determines the strike price for a stock appreciation right which cannot be less than 100% of the fair market value of our common stock on the date of grant. Upon the exercise of a stock appreciation right, we will pay the participant an amount equal to the product of (a) the excess of the per share fair market value of our common stock on the date of exercise over the strike price, multiplied by (b) the number of shares of common stock with respect to which the stock appreciation right is exercised. A stock appreciation right granted under the 2013 Plan vests at the rate specified in the stock appreciation right agreement as determined by the plan administrator.

The plan administrator determines the term of stock appreciation rights granted under the 2013 Plan, up to a maximum of ten years. Unless the terms of a participant's stock appreciation right agreement provides otherwise, if a participant's service relationship with us, or any of our affiliates, ceases for any reason other than a termination for cause or a termination because of disability or death, the participant may exercise the vested portion of any stock appreciation right for a period of three months following the cessation of service. If a participant's service relationship with us, or any of our affiliates, ceases due to disability or death or the participant dies within a specified period following cessation of service, the participant or a beneficiary may exercise the vested portion of any stock appreciation right for a period of 12 months in the event of disability and 18 months in the event of death. In the event of a termination of participant's service for cause, the stock

appreciation right will terminate upon the occurrence of the event giving rise to the termination for cause and the participant may not exercise the stock appreciation right following such termination. The term of the stock appreciation right may be further extended in the event that exercise of the stock appreciation right following termination of service is prohibited by applicable securities laws, or the sale of any common stock received upon exercise of the stock appreciation right would violate our insider trading policy. In no event, however, may a stock appreciation right be exercised beyond the expiration of its term.

Performance Awards. The 2013 Plan permits the grant of performance-based stock and cash awards that may qualify as performance-based compensation that is not subject to the $1 million limitation on the income tax deductibility of compensation paid per covered executive officer imposed by Section 162(m) of the Code. To assure that the compensation attributable to performance-based awards will so qualify, our compensation committee can structure such awards so that the stock or cash will be issued or paid pursuant to such award only following the achievement of certain pre-established performance goals during a designated performance period.

The criteria that the compensation committee may select to establish the performance goals include one or more of the following: (1) earnings (including earnings per share and net earnings); (2) earnings before interest, taxes and depreciation; (3) earnings before interest, taxes, depreciation and amortization; (4) total stockholder return; (5) return on equity or average stockholder's equity; (6) return on assets, investment or capital employed; (7) stock price; (8) margin (including gross margin); (9) income (before or after taxes); (10) operating income; (11) operating income after taxes; (12) pre-tax profit; (13) operating cash flow; (14) sales or revenue targets; (15) increases in revenue or product revenue; (16) expenses and cost reduction goals; (17) improvement in or attainment of working capital levels; (18) economic value added (or an equivalent metric); (19) market share; (20) cash flow; (21) cash flow per share; (22) share price performance; (23) debt reduction; (24) implementation or completion of projects or processes; (25) customer satisfaction; (26) stockholders' equity; (27) capital expenditures; (28) debt levels; (29) operating profit or net operating profit; (30) workforce diversity; (31) growth of net income or operating income; and (32) to the extent that an award is not intended to comply with Section 162(m) of the Code, other measures of performance selected by our board of directors or our compensation committee.

The compensation committee may establish performance goals on a company-wide basis, with respect to one or more business units, divisions, affiliates or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise (i) in the award agreement at the time the award is granted or (ii) in such other document setting forth the performance goals at the time the goals are established, the compensation committee will appropriately make adjustments in the method of calculating the attainment of the performance goals as follows: (1) to exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects, as applicable, for non-U.S. dollar denominated goals; (3) to exclude the effects of changes to U.S. GAAP; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects of any "extraordinary items" as determined under U.S. GAAP; (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) to assume that any business divested by our company achieved performance objectives at targeted levels during the balance of a performance period following such divestiture; (8) to exclude the effect of any change in the outstanding shares of our common stock by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common shareholders other than regular cash dividends; (9) to exclude the effects of stock based compensation and/or the award of bonuses under our bonus plans; and (10) to exclude the effect of any other unusual, non-recurring gain or loss or other extraordinary item. The performance goals may differ from participant to participant and from award to award.

Other Stock Awards. The plan administrator may grant other awards based in whole or in part by reference to our common stock. The plan administrator will set the number of shares under the award and all other terms and conditions of such awards.

Adjustment Provisions. In the event that there is a specified type of change in our capital structure, such as a stock split or recapitalization, the plan administrator will make appropriate adjustments to the class and

maximum number of shares of our common stock subject to the 2013 Plan, the class and maximum number of shares of our common stock that may be issued upon the exercise of incentive stock options, the class and maximum number of shares of our common stock subject to stock awards that can be granted in a calendar year (as established under the 2013 Plan pursuant to Section 162(m) of the Code), and the class, number of shares and price per share of common stock subject to outstanding stock awards.

Corporate Transactions. In the event of certain specified significant corporate transactions, the plan administrator may take any one or more of the following actions as to outstanding awards, or as to a portion of any outstanding award under the 2013 Plan:

- arrange for the assumption, continuation or substitution of a stock award by a surviving or acquiring entity or parent company;
- arrange for the assignment of any reacquisition or repurchase rights held by us to the surviving or acquiring entity or parent company;
- accelerate the vesting of the stock award and provide for its termination prior to the effective time of the corporate transaction;
- arrange for the lapse of any reacquisition or repurchase rights held by us with respect to the stock award;
- cancel or arrange for the cancellation of the stock award in exchange for such cash consideration, if any, as our plan administrator may deem appropriate; or
- make a payment equal to the excess, if any, of the value of the property the participant would have received upon exercise of the stock award over the exercise price otherwise payable by the participant in connection with the exercise.

Changes in Control. The plan administrator may provide, in an individual award agreement, that the stock award will be subject to additional acceleration of vesting and exercisability in the event of a certain specified change in control. However, in the absence of such a provision, no such acceleration of the stock award will occur.

2004 Stock Incentive Plan

Our board of directors adopted, and our stockholders subsequently approved, the Cara Therapeutics 2004 Stock Incentive Plan, or the 2004 Plan, in September 2004. The 2004 Plan provides for the grant to our officers, directors, employees, consultants and advisors of incentive and nonqualified stock options to purchase our common stock, and also provides for the outright issuance of our common stock through restricted share awards. As of September 30, 2013, options to purchase 1,225,400 shares of common stock were outstanding under the 2004 Plan, with a weighted average exercise price per share of $0.54. As of September 30, 2013, 1,894,498 shares remained available for future issuance pursuant to the grant of options or restricted share awards under the 2004 Plan. Upon effectiveness of the 2013 Plan, we will not issue any further awards under the 2004 Plan.

Administration. The 2004 Plan may be administered either by our board of directors or a committee thereof that has been specifically designated by our board of directors to administer the 2004 Plan. The 2004 Plan is administered by our compensation committee.

Stock Options. Options granted under the 2004 Plan are evidenced by stock option agreements, containing such provisions as our board of directors deems advisable. All options granted under the 2004 Plan expire not more than ten years after the date of the grant and have an exercise price that is determined by our board of directors. Options under the 2004 Plan typically vest over a four-year period as follows: 25% of the shares underlying the option vest on the first anniversary of the date of the grant, and the remainder of the shares underlying the option vest in equal monthly installments over the 36 months thereafter.

Options granted under the 2004 Plan may not be assigned or transferred other than by will or the laws of descent or distribution. Unless otherwise provided in an optionee's stock option agreement, in the case of an optionee who is our employee on the date of grant of the options: (1) options granted under the 2004 Plan will terminate immediately upon an optionee's termination of employment for cause; (2) in the event of an optionee's termination of employment by reason of death or disability, the unvested portion of the option will terminate immediately and the vested portion of the option will terminate one year following such termination

of employment (but will not continue to vest during such one-year period); and (3) in the event of an optionee's termination of employment for any other reason, the unvested portion of the option will terminate immediately and the vested portion of the option will terminate three months after such termination of employment.

Corporate Transactions. If we are a party to a merger or consolidation, or another transaction providing for the sale of all or substantially all of our stock of assets, the options will be subject to the terms of the agreement of merger, consolidation or sale, which may provide for any one or more of the following actions with respect to outstanding stock options, without the optionee's consent:

- provide for the continuation or assumption of options, or provide for substitution of a substantially equivalent stock option, by the acquiring or succeeding entity;
- provide that the option shall become immediately exercisable and will then terminate upon the consummation of the transaction unless exercised before that time; or
- provide for a cash payment to the optionee for the full value of the options (whether or not then exercisable).

Termination or Amendment. Our board of directors may amend or terminate the 2004 Plan at any time, subject to certain restrictions. Our board of directors may modify or cancel an outstanding option in return for the grant of a new option covering the same or a different number of shares and the same or a different exercise price. However, no such amendment of the 2004 Plan or an option may materially adversely affect the rights of a participant in any option previously granted without the optionee's written consent.

401(k) Plan

We maintain the Cara Therapeutics Savings and Retirement Plan 401(k), or the 401(k) Plan, a tax-qualified retirement plan that provides eligible U.S. employees with an opportunity to save for retirement on a tax advantaged basis. Eligible employees are able to defer eligible compensation subject to applicable annual Code limits. Pre-tax contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participant's directions. Contributions that we may make are subject to a vesting schedule; employees are immediately and fully vested in their contributions. The 401(k) Plan is intended to qualify under Sections 401(a) and 501(a) of the Code. As a tax-qualified retirement plan, contributions to the 401(k) Plan and earnings on those contributions are not taxable to the employees until distributed from the 401(k) Plan and all contributions are deductible by us when made.

Limitation of Liability and Indemnification

Our amended and restated certificate of incorporation, which will become effective upon the closing of this offering, limits the liability of directors to the maximum extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability for any:

- breach of their duty of loyalty to the corporation or its stockholders;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- transaction from which the directors derived an improper personal benefit.

Our amended and restated certificate of incorporation does not eliminate a director's duty of care and, in appropriate circumstances, equitable remedies, such as injunctive or other forms of non-monetary relief, remain available under Delaware law. These limitations also do not affect a director's responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Our amended and restated bylaws, which will become effective upon the closing of this offering, provide that we will indemnify our directors and executive officers, and may indemnify other officers, employees and other agents, to the fullest extent permitted by law. Our amended and restated bylaws also provide that we are obligated to advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding and also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her

actions in connection with their services to us, regardless of whether our amended and restated bylaws permit such indemnification. We have obtained a directors' and officers' liability insurance policy.

We have entered, and intend to continue to enter, into separate indemnification agreements with our directors and executive officers, in addition to the indemnification provided for in our amended and restated bylaws. These agreements, among other things, require us to indemnify our directors and executive officers for certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or executive officer in any action or proceeding arising out of their services as one of our directors or executive officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

At present, there is no pending litigation or proceeding involving any of our directors or executive officers as to which indemnification is required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Other than compensation arrangements, we describe below transactions and series of similar transactions, since January 1, 2010, to which we were a party or will be a party, in which:

- the amounts involved exceeded or will exceed $120,000; and
- any of our directors, executive officers, or holders of more than 5% of our capital stock, or any member of the immediate family of the foregoing persons, had or will have a direct or indirect material interest.

Compensation arrangements for our named executive officers are described elsewhere in "Executive Compensation" section of this prospectus.

2012 Bridge Financing

In October and December 2012, we issued unsecured demand promissory notes in an aggregate principal amount of approximately $1.0 million, or the 2012 Bridge Financing. The participants in the 2012 Bridge Financing included certain beneficial owners of more than 5% of our capital stock and entities affiliated with certain of our directors, as set forth in the table below:

Participants	Principal Amount
Ascent Biomedical Ventures and its affiliates(1)	$ 212,208
Alta BioPharma Partners and its affiliates(2)	$ 228,377
Devon Park Bioventures L.P.(3)	$ 199,830
Rho Ventures VI, L.P.(4)	$ 309,585

(1) These promissory notes were purchased by Ascent Biomedical Ventures I Annex, L.P. and Ascent Biomedical Ventures I NY, LP.

(2) These promissory notes were purchased by Alta BioPharma Partners III, L.P., Alta BioPharma Partners III GmbH & Co. Beteiligungs KG and Alta Embarcadero BioPharma Partners III, LLC. Alta BioPharma Partners III, L.P., Alta BioPharma Partners III GmbH & Co. Beteiligings KG and Alta Embarcadero BioPharma Partners III, LLC are collectively referred to as the Alta Funds. Alta BioPharma Management Partners III, LLC is the general partner of Alta BioPharma Partners III, L.P. and the managing limited partner of Alta BioPharma Partners III GmbH & Co. Beteiligungs KG. Edward Hurwitz, one of our directors, is a director of Alta BioPharma Management Partners III, LLC and manager of Alta Embarcadero BioPharma Partners III, LLC.

(3) Charles Moller, Ph.D., one of our directors, is a managing member of Devon Park Associates, LLC, the general partner of Devon Park Associates, L.P. Devon Park Associates, L.P. is the general partner of Devon Park Bioventures, L.P.

(4) Martin Vogelbaum, one of our directors, is a non-managing member of RMV VI, L.L.C., the general partner of Rho Ventures VI, L.P.

2013 Bridge Financing

In December 2012 and February 2013, we issued an aggregate of $4.0 million aggregate principal amount of convertible promissory notes due August 28, 2013, or the 2013 Bridge Financing. The notes bore interest at 8% per annum and included both optional and mandatory conversion features. The optional conversion feature allowed each note holder, at any time prior to maturity, to elect to convert the balance of the note plus accrued interest into shares of our Series D Convertible Preferred Stock at a conversion price of approximately $1.44 per share. The mandatory conversion feature would have resulted in the automatic conversion of the notes into shares of a newly issued class of equity securities in the event of a qualifying financing prior to maturity. The mandatory conversion did not occur and, upon maturity, note holders elected to convert the aggregate amount of $3.9 million in principal plus accrued interest into 2,692,291 shares of Series D Preferred Stock. We repaid the remaining notes upon maturity in the aggregate amount of approximately $300,000 in principal and accrued interest. The participants in the 2013 Bridge Financing included certain executive officers, beneficial owners of more than 5% of our capital stock and entities affiliated with certain of our directors, as set forth in the table below:

Participants	Principal Amount	Shares of Series D Preferred Stock Received on Conversion of Notes
Esperante AB(1)	$288,467	210,373
Ascent Biomedical Ventures and its affiliates(2)	$533,216	388,221
Alta BioPharma Partners and its affiliates(3)	$573,843	417,799
MVM International Life Sciences No. 1 L.P. and its affiliates(4)	$250,000	—
Healthcare Private Equity Limited Partnership	$250,217	180,997
Devon Park Bioventures L.P.(5)	$502,113	365,576
Rho Ventures VI, L.P.(6)	$777,896	566,368
Derek Chalmers(7)	$181,833	132,607
Frédérique Menzaghi(8)	$ 28,688	—
Michael E. Lewis(9)	$ 12,247	8,931

(1) Dean Slagel, one of our directors, is Managing Director of Esperante AB.

(2) These promissory notes were purchased by Ascent Biomedical Ventures I Annex, L.P. and Ascent Biomedical Ventures I NY, L.P. The shares of Series D Preferred Stock received upon conversion of notes described above includes the conversion of the principal and accrued interest on notes issued in the 2012 Bridge Financing and 2013 Bridge Financing.

(3) These promissory notes were purchased by Alta BioPharma Partners III, L.P., Alta BioPharma Partners III GmbH & Co. Beteiligungs KG and Alta Embarcadero BioPharma Partners III, LLC. Alta BioPharma Partners III, L.P., Alta BioPharma Partners III GmbH & Co. Beteiligings KG and Alta Embarcadero BioPharma Partners III, LLC are collectively referred to as the Alta Funds. Alta BioPharma Management Partners III, LLC is the general partner of Alta BioPharma Partners III, L.P. and the managing limited partner of Alta BioPharma Partners III GmbH & Co. Beteiligungs KG. Edward Hurwitz, one of our directors, is a director of Alta BioPharma Management Partners III, LLC and manager of Alta Embarcadero BioPharma Partners III, LLC. The shares of Series D Preferred Stock received upon conversion of notes described above includes the conversion of the principal and accrued interest on notes issued in the 2012 Bridge Financing and 2013 Bridge Financing.

(4) These promissory notes were purchased by MVM International Life Sciences No. 1 LP and MVM Executive Limited. MVM International Life Sciences No. 1 L.P. and MVM Executive Limited are managed by MVM Life Sciences Partners LLP, an English Limited Liability Partnership. Dr. Stephen Reeders, one of our former directors, was associated with MVM Life Sciences Partners LLP at the time of the 2013 Bridge Financing. Principal under these notes and accrued interest was repaid in September 2013.

(5) Charles Moller, Ph.D., one of our directors, is a managing member of Devon Park Associates, LLC, the general partner of Devon Park Associates, L.P. Devon Park Associates, L.P. is the general partner of Devon Park Bioventures, L.P. The shares of Series D Preferred Stock received upon conversion of notes described above includes the conversion of the principal and accrued interest on notes issued in the 2012 Bridge Financing and 2013 Bridge Financing.

(6) Martin Vogelbaum, one of our directors, is a non-managing member of RMV VI, LLC, the general partner of Rho Ventures VI, L.P. The shares of Series D Preferred Stock received upon conversion of notes described above includes the conversion of the principal and accrued interest on notes issued in the 2012 Bridge Financing and 2013 Bridge Financing.
(7) The shares of Series D Preferred Stock received upon conversion of notes described above includes the conversion of the principal and accrued interest on notes issued in the 2013 Bridge Financing.
(8) Principal under this note and accrued interest was repaid in September 2013.
(9) The shares of Series D Preferred Stock received upon conversion of notes described above includes the conversion of the principal and accrued interest on notes issued in the 2013 Bridge Financial.

Series D Preferred Stock Financing

In July 2010, we entered into a Series D Preferred Stock Purchase Agreement, or the Series D Purchase Agreement, pursuant to which we initially issued and sold to investors an aggregate of 3,312,853 shares of Series D Preferred Stock at a purchase price of approximately $1.44 per share, for aggregate consideration of $4.8 million. At additional closings held between August 2010 and August 2011, we issued and sold an aggregate of 7,073,204 additional shares of Series D Preferred Stock at a purchase price of approximately $1.44 per share, for aggregate additional consideration of $15 million.

The participants in this convertible preferred stock financing included the following holders of more than 5% of our capital stock or entities affiliated with them. The participants in the Series D Preferred Stock financing included certain beneficial owners of more than 5% of our capital stock and entities affiliated with certain of our directors, as set forth in the table below:

Participants	Shares of Series D Preferred Stock
Ascent Biomedical Ventures and its affiliates(1)	977,984
Alta BioPharma Partners and its affiliates(2)	1,032,774
MVM International Life Sciences No. 1 L.P. and its affiliates(3)	1,032,774
Healthcare Private Equity Limited Partnership	516,388
Devon Park Bioventures LP.(4)	903,678
Rho Ventures VI, L.P.(5)	5,539,230

(1) These shares of Series D Preferred Stock were purchased by Ascent Biomedical Ventures I, LP and Ascent Biomedical Ventures I NY, LP.
(2) These shares of Series D Preferred Stock were purchased by Alta BioPharma Partners III, L.P., Alta BioPharma Partners III GmbH & Co. Beteiligungs KG and Alta Embarcadero BioPharma Partners III, LLC. Alta BioPharma Partners III, L.P., Alta BioPharma Partners III GmbH & Co. Beteiligings KG and Alta Embarcadero BioPharma Partners III, LLC are collectively referred to as the Alta Funds. Alta BioPharma Management Partners III, LLC is the general partner of Alta BioPharma Partners III, L.P. and the managing limited partner of Alta BioPharma Partners III GmbH & Co. Beteiligungs KG. Edward Hurwitz, one of our directors, is a director of Alta BioPharma Management Partners III, LLC and manager of Alta Embarcadero BioPharma Partners III, LLC.
(3) These shares of Series D Preferred Stock were purchased by MVM International Life Sciences No. 1 LP and MVM Executive Limited.
(4) Charles Moller, Ph.D., one of our directors, is a managing member of Devon Park Associates, LLC, the general partner of Devon Park Associates, L.P. Devon Park Associates, L.P. is the general partner of Devon Park Bioventures, L.P.
(5) Martin Vogelbaum, one of our directors, is a non-managing member of RMV VI, LLC, the general partner of Rho Ventures VI, L.P.

Consulting Arrangement with Michael Lewis

Michael E. Lewis, Ph.D, one of our founders and our Chief Scientific Advisor, has historically provided services to us through BioDiligence Partners, Inc., or BDP. BDP is a consulting firm that is wholly owned by Mr. Lewis and members of his immediate family and of which Mr. Lewis and his wife are the only employees. Under the terms of a Services Agreement between with BDP, as amended, we pay BDP $99,000 per year, plus

70% of the documented cost of BDP's health insurance plan. In return, Mr. Lewis devotes 70% of his professional efforts to us. We made total payments to BDP of approximately $164,000, $126,000 and $117,000 for the years ended December 31, 2010, 2011 and 2012, respectively.

Investor Rights Agreement

We are party to an investor rights agreement that provides certain holders of our convertible preferred stock, including certain holders of 5% of our capital stock and entities affiliated with certain of our directors, with certain registration rights, including the right to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing. For a more detailed description of these registration rights, please see "Description of Capital Stock – Registration Rights."

Voting Agreement

We are party to a voting agreement under which certain holders of our capital stock, including certain holders of 5% of our capital stock and entities affiliated with certain of our directors, have agreed to vote in a certain way on certain matters, including with respect to the election of directors. Upon the closing of this offering, the voting agreement will terminate and none of our stockholders will have any special rights regarding the election or designation of members of our board of directors.

Right of First Refusal and Co-sale Agreement

We are party to a right of first refusal and co-sale agreement with certain holders of our convertible preferred stock and our founders, including certain holders of 5% of our capital stock and entities affiliated with certain of our directors, pursuant to which the holders of convertible preferred stock have a right of first refusal and co-sale in respect of certain sales of securities by our founders. Upon the closing of this offering, the right of first refusal and co-sale agreement will terminate.

Indemnification Agreements

In connection with this offering, we will enter into indemnification agreements with each of our directors and executive officers. These agreements will provide that we will indemnify each of our directors and executive officers against any and all expenses incurred by that director or executive officer because of his or her status as one of our directors or executive officers to the fullest extent permitted by Delaware law, our amended and restated certificate of incorporation and our amended and restated bylaws, except in a proceeding initiated by such director or executive officer without board of director approval. In addition, the agreement will generally provide that, to the fullest extent permitted by Delaware law, we will advance all expenses incurred by our directors and executive officers in connection with a legal proceeding.

Policies and Procedures for Related Party Transactions

Our board of directors intends to adopt a written related person transaction policy to set forth the policies and procedures for the review and approval or ratification of related person transactions. This policy will cover any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships in which we were or are to be a participant, the amount involved exceeds $120,000 and a related person had or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness or employment by us of a related person.

PRINCIPAL STOCKHOLDERS

The following table sets forth information as of September 30, 2013 about the number of shares of common stock and the percentage of common stock beneficially owned before and after the completion of this offering by:

- each of our directors and named executive officers;
- all of our directors and executive officers as a group; and
- each person, or any affiliated persons, who is a beneficial owner of more than 5% of our capital stock.

Ownership information is based upon information furnished by the respective individuals or entities, as the case may be.

We have determined beneficial ownership in accordance with the rules of the SEC. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons and entities named in the table below have sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws.

Applicable percentage ownership is based on 42,106,178 shares of common stock outstanding on September 30, 2013 after giving effect to the automatic preferred stock conversion, and assuming no exercise of the underwriters' option to purchase additional shares. In computing the number of shares of common stock beneficially owned by a person and the percentage ownership of that person, we have deemed outstanding shares of common stock to be subject to options held by that person that are currently exercisable or exercisable within 60 days after September 30, 2013. We have not deemed these shares outstanding, however, for the purpose of computing the percentage ownership of any other person.

Except as otherwise noted below, the address for each person or entity listed in the table is c/o Cara Therapeutics, Inc., 1 Parrott Drive, Shelton, Connecticut 06484.

Name of beneficial owner	Number of Shares Beneficially Owned Before Offering	Percentage of shares beneficially owned	
		Before Offering	After Offering
5% stockholders:			
Esperante AB(1)	3,867,873	9.2%	
Ascent Biomedical Ventures(2)	4,185,137	9.9%	
Alta BioPharma Partners(3)	4,504,006	10.7%	
MVM International Life Sciences No. 1 L.P.(4)	4,086,207	9.7%	
Healthcare Private Equity Limited Partnership(5)	2,224,101	5.3%	
Devon Park Bioventures LP(6)	3,941,010	9.4%	
Rho Ventures VI, L.P.(7)	6,105,598	14.5%	
Directors and named executive officers:			
Derek Chalmers, Ph.D.(8)	2,849,482	6.8%	
James B. Jones, M.D., Pharm.D., FACEP(9)	234,500	*%	
Frédérique Menzaghi, Ph.D.(10)	602,083	1.4%	
Ed Hurwitz(3)	4,504,006	10.7%	
Charles Moller, Ph.D.(6)	3,941,010	9.4%	
Dean Slagel(1)	3,867,873	9.2%	
Martin Vogelbaum(7)	—	*%	
All current executive officers and directors as a group (8 persons)(11)	16,852,551	39.6%	

* Represents beneficial ownership of less than one percent.

(1) Dean Slagel, a director of the company and Managing Director of Esperante AB, holds voting and/or dispositive power over the shares held by Esperante AB. The principal address for Esperante AB is PO Box 30127, SE-20061 Limhamn, Sweden.

(2) Consists of (i) 2,409,740 shares held of record by Ascent Biomedical Ventures I, L.P., (ii) 264,327 shares held of record by Ascent Biomedical Ventures I Annex, L.P. and (iii) 1,511,070 shares held of record by Ascent Biomedical Ventures I NY, L.P. ABV, LLC is the general partner of Ascent Biomedical Ventures I, L.P., Ascent Biomedical Ventures I Annex, L.P. and Ascent Biomedical Ventures I NY, L.P. The directors of ABV, LLC, Geoffrey W. Smith and Steve Hochberg exercise sole dispositive and voting power over the shares owned by Ascent Biomedical Ventures I, L.P., Ascent Biomedical Ventures I Annex, L.P. and Ascent Biomedical Ventures I NY, L.P. The principal address for the entities affiliated with Ascent Biomedical Ventures is 142 West 57th Street, 4A, New York, NY 10019.

(3) Consists of (i) 4,125,923 shares held of record by Alta Biopharma Partners III, L.P. (“ABP III”), (ii) 277,050 shares held of record by Alta BioPharma Partners III GmbH & Co. Beteiligings KG (“ABP III KG”) and (iii) 101,663 shares held of record by Alta Embarcadero Biopharma Partners III, LLC “AEPB III” and, collectively, the “Alta Funds”). Alta BioPharma Management III, LLC (“ABM III”) is the general partner of ABP III and the managing limited partner of ABP III KG. Edward Hurwitz, one of our directors, Farah Champsi and Edward Penhoet are directors of ABM III, and the managers of AEBP III and may be deemed to share dispositive and voting power over the shares held by the Alta Funds. The principal address of the Alta Funds is One Embarcadero Center, 37th Floor, San Francisco, CA 94111.

(4) Consists of 4,045,344 shares held of record by MVM International Life Sciences No. 1 L.P. and 40,863 shares held of record by MVM Executive Limited. MVM International Life Sciences No. 1 L.P. and MVM Executive Limited are managed by MVM Life Sciences Partners LLP (“MVM”), an English Limited Liability Partnership. The individuals with shared voting power over MVM are Stephen Reeders, Eric Bednarski and Thomas Casdagli in respect of the shares held by MVM International Life Sciences No. 1 L.P. and MVM Executive Limited. The address for MVM and its affiliated entities is 6 Henrietta Street, London WC2E 8PU.

(5) The general partner of Healthcare Private Equity Limited Partnership (“HPELP”) is Waverley Healthcare Private Equity Limited (“WHPEL”). The sole limited partner of WHPEL is Scottish Widows plc a wholly-owned subsidiary of Lloyds Banking Group plc, which is a publicly held corporation whose American Depository Shares are traded on the New York Stock Exchange. The principal address of HPELP is Scottish Widows Investment Partnership Limited, Edinburgh One, 60 Morrison Street, Edinburgh, UK EH3 8BE.

(6) The shares directly held by Devon Park Bioventures, L.P. (“Dev LP”) are indirectly held by Devon Park Associates, L.P. (“Dev GP”), as general partner of Dev LP, Devon Park Associates, LLC (“Dev LLC”), as general partner of Dev GP, and each of the individual managing members of Dev LLC. The individual managing members (collectively, the “Dev Managers”) of Dev LLC are Charles Moller, Ph.D, Marc Ostro, Ph.D, and Devang Kantesaria, M.D. Dev GP, Dev LLC, and the Dev Managers may share voting and dispositive power over the shares directly held by Dev LP. The principal address for the entities affiliated with the Dev GP is 1400 Liberty Ridge Drive, Suite 103, Wayne, PA 19087.

(7) The general partner of Rho Ventures VI, L.P. (‘‘RV VI’’) is RMV VI, L.L.C., a Delaware limited liability company, and the managing member of RMV VI, L.L.C. is Rho Capital Partners LLC, a Delaware limited liability company (‘‘RCP LLC’’). Each of Habib Kairouz, Mark Leschly and Joshua Ruch is a managing member of RCP LLC, and in their capacity as such may be deemed to exercise voting and investment power over the shares held by the Rho Funds. Martin Vogelbaum is a director of the company and is a non-managing member of RMV VI, L.L.C. The address of Rho Capital Partners, LLC, RMV VI, L.L.C. and RV VI is 152 West 57th Street, 23rd Floor, New York, NY 10019.

(8) Consists of 2,749,482 shares held directly by Dr. Chalmers and 100,000 shares of common stock underlying options that are vested and exercisable within 60 days of September 30, 2013.

(9) Consists of 234,500 shares of common stock underlying options that are vested and exercisable within 60 days of September 30, 2013.

(10) Consists of 400,000 shares held directly by Dr. Menzaghi and 202,083 shares of common stock underlying options that are vested and exercisable within 60 days of September 30, 2013.

(11) Consists of the shares listed in footnotes (1), (3), (6), (8) and (10). Also includes 173,541 shares of common stock underlying options that are vested and exercisable within 60 days of September 30, 2013 owned by Josef Schoell, our Chief Financial Officer, and 914,556 shares held directly by Michael E. Lewis, Ph.D., our Chief Scientific Advisor.

DESCRIPTION OF CAPITAL STOCK

General

The following description of our capital stock and provisions of our certificate of incorporation and bylaws provides only a summary of their respective terms and are qualified by reference to the amended and restated certificate of incorporation and amended and restated bylaws to be in effect upon the completion of this offering. You should refer to the copies of these documents that have been or will be filed with the SEC as exhibits to our registration statement, of which this prospectus forms a part, and to the provisions of Delaware law. Upon the completion of this offering and the filing of the amended and restated certificate of incorporation, our authorized capital stock will consist of shares of common stock, par value $0.001 per share, and shares of undesignated preferred stock, par value $0.001 per share.

Common Stock

As of September 30, 2013, there were 42,106,178 shares of common stock outstanding held by approximately 178 stockholders of record, after giving effect to the automatic preferred stock conversion.

Each holder of common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of stockholders, including the election of directors. Common stockholders will not be entitled to cumulative voting in the election of directors by our amended and restated certificate of incorporation. As a result, the holders of a majority of the voting shares will be able to elect all of the directors then standing for election, if they should so choose. Subject to preferences that may apply to shares of our preferred stock outstanding at the time, the holders of outstanding shares of our common stock will be entitled to receive dividends out of assets legally available at the times and in the amounts that our board of directors may determine from time to time. See section titled “Dividend Policy” for additional information. Upon our liquidation, dissolution or winding-up, the holders of common stock would be entitled to share ratably in all assets remaining after payment of all debts and other liabilities and the satisfaction of any liquidation preferences granted to the holders of outstanding shares of preferred stock. Holders of common stock have no preemptive or conversion rights or other subscription rights. There will be no redemption or sinking fund provisions applicable to the common stock. The rights, preferences and privileges of the holders of common stock are subject to and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate in the future.

Preferred Stock

As of September 30, 2013, there were 29,186,929 shares of preferred stock outstanding, which shares are reflected in the total number of outstanding shares of common stock above. Upon the closing of this offering, all outstanding shares of our convertible preferred stock will have been automatically converted into shares of common stock. Following this offering, our certificate of incorporation will be amended and restated to delete all references to such shares of preferred stock.

Under the amended and restated certificate of incorporation, our board of directors will be authorized, subject to limitations imposed by Delaware law, to issue from time to time up to shares of preferred stock in one or more series, without stockholder approval. Our board of directors will have the authority to establish from time to time the number of shares to be included in each series, and to fix the rights, preferences and privileges of the shares of each wholly unissued series and any of its qualifications, limitations or restrictions. Our board of directors, and/or the holders of a majority of our common stock, will also be able to increase or decrease the number of shares of any series, but not below the number of shares of that series then outstanding, without any further vote or action by the stockholders.

The board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock, or that could decrease the amount of earnings and assets available for distribution to the holders of common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in

control of our company and might adversely affect the market price of our common stock and the voting and other rights of the holders of common stock. We have no current plans to issue any shares of preferred stock.

Warrant

As of September 30, 2013, we had one warrant to purchase 49,628 shares of our common stock outstanding. The warrant has an exercise price of $4.03 per share and terminates on September 25, 2014.

Registration Rights

We are party to an investor rights agreement, which provides that certain of our stockholders are entitled to demand, Form S-3 and "piggyback" registration rights. These stockholders will hold an aggregate of shares of common stock eligible for registration under the investor rights agreement, or %, of our common stock, upon the closing of this offering, assuming an initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus. Such stockholders have agreed not to exercise their registration rights during the lock-up period for this offering. See "Shares Eligible for Future Sale – Lock-up Agreements."

Demand Registration Rights. At any time beginning 180 days following the effective date of this registration statement, the holders of at least 20% of the registrable securities, as defined under the investor rights agreement, have the right to make up to two demands that we file a registration statement to register all or a portion of their shares so long as the aggregate offering price of securities requested to be sold under such registration statement is at least $10,000,000, net of underwriting discounts and commissions and subject to specified exceptions.

Form S-3 Registration Rights. If we are eligible to file a registration statement on Form S-3, the holders of at least 10% of the registrable securities, as defined under the investor rights agreement, have the right to demand up to twice per year that we file registration statements on Form S-3 so long as the aggregate offering price of the securities to be sold under the registration statement on Form S-3 is at least $5,000,000, net of underwriting discounts and commissions, and subject to specified exceptions.

"Piggyback" Registration Rights. If we register any securities for public sale, holders of registrable securities, as defined under the investor rights agreement, are entitled to written notice of the registration and will have the right to include their shares in the registration statement. The underwriters of any offering will have the right to limit the number of shares having registration rights to be included in the registration statement provided such registration does not include shares of any other selling stockholders, in which case any and all shares held by selling stockholders may be excluded from the offering.

Expenses of Registration; Indemnification. Generally, we are required to bear all registration expenses incurred in connection with the demand, Form S-3 and piggyback registrations described above, other than underwriting discounts and commissions. The investor rights agreement contains customary indemnification provisions with respect to registration rights.

Expiration of Registration Rights. The demand, Form S-3 and piggyback registration rights discussed above will terminate if all of the holder's registrable securities may be sold without restriction under Rule 144 of the Securities Act.

Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws

The provisions of Delaware law, our amended and restated certificate of incorporation and our amended and restated bylaws described below may have the effect of delaying, deferring or discouraging another party from acquiring control of us.

Delaware Law

We will be subject to the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. In general, those provisions prohibit a public Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, unless:

- the transaction is approved by the board of directors before the date the interested stockholder attained that status;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced; or
- on or after the date the business combination is approved by the board of directors and authorized at a meeting of stockholders, and not by written consent, by at least two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines a business combination to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning, or within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by any such entity or person.

A Delaware corporation may opt out of this provision by express provision in its original certificate of incorporation or by amendment to its certificate of incorporation or bylaws approved by its stockholders. However, we have not opted out of, and do not currently intend to opt out of, this provision. The statute could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire us.

Charter and Bylaws

Provisions of our amended and restated certificate of incorporation and amended and restated bylaws, which will become effective upon the closing of this offering, may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our amended and restated certificate of incorporation and amended and restated bylaws will provide that:

- no action can be taken by stockholders except at an annual or special meeting of the stockholders called in accordance with our bylaws, and stockholders may not act by written consent;
- the approval of holders of two-thirds of the shares entitled to vote at an election of directors will be required to adopt, amend or repeal our bylaws or amend or repeal the provisions of our certificate of incorporation regarding the election and removal of directors and the ability of stockholders to take action by written consent or call a special meeting;
- our board of directors will be expressly authorized to make, alter or repeal our bylaws;
- stockholders may not call special meetings of the stockholders or fill vacancies on the board of directors;

- stockholders must timely provide advance notice, with specific requirements as to form and content, of nominations of directors or the proposal of business to be voted on at an annual meeting;
- our board of directors will be authorized to issue preferred stock without stockholder approval, as described above;
- our board of directors will be divided into three classes with each director elected for a staggered three-year term;
- the authorized number of directors may be changed only be resolution of the board of directors;
- all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- directors may only be removed for cause and then only by a vote of holders of two-thirds of the shares entitled to vote at an election of directors; and
- we will indemnify our directors, and may indemnify officers, employees and other agents, against losses that they may incur in investigations and legal proceedings resulting from their services to us, which may include services in connection with takeover defense measures.

The amendment of any of these provisions would generally require approval by the holders of at least two-thirds of our then outstanding common stock, voting as a single class.

Limitation of Liability and Indemnification Matters

We will adopt provisions in our certificate of incorporation that limit the liability of our directors for monetary damages for breach of their fiduciary duty as directors, except for liability that cannot be eliminated under the Delaware General Corporation Law. Accordingly, our directors will not be personally liable for monetary damages for breach of their fiduciary duty as directors, except for liabilities:

- for any breach of the director's duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- for unlawful payments of dividends or unlawful stock repurchases or redemptions, as provided under Section 174 of the Delaware General Corporation Law; or
- for any transaction from which the director derived an improper personal benefit.

Any amendment or repeal of these provisions will require the approval of the holders of shares representing at least two-thirds of the shares entitled to vote in the election of directors, voting as one class.

Our certificate of incorporation and bylaws will also provide that we will indemnify our directors and officers to the fullest extent permitted by Delaware law. Our certificate of incorporation and bylaws will also permit us to purchase insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions as our officer, director, employee or agent, regardless of whether Delaware law would permit indemnification. As described above, we intend to enter into separate indemnification agreements with our directors and executive officers that require us, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors and to advance their expenses incurred as a result of any proceeding against them as to which they could be indemnified. We believe that the limitation of liability provision in our certificate of incorporation and the indemnification agreements will facilitate our ability to continue to attract and retain qualified individuals to serve as directors and officers. The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

Listing on The Nasdaq Global Market

We have applied to list our common stock on The NASDAQ Global Market under the symbol "CARA."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is , located at .

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock, and a liquid public trading market for our common stock may not develop or be sustained after this offering. Future sales of significant amounts of our common stock, including shares issued upon exercise of outstanding options or warrants or in the public market after this offering, or the anticipation of any such sales, could adversely affect the public market prices for our common stock prevailing from time to time and could impair our ability to raise capital through sales of our equity securities. We have applied to list our common stock on The NASDAQ Global Market under the symbol "CARA."

Upon the closing of this offering, we will have outstanding an aggregate of shares of common stock, assuming no exercise by the underwriters of their option to purchase additional shares and no exercise of outstanding options or warrants. Of these shares, all shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act, except for any shares purchased by our "affiliates," as that term is defined in Rule 144 under the Securities Act, whose sales would be subject to the Rule 144 resale restrictions described below, other than the holding period requirement.

The remaining shares of common stock will be restricted securities, as that term is defined in Rule 144 under the Securities Act. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rules 144 or 701 under the Securities Act, which are summarized below.

Rule 144

The availability of Rule 144 will vary depending on whether restricted shares are held by an affiliate or a non-affiliate. Under Rule 144 as in effect on the date of this prospectus, once we have been a reporting company subject to the reporting requirements of Section 13 or Section 15(d) of the Exchange Act for 90 days, an affiliate who has beneficially owned restricted shares of our common stock for at least six months would be entitled to sell within any three-month period a number of shares that does not exceed the greater of either of the following:

- 1% of the number of shares of common stock then outstanding, which will equal shares immediately after this offering, assuming no exercise by the underwriters of their option to purchase additional shares; and
- the average weekly trading volume of our common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

However, the six-month holding period increases to one year in the event we have not been a reporting company for at least 90 days. In addition, any sales by affiliates under Rule 144 are also limited by manner of sale provisions and notice requirements and the availability of current public information about us.

The volume limitation, manner of sale and notice provisions described above will not apply to sales by non-affiliates. For purposes of Rule 144, a non-affiliate is any person or entity who is not our affiliate at the time of sale and has not been our affiliate during the preceding three months. Once we have been a reporting company for 90 days, a non-affiliate who has beneficially owned restricted shares of our common stock for six months may rely on Rule 144 provided that certain public information regarding us is available. The six-month holding period increases to one year in the event we have not been a reporting company for at least 90 days. However, a non-affiliate who has beneficially owned the restricted shares proposed to be sold for at least one year will not be subject to any restrictions under Rule 144 regardless of how long we have been a reporting company.

Rule 701

Under Rule 701, shares of our common stock acquired upon the exercise of currently outstanding options or pursuant to other rights granted under our stock plans may be resold, by:

- persons other than affiliates, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, subject only to the manner-of-sale provisions of Rule 144; and

- our affiliates, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, subject to the manner-of-sale and volume limitations, current public information and filing requirements of Rule 144, in each case, without compliance with the six-month holding period requirement of Rule 144.

As of September 30, 2013, options to purchase a total of 1,225,400 shares of common stock were outstanding. Of the total number of shares of our common stock issuable under these options, all are subject to contractual lock-up agreements with us or the underwriters described below under "Underwriting" and will become eligible for sale at the expiration of those agreements.

Lock-up Agreements

We and each of our directors and executive officers and holders of all of our outstanding capital stock, who collectively own shares of our common stock, based on shares outstanding as of September 30, 2013, have agreed that we and they will not, subject to limited exceptions that are described in more detail in the section in this prospectus entitled "Underwriting," during the period ending 180 days after the date of this prospectus:

- offer, sell, contract to sell (including any short sale), pledge, hypothecate transfer, establish an open "put equivalent position" within the meaning of Rule 16a-l(h) under the Exchange Act, grant any option, right or warrant for the sale of, purchase any option or contract to sell, sell any option or contract to purchase;
- otherwise encumber, dispose of or transfer, or grant any rights with respect to, directly or indirectly, any shares of common stock or securities convertible into or exchangeable or exercisable for any shares of common stock, enter into a transaction which would have the same effect, or enter into any swap, hedge or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of our common stock, whether any such aforementioned transaction is to be settled by delivery of our common stock or other securities, in cash or otherwise; or
- publicly announce an intention to do any of the foregoing.

Stifel, Nicolaus & Company, Incorporated and Piper Jaffray & Co. may, in their sole discretion and at any time or from time to time before the termination of the 180-day period, release all or any portion of the securities subject to lock-up agreements. There are no existing agreements between the underwriters and any of our stockholders who will execute a lock-up agreement providing consent to the sale of shares prior to the expiration of the restricted period.

Upon the expiration of the lock-up period, all of the shares subject to such lock-up restrictions will become eligible for sale, subject to the limitations discussed above.

Registration Rights

Our stockholder agreement grants registration rights to some of our stockholders. Under specified circumstances some of these stockholders can require us to file registrations statements that permit them to resell their shares. For more information, see "Description of Capital Stock – Registration Rights."

Equity Incentive Plans

We intend to file one or more registration statements on Form S-8 under the Securities Act after the closing of this offering to register the shares of our common stock that are issuable pursuant to our 2004 Plan and 2013 Plan. The registration statement is expected to be filed and become effective as soon as practicable after the closing of this offering. Accordingly, shares registered under the registration statement will be available for sale in the open market following its effective date, subject to vesting of such shares, Rule 144 volume limitations and the lock-up agreements described above, if applicable.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following is a general discussion of the material U.S. federal income tax consequences of the acquisition, ownership and disposition of our common stock by "Non-U.S. Holders" (as defined below). This discussion is a summary for general information purposes only and does not consider all aspects of U.S. federal income taxation that may be relevant to particular Non-U.S. Holders in light of their individual circumstances or to certain types of Non-U.S. Holders subject to special tax rules, including partnerships or other pass-through entities for U.S. federal income tax purposes, banks, financial institutions or other financial services entities, broker-dealers, insurance companies, tax-exempt organizations, regulated investment companies, real estate investment trusts, controlled foreign corporations, passive foreign investment companies, corporations that accumulate earnings to avoid U.S. federal income tax, persons who use or are required to use mark-to-market accounting, persons that hold our shares as part of a "straddle," a "hedge" or a "conversion transaction," certain former citizens or permanent residents of the U.S., investors in pass-through entities, or persons subject to the alternative minimum tax. In addition, this summary does not address the effects of any applicable gift or estate tax, and this summary does not address the potential application of the Medicare contribution tax or any tax considerations that may apply to Non-U.S. Holders of our common stock under state, local or non-U.S. tax laws and any other U.S. federal tax laws.

This summary is based on the Internal Revenue Code of 1986, as amended, or the Code, and applicable Treasury Regulations, rulings, administrative pronouncements and decisions as of the date of this registration statement, all of which are subject to change or differing interpretations at any time with possible retroactive effect. We have not sought, and will not seek, any ruling from the Internal Revenue Service, or the IRS, with respect to the tax consequences discussed herein, and there can be no assurance that the IRS will not take a position contrary to the tax consequences discussed below or that any position taken by the IRS would not be sustained. This discussion assumes that a Non-U.S. Holder will hold our common stock as a capital asset within the meaning of the Code (generally, property held for investment).

The following discussion is for general information only and is not tax advice for any Non-U.S. Holder under its particular circumstances. Persons considering the purchase of our common stock pursuant to this offering should consult their own tax advisors concerning the U.S. federal income, estate and gift tax consequences of acquiring, owning and disposing of our common stock in light of their particular situations as well as any consequences arising under the laws of any other taxing jurisdiction, including any state, local and non-U.S. tax consequences.

For purposes of this discussion, the term "Non-U.S. Holder" means a beneficial owner of our shares that is not a partnership (or entity or arrangement treated as a partnership for U.S. federal income tax purposes) and is not:

- an individual who is a citizen or resident of the U.S.;
- a corporation created or organized in the U.S. or under the laws of the U.S. or of any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust if (1) a U.S. court can exercise primary supervision over the trust's administration and one or more U.S. persons have the authority to control all of the trust's substantial decisions or (2) the trust has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

If a partnership (or entity or arrangement treated as a partnership for U.S. federal income tax purposes) is a beneficial owner of our common stock, the tax treatment of a partner in the partnership will generally depend upon the status of the partner and the activities of the partnership. If you are a partner of a partnership holding our shares, you should consult your tax advisor regarding the tax consequences of the purchase, ownership, and disposition of our common stock.

PROSPECTIVE INVESTORS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR U.S. FEDERAL INCOME TAX CONSEQUENCES TO THEM OF ACQUIRING, OWNING AND DISPOSING OF OUR COMMON STOCK, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL OR FOREIGN TAX LAWS AND ANY OTHER U.S. FEDERAL TAX LAWS.

Distributions on Our Common Stock

In general, distributions, if any, paid to a Non-U.S. Holder (to the extent paid out of our current or accumulated earnings and profits, as determined under U.S. federal income tax principles) will constitute dividends and be subject to U.S. withholding tax at a rate equal to 30% of the gross amount of the dividend, or a lower rate prescribed by an applicable income tax treaty, unless the dividends are effectively connected with a trade or business carried on by the Non-U.S. Holder within the U.S. Any distribution not constituting a dividend (because such distribution exceeds our current and accumulated earnings and profits) will be treated first as reducing the Non-U.S. Holder's basis in its shares of common stock, but not below zero, and to the extent it exceeds the Non-U.S. Holder's basis, as capital gain (see "Gain on Sale, Exchange or Other Disposition of Our Common Stock" below).

A Non-U.S. Holder who claims the benefit of an applicable income tax treaty generally will be required to satisfy certain certification and other requirements prior to the distribution date. Non-U.S. Holders must generally provide the withholding agent with a properly executed IRS Form W-8BEN claiming an exemption from or reduction in withholding under an applicable income tax treaty. This certification must be updated periodically. If a Non-U.S. Holder holds our common stock through a financial institution or other agent acting on the Non-U.S. Holder's behalf, the Non-U.S. Holder will be required to provide appropriate documentation to the agent, who then will be required to provide certification to us or our paying agent, either directly or through other intermediaries. If tax is withheld in an amount in excess of the amount applicable under an income tax treaty, a refund of the excess amount may generally be obtained by timely filing an appropriate claim for refund with the IRS. Non-U.S. Holders should consult their tax advisors regarding their entitlement to benefits under an applicable income tax treaty.

Dividends that are effectively connected with a Non-U.S. Holder's conduct of a U.S. trade or business (and, if required by an applicable income tax treaty, attributable to a U.S. permanent establishment or fixed base of the Non-U.S. Holder) generally will not be subject to U.S. withholding tax if the Non-U.S. Holder provides the withholding agent with the required forms, including IRS Form W-8ECI, but instead generally will be subject to U.S. federal income tax on a net income basis at the regular graduated rates in the same manner as if the Non-U.S. Holder were a resident of the U.S. A corporate Non-U.S. Holder that receives effectively connected dividends may also be subject to an additional branch profits tax at a rate of 30% (or a lower rate prescribed by an applicable income tax treaty) of its effectively connected earnings and profits for the taxable year, as adjusted for certain items.

Gain on Sale, Exchange or Other Disposition of Our Common Stock

In general, a Non-U.S. holder will not be subject to any U.S. federal income tax or withholding tax on any gain realized upon such holder's sale, exchange or other disposition of shares of our common stock unless:

(i) the gain is effectively connected with a trade or business carried on by the Non-U.S. Holder within the U.S. (and, if required by an applicable income tax treaty, attributable to a U.S. permanent establishment or fixed base of the Non-U.S. Holder);

(ii) the Non-U.S. Holder is an individual who is present in the U.S. for 183 days or more in the taxable year of disposition and certain other conditions are met; or

(iii) we are or have been a "United States real property holding corporation" for U.S. federal income tax purposes at any time during the shorter of the five-year period ending on the date of disposition or the period that the Non-U.S. Holder held the common stock, and, in the case where shares of our common stock are regularly traded on an established securities market, the Non-U.S. Holder owns, or is treated as owning, more than five percent of our common stock at any time during the foregoing period.

Net gain realized by a Non-U.S. Holder described in clause (i) above generally will be subject to U.S. federal income tax in the same manner as if the Non-U.S. Holder were a U.S. person. Any gains of a corporate Non-U.S. Holder described in clause (i) above may also be subject to an additional branch profits tax at a 30% rate, or such lower rate as may be specified by an applicable income tax treaty.

Gain realized by an individual Non-U.S. Holder described in clause (ii) above will be subject to a flat 30% tax, which gain may be offset by certain U.S. source capital losses, even though the individual is not considered a resident of the U.S.

For purposes of clause (iii) above, a corporation is a "United States real property holding corporation" if the fair market value of its U.S. real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. We believe that we are not, and we do not anticipate that we will become, a United States real property holding corporation. However, because the determination of whether we are a United States real property holding corporation depends on the fair market value of our U.S. real property interests relative to the fair market value of our other business assets, there can be no assurance that we will not become a United States real property holding corporation in the future. If we become a United States real property holding corporation, as long as our common stock is regularly traded on an established securities market, our common stock will be treated as a U.S. real property interest only with respect to a Non-U.S. Holder that actually or constructively held more than 5% of our common stock at any time during the shorter of the two periods described in clause (iii), above. If gain on the sale or other taxable disposition of our common stock were subject to taxation under clause (iii) above, the Non-U.S. Holder would be subject to regular U.S. federal income tax with respect to such gain in generally the same manner as a U.S. person.

Information Reporting and Backup Withholding

Generally, we must report annually to the IRS and to each Non-U.S. Holder the amount of dividends paid, the name and address of the recipient, and the amount, if any, of tax withheld. These information reporting requirements apply even if withholding was not required because the dividends were effectively connected with the Non-U.S. Holder's conduct of a trade or business within the U.S. or withholding was reduced by an applicable income tax treaty. Under applicable income tax treaties or other agreements, the IRS may make its reports available to the tax authorities in the Non-U.S. Holder's country of residence.

Dividends paid to a Non-U.S. Holder that is not an exempt recipient generally will be subject to backup withholding, currently at a rate of 28%, unless the Non-U.S. Holder certifies to the withholding agent as to its foreign status, which certification may generally be made on IRS Form W-8BEN or other appropriate version of IRS Form W-8. Notwithstanding the foregoing, backup withholding may apply if either we or our paying agent has actual knowledge, or reason to know, that the holder is a U.S. person that is not an exempt recipient.

Proceeds from the sale or other disposition of common stock by a Non-U.S. Holder effected by or through a U.S. office of a broker will generally be subject to information reporting and backup withholding, currently at a rate of 28%, unless the Non-U.S. Holder certifies to the withholding agent under penalties of perjury as to, among other things, its name, address and status as a Non-U.S. Holder or otherwise establishes an exemption. Payment of disposition proceeds effected outside the U.S. by or through a non-U.S. office of a non-U.S. broker generally will not be subject to information reporting or backup withholding if the payment is not received in the U.S. Information reporting, but generally not backup withholding (provided the broker does not have actual knowledge or reason to know that the holder is a U.S. person that is not an exempt recipient), will apply to such a payment if the broker has certain connections with the U.S. unless the broker has documentary evidence in its records that the beneficial owner thereof is a Non-U.S. Holder and specified conditions are met or an exemption is otherwise established.

Backup withholding is not an additional tax. Any amount withheld under the backup withholding rules from a payment to a Non-U.S. Holder that results in an overpayment of taxes generally will be refunded, or credited against the holder's U.S. federal income tax liability, if any, provided that the required information is timely furnished to the IRS.

Foreign Accounts

A U.S. federal withholding tax of 30% may apply to dividends and the gross proceeds of a disposition of our common stock paid to a "foreign financial institution" (as specially defined under applicable rules) unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect

and provide to the U.S. tax authorities substantial information regarding certain U.S. account holders of such institution (which includes certain equity holders of such institution, as well as certain account holders that are foreign entities with U.S. owners). This U.S. federal withholding tax of 30% will also apply to payments of dividends and the gross proceeds of a disposition of our common stock paid to a "non-financial foreign entity" (as specially defined under applicable rules) unless such entity either certifies it does not have any substantial U.S. owners or provides the withholding agent with a certification identifying substantial direct and indirect U.S. owners of the entity. The withholding tax described above will not apply if the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from the rules. Under certain circumstances, a Non-U.S. Holder might be eligible for refunds or credits of such taxes. The U.S. has entered into agreements with certain countries that modify these general rules for entities located in those countries. Prospective investors are encouraged to consult with their own tax advisors regarding the possible implications of this legislation on their investment in our common stock.

The withholding provisions described above will generally apply to payments of dividends made on or after July 1, 2014 and to payments of gross proceeds from a sale or other disposition of our common stock on or after January 1, 2017.

UNDERWRITING

Subject to the terms and conditions set forth in an underwriting agreement, each of the underwriters named below has severally agreed to purchase from us the aggregate number of shares of common stock set forth opposite their respective names below:

Name	Number of Shares
Stifel, Nicolaus & Company, Incorporated	
Piper Jaffray & Co.	
Canaccord Genuity Inc.	
Needham & Company, LLC	
Janney Montgomery Scott LLC	
Total	

The underwriting agreement provides that the obligations of the several underwriters are subject to various conditions, including approval of legal matters by counsel. The nature of the underwriters' obligations commits them to purchase and pay for all of the shares of common stock listed above if any are purchased. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

The underwriters expect to deliver the shares of common stock to purchasers on or about , 2013.

Option To Purchase Additional Shares

We have granted a 30-day option to the underwriters to purchase up to a total of additional shares of our common stock from us, at the initial public offering price, less the underwriting discounts and commissions payable by us, as set forth on the cover page of this prospectus. If the underwriters exercise this option in whole or in part, then each of the underwriters will be separately committed, subject to the conditions described in the underwriting agreement, to purchase the additional shares of our common stock in proportion to their respective commitments set forth in the table above. We will pay the expenses associated with the exercise of the option.

Determination of Offering Price

Prior to this offering, there has been no public market for our common stock. The initial public offering price will be determined through negotiations between us and the representatives. In addition to prevailing market conditions, the factors to be considered in determining the initial public offering price will include:

- the information set forth in this prospectus and otherwise available to the representatives;
- our history and prospects, including our past and present financial performance and our prospects for future earnings;
- the history and prospects of companies in our industry;
- prior offerings of those companies;
- our capital structure;
- an assessment of our management and their experience;
- general conditions of the securities markets at the time of the offering; and
- other factors as we deem relevant.

We cannot assure you that an active or orderly trading market will develop for our common stock or that our common stock will trade in the public markets subsequent to this offering at or above the initial offering price.

Commissions and Discounts

The underwriters propose to offer the shares of common stock directly to the public at the public offering price set forth on the cover page of this prospectus, and at this price less a concession not in excess of $ per share of common stock to other dealers specified in a master agreement among underwriters who are members of the Financial Industry Regulatory Authority, Inc. The underwriters may allow, and the other dealers specified may reallow, concessions not in excess of $ per share of common stock to these other dealers. After this offering, the offering price, concessions, and other selling terms may be changed by the underwriters.

Our common stock is offered subject to receipt and acceptance by the underwriters and to the other conditions, including the right to reject orders in whole or in part.

The following table summarizes the compensation to be paid to the underwriters by us and the proceeds, before expenses, payable to us:

		Total	
	Per Share	Without option exercise	With full option exercise
Public offering price	$	$	$
Underwriting discounts and commissions	$	$	$
Proceeds, before expenses, to us	$	$	$

Indemnification of Underwriters

We will indemnify the underwriters against some civil liabilities, including liabilities under the Securities Act and liabilities arising from breaches of our representations and warranties contained in the underwriting agreement. If we are unable to provide this indemnification, we will contribute to payments the underwriters may be required to make in respect of those liabilities.

No Sale of Similar Securities

We and each of our directors and executive officers and holders of all of our outstanding capital stock prior to this offering have agreed that we and they will not, without the prior written consent of each of Stifel, Nicolaus & Company, Incorporated and Piper Jaffray & Co., directly or indirectly:

- offer, sell, contract to sell (including any short sale), pledge, hypothecate transfer, establish an open "put equivalent position" within the meaning of Rule 16a-1(h) under the Exchange Act, grant any option, right or warrant for the sale of, purchase any option or contract to sell, sell any option or contract to purchase;
- otherwise encumber, dispose of or transfer, or grant any rights with respect to, directly or indirectly, any shares of Common Stock or securities convertible into or exchangeable or exercisable for any shares of Common Stock, enter into a transaction which would have the same effect, or enter into any swap, hedge or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of our common stock, whether any such aforementioned transaction is to be settled by delivery of our common stock or other securities, in cash or otherwise; or
- publicly announce an intention to do any of the foregoing,

for a period of 180 days after the date of this prospectus. However, in the case of our directors, executive officers and stockholders, these lock-up restrictions will not apply to: (a) bona fide gifts made by the holder, (b) transfers of our securities to a trust for the direct or indirect benefit of the holder or the immediate family of the holder in a transaction not involving a disposition for value, (c) securities purchased by any issuer-directed or "friends and family" shares purchased in this offering or acquired in the open market after this offering, (d) transfers of securities by will or intestate succession upon the death of the holder, (e) transfers or distributions to stockholders, members, partners, beneficiaries, or other equity holders of the securities holder, (f) the surrender or forfeiture of shares of common stock to us to satisfy tax withholding obligations upon exercise or vesting of stock options or warrants, (g) transfers of securities to the company in connection with the repurchase of shares pursuant to employee benefit plans, (h) a *bona fide* third party tender offers, merger, consolidation, or other similar transaction made to all holders of our Common Stock, (i) transfers pursuant to operation of law, including pursuant to a domestic order or negotiated divorce settlement, (j) the exercise of any option to purchase of our common stock granted under an equity incentive plan or stock purchase plan, or warrant to purchase our securities, provided that underlying shares received continue to be subject to the lock-up agreement, or (k) the entry into a trading plan established pursuant to Rule 10b5-1 under the Exchange Act, provided that such plan does not provide for any sales or other dispositions of shares of common stock during the 180-day restricted period. Any transferee under the excepted transfers described above in (a), (b), (d), (e) or (i) must agree in writing, prior to the transfer, to be bound by the lock-up agreements.

Stifel, Nicolaus & Company, Incorporated and Piper Jaffray & Co. may, in their sole discretion and at any time or from time to time before the termination of the 180-day period, release all or any portion of the securities subject to lock-up agreements. There are no existing agreements between the underwriters and any of our stockholder who will execute a lock-up agreement providing consent to the sale of shares prior to the expiration of the restricted period.

NASDAQ Market Listing

We have applied to list our common stock on The NASDAQ Global Market under the symbol "CARA."

Short Sales, Stabilizing Transactions, and Penalty Bids

In order to facilitate this offering, persons participating in this offering may engage in transactions that stabilize, maintain, or otherwise affect the price of our common stock during and after this offering. Specifically, the underwriters may engage in the following activities in accordance with the rules of the Securities and Exchange Commission.

Short sales. Short sales involve the sales by the underwriters of a greater number of shares than they are required to purchase in the offering. Covered short sales are short sales made in an amount not greater than the underwriters' option to purchase additional shares from us in this offering. The underwriters may close out any covered short position by either exercising their option to purchase shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option. Naked short sales are any short sales in excess of such option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in this offering.

Stabilizing transactions. The underwriters may make bids for or purchases of the shares for the purpose of pegging, fixing, or maintaining the price of the shares, so long as stabilizing bids do not exceed a specified maximum.

Penalty bids. If the underwriters purchase shares in the open market in a stabilizing transaction or syndicate covering transaction, they may reclaim a selling concession from the underwriters and selling group members who sold those shares as part of this offering. Stabilization and syndicate covering transactions may cause the price of the shares to be higher than it would be in the absence of these transactions. The imposition of a penalty bid might also have an effect on the price of the shares if it discourages resales of the shares.

The transactions above may occur on the NASDAQ Global Market or otherwise. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of the shares. If these transactions are commenced, they may be discontinued without notice at any time.

Discretionary Sales

The underwriters have informed us that they do not expect to confirm sales of common stock offered by this prospectus to accounts over which they exercise discretionary authority without obtaining the specific approval of the account holder.

Electronic Distribution

A prospectus in electronic format may be made available on the internet sites or through other online services maintained by one or more of the underwriters participating in this offering, or by their affiliates. Other than the prospectus in electronic format, the information on any underwriter's web site and any information contained in any other web site maintained by an underwriter is not part of the prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or any underwriter in its capacity as underwriter and should not be relied upon by investors.

Relationships

Certain of the underwriters or their affiliates may in the future provide investment banking, lending, financial advisory and other related services to us and our affiliates for which they may receive customary fees and commissions.

European Economic Area

In relation to each member state of the European Economic Area that has implemented the Prospectus Directive (each, a relevant member state), with effect from and including the date on which the Prospectus Directive is implemented in that relevant member state (the relevant implementation date), an offer of securities described in this prospectus may not be made to the public in that relevant member state other than:

- to any legal entity that is authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- to any legal entity that has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;
- to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the representatives; or
- in any other circumstances that do not require the publication of a prospectus pursuant to Article 3 of the Prospectus Directive,

provided that no such offer of securities shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive. For purposes of this provision, the expression an “offer of securities to the public” in any relevant member state means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe the securities, as the expression may be varied in that member state by any measure implementing the Prospectus Directive in that member state, and the expression “Prospectus Directive” means Directive 2003/71/EC and includes any relevant implementing measure in each relevant member state.

We have not authorized and do not authorize the making of any offer of securities through any financial intermediary on their behalf, other than offers made by the underwriters with a view to the final placement of the securities as contemplated in this prospectus. Accordingly, no purchaser of the securities, other than the underwriters, is authorized to make any further offer of the securities on behalf of us or the underwriters.

United Kingdom

This prospectus is only being distributed to, and is only directed at, persons in the United Kingdom that are qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive (Qualified Investors) that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the Order) or (ii) high net worth entities, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as relevant persons). This prospectus and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. Any person in the United Kingdom that is not a relevant person should not act or rely on this document or any of its contents.

France

This prospectus has not been prepared in the context of a public offering of financial securities in France within the meaning of Article L.411-1 of the French Code Monétaire et Financier and Title I of Book II of the Reglement Général of the Autorité des marchés financiers (the “AMF”) and therefore has not been and will not be filed with the AMF for prior approval or submitted for clearance to the AMF. Consequently, the shares of our common stock may not be, directly or indirectly, offered or sold to the public in France and offers and sales of the shares of our common stock may only be made in France to qualified investors (investisseurs qualifiés) acting for their own, as defined in and in accordance with Articles L.411-2 and D.411-1 to D.411-4, D.734-1,

D.744-1, D.754-1 and D.764-1 of the French Code Monétaire et Financier. Neither this prospectus nor any other offering material may be released, issued or distributed to the public in France or used in connection with any offer for subscription on sale of the shares of our common stock to the public in France. The subsequent direct or indirect retransfer of the shares of our common stock to the public in France may only be made in compliance with Articles L.411-1, L.411-2, L.412-1 and L.621-8 through L.621-8-3 of the French Code Monétaire et Financier.

Notice to Residents of Germany

Each person who is in possession of this prospectus is aware of the fact that no german securities prospectus (wertpapierprospekt) within the meaning of the securities prospectus act (wertpapier-prospektgesetz, the "act") of the federal republic of Germany has been or will be published with respect to the shares of our common stock. In particular, each underwriter has represented that it has not engaged and has agreed that it will not engage in a public offering in the federal republic of Germany (ôffertliches angebot) within the meaning of the act with respect to any of the shares of our common stock otherwise than in accordance with the act and all other applicable legal and regulatory requirements.

Notice to Residents of Switzerland

The securities which are the subject of the offering contemplated by this prospectus may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or SIX, or on any other stock exchange or regulated trading facility in Switzerland. This prospectus has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. None of this prospectus or any other offering or marketing material relating to the securities or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

None of this prospectus or any other offering or marketing material relating to the offering, us or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of the securities.

Notice to Residents of the Netherlands

The offering of the shares of our common stock is not a public offering in The Netherlands. The shares of our common stock may not be offered or sold to individuals or legal entities in The Netherlands unless (i) a prospectus relating to the offer is available to the public, which has been approved by the Dutch Authority for the Financial Markets (Autoriteit Financiële Markten) or by the competent supervisory authority of another state that is a member of the European Union or party to the Agreement on the European Economic Area, as amended or (ii) an exception or exemption applies to the offer pursuant to Article 5:3 of The Netherlands Financial Supervision Act (Wet op het financieel toezicht) or Article 53 paragraph 2 or 3 of the Exemption Regulation of the Financial Supervision Act, for instance due to the offer targeting exclusively "qualified investors" (gekwalificeerde beleggers) within the meaning of Article 1:1 of The Netherlands Financial Supervision Act.

Notice to Residents of Japan

The underwriters will not offer or sell any of the shares of our common stock directly or indirectly in Japan or to, or for the benefit of any Japanese person or to others, for re-offering or re-sale directly or indirectly in Japan or to any Japanese person, except in each case pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Law of Japan and any other applicable laws and regulations of Japan. For purposes of this paragraph, "Japanese person" means any person resident in Japan, including any corporation or other entity organized under the laws of Japan.

Notice to Residents of Hong Kong

The underwriters and each of their affiliates have not (1) offered or sold, and will not offer or sell, in Hong Kong, by means of any document, any shares of our common stock other than (a) to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance or (b) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance; and (2) issued or had in its possession for the purposes of issue, and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere any advertisement, invitation or document relating to the shares of our common stock which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to the shares of our common stock which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance and any rules made under that Ordinance. The contents of this document have not been reviewed by any regulatory authority in Hong Kong. You are advised to exercise caution in relation to the offer. If you are in any doubt about any of the contents of this document, you should obtain independent professional advice.

Notice to Residents of Singapore

This document has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this document and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of shares of our common stock may not be circulated or distributed, nor may shares of our common stock be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "Securities and Futures Act"), (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the Securities and Futures Act or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the Securities and Futures Act.

Where shares of our common stock are subscribed or purchased under Section 275 by a relevant person which is:

(a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for six months after that corporation or that trust has acquired the shares of our common stock under Section 275 except:

(1) to an institutional investor or to a relevant person, or to any person pursuant to an offer that is made on terms that such rights or interest are acquired at a consideration of not less than $200,000 (or its equivalent in a foreign currency) for each transaction, whether such amount is to be paid for in cash or by exchange of securities or other assets;

(2) where no consideration is given for the transfer; or

(3) by operation of law.

LEGAL MATTERS

The validity of the common stock being offered in this offering will be passed upon for us by Cooley LLP, New York, New York. Certain legal matters related to this offering will be passed upon for the underwriters by Latham & Watkins LLP, Boston, Massachusetts.

EXPERTS

The financial statements of Cara Therapeutics, Inc. at December 31, 2011 and 2012, and for each of the two years in the period ended December 31, 2012, appearing in this prospectus and registration statement have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock we are offering by this prospectus. This prospectus, which constitutes part of the registration statement, does not contain all of the information included in the registration statement and its exhibits and schedules. For further information pertaining to us and our common stock, you should refer to the registration statement and to its exhibits and schedules. Whenever we make reference in this prospectus to any of our contracts, agreements or other documents, the references are not necessarily complete, and you should refer to the exhibits attached to the registration statement for copies of the actual contract, agreement or other document.

You can read our SEC filings, including the registration statement, through the Internet at the SEC's website at www.sec.gov. You may also read and copy any document we file with the SEC at its public reference facility at 100 F Street, N.E., Washington, D.C. 20549. You may also obtain copies of the documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facility.

Upon the closing of the offering, we will be subject to the informational requirements of the Exchange Act and we intend to file annual, quarterly and current reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available for inspection and copying at the public reference room and web site of the SEC referred to above. We also maintain a website at www.Caratherapeutics.com, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. However, the information contained in or accessible through our website is not part of this prospectus or the registration statement of which this prospectus forms a part, and investors should not rely on such information in making a decision to purchase our common stock in this offering.

CARA THERAPEUTICS, INC.

INDEX TO FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders

Cara Therapeutics, Inc.

We have audited the accompanying balance sheets of Cara Therapeutics, Inc. as of December 31, 2012 and 2011, and the related statements of operations, convertible preferred stock and stockholders' equity (deficit) and cash flows for years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Cara Therapeutics, Inc. at December 31, 2012 and 2011, and the results of its operations and its cash flows for the years then ended, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP

Boston, Massachusetts

October 4, 2013

CARA THERAPEUTICS, INC.

BALANCE SHEETS
(amounts in thousands, except share and per share data)

	December 31, 2011	December 31, 2012	September 30, 2013 (Unaudited)	Pro forma September 30, 2013 (Unaudited)
Assets				
Current assets:				
Cash and cash equivalents	$ 4,097	$ 1,117	$ 17,733	$ 17,733
Restricted cash	294	—	—	—
Other receivable	18	—	—	—
Income tax receivable	39	31	58	58
Prepaid expenses & other current assets	110	80	556	556
Total current assets	4,558	1,228	18,347	18,347
Property and equipment, net	5,427	3,609	3,021	3,021
Restricted cash	700	700	700	700
Total assets	$ 10,685	$ 5,537	$ 22,068	$ 22,068
Liabilities, convertible preferred stock and stockholders' (deficit) equity				
Current liabilities:				
Current installment of long-term debt	$ 753	$ 307	$ —	$ —
Convertible promissory notes, including accrued interest payable of $2 and $12 as of December 31, 2012 and September 30, 2013, respectively	—	473	311	311
Accounts payable and accrued expenses	2,176	906	2,530	2,530
Deferred revenue	—	—	4,434	4,434
Total current liabilities	2,929	1,686	7,275	7,275
Deferred lease obligation	1,592	1,377	1,202	1,202
Deferred revenue	—	—	—	—
Liability under license agreement	60	35	—	—
Commitments and contingencies *(Note 18)*	—	—	—	—
Convertible preferred stock (Series A, B, C, D, Junior, Junior A); $0.001 par value; 26,462,507 shares at December 31, 2011 and 26,636,118 shares at December 31, 2012 and 29,402,200 shares at September 30, 2013 (unaudited) authorized, 26,462,507 shares at December 31, 2011, 26,636,118 shares at December 31, 2012 and 29,186,929 shares at September 30, 2013 (unaudited) issued and outstanding, respectively; aggregate liquidation preference of $58,030 at December 31, 2011 and $58,530 at December 31, 2012 and $65,969 at September 30, 2013 (unaudited) respectively; no shares issued or outstanding pro forma (unaudited)	58,168	58,522	65,586	—
Beneficial conversion feature on convertible promissory notes	—	2,050	—	—
Stockholders' (deficit) equity:				
Common stock; $0.001 par value; 43,000,000 shares authorized at December 31, 2011 and 2012 and 50,000,000 shares authorized at September 30, 2013 (unaudited), 8,091,603, 8,321,757, and 10,720,624 shares issued and outstanding at December 31, 2011 and 2012 and September 30, 2013 (unaudited), respectively; 42,106,178 shares issued and outstanding pro forma (unaudited)	8	8	11	42
Additional paid-in capital	1,041	1,243	8,357	73,912
Accumulated deficit	(53,113)	(59,384)	(60,363)	(60,363)
Total stockholders'(deficit) equity	(52,064)	(58,133)	(51,995)	13,591
Total liabilities, convertible preferred stock and stockholders' (deficit) equity	$ 10,685	$ 5,537	$ 22,068	$ 22,068

See accompanying notes.

CARA THERAPEUTICS, INC.

STATEMENTS OF OPERATIONS
(amounts in thousands, except share and per share data)

	Year Ended December 31,		Nine Months Ended September 30,	
	2011	2012	2012	2013
			(Unaudited)	
Revenue:				
License and milestone fees	$ —	$ 1,190	$ 1,190	$ 9,637
Collaborative revenue	—	—	—	1,354
Total revenue	—	1,190	1,190	10,991
Operating expenses:				
Research and development	7,159	4,597	3,574	6,707
General and administrative	2,407	2,829	2,083	2,457
Total operating expenses	9,566	7,426	5,657	9,164
Operating income (loss)	(9,566)	(6,236)	(4,467)	1,827
Interest expense, net	(95)	(66)	(28)	(3,724)
Other expense	(180)	—	—	—
Loss before benefit from income taxes	(9,841)	(6,302)	(4,495)	(1,897)
Benefit from income taxes	35	31	21	27
Net loss	$ (9,806)	$ (6,271)	$ (4,474)	$ (1,870)
Net loss available to common stockholders (basic)	$ (9,806)	$ (6,271)	$ (4,474)	$ (979)
Loss per share available to common stockholders:				
Basic	$ (1.21)	$ (0.76)	$ (0.54)	$ (0.10)
Diluted	$ (1.21)	$ (0.76)	$ (0.54)	$ (0.10)
Weighted average shares:				
Basic	8,089,370	8,249,996	8,225,901	10,202,188
Diluted	8,089,370	8,249,996	8,225,901	10,202,188
Pro forma loss per share available to common stockholders (unaudited):				
Basic		$ (0.17)		$ (0.03)
Diluted		$ (0.17)		$ (0.03)
Pro forma weighted average shares outstanding (unaudited):				
Basic		37,034,970		38,601,062
Diluted		37,034,970		38,601,062

See accompanying notes.

CARA THERAPEUTICS, INC.

STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' (DEFICIT) EQUITY
(amounts in thousands, except share and per share data)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity	Convertible Preferred Stock		Beneficial Conversion Feature on Convertible Promissory Notes Amount
	Shares	Amount				Shares	Amount	
Balance at December 31, 2010	8,083,103	$ 8	944	$ (43,307)	$ (42,355)	19,538,469	$47,162	—
Issuance of Series D convertible preferred stock	—	—	—	—	—	6,924,038	11,006	
Stock-based compensation expense	—	—	95	—	95			
Stock option exercise	8,500	—	2	—	2			
Net loss	—	—	—	(9,806)	(9,806)			
Balance at December 31, 2011	8,091,603	8	1,041	(53,113)	(52,064)	26,462,507	58,168	—
Issuance of Junior convertible preferred stock	—	—	—	—	—	173,611	354	
Issuance of common stock	145,154	—	86	—	86			
Beneficial conversion feature on convertible promissory notes	—	—	—	—	—			2,050
Stock-based compensation expense	—	—	61	—	61			
Stock option exercise	85,000	—	55	—	55			
Net loss	—	—	—	(6,271)	(6,271)			
Balance at December 31, 2012	8,321,757	8	1,243	(59,384)	(58,133)	26,636,118	58,522	2,050
Issuance of Junior A convertible preferred stock	—	—	—	—	—	2,105,263	7,642	
Preferred stock converted to common shares	2,398,867	3	3,572	891	4,466	(2,246,743)	(4,466)	
Convertible promissory notes converted to Series D convertible preferred stock					—	2,692,291	3,888	
Beneficial conversion feature on convertible promissory notes	—	—	—	—	—			1,382
Reclassification of beneficial conversion feature			3,432		3,432			(3,432)
Stock-based compensation expense	—	—	110	—	110			
Net loss	—	—	—	(1,870)	(1,870)			
Balance at September 30, 2013 (unaudited)	10,720,624	$ 11	$ 8,357	$ (60,363)	$ (51,995)	29,186,929	$65,586	$ —

See accompanying notes.

CARA THERAPEUTICS, INC.

STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended December 31,		Nine Months Ended September 30,	
	2011	2012	2012	2013
			(Unaudited)	
Operating activities				
Net loss	$(9,806)	$(6,271)	$(4,474)	$ (1,870)
Adjustments to reconcile net (loss) income to net cash (used in) provided by operations:				
Non-cash compensation expense	95	61	37	110
Change in fair value of liability under license agreement	(20)	(25)	—	(35)
Change in fair value of investor rights / obligations	179	—	—	—
Accrued interest and amortization of beneficial conversion feature on promissory notes	—	25	—	3,605
Depreciation and amortization	1,170	1,021	823	592
Deferred rent costs	(191)	(214)	(157)	(175)
Amortization of financing costs	16	4	4	117
(Gain) loss on sale of property and equipment	(9)	286	286	—
Changes in operating assets and liabilities:				
Other receivables	—	18	18	—
Income tax receivable	6	8	17	(27)
Prepaid expenses and other current assets	(66)	73	57	(78)
Restricted cash	294	294	294	—
Accounts payable and accrued expenses	1,487	(1,311)	(1,441)	1,220
Deferred revenue	—	—	—	4,434
Net cash (used in) provided by operating activities	(6,845)	(6,031)	(4,536)	7,893
Investing activities				
Purchases of property and equipment	(15)	—	—	(4)
Proceeds from sale of property and equipment	60	511	511	—
Net cash provided by (used in) investing activities	45	511	511	(4)
Financing activities				
Proceeds from convertible promissory notes	—	2,538	—	1,462
Financing costs on convertible promissory notes	—	(47)	—	(70)
Repayment of long-term debt	(848)	(446)	(446)	(307)
Issuance of common stock	—	86	86	—
Stock option exercise	2	55	55	—
Proceeds from sale of Series D convertible preferred stock	9,982	—	—	—
Proceeds from sale of Junior convertible preferred stock	—	354	354	—
Proceeds from sale of Junior A convertible preferred stock	—	—	—	7,642
Net cash provided by financing activities	9,136	2,540	49	8,727
Net cash increase (decrease) for period	2,336	(2,980)	(3,976)	16,616
Cash and cash equivalents at beginning of period	1,761	4,097	4,097	1,117
Cash and cash equivalents at end of period	$ 4,097	$ 1,117	$ 121	$17,733
Supplemental disclosure of cash flow information				
Cash paid for income taxes	—	—	—	—
Cash paid for interest	$ 85	$ 20	$ 20	$ 24

See accompanying notes.

CARA THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS
(amounts in thousands, except share and per share data)

1. Business

Cara Therapeutics, Inc. (the "Company") is a clinical-stage biopharmaceutical corporation formed on July 2, 2004. The Company is focused on developing and commercializing new chemical entities designed to alleviate pain by selectively targeting kappa opioid receptors.

The Company has raised several rounds of private equity financing and issued debt, resulting in aggregate net proceeds of approximately $73,608 through September 30, 2013. The Company has incurred substantial losses and negative cash flows from operations in nearly every fiscal period since inception, and expects operating losses and negative cash flows to continue into the foreseeable future. The accompanying financial statements have been prepared assuming the Company will continue to operate as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. In April 2013 (unaudited), the Company entered into a License Agreement and Stock Purchase Agreement with Maruishi Pharmaceutical Co., Ltd. ("Maruishi"), which collectively added $23,000 in cash (see Note 11). As of September 30, 2013 (unaudited) the Company has unrestricted cash and cash equivalents of $17,733 and an accumulated deficit of $60,363. The Company recognized net loss of $1,870, which included the Maruishi license revenue and had cash flows from operations of $7,893 for the nine months ended September 30, 2013. The Company expects to incur additional losses for the full year ending December 31, 2013.

The Company is subject to risks common to other life science companies including, but not limited to, uncertainty of product development and commercialization, lack of marketing and sales history, development by its competitors of new technological innovations, dependence on key personnel, market acceptance of products, product liability, protection of proprietary technology, ability to raise additional financing, and compliance with FDA and other government regulations. If the Company does not successfully commercialize any of its product candidates, it will be unable to generate recurring product revenue or achieve profitability.

In prior years, the Company was a development stage company as defined by ASC 915 *Development Stage Entities*.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States ("GAAP") requires management to make estimates, judgments and assumptions that affect the amounts reported in the financial statements and accompanying notes including collaborative revenue and clinical expenses during the period. Actual results and outcomes may differ materially from management's estimates, judgments and assumptions.

Unaudited Interim Financial Information

The accompanying interim balance sheet as of September 30, 2013 and the statements of operations and cash flows for the nine months ended September 30, 2012 and 2013 and the statement of convertible preferred stock and stockholders' deficit for the nine months ended September 30, 2013 and the related footnote disclosures are unaudited. These unaudited interim financial statements have been prepared in accordance with GAAP. In management's opinion, the unaudited interim financial statements have been prepared on the same basis as the audited financial statements and include all adjustments, which include only normal recurring adjustments, necessary for the fair presentation of the Company's financial position as of September 30, 2013 and its results of operations and its cash flows for the nine months ended September 30, 2012 and 2013. The results for the nine months ended September 30, 2013 are not necessarily indicative of the results expected for the full fiscal year or any other interim period.

CARA THERAPEUTICS, INC.
NOTES TO FINANCIAL STATEMENTS (CONTINUED)

Unaudited Pro Forma Financial Information

The Company has submitted a draft registration statement to the Securities and Exchange Commission to sell shares of its common stock to the public. Upon the closing of a qualified initial public offering or upon the consent of holders of at least 50.1% of the outstanding convertible preferred stock, all of the convertible preferred stock outstanding will automatically convert into common stock. The unaudited pro forma balance sheet information as of September 30, 2013 reflects the conversion of all outstanding shares of convertible preferred stock as of that date into common stock at applicable conversion ratios but does not give effect to the initial public offering.

For purposes of pro forma basic and diluted (loss) income per share, all shares of convertible preferred stock have been treated as though they had been converted to common stock in all periods in which such shares were outstanding.

Fair Value Measurements

The Company's financial instruments consist of cash and cash equivalents, restricted cash, accounts payable, accrued liabilities, investor rights/obligations, liability under license agreement, long-term debt and contingent call option. Fair value estimates of these instruments are made at a specific point in time, based on relevant market information. These estimates may be subjective in nature and involve uncertainties and matters of significant judgment and therefore cannot be determined with precision. The carrying amount of cash and cash equivalents, restricted cash, accounts payable and accrued liabilities and debt are generally considered to be representative of their respective fair values because of the short-term nature of those instruments. The fair value of the Company's investor rights/obligation liability has been estimated utilizing the Company's own internal analysis, including variables for timing of the preferred stock tranches. The liability under license agreement has been valued based upon the Black-Sholes option valuation model and other probability estimates. The fair value of the Company's contingent call option was calculated by estimating the accreted value of the convertible promissory notes upon conversion, with consideration provided for the 10% price discount and the probability of the Company closing an equity offering in excess of $10,000 before August 28, 2013.

Current accounting guidance defines fair value, establishes a framework for measuring fair value in accordance with Accounting Standards Codification ("ASC") section 820, and requires certain disclosures about fair value measurements.

The valuation techniques included in the guidance are based on observable and unobservable inputs. Observable inputs reflect readily obtainable data from independent sources, while unobservable inputs reflect market assumptions and are classified into the following fair value hierarchy:

- Level 1 – Observable inputs – quoted prices in active markets for identical assets and liabilities.
- Level 2 – Observable inputs other than the quoted prices in active markets for identical assets and liabilities – such as quoted prices for similar instruments, quoted prices for identical or similar instruments in inactive markets, or other inputs that are observable or can be corroborated by observable market data.
- Level 3 – Unobservable inputs – includes amounts derived from valuation models where one or more significant inputs are unobservable and require the company to develop relevant assumptions.

CARA THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

The following table summarizes the financial assets and liabilities measured at fair value on a recurring basis as of December 31, 2011 and 2012 and September 30, 2013 and by level within the fair value hierarchy:

	Balance December 31, 2011	Level 1	Level 2	Level 3
Financial assets				
Cash equivalents:				
Money market funds	$ 4,097	$4,097	$ —	$ —
Restricted cash:				
Bank Certificate of Deposit	994	994	—	—
Total	$ 5,091	$5,091	$ —	$ —
Financial liabilities				
Liability under license agreement *(Note 14)*	$ 60	$ —	$ —	$ 60
Total	$ 60	$ —	$ —	$ 60

	Balance December 31, 2012	Level 1	Level 2	Level 3
Financial assets				
Cash equivalents:				
Money market funds	$ 1,117	$1,117	$ —	$ —
Restricted cash:				
Bank Certificate of Deposit	700	700	—	—
Total	$ 1,817	$1,817	$ —	$ —
Financial liabilities				
Contingent call option *(Note 7)*	$ 41	$ —	$ —	$ 41
Liability under license agreement *(Note 14)*	35	—	—	35
Total	$ 76	$ —	$ —	$ 76

	Balance September 30, 2013 (Unaudited)	Level 1	Level 2	Level 3
Financial assets				
Cash equivalents:				
Money market funds	$ 17,733	$17,733	$ —	$ —
Restricted cash:				
Bank Certificate of Deposit	700	700	—	—
Total	$ 18,433	$18,433	$ —	$ —

CARA THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

The following table represents a rollforward of the fair value of Level 3 instruments (significant unobservable inputs):

	December 31, 2011	December 31, 2012	September 30, 2013 (Unaudited)
Liabilities			
Balance at beginning of period	$ 925	$ 60	$ 76
Amounts acquired or issued	—	41	—
Net (gains) losses (realized and unrealized)	159	(25)	(76)
Net settlements	(1,024)	—	—
Balance at end of period	$ 60	$ 76	$ —

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents. The carrying amount of cash and cash equivalents approximates its fair value due to its short-term nature.

Concentration of Credit Risk

Financial instruments, which potentially subject the Company to significant concentration of credit risk, consist primarily of cash and cash equivalents. The Company maintains deposits in federally insured financial institutions in excess of federally insured limits. The Company has not experienced any losses in such accounts and management believes that the Company is not exposed to significant credit risk due to the financial position of the depository institutions in which those deposits are held.

Property and Equipment

Property and equipment (consisting of computer, office and laboratory equipment, furniture and fixtures, software and leasehold improvements) are stated at cost, net of accumulated depreciation and amortization of leasehold improvements. Depreciation and amortization are calculated using the straight-line method over the estimated useful lives of the respective assets. Leasehold improvements are amortized over the lesser of their useful lives or the life of the lease.

Asset Category	Useful Lives
Computer and office equipment	5 years
Laboratory equipment	8 years
Furniture and fixtures	7 years
Software	3 years
Leasehold improvements	10 years

Long-Lived Assets

ASC 360, *Property, Plant and Equipment*, addresses the financial accounting and reporting for impairment or disposal of long-lived assets. The Company reviews the recorded values of long-lived assets for impairment whenever events or changes in business circumstances indicate that the carrying amount of an asset or group of assets may not be fully recoverable.

Common Stock Valuation

Due to the absence of an active market for the Company's common stock, the Company utilized methodologies in accordance with the framework of the American Institute of Certified Public Accountants Technical Practice Aid, Valuation of Privately-Held Company Equity Securities Issued as Compensation and an

independent third party valuation firm to estimate the fair value of its common stock at various reporting dates. Each valuation includes estimates and assumptions that require the Company's judgment. These estimates include assumptions regarding future performance, including the probability of successful completion of preclinical studies and clinical trials and FDA approval of product candidates containing CR845, and the probability and estimated time to complete financing and collaborative transactions. Significant changes to the key assumptions used in the valuations could result in different fair values of common stock at each valuation date.

Revenue Recognition

In general, the Company recognizes revenue when all of the following criteria are met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; the Company's price to the customer is fixed or determinable and collectability is reasonably assured.

The Company has entered into license agreements to develop, manufacture and commercialize drug products. The terms of these agreements typically contain multiple elements, including licenses and research and development services. Payments to the Company under these agreements may include nonrefundable license fees, payments for research activities, payments based upon the achievement of certain milestones and royalties on any resulting net product sales. There are no performance, cancellation, termination or refund provisions in any of the arrangements that contain material financial consequences to the Company.

The Company records revenue related to these agreements in accordance with ASC 605-25, *Revenue Recognition Multiple-Element Arrangements*. In order to account for these agreements, the Company identifies the deliverables included within an arrangement and evaluates which deliverables represent separate units of accounting based on whether certain criteria are met, including whether the delivered element has stand-alone value to the counterparty. The consideration received is then allocated among the separate units of accounting based on each unit's relative selling price. The identification of individual elements in a multiple-element arrangement and the estimation of the selling price of each element involves significant judgment, including consideration as to whether each delivered element has standalone value.

The Company determines the estimated selling price for deliverables within each agreement using vendor specific objective evidence ("VSOE") of selling price, if available, or third party evidence ("TPE") of selling price if VSOE is not available, or the Company's best estimate of selling price, if neither VSOE nor TPE is available. Determining the best estimate of selling price for a deliverable requires significant judgment. Because the Company does not have VSOE or third party evidence of selling price to determine the estimated selling price of a license to its proprietary technology, it typically uses its best estimate of a selling price to estimate the selling prices for licenses to its proprietary technology. In making these estimates, the Company considers market conditions and entity-specific factors, including those contemplated in negotiating the agreements, as well as internally developed estimates that include assumptions related to the market opportunity, estimated development costs, probability of success and the time needed to commercialize a product candidate pursuant to the license. In validating its best estimate of selling price, the Company evaluates whether changes in the key assumptions used to determine its best estimate of selling price will have a significant effect on the allocation of arrangement consideration between deliverables. The Company recognizes consideration allocated to an individual element when all other revenue recognition criteria are met for that element.

Arrangement consideration allocated to license deliverables that represent separate units of accounting are recognized as revenue at the outset of the agreement assuming the general criteria for revenue recognition noted above have been met. Arrangement consideration allocated to license deliverables that do not represent separate units of accounting are deferred. The Company has determined that its license deliverables represent separate units of accounting.

Arrangement consideration allocated to research and development services that represent separate units of accounting are recognized as the services are performed, assuming the general criteria for revenue recognition

noted above have been met. The Company has determined that its research and developments services deliverables, as applicable, represent separate units of accounting.

The Company's license agreements have contingent milestone payments related to specified clinical development milestones and regulatory milestones. Development milestones are payable when a product candidate initiates or advances into different clinical trial phases. Regulatory milestones are payable upon submission for marketing approval with the FDA or other countries' regulatory authorities or on receipt of actual marketing approvals for the compound or for additional indications. At the inception of each agreement that includes milestone payments, the Company evaluates whether each milestone is substantive and at risk to both parties on the basis of the contingent nature of the milestone in accordance with ASC 605-28, *Revenue Recognition – Milestone Method*. This evaluation includes an assessment of whether (a) the consideration is commensurate with either (1) the entity's performance to achieve the milestone, or (2) the enhancement of the value of the delivered item(s) as a result of a specific outcome resulting from the entity's performance to achieve the milestone, (b) the consideration relates solely to past performance and (c) the consideration is reasonable relative to all of the deliverables and payment terms within the arrangement. The Company evaluates factors such as the scientific, regulatory, commercial and other risks that must be overcome to achieve the respective milestone, the level of effort and investment required to achieve the respective milestone and whether the milestone consideration is reasonable relative to all deliverables and payment terms in the arrangement in making this assessment.

The Company generally considers non-refundable development and regulatory milestones that the Company expects to be achieved as a result of the Company's efforts during the period of the Company's performance obligations under the license and research agreements to be substantive and recognizes them as revenue upon the achievement of the milestone, assuming all other revenue recognition criteria are met. If not considered to be substantive, the Company initially defers milestones and recognizes them over the remaining term of the Company's performance obligations. If no such performance obligation exist, milestones that are not considered substantive because the Company does not contribute effort to the achievement of such milestones are generally recognized as revenue upon achievement, assuming all other revenue recognition criteria are met.

Royalty revenue is recognized when earned. To date, no royalties have been earned or were otherwise due to the Company.

Research and Development Expenses

Research and development costs are charged to expense as incurred. Costs incurred under agreements with third parties are charged to expense as incurred in accordance with the specific contractual performance terms of such agreements. Research and development expenses include, among other costs, salaries and other personnel-related costs, costs to conduct clinical trials, costs to manufacture product candidates and clinical supplies, laboratory supplies costs and facility-related costs. Non-refundable research and development advance payments are deferred and capitalized. The capitalized amounts are expensed as the related goods are delivered or services are performed. As of December 31, 2011 and 2012 and September 30, 2013, the Company recorded $61, $0 and $52 as prepaid expense, respectively.

Income Taxes

The Company accounts for income taxes using the asset and liability method. Under this method, deferred tax assets and liabilities are determined based on differences between the financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. Deferred income tax assets are reduced, as necessary, by a valuation allowance when management determines it is more likely than not that some or all of the tax benefits will not be realized.

CARA THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

The Company applies the provisions of ASC 740, *Income Taxes*, which prescribes a comprehensive model for how a company should recognize, measure, present and disclose in its financial statements uncertain tax positions that the company has taken or expects to take on a tax return. The financial statements reflect expected future tax consequences of such positions presuming the taxing authorities possess full knowledge of the position and all relevant facts. It is the opinion of Company management that there are no material uncertainties regarding the tax position that the Company has taken as of December 31, 2012 and September 30, 2013. The Company does not have any interest or penalties accrued related to tax positions as it does not have any unrecognized tax benefits. In the event the Company determines that accrual of interest or penalties are necessary in the future, the amount will be presented as a component of interest expense.

Stock-Based Compensation

The Company grants stock options to employees and non-employees as compensation for services performed. Employee awards of stock-based compensation are accounted for in accordance with ASC 718, *Stock Compensation*, which the Company adopted as of July 2, 2004 (inception). ASC 718 requires all share-based payments to employees, including grants of employee stock options, to be recognized in the statements of operations based on their grant date fair values. The grant date fair value of stock options is estimated by the Company using the Black-Scholes option valuation model and the common stock values obtained with the assistance of an independent third party valuation firm.

The Company accounts for options issued to non-employees under ASC 505, *Equity-Based Payments to Non-Employees.* As such, the value of such options is periodically remeasured and income or expense is recognized during their vesting terms. Compensation cost relating to awards with service-based graded vesting schedules is recognized using the straight-line method.

Earnings Per Share

The Company computes basic earnings (loss) per share using the “two-class” method, which includes the weighted-average number of common stock outstanding during the period and other securities that participate in dividends (a participating security). The Company’s convertible preferred stock are participating securities as defined by ASC 260-10, Earnings per Share. Under the two-class method, basic net earnings (loss) per share applicable to common stockholders is computed by dividing the net earnings (loss) applicable to common stockholders by the weighted-average number of common shares outstanding for the period. Diluted net earnings (loss) per share is computed using the more dilutive of (1) the two-class method, or (2) the “if-converted” method. The Company allocates net earnings on a pari passu (equal) basis to both common and preferred stockholders. Net losses are not allocated to preferred stockholders as they do not have an obligation to share in the Company’s net losses.

Diluted net earnings income (loss) per share gives effect to all potentially dilutive securities, including convertible preferred stock, convertible promissory notes and shares issuable upon the exercise of outstanding stock options and warrants, using the treasury stock method. For the years ended December 31, 2012 and 2011, and for the nine months ended September 30, 2012, the Company has excluded the effects of all potentially dilutive shares, which include convertible preferred stock, convertible promissory notes, warrants for common stock and common stock options, from the weighted-average number of common shares outstanding as their inclusion would be anti-dilutive due to the Company’s net losses.

Refer to Note 15, Earnings (Loss) per Share, for the Company’s calculations of earnings (loss) per share for the periods presented.

Segment Reporting

Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision-maker in making decisions regarding resource allocation and assessing performance. The Company views its operations and manages its business in one operating segment: the discovery and development of novel therapeutics to treat pain.

CARA THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

Reclassifications

Certain prior year legal costs within the statement of operations and comprehensive (loss) income have been reclassified from research and development to General and administrative to conform with current presentation.

3. Property and Equipment, Net

Property and equipment, net consists of the following:

	December 31,		September 30,
	2011	2012	2013 (Unaudited)
Computer and office equipment	$ 305	$ 270	$ 274
Laboratory equipment	2,878	233	233
Furniture and fixtures	153	153	153
Software	142	126	126
Leasehold improvements	7,453	7,453	7,453
	10,931	8,235	8,239
Less accumulated depreciation and amortization	5,504	4,626	5,218
Property and equipment, net	$ 5,427	$3,609	$ 3,021

Depreciation and amortization expense included in research and development expense and general and administrative expense was $1,170, $1,021, $823 and $592 for the years ended December 31, 2011 and 2012 and the nine months ended September 30, 2012 and 2013 (unaudited), respectively.

During the third quarter of 2012, the Company sold most of its laboratory equipment for net proceeds of $511 resulting in a net loss of $286, included in general and administrative expense.

4. Restricted Cash

The Company is required to maintain a stand-by letter of credit as security under the Shelton Lease (refer to Note 18). The Company's bank requires the Company to maintain a restricted cash balance equal to the stand-by letter of credit, which is invested in a bank certificate of deposit. Each March, the letter of credit amount is reduced by $294 until 2012, after which the letter of credit balance will remain at $700 through the end of the lease term in 2017. Therefore, the balance sheet as of December 31, 2011 contains restricted cash of $294 in current assets. As of December 31, 2011 and 2012 and September 30, 2013 (unaudited) the Company has $700 of restricted cash in long-term assets.

5. Deferred Financing Costs

Deferred financing costs related to the convertible promissory notes as of December 31, 2012 and the CT Innovations term loan as of December 31, 2011 were included in prepaid expenses and other current assets (refer to Notes 7 and 8). Deferred financing costs are amortized over the life of the related debt using the effective interest method. For the years ended December 31, 2011 and 2012 and the nine months ended September 30, 2012 and 2013 (unaudited), deferred financing costs of $16, $4, $4, and $117, respectively were amortized and included in interest expense.

6. Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses consist of the following:

	December 31,		September 30,
	2011	2012	2013 (Unaudited)
Accounts payable	$ 651	$472	$ 1,288
Accrued research projects	1,383	20	422
Accrued professional fees	72	108	703
Accrued compensation, bonus and benefits	48	48	75
Contingent call option *(Note 7)*	—	41	—
Accrued other	22	217	42
	$2,176	$906	$ 2,530

CARA THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

During the year ended December 31, 2011, the Company was engaged in a large Phase 2 clinical trial, which resulted in the higher accrued research project costs compared to December 31, 2012 and September 30, 2013.

7. Convertible Promissory Notes

In December 2012 and February 2013, the Company issued an aggregate of $4,000 principal amount of Convertible Promissory Notes ("Notes") due August 28, 2013 ("Maturity Date"). The sale was consummated through two closings. The initial closing was on December 28, 2012 for $2,538 principal amount. In connection with these notes, the Company incurred $117 of financing costs which is included in prepaid expenses and other current assets (refer to Note 5). The final closing was on February 28, 2013 for $1,462 principal amount. All of the Notes were purchased by current stockholders, all of whom were given the opportunity to buy their pro rata share of the Notes. The holders of preferred stock who did not participate in the Note financing had their shares of preferred stock converted into common stock at their respective then applicable conversion rates. As a result, as of February 2013 (unaudited), 2,246,743 shares of preferred stock were converted into 2,398,867 shares of common stock.

Because the original terms of the preferred stock were modified to reflect this mandatory conversion, the Company determined that the preferred stock had been extinguished. Accordingly, the conversion date difference between the carrying value of the preferred stock converted ($4,466) and the fair value of the common stock issued ($3,575) has been recorded as a gain ($891) within accumulated deficit.

The Notes bore interest at 8% per annum and had a Maturity Date of August 28, 2013. The Notes were not eligible to be repaid prior to the maturity date without the consent of the holders of a majority in interest of the outstanding aggregate principal amount of the Notes. The Notes included an optional conversion feature and a mandatory conversion feature.

The optional conversion feature allowed the Note holder, any time prior to the Maturity Date, to elect to convert the balance of the note plus accrued interest into Series D Preferred Stock at a conversion price of $1.444244 per share. In accordance with ASC 470-20, *Debt with Conversion and Other Options*, the Company determined that the intrinsic value of the beneficial conversion feature embedded in the Notes issued in the initial closing was $2,050, based on the estimated fair value of the Series D Preferred Stock as of December 31, 2012 of $2.61 per share, and this intrinsic value was recorded as a debt discount, to be accreted to interest expense over the term of the Notes. As of December 31, 2012, the Company amortized $25 of debt discount to interest expense. As of February 28, 2013, the final closing of the Note financing, the Company determined that the intrinsic value of the beneficial conversion feature of the Notes issued in the final closing was $1,382 (unaudited) and recorded this amount as an additional debt discount. For the nine months ended September 30, 2013 (unaudited), the Company amortized $3,407 of debt discount to interest expense.

The mandatory conversion of the Notes would occur in the event the Company issued or sold equity securities on or before August 28, 2013 of not less than $10,000. In this event, the Notes plus all accrued interest would automatically convert into the issued class of equity securities at a price per share equal to 90% of the cash price paid by the investors in the new equity securities. In accordance with ASC 815-15, *Derivatives and Hedging*, the Company was required to record the embedded mandatory conversion feature as a free-standing financial instrument, as the conversion feature was a substantial contingent call option. The Company recorded $41 as the fair value of the contingent call option liability related to the Notes issued in the initial closing of the Note financing as of December 31, 2012, with a corresponding amount recorded as additional debt discount, with the debt discount to be accreted to interest expense over the life of the Notes. Any increases or decreases to the fair value of the contingent call option would be recorded in operations through the life of the Notes.

The Company estimated the fair value of the contingent call option by estimating the accreted value of the Notes upon conversion, with consideration provided for the 10% price discount and the probability of the

CARA THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

Company closing an equity offering in excess of $10,000 before August 28, 2013. As of December 28, 2012, the Company estimated the probability of an equity offering in excess of $10,000 closing before August 28, 2013 to be 15%. The Company classified the liability within Level 3 as the probability factor is an unobservable input and significant to the valuation model. Increases in the probability of an equity offering closing before August 28, 2013 in excess of $10,000 would increase the fair value of the liability. There was no change in the fair value of the contingent call option as of December 31, 2012. The estimated fair value of the contingent call option was reduced to zero, since the Company estimated the probability of closing a $10,000 equity offering before August 28, 2013 as zero, following the receipt of $23.0 million in connection with the Maruishi transaction in April 2013, which removed the need for a $10.0 million financing prior to August 28, 2013.

Prior to the Maturity Date, the Company received notice from Note holders to convert Notes in the aggregate amount of $3,888 in principal plus accrued interest, into 2,692,291 shares of Series D Preferred Stock, and the remaining Notes in the aggregate amount of $311 in principal and accrued interest were repaid subsequent to September 30, 2013. Effective September 30, 2013, these remaining Notes were no longer convertible.

8. Long-Term Debt

In September 2007, the Company entered into a $4,000 term loan (“Loan”) with Connecticut Innovations Inc. (“CII”). The Loan carried a 7% interest rate and was payable in monthly installments over five years. In connection with this Loan, the Company incurred $149 of financing costs which were included in other assets and were being amortized as interest expense over the life of the Loan (refer to Note 5). The Loan was collateralized by property and equipment located in Shelton, Connecticut and owned as of December 31, 2007. As of December 31, 2012, the net carrying value of the property and equipment, including leasehold improvements, that served as collateral for the Loan was $3,593. The CII Loan contained certain non-financial covenants, including the requirement that the Company maintain its principal place of business and conduct the majority of its operations in Connecticut. If the Company failed to maintain its Connecticut presence, all amounts due under the Loan would be immediately due and payable with the cumulative interest rate increasing to 25%. Maintaining Connecticut presence is within management’s control, and the Company had no plans to relocate the majority of its operations; therefore, the classification of the Loan was based on the scheduled payment dates.

On September 4, 2012, the Company and CII amended the Loan to defer all payments due between July 1, 2012 and December 31, 2012 until January 2, 2013 and to increase the interest rate to 8.5%. The remaining principal balance of the Loan was $307 as of December 31, 2012, which was classified as current installment of long-term debt. The Company repaid all remaining amounts outstanding under the Loan, including accrued interest thereon, in April 2013.

In connection with the Loan, the Company issued to CII a warrant to purchase 49,628 shares of common stock at an exercise price of $4.03. The fair value of such warrant at the date of issuance was determined not to be material. The warrant also incorporates the non-financial covenants of the Loan described above. If the Company fails to maintain its Connecticut presence, it would be required to pay CII the excess of the market price of the common stock over the warrant exercise price for all unexercised shares represented by the warrant and/or the exercise price paid plus the market price on any shares acquired through a previous exercise of the warrants.

9. Convertible Preferred Stock

As of December 31, 2012, the Company was authorized to issue up to 26,636,118 shares of convertible preferred stock, $0.001 par value per share (the “Preferred Stock”) (consisting of 2,000,000 shares of series A convertible preferred stock (“Series A Preferred Stock”), 2,370,000 shares of series B convertible preferred stock (“Series B Preferred Stock”), 11,706,450 shares of series C convertible preferred stock (“Series C

CARA THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

Preferred Stock"), 10,386,057 shares of Series D convertible preferred stock ("Series D Preferred Stock") and 173,611 of Junior convertible preferred stock ("Junior Preferred Stock"), respectively). The Series A Preferred Stock, the Series B Preferred Stock, the Series C Preferred Stock and the Series D Preferred Stock are collectively referred to as the "Senior Preferred Stock").

As of September 30, 2013, the Company was authorized to issue up to 29,402,200 shares of Preferred Stock (consisting of 1,677,118 shares of Series A Preferred Stock, 2,254,417 shares of Series B Preferred Stock, 10,930,946 shares of Series C Preferred Stock, 12,260,845 shares of Series D Preferred Stock, 173,611 shares of Junior Preferred Stock and 2,105,263 shares of Junior A convertible preferred stock ("Junior A Preferred Stock"), respectively).

In June 2010, the Company authorized the issuance of up to 10,386,057 shares of Series D Preferred Stock at a price per share of $1.444244. The financing was initially contemplated to take place in three tranches of $5,000 each. In July and August 2010, the Company issued 3,462,019 shares of Series D Preferred Stock in connection with the closing of the first tranche. In March 2011, the purchase agreement was amended to divide the second tranche into two separate closings of $3,000 and $2,000, respectively, and extend the date for the closing of the final tranche to August 2011. The two closings comprising the second tranche were completed in the amount of $3,000 in March 2011 and $2,000 in July 2011. The final tranche of $5,000 closed in August 2011.

The right and obligation on the part of the investors in the initial tranche of the Series D Preferred Stock financing to purchase additional shares of Series D Preferred Stock in the future tranches (the "investor right/obligation") represents a free-standing financial instrument, which was recorded at its fair value as a liability on the date of the initial issuance of Series D Preferred Stock, July 19, 2010, and this liability was marked to market at each subsequent reporting date at which it remained outstanding in accordance with ASC 480, *Distinguishing Liabilities from Equity*. The fair value of the liability at July 19, 2010 was $733. The fair value at December 31, 2010 was $844. The fair value at December 31, 2011 was zero, because the investor right/obligation was no longer outstanding as it had been exercised in full upon the closing of the final tranche of the financing in August 2011. The change in fair value related to the investor right/obligation was approximately $179 during 2011 and approximately $111 during the period July 19, 2010 to December 31, 2010. The changes in fair value were recorded within other expense in the statements of operations.

In September 2013, the Company issued an aggregate of 2,692,291 shares of Series D Preferred Stock upon the conversion of the Notes (refer to Note 7).

In May 2012, the Company issued to CKD 173,611 shares of Junior Preferred Stock, having an estimated fair value of $354. The shares were sold as part of the license transaction with CKD (refer to Note 11).

In April 2013, the Company issued to Maruishi 2,105,263 shares of Junior A Preferred Stock, having an estimated fair value of $7,663. The shares were sold as part of the license transaction with Maruishi (refer to Note 11).

CARA THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

The following tables summarize the outstanding Preferred Stock as of December 31, 2011, December 31, 2012 and September 30, 2013 (unaudited, amounts in thousands):

As of December 31, 2011:

	Preferred Shares Authorized	Preferred Shares Issued and Outstanding	Liquidation Preference	Carrying Value	Common Stock Issuable Upon Conversion
Junior	—	—	$ —	$ —	—
Junior A	—	—	—	—	—
Series A	2,000	2,000	2,000	2,000	2,000
Series B	2,370	2,370	4,740	4,740	2,576
Series C	11,706	11,706	36,290	36,290	13,851
Series D	10,386	10,386	15,000	15,138	10,386
	26,462	26,462	$ 58,030	$58,168	28,813

As of December 31, 2012:

	Preferred Shares Authorized	Preferred Shares Issued and Outstanding	Liquidation Preference	Carrying Value	Common Stock Issuable Upon Conversion
Junior	174	174	$ 500	$ 354	174
Junior A	—	—	—	—	—
Series A	2,000	2,000	2,000	2,000	2,000
Series B	2,370	2,370	4,740	4,740	2,576
Series C	11,706	11,706	36,290	36,290	13,851
Series D	10,386	10,386	15,000	15,138	10,386
	26,636	26,636	$ 58,530	$58,522	28,987

As of September 30, 2013 (unaudited):

	Preferred Shares Authorized	Preferred Shares Issued and Outstanding	Liquidation Preference	Carrying Value	Common Stock Issuable Upon Conversion
Junior	174	174	$ 500	$ 354	174
Junior A	2,105	2,105	8,000	7,642	2,105
Series A	1,677	1,677	1,677	1,677	1,677
Series B	2,254	2,254	4,509	4,509	2,450
Series C	10,931	10,931	33,886	33,886	12,934
Series D	12,261	12,046	17,397	17,518	12,046
	29,402	29,187	$ 65,969	$65,586	31,386

Liquidation Preferences

In the event of any voluntary or involuntary liquidation, dissolution, or winding up of the Company, including a deemed liquidation event, as defined in the Company's amended and restated certificate of incorporation, the following liquidation preferences as of September 30, 2013 (unaudited) are payable to the holders of Preferred Stock: Series D Preferred Stock, aggregate liquidation preference of $17,397, plus declared, but unpaid dividends;

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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

Series C Preferred Stock, aggregate liquidation preference of $33,886, plus declared, but unpaid dividends; Series B Preferred Stock, aggregate liquidation preference of $4,509, plus declared, but unpaid dividends; Series A Preferred Stock, aggregate liquidation preference of $1,677 plus declared, but unpaid dividends; Junior A Preferred Stock, aggregate liquidation preference of $8,000 (unaudited) plus declared, but unpaid dividends; and Junior Preferred Stock, aggregate liquidation preference of $500 plus declared, but unpaid dividends. The Series D Preferred Stock liquidation preferences are senior to Series C Preferred Stock liquidation preferences, the Series C Preferred Stock liquidation preferences are senior to the Series B Preferred Stock liquidation preferences, the Series B Preferred Stock liquidation preferences are senior to the Series A Preferred Stock liquidation preferences, the Series A Preferred Stock liquidation preferences are senior to the Junior A Preferred Stock liquidation preferences, and the Junior A Preferred Stock liquidation preferences are senior to the Junior Preferred Stock liquidation preferences. If all amounts have been paid to the holders of the Preferred Stock in respect of their liquidation preferences, then the remaining assets of the Company will be distributed pro rata to the holders of Series D Preferred Stock and the common stockholders, subject to a maximum of an additional $4.332732 per share for the holders of Series D Preferred Stock. As a result, the Series D Preferred Stock's total liquidation preference could be up to $70,000, exclusive of any declared, but unpaid dividends.

The amount that each holder of Preferred Stock will receive upon liquidation, dissolution or winding up of the Company will be the greater of the cumulative amounts described above or the amount that such holder of Preferred Stock would receive if the shares of Preferred Stock converted into common stock immediately prior to the liquidation, dissolution or winding up of the Company.

Since the Preferred Stock may become redeemable upon an event that is outside of the control of the Company, the Preferred Stock has been classified outside of permanent equity.

Conversion

Each holder of Preferred Stock may convert any or all of such holder's Preferred Stock into common stock at any time. As of September 30, 2013 (unaudited), Junior Preferred Stock, Junior A Preferred Stock, Series A Preferred Stock and Series D Preferred Stock were convertible into common stock at a conversion ratio of one to one. Series B and Series C were convertible into common stock at a conversion ratio of one to 1.08695652 and one to 1.18320611 at September 30, 2013 (unaudited), respectively. The conversion ratio for all Preferred Stock is subject to adjustment based on certain events specified in the Company's amended and restated certificate of incorporation, including if the Company pays a dividend to common stockholders without a corresponding dividend to the Preferred Stockholders or if the Company sells, or is deemed to sell, common stock at a price per share that is less than the then effective conversion prices of each class of Preferred Stock. Pursuant to these provisions, the conversion ratio for the Series B Preferred Stock and Series C Preferred Stock was adjusted upon the issuance of the Series D Preferred Stock.

Automatic Conversion

Contemporaneously with the closing of a qualified public offering of common stock, as defined in the Company's amended and restated certificate of incorporation, or upon a vote of the holders of a majority of the Preferred Stock, voting together as a single class, and holders of at least 67% of the Series D Preferred Stock, all outstanding shares of Preferred Stock shall automatically convert into common stock at the then effective applicable conversion rates for such shares.

Dividends

Dividends on all series of outstanding Preferred Stock are payable when and if declared by the Company's Board of Directors. No dividends shall be paid to the holders of the Company's common stock unless equivalent dividends have been declared and paid on each series of outstanding Preferred Stock. Through September 30, 2013 (unaudited), no dividends have been declared or paid by the Company.

CARA THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

Voting Rights

As set forth in the Company's amended and restated certificate of incorporation, the holders of Senior Preferred Stock are entitled to vote as one class, with common stockholders, based on the number of shares of common stock each holder would receive upon conversion of their Senior Preferred Stock into shares of common stock, for all matters except for the approval of certain major actions by the Company and the election of directors. Subject to certain ownership thresholds and certain nomination and approval rights set forth in the Company's amended and restated certificate of incorporation and an amended and restated voting agreement by and among the Company and certain stockholders of the Company, directors are elected as follows: common stockholders vote as a separate class for the election of two directors; the holders of Series D Preferred Stock vote as a separate class for the election of one director; the holders of Series C Preferred Stock vote as a separate class for the election of three directors; and the holders of Senior Preferred Stock vote as a combined class for the election of one director.

Registration Rights

The holders of shares of Preferred Stock have certain registration rights as set forth in an amended and restated investors' rights agreement by and among the Company and certain of its stockholders.

10. Stockholders' (Deficit) Equity

Except as described in Note 9, each share of common stock entitles the holder to one vote on all matters submitted to a vote of the Company's stockholders. Common stockholders are entitled to dividends when and if declared by the Board of Directors, subject to the preferential rights of the holders of Preferred Stock. Refer to Note 9, Convertible Preferred Stock, for additional information regarding the preferential rights of the preferred stockholders.

As of December 31, 2012 and September 30, 2013, the Company was authorized to issue up to 43,000,000 and 50,000,000 shares, respectively, of common stock, $0.001 par value per share.

As described in Note 2, Summary of Significant Accounting Policies, the Company contracts with a third party to perform valuations to support the fair value of its common stock at key points in time. In conducting these valuations, the Company considered all objective and subjective factors that it believed to be relevant for each valuation conducted, including its best estimate of its business condition, prospects and operating performance at each valuation date.

The following table summarizes common stock reserved for conversion of Preferred Stock and the exercise of warrants and options:

	December 31,		September 30,
	2011	2012	2013
			(Unaudited)
Conversion of Series A convertible preferred	2,000,000	2,000,000	1,677,118
Conversion of Series B convertible preferred	2,370,000	2,370,000	2,254,417
Conversion of Series C convertible preferred	11,706,450	11,706,450	10,930,946
Conversion of Series D convertible preferred	10,386,057	10,386,057	12,045,574
Conversion of Junior convertible preferred	—	173,611	173,611
Conversion of Junior A convertible preferred	—	—	2,105,263
Series B and C anti-dilution shares	2,350,779	2,350,779	2,198,625
Exercise of warrant	49,628	49,628	49,628
Exercise of stock options	3,204,898	3,119,898	3,119,898
	32,067,812	32,156,423	34,550,080

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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

11. Collaborations

Chong Kun Dang Pharmaceutical Corporation

In April, 2012, the Company entered into a license agreement with Chong Kun Dang Pharmaceutical Corporation ("CKD") that provides CKD with the exclusive rights to develop, manufacture and commercialize products containing CR845, the Company's lead product candidate, in South Korea. Under the agreement, the Company received a non-refundable and non-creditable amount of $1,000 and is eligible to receive milestone payments totaling $3,750, relating to pre-defined clinical development ($2,250) and regulatory events ($1,500), as well as royalties on sales of any marketed products containing CR845. The Company has accounted for the milestones under ASC 605 *Revenue Recognition – Milestone Method*. At the time of execution of this license agreement, there was significant uncertainty as to whether the stated milestones would be achieved. In conjunction with this uncertainty, the Company has determined that the milestones are substantive in nature as they are commensurate with the enhancement of value of the delivered license as they relate to clinical success and advancement within the FDA drug development platform. The milestones also relate solely to past performance and monetary investment of the Company to achieve the clinical advancement.

In exchange for the $1,000, the Company provided CKD with the license for CR845 and issued CKD 173,611 shares of Junior Preferred Stock. The Company recorded the issuance of the 173,611 shares of Junior Preferred Stock as a capital transaction for $354, which represented the shares' estimated fair value as of the transaction date. The remaining proceeds of $646 were recorded as license revenue as the license was the only deliverable within the agreement that had stand-alone value and was determined to be a separate unit of accounting under ASC 605-25, *Revenue Recognition Multiple–Element Arrangements*.

In addition, the Company recorded $750 of milestone revenue for the year ended December 31, 2012 related to the Company's achievement of U.S. clinical development milestones stated in the CKD license agreement. The next potential milestone that the Company will most likely be entitled to receive under the license agreement will be a clinical development milestone for the completion of a Phase 1b clinical trial in the U.S. for a certain indication. If achieved, this milestone will result in a $250 payment being due to the Company.

The Company has recorded the revenue related to the CKD license and milestones of $1,190, net of South Korean withholding tax of $206.

Maruishi Pharmaceutical Co., Ltd. (unaudited)

In April 2013, the Company entered into a license agreement with Maruishi under which the Company granted Maruishi an exclusive license to develop, manufacture, and commercialize products containing CR845 for acute pain and uremic pruritus in Japan. The Company and Maruishi are responsible to use commercially reasonable efforts, at its expense, to develop, obtain regulatory approval for and commercialize CR845 in the United States and Japan, respectively. In addition, the Company will provide Maruishi specific clinical development services for CR845 used in Maruishi's field of use.

Under the terms of the agreement, the Company received an upfront non-refundable, non-creditable license fee of $15,000. The Company is also entitled to receive aggregate milestone payments of $6,000 for pre-defined clinical development events and $4,500 for regulatory events. The Company will account for any future milestone payments under ASC 605 *Revenue Recognition – Milestone Method*. At the time of execution of this license agreement, there was significant uncertainty as to whether the stated milestones would be achieved. In conjunction with this uncertainty, the Company has determined that the milestones are substantive in nature as they are commensurate with the enhancement of value of the delivered license as they relate to clinical success and advancement within the FDA drug development platform.

The Company is also eligible to receive tiered, low double digit royalties with respect to any sales of the licensed product sold in Japan by Maruishi. Additionally, the Company can receive sublicense fees (subject to

CARA THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

certain credits for milestone payments already made) if Maruishi enters into a sublicense agreement regarding the product candidates.

Also, in conjunction with this arrangement Maruishi purchased 2,105,263 shares of Junior A Preferred Stock of the Company pursuant to a stock purchase agreement for a purchase price of $3.80 per share, for total consideration of $8,000. These shares have been recorded at their fair value of $7,663 or $3.64 per share. As a result, the premium of $337 was allocated to the arrangement consideration.

As indicated in Note 2 the Company accounts for arrangements of this type under ASC 605-25, *Multiple Deliverable Revenue Arrangement*. The Company has identified two deliverables under this guidance: (1) the license; and (2) the research and development ("R&D") services specific to the uremic pruritus field of use. The Company has determined that the license has standalone value because Maruishi has the right to sublicense and manufacture CR845 in Japan. The second deliverable is the R&D services, which also have standalone value as similar services are sold separately by other vendors. Since both license and R&D services separability criteria have been met, they are being accounted for as separate units of accounting at the outset of the arrangement. As a result, the total value of the arrangement of $15,337 (consisting of the $15,000 upfront payment, plus the additional amount assigned to these deliverables as a result of the Junior A Preferred Stock premium) was allocated between the two units. The Company used its best estimate of the selling price of these units, since, as described in Note 2, neither VSOE nor TPE was available. To determine these estimates, the Company used a discounted cash flow method that forecasted and analyzed CR845 in the Japanese market, the phase of clinical development as well as considering recent similar license arrangements within the same phase of clinical development, therapeutic area, type of agreement, etc. As a result, the management of the Company has determined that the license and the R&D services have estimated selling price of $10,200 and $6,200, respectively. The resulting percentage allocations were applied to the $15,337 of total consideration, which resulted in $9,637 being assigned to the license and $5,700 assigned to the R&D services. As a result, the Company recognized $9,637 of the license revenue and $1,266 of R&D service revenue during the nine months ended September 30, 2013. The remaining amount assigned to the R&D services has been deferred and will be recognized as the services are provided.

12. 2004 Stock Incentive Plan

The Company's 2004 Stock Incentive Plan (the "2004 Plan"), as amended, was adopted by the Company's Board of Directors and stockholders. Under the 2004 Plan, the Company has granted stock options to selected officers, employees and consultants of the Company. The Company's Board of Directors administers the 2004 Plan. The 2004 Plan provides for the issuance of 3,341,501 shares of common stock. Options granted under the 2004 Plan have a maximum term of ten years. Options issued generally vest 25% on the first anniversary date of grant and the balance ratably over the next 36 months. As of December 31, 2012, options to purchase 1,393,000 shares of common stock were granted and outstanding under the 2004 Plan.

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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

A summary of the Company's option activity is as follows:

	Number of Options	Weighted-Average Exercise Price	Intrinsic Value
Balance at December 31, 2011	1,651,754	$ 0.64	$ 215
Granted	—	—	
Forfeited	(173,854)	(0.61)	
Exercised	(85,000)	(0.65)	$ 10
Balance at December 31, 2012	1,392,900	$ 0.51	$ 1,086
Granted	—	—	
Forfeited	(167,500)	(0.34)	
Exercised	—	—	
Balance September 30, 2013 (unaudited)	1,225,400	$ 0.54	$ 4,240
Weighted average remaining contractual life as of December 31, 2012	6.0 years		
Weighted average remaining contractual life as of September 30, 2013 (unaudited)	5.0 years		
Options exercisable at December 31, 2012	1,018,396	$ 0.55	$ 754
Weighted average remaining contractual life as of December 31, 2012	5.2 years		
Options exercisable at September 30, 2013 (unaudited)	1,134,149	$ 0.54	$ 3,924
Weighted average remaining contractual life as of September 30, 2013 (unaudited)	4.8 years		

The total fair value of vested options during the year ended December 31, 2012 and the nine months ended September 30, 2013 (unaudited) was $65 and $60, respectively.

The fair values of the stock options granted were estimated using the Black-Scholes option valuation model. The risk-free rate is based on the U.S. Treasury yield curve in effect at the time of grant. The expected life of stock options granted to employees was determined using the average of the vesting period and term, an accepted method for the Company's option grants under the SEC's Staff Accounting Bulletin No. 107, *Share-Based Payment*. The expected life of stock options granted to non-employees was determined using the options' maximum contractual life of ten years. Expected volatility was based on an analysis of guideline companies in accordance with ASC 718.

The following ranges of assumptions were used to compute stock-based compensation:

	December 31, 2011	December 31, 2012	September 30, 2013 (Unaudited)
Risk-free interest rate	1.14% – 2.3%	1.77%	2.6%
Expected volatility	71% – 72%	73%	71%
Expected dividend yield	0%	0%	0%
Expected life of employee options (in years)	6.25	—	—
Expected life of nonemployee options (in years)	3 – 9	2 – 8	1.5 – 7
Forfeiture rate	20%	20%	20%
Weighted-average fair value at the date of grant	$0.22	—	—

The Company recorded compensation expense in the accompanying statements of operations relating to stock options issued to employees of $85, $43, $33, and $23, for the years ended December 31, 2011 and 2012 and the nine months ended September 30, 2012 and 2013 (unaudited), respectively.

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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

The Company also occasionally grants stock options to consultants. Such grants are accounted for pursuant to ASC 505, *Equity-Based Payments to Non-Employees* (refer to Note 2). The Company estimates the fair value of each option using the Black-Sholes model at issuance and then revalues the option on each reporting date until performance is complete. The total expense for the years ended December 31, 2011 and 2012 and the nine months ended September 30, 2012 and 2013 (unaudited) was $10, $18, $4 and $87, respectively.

As of December 31, 2012, the total compensation expense related to unvested options not yet recognized was $86, which is expected to be realized over a weighted average period of 2.3 years. The Company will issue shares upon exercise of options from common stock reserved.

As of September 30, 2013 (unaudited), the total compensation expense relating to unvested options not yet recognized was $57, which is expected to be realized over a weighted average period of 1.6 years. The Company will issue shares upon exercise of options from common stock reserved.

13. Income Taxes

The Company's benefit from income taxes is as follows:

	December 31, 2011	December 31, 2012	September 30, 2013 (Unaudited)
Current:			
Federal	$—	$—	$ —
State	(35)	(31)	(27)
	(35)	(31)	(27)
Deferred:			
Federal	—	—	—
State	—	—	—
	—	—	—
Benefit from income taxes	$ (35)	$ (31)	$ (27)

The Company's tax benefits relate to state research and development tax credits exchanged for cash. The State of Connecticut provides companies with the opportunity to exchange certain research and development credit carryforwards for cash in exchange for foregoing the carryforward of the research and development credit. The program provides for such exchange of the research and development credits at a rate of 65% of the annual research and development credit, as defined.

A reconciliation of income taxes computed using the U.S. federal statutory rate to that reflected in operations is as follows:

	2011	2012
Income taxes using U.S. federal statutory rate	34.00%	34.00%
State income taxes, net of federal benefit	7.03%	5.60%
Impact of R&D tax credit on effective tax rate	2.80%	0.00%
Impact of foreign tax credit on effective tax rate	0.00%	3.27%
Stock option shortfalls and cancellations	0.00%	(2.54)%
Provision to return adjustments	(3.48)%	(1.95)%
Change in valuation allowance	(40.00)%	(37.89)%
	0.35%	0.49%

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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

Significant components of the Company's deferred tax assets are as follows:

	2011	2012
Net operating loss carryforwards	$ 19,450	$ 21,048
Federal and state tax credits	2,150	2,419
Stock-based research and development expense	112	92
Accelerated depreciation	540	1,121
Stock-based compensation expense	51	48
Rent expense	115	148
Accrued vacation	19	17
	22,437	24,893
Valuation allowance	(22,437)	(24,893)
Net deferred tax asset	$ —	$ —

A 100% valuation allowance has been recorded on the deferred tax asset as of December 31, 2011 and 2012 because management believes it is more likely than not that the asset will not be realized. The change in the valuation allowance during 2011 and 2012 was $3,936 and $2,456, respectively.

The Company applies the provisions of ASC 740, *Income Taxes*, which prescribes a comprehensive model for how a company should recognize, measure, present, and disclose in its financial statements uncertain tax positions that the company has taken or expects to take on a tax return. The financial statements reflect expected future tax consequences of such positions presuming the taxing authorities possess full knowledge of the position and all relevant facts. As of December 31, 2011 and 2012, the Company had no unrecognized tax benefits or related interest and penalties accrued. In the event the Company determines that accrual of interest or penalties are necessary in the future, the amount will be presented as a component of interest expense.

At December 31, 2012, the Company had federal and state net operating loss carryforwards of approximately $54,633 and $49,955, respectively. The federal and state tax loss carryforwards will begin to expire in 2027 and 2028, respectively, unless previously utilized. The losses may also be subject to limitation pursuant to Internal Revenue Code 382. The Company also had federal and state research and development tax credit carryforwards of approximately $1,830 and $580 respectively. The federal credits will begin expiring in 2025 unless previously utilized. The Connecticut credit carryforwards have no expiration period. Because of the net operating loss and research credit carryforwards, tax years 2007 through 2012 remain open to U.S. federal and state tax examinations.

14. License and Research Agreements

Effective April 2005, the Company entered into a semi-exclusive worldwide royalty-free license agreement (the "Glasgow License Agreement") for a certain G protein-coupled receptor ("GPCR") assay technology with the University of Glasgow ("Glasgow"). The Company issued 500,000 shares of its common stock to Glasgow as compensation and recorded research and development expense of $50 during the year ended December 31, 2005 based on the aggregate fair value of the common stock as determined by the board of directors.

Upon an exit event, as defined in the Glasgow License Agreement, Glasgow has the option to require the Company to guarantee a return of $1,000 on its 500,000 shares of common stock by giving Glasgow cash or through the issuance of additional shares (at the Company's option), as specified in the Glasgow License Agreement. In accordance with ASC 480, *Distinguishing Liabilities from Equity*, the Company initially recorded the fair value of this option of $95 as both a long-term liability and research and development expense as of and for the year ended December 31, 2005. The Company estimated the fair value of the option using the Black-Scholes option valuation model with consideration given to the probability of an exit event occurring below the guaranteed amount. The fair value of the liability will be estimated at each subsequent balance sheet

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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

date, with any increases or decreases to the fair value recorded as increases or decreases to research and development expense and the related liability. As of December 31, 2011 and 2012, the estimated fair value of the liability, with consideration given to the probability of an exit event occurring, was determined to be $60 and $35 respectively. The Company classifies the liability within Level 3 as the probability factor is an unobservable input and significant to the valuation model. The Company has used a probability factor of 10% in all periods from 2005 to 2012. The probability rate is based on the successful progress of the Company's product candidates containing CR845 and the Company's expectation of an exit event value below the guaranteed amount. An increase in the probability rate would result in a higher liability while an increase in the stock price would reduce the liability. The decrease in the value of the liability of $20 in 2011 and $25 in 2012 was the result of changes in the observable inputs (i.e. stock value, interest rates and volatility) and was recorded in research and development expense. As of September 30, 2013 (unaudited), the estimated fair value of the liability was reduced to zero based on the Company's estimated fair value of common stock after the Maruishi transaction.

15. Earnings (Loss) per Share

The Company computes basic earnings (loss) per share available to common stockholders using the "two-class" method, which includes the weighted-average number of common stock shares outstanding during the period and other securities that participate in dividends (a participating security). The Company's convertible preferred stock are participating securities as defined by ASC 260-10, Earnings per Share. Under the two-class method, basic net earnings (loss) per share available to common stockholders is computed by dividing the net earnings (loss) available to common stockholders by the weighted-average number of common shares outstanding for the period. Diluted net earnings (loss) per share available to common stockholders is computed using the more dilutive of (1) the two-class method, or (2) the "if-converted" method. The Company allocates net earnings on a pari passu (equal) basis to both common and preferred stockholders. Net losses are not allocated to preferred stockholders as they do not have an obligation to share in the Company's net losses.

Diluted net earnings (loss) per share available to common stockholders gives effect to all potentially dilutive securities, including convertible preferred stock, convertible promissory notes and shares issuable upon the exercise of outstanding stock options and warrants, using the treasury stock method. For the years ended December 31, 2012 and 2011, and for the nine months ended September 30, 2012 and 2013, the Company has excluded the effects of all potentially dilutive shares, which include convertible preferred stock, convertible promissory notes, warrants for common stock and common stock options, from the weighted-average number of common shares outstanding as their inclusion would be anti-dilutive due to the Company's net losses.

The denominators used in the earnings (loss) per share available to common stockholders computations are as follows:

	Year Ended December 31,		Nine Months Ended September 30,	
	2011	2012	2012	2013
			(Unaudited)	
Basic:				
Weighted average shares outstanding	8,089,370	8,249,996	8,225,901	10,202,188
Diluted:				
Weighted average shares outstanding	8,089,370	8,249,996	8,225,901	10,202,188
Convertible preferred stock*	—	—	—	—
Common stock options*	—	—	—	—
Common stock warrants*	—	—	—	—
Convertible promissory notes (as converted)*	—	—	—	—
Denominator for diluted earnings (loss) per share available to common stockholders	8,089,370	8,249,996	8,225,901	10,202,188

CARA THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

Basic and diluted loss available to common stockholders per share are computed as follows:

	Year Ended December 31,		Nine Months Ended September 30,	
	2011	2012	2012	2013
			(Unaudited)	
Net loss	$ (9,806)	$ (6,271)	$ (4,474)	$ (1,870)
Add back: gain on extinguishment of preferred stock	—	—	—	891
Net loss available to common stockholders – basic	$ (9,806)	$ (6,271)	$ (4,474)	$ (979)
Net loss	$ (9,806)	$ (6,271)	$ (4,474)	$ (1,870)
Add back: gain on extinguishment of preferred stock	—	—	—	891
Net loss available to common stockholders – diluted	$ (9,806)	$ (6,271)	$ (4,474)	$ (979)
Net loss per share available to common stockholders:				
Basic	$ (1.21)	$ (0.76)	$ (0.54)	$ (0.10)
Diluted	$ (1.21)	$ (0.76)	$ (0.54)	$ (0.10)
Weighted-average common shares outstanding available to common stockholders				
Basic	8,089,370	8,249,996	8,225,901	10,202,188
Diluted	8,089,370	8,249,996	8,225,901	10,202,188

The following common stock equivalents were excluded from the calculations of diluted loss per share available to common stockholders because their inclusion would have been anti-dilutive.

	Year Ended December 31,		Nine Months Ended September 30,	
	2011	2012	2012	2013
			(Unaudited)	
Convertible preferred stock	28,661,132	28,834,743	28,834,743	31,385,554
Common stock options	1,651,754	1,392,900	1,392,900	1,225,400
Common stock warrants	49,628	49,628	49,628	49,628
Convertible promissory notes	—	1,757,321	—	—

CARA THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

Unaudited Pro Forma Earnings (Loss) per Share

Unaudited pro forma basic and diluted loss per share available to common stockholders have been computed as follows:

	Year Ended December 31, 2012 (Unaudited)	Nine Months Ended September 30, 2013 (Unaudited)
Net loss	$ (6,271)	$ (1,870)
Add back: gain on extinguishment of preferred stock	—	891
Net loss available to common stockholders	$ (6,271)	$ (979)
Pro forma weighted average shares outstanding:		
Weighted average shares outstanding	8,249,996	10,202,188
Pro forma weighted average shares:		
Preferred stock	28,770,531	28,398,874
Convertible promissory notes	14,444	—
Pro forma *basic* weighted average shares outstanding	37,034,970	38,601,062
Stock options*	—	—
Pro forma *diluted* weighted average shares outstanding	37,034,970	38,601,062
Pro forma loss available to common stockholders:		
Basic	$ (0.17)	$ (0.03)
Diluted	$ (0.17)	$ (0.03)

* No amounts were considered as their effects would be anti-dilutive.

16. Related Party Transactions

The Company entered into a consulting agreement with a founder and a common stockholder of the Company to provide scientific advisory services. Total expenses under this agreement were $126, $117, $95 and $100, for the years ended December 31, 2011 and 2012 and the nine months ended September 30, 2012 and 2013 (unaudited), respectively. Included in accounts payable and accrued expenses as of December 31, 2011 and 2012 and September 30, 2013 (unaudited) was $12, $24 and $9, respectively, for amounts due to this stockholder.

17. Employee Benefit Plan

In February 2006, the Company adopted a defined contribution retirement plan that complies with Section 401(k) of the Internal Revenue Code. All employees over the age of 21 are eligible to participate in the plan after three months of service. The plan allows the Company to match employee contributions; however, there have not been any matching contributions paid to date.

18. Commitments and Contingencies

Operating Leases

The Company leases its operating facility located in Shelton, Connecticut. The lease agreement, as amended, requires monthly lease payments through October 2017. The lease is renewable at the expiration for two successive terms of five years. At inception of the lease, the Company received an incentive allowance from the

CARA THERAPEUTICS, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

landlord of $2,127. The Company recorded the incentive allowance as leasehold improvements and deferred lease obligation. The Company is recording monthly rent expense associated with the lease on a straight-line basis over the ten-year minimum term of the lease reduced by the amortization of the deferred lease obligation over the same time period. As a result of this straight-line basis, deferred lease obligation includes $1,207, $998, and $842 of unamortized incentive allowance plus $385, $379, and $360 of accrued rent at December 31, 2011 and 2012 and September 30, 2013 (unaudited), respectively.

Total rent expense under operating leases was $640, $618, $461, and $467 for the years ended December 31, 2011, 2012, and the nine months ended September 30, 2012 and September 30, 2013 (unaudited), respectively.

Future minimum rental payments under operating leases at December 31, 2012 are as follows:

2013	$ 835
2014	860
2015	886
2016	913
2017	740
	$4,234

In conjunction with the signing of the Shelton, Connecticut lease, the Company entered into a standby letter of credit agreement for $2,170, which expires on May 31, 2017 as a security deposit for the premises. In accordance with the terms of the lease, because no drawing was made against the standby letter of credit nor has any default under the operating lease occurred, the amount of the letter of credit was automatically reduced by $294 annually starting March 1, 2008 until the stated amount reached a balance of $700, which occurred in 2012. This standby letter of credit is secured with restricted cash (refer to Note 4).

The Company also has commitments under certain license and research agreements (refer to Note 14).

19. Subsequent Events

None.

Shares

Common Stock

PROSPECTUS
, 2013

Stifel

Piper Jaffray
Canaccord Genuity
Needham & Company
Janney Montgomery Scott

PART II INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other expenses of issuance and distribution.

The following table sets forth all costs and expenses, other than underwriting discounts and commissions, paid or payable by us in connection with the sale of the common stock being registered. All amounts shown are estimates except for the SEC registration fee and the Financial Industry Regulatory Authority filing fee.

	Amount Paid or to be Paid
SEC registration fee	$ 7,728
FINRA filing fee	9,500
Nasdaq initial listing fee	125,000
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent and registrar fees and expenses	*
Miscellaneous fees and expenses	*
Total	$ *

* to be provided by amendment

Item 14. Indemnification of directors and officers.

We are incorporated under the laws of the State of Delaware. Section 102 of the Delaware General Corporation Law permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his or her duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit.

Section 145 of the Delaware General Corporation Law provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he or she is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

As permitted by the Delaware General Corporation Law, our amended and restated certificate of incorporation and amended and restated bylaws, in each case to be in effect upon the closing of this offering, provide that: (i) we are required to indemnify our directors to the fullest extent permitted by the Delaware General Corporation Law; (ii) we may, in our discretion, indemnify our officers, employees and agents as set forth in the Delaware General Corporation Law; (iii) we are required, upon satisfaction of certain conditions, to advance all expenses incurred by our directors in connection with certain legal proceedings; (iv) the rights conferred in the bylaws are not exclusive; and (v) we are authorized to enter into indemnification agreements with our directors, officers, employees and agents.

We have entered into agreements with our directors that require us to indemnify them against expenses, judgments, fines, settlements and other amounts that any such person becomes legally obligated to pay (including with respect to a derivative action) in connection with any proceeding, whether actual or threatened, to which such person may be made a party by reason of the fact that such person is or was a director or officer of us or any of our affiliates, provided such person acted in good faith and in a manner such person reasonably believed to be in, or not opposed to, our best interests. The indemnification agreements also set forth certain procedures that will apply in the event of a claim for indemnification thereunder. At present, no litigation or proceeding is pending that involves any of our directors or officers regarding which indemnification is sought, nor are we aware of any threatened litigation that may result in claims for indemnification.

We maintain a directors' and officers' liability insurance policy. The policy insures directors and officers against unindemnified losses arising from certain wrongful acts in their capacities as directors and officers and reimburses us for those losses for which we have lawfully indemnified the directors and officers. The policy contains various exclusions.

In addition, the underwriting agreement filed as Exhibit 1.1 to this registration statement provides for indemnification by the underwriters of us and our officers and directors for certain liabilities arising under the Securities Act, or otherwise.

Item 15. Recent sales of unregistered securities.

Since January 1, 2010, we have sold the following securities that were not registered under the Securities Act. The following information does not give effect to a -for- reverse split of our common stock to be effected prior to the completion of this offering.

(a) Issuances of Capital Stock and Warrants

(1) From July 2010 to August 2011, we issued and sold an aggregate of 10,386,057 shares of Series D convertible preferred stock to thirteen (13) purchasers at $1.44244 per share for an aggregate consideration of approximately $15 million. Upon completion of this offering, these shares of Series D convertible preferred stock will convert into 10,386,057 shares of our common stock.

(2) In May 2012, we issued and sold an aggregate of 173,611 shares of Junior Preferred Stock to one (1) purchaser at $2.88 per share for an aggregate consideration of approximately $500,000. Upon completion of this offering, these shares of Junior convertible preferred stock will convert into 173,611 shares of our common stock.

(3) In June 2012, we issued and sold an aggregate of 12,000 shares of common stock to one (1) purchaser at $0.87 per share for an aggregate consideration of approximately $10,500.

(4) In June 2012, we issued and sold an aggregate of 99,875 shares of common stock to one (1) purchaser at $0.4515 per share for an aggregate consideration of approximately $45,000.

(5) In June 2012, we issued and sold an aggregate of 13,279 shares of common stock to one (1) purchaser at $0.9139 per share for an aggregate consideration of approximately $12,200.

(6) In June 2012, we issued and sold an aggregate of 20,000 shares of common stock to one (1) purchaser at $0.9258 per share for an aggregate consideration of approximately $18,500.

(7) From December 28, 2012 until February 28, 2013, we issued unsecured convertible promissory notes to sixty-eight (68) purchasers in an aggregate principal amount of approximately $4.0 million. Sixty one (61) purchasers opted to convert an aggregate of approximately $3.9 million in principal and interest under the promissory notes issued by us in the 2012 bridge financing into 2,692,291 shares of our Series D Preferred Stock on September 18, 2013 and an aggregate of approximately $300,000 in principal and interest was repaid to the promissory noteholders who did not opt to convert such notes prior to the notes' maturity date. Upon completion of this offering, these shares of Series D convertible preferred stock will convert into 2,692,291 shares of our common stock.

(8) In April 2013, we issued and sold an aggregate of 2,105,263 shares of Junior A Preferred Stock to one (1) purchaser at $3.80 per share for an aggregate consideration of approximately $8,000,000. Upon completion of this offering, these shares of Junior A convertible preferred stock will convert into 2,105,263 shares of our common stock.

(9) From January 1, 2010 to September 30, 2013, we granted stock options under our 2004 Stock Incentive Plan, as amended to purchase an aggregate 662,000 shares of common stock (net of expirations and cancellations) to our employees, directors and consultants, having exercise prices ranging from $0.34 to $0.82 per share. None of these options have been exercised through September 30, 2013.

No underwriters were used in the foregoing transactions. The sales of securities described in paragraphs (1) through (8) above were deemed to be exempt from registration pursuant to Section 4(a)(2) of the Securities Act as transactions by an issuer not involving a public offering and/or Rule 506 promulgated under the Securities Act. All of the purchasers in these transactions represented to us in connection with their purchase that they were acquiring the shares for investment and not distribution, and that they could bear the risks of the investment and could hold the securities for an indefinite period of time. Such purchasers received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration or an available exemption from such registration. All of the foregoing securities are deemed restricted securities for the purposes of the Securities Act.

The sale and issuance of the securities described in paragraph (9) above were deemed to be exempt from registration under the Securities Act in reliance on Rule 701 promulgated under the Securities Act, as transactions by an issuer not involving a public offering or transactions pursuant to compensatory benefit plans and contracts relating to compensation as provided under Rule 701.

Item 16. Exhibits and financial statement schedules.

The exhibits to the Registration Statement are listed in the Exhibit Index attached hereto and are incorporated by reference.

Item 17. Undertakings.

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that, in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the

securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of the registration statement as of the time it was declared effective.

(2) For purposes of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Shelton, State of Connecticut, on this 8th day of November, 2013.

CARA THERAPEUTICS, INC.

By: /S/ DEREK CHALMERS
Derek Chalmers, Ph.D.,
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Derek Chalmers, Ph.D., our President and Chief Executive Officer and Josef Schoell, our Chief Financial Officer, and each of them, as his true and lawful attorneys-in-fact and agents, each with the full power of substitution, for him and in his name, place or stead, in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments), and to sign any registration statement for the same offering covered by this registration statement that is to be effective upon filing pursuant to Rule 462(b) promulgated under the Securities Act, and all post-effective amendments thereto, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their, his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/S/ DEREK CHALMERS Derek Chalmers, Ph.D.	President, Chief Executive Officer and Director *(Principal Executive Officer)*	November 8, 2013
/S/ JOSEF SCHOELL Josef Schoell	Chief Financial Officer *(Principal Financial and Accounting Officer)*	November 8, 2013
/S/ ED HURWITZ Ed Hurwitz	Director	November 8, 2013
/S/ CHARLES MOLLER Charles Moller, Ph.D.	Director	November 8, 2013
/S/ DEAN SLAGEL Dean Slagel	Director	November 8, 2013
/S/ MARTIN VOGELBAUM Martin Vogelbaum	Director	November 8, 2013

EXHIBIT INDEX

Exhibit Number	Description of Document
1.1†	Form of Underwriting Agreement.
3.1	Amended and Restated Certificate of Incorporation, as currently in effect.
3.2	Certificate of Amendment of Amended and Restated Certificate of Incorporation of the Registrant.
3.3†	Form of Amended and Restated Certificate of Incorporation to be effective upon completion of this offering.
3.4	Amended and Restated Bylaws, as currently in effect.
3.5†	Form of Amended and Restated Bylaws to be effective upon completion of this offering.
4.1†	Form of Common Stock Certificate.
4.2	Warrant to purchase shares of Common Stock issued to Connecticut Innovations, Inc., dated September 25, 2007.
5.1†	Opinion of Cooley LLP.
10.1+†	Form of Indemnity Agreement.
10.2+	2004 Stock Incentive Plan, as amended, and forms of Stock Option Agreement thereunder.
10.3+†	2013 Equity Incentive Plan and form of Stock Option Agreement thereunder.
10.4+†	Services Agreement dated July 2, 2004 between the Registrant and Bio Diligence Partners, Inc., as amended to date.
10.5	Fourth Amended and Restated Investors Rights Agreement dated April 25, 2013 among the Registrant and certain of its stockholders, as amended.
10.6	Lease Agreement dated September 18, 2006 between the Registrant and Shelton Parrott Associates, L.L.C., as amended.
10.7*	License Agreement dated April 4, 2013 by and between the Registrant and Maruishi Pharmaceutical Co., Ltd.
10.8*	License and API Supply Agreement effective as of April 16, 2012 by and between the Registrant and Chong Kun Dang Pharmaceutical Corp.
10.9	Amendment to License and API Supply Agreement effective as of May 1, 2012 by and between the Registrant and Chong Kun Dang Pharmaceutical Corp.
23.1	Consent of Ernst & Young, LLP, independent registered public accounting firm.
23.2†	Consent of Cooley LLP. Reference is made to Exhibit 5.1.
24.1	Power of Attorney. Reference is made to the signature page hereto.

† To be filed by amendment.
+ Indicates management contract or compensatory plan.
* Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

CARA THERAPEUTICS, INC.
AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
CARA THERAPEUTICS, INC.

(Pursuant to Sections 242 and 245 of the
General Corporation Law of the State of Delaware)

Cara Therapeutics, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the **"General Corporation Law"**).

DOES HEREBY CERTIFY:

1. That the name of this corporation is Cara Therapeutics, Inc., and that this corporation was originally incorporated pursuant to the General Corporation Law on July 2, 2004. The original Certificate of Incorporation of this corporation was amended by a Certificate of Amendment filed with the Secretary of State of Delaware on September 7, 2004, as further amended by an Amended and Restated Certificate of Incorporation filed with the Secretary of State of Delaware on February 24, 2005, as further amended by an Amended and Restated Certificate of Incorporation filed with the Secretary of State of Delaware on November 16, 2005, as further amended by an Amended and Restated Certificate of Incorporation filed with the Secretary of State of Delaware on November 17, 2006, as further amended by an Amended and Restated Certificate of Incorporation filed with the Secretary of State of Delaware on June 20, 2008, and as further amended by an Amended and Restated Certificate of Incorporation filed with the Secretary of State of Delaware on July 19, 2010, as further amended by an Amended and Restated Certificate of Incorporation filed with the Secretary of State of Delaware on May 8, 2012, as further amended by Certificates of Amendment of Amended and Restated Certificate of Incorporation filed with the Secretary of State of Delaware on December 28, 2012, February 8, 2013 and February 26, 2013.

2. That the Board of Directors duly adopted resolutions proposing to amend and restate the Certificate of Incorporation of this corporation, declaring said amendment and restatement to be advisable and in the best interests of this corporation and its stockholders, and authorizing the appropriate officers of this corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment and restatement is as follows:

RESOLVED, that the Certificate of Incorporation of this corporation be amended and restated in its entirety to read as follows:

FIRST: The name of this corporation is Cara Therapeutics, Inc. (the "**Corporation**").

SECOND: The address of the registered office of the Corporation in the State of Delaware is 2711 Centerville Road, Suite 400, City of Wilmington, Delaware 19808. The name of its registered agent at such address is Corporation Service Company.

THIRD: The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

FOURTH: The total number of shares of all classes of stock which the Corporation shall have authority to issue is (i) 47,000,000 shares of Common Stock, $0.001 par value per share (the **"Common Stock"**) and (ii) 26,494,638 shares of Preferred Stock, $0.001 par value per share (the **"Preferred Stock"**).

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

A. COMMON STOCK

1. General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights, powers and preferences of the holders of the Preferred Stock set forth herein.

2. Voting. The holders of the Common Stock are entitled to one vote for each share of Common Stock held at all meetings of stockholders (and written actions in lieu of meetings). There shall be no cumulative voting. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by (in addition to any vote of the holders of one or more series of Preferred Stock that may be required by the terms of the Certificate of Incorporation) the affirmative vote of the holders of shares of capital stock of the Corporation representing a majority of the votes represented by all outstanding shares of capital stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

B. PREFERRED STOCK

1. Issuance and Reissuance.

Preferred Stock may be issued from time to time in one or more series, each of such series to consist of such number of shares and to have such terms, rights, powers and preferences, and the qualifications and limitations with respect thereto, as stated or expressed herein.

C. RIGHTS, PREFERENCES AND PRIVILEGES OF PREFERRED STOCK

1,677,118 shares of the authorized Preferred Stock of the Corporation are hereby designated **"Series A Preferred Stock,"** 2,254,417 shares of the authorized Preferred Stock are hereby designated **"Series B Preferred Stock,"** 10,930,946 shares of the authorized Preferred

Stock are hereby designated **"Series C Preferred Stock",** 9,353,283 shares of the authorized Preferred Stock are hereby designated **"Series D Preferred Stock",** 2,105,263 shares of the authorized Preferred Stock are hereby designated **"Junior A Preferred Stock"** and 173,611 shares of the authorized Preferred Stock are hereby designated **"Junior Preferred Stock"**. The rights, preferences, powers, privileges and restrictions, qualifications and limitations of the Preferred Stock are as set forth below. Unless otherwise indicated, references to "Sections" or "Subsections" in this Part C of this Article Fourth refer to sections and subsections of Part C of this Article Fourth.

2. Dividends.

The Corporation shall not declare, pay or set aside any dividends on shares of any other class or series of capital stock of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock) unless (in addition to the obtaining of any consents required elsewhere in the Certificate of Incorporation) the holders of the Series D Preferred Stock then outstanding shall first receive, or simultaneously receive, a dividend on each outstanding share of Series D Preferred Stock in an amount at least equal to the product of (A) the dividend payable on each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock and (B) the number of shares of Common Stock issuable upon conversion of a share of Series D Preferred Stock, in each case calculated on the record date for determination of holders entitled to receive such dividend; provided that, if the Corporation declares, pays or sets aside, on the same date, a dividend on shares of more than one class or series of capital stock of the Corporation, the dividend payable to the holders of Series D Preferred Stock pursuant to this Section 1 shall be calculated based upon the dividend on the class or series of capital stock that would result in the highest Series D Preferred Stock dividend. Subject to the payment of dividends on shares of Series D Preferred Stock as set forth in the preceding sentence, the Corporation shall not declare, pay or set aside any dividends on shares of any other class or series of capital stock of the Corporation (other than with respect to the Series D Preferred Stock as set forth in the preceding sentence and dividends on shares of Common Stock payable in shares of Common Stock) unless (in addition to the obtaining of any consents required elsewhere in the Certificate of Incorporation) the holders of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock (together, the "**Prior Preferred**" and, together with the Series D Preferred Stock, the "**Senior Preferred**") then outstanding shall first receive, or simultaneously receive, a dividend on each outstanding share of Prior Preferred in an amount at least equal to the product of (A) the dividend payable on each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock and (B) the number of shares of Common Stock issuable upon conversion of a share of Prior Preferred, in each case calculated on the record date for determination of holders entitled to receive such dividend. Subject to the payment of dividends on shares of the Senior Preferred as set forth in the preceding sentences, the Corporation shall not declare, pay or set aside any dividends on shares of any other class or series of capital stock of the Corporation (other than with respect to the Senior Preferred as set forth in the preceding sentences and dividends on shares of Common Stock payable in shares of Common Stock) unless (in addition to the obtaining of any consents required elsewhere in the Certificate of Incorporation) the holders of the Junior A Preferred

Stock and the Junior Preferred Stock then outstanding shall first receive, or simultaneously receive, a dividend on each outstanding share of Junior A Preferred Stock or Junior Preferred Stock, as applicable, in an amount at least equal to the product of (A) the dividend payable on each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock and (B) the number of shares of Common Stock issuable upon conversion of a share of Junior A Preferred Stock or Junior Preferred Stock, as applicable, in each case calculated on the record date for determination of holders entitled to receive such dividend. The **"Series A Original Issue Price"** shall mean $1.00 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A Preferred Stock. The **"Series B Original Issue Price"** shall mean $2.00 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series B Preferred Stock. The **"Series C Original Issue Price"** shall mean $3.10 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series C Preferred Stock. The **"Series D Original Issue Price"** shall mean $1.444244 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series D Preferred Stock. The "**Junior A Original Issue Price**" shall mean $3.80 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Junior A Preferred Stock. The "**Junior Original Issue Price**" shall mean $2.88 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Junior Preferred Stock. For purposes hereof, the Series A Original Issue Price, the Series B Original Issue Price, the Series C Original Issue Price, the Series D Original Issue Price, the Junior A Original Issue Price and the Junior Original Issue Price, may be referred to as the **"applicable Original Issue Price."**

3. Liquidation, Dissolution or Winding Up; Certain Mergers, Consolidations and Asset Sales.

3.1 Preferential Payments to Holders of Series D Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the holders of shares of Series D Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Prior Preferred, Junior A Preferred Stock, Junior Preferred Stock or Common Stock by reason of their ownership thereof, an amount per share equal to the Series D Original Issue Price, plus any dividends declared but unpaid thereon (the "**Series D Preferential Amount**"). If upon any such liquidation, dissolution or winding up of the Corporation, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series D Preferred Stock the full amount to which they shall be entitled under this Subsection 2.1, the holders of shares of Series D Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares of Series D Preferred Stock held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

3.2 Preferential Payments to Holders of Series C Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, upon full payment of the Series D Preferential Amount as set forth above, the holders of shares of Series C Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Series B Preferred Stock, Series A Preferred Stock, Junior A Preferred Stock, Junior Preferred Stock or Common Stock by reason of their ownership thereof, an amount per share equal to the Series C Original Issue Price, plus any dividends declared but unpaid thereon (the "**Series C Preferential Amount**"). If upon any such liquidation, dissolution or winding up of the Corporation, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series C Preferred Stock the full amount to which they shall be entitled under this Subsection 2.2, the holders of shares of Series C Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares of Series C Preferred Stock held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

3.3 Preferential Payments to Holders of Series B Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, upon full payment of the Series D Preferential Amount and the Series C Preferential Amount as set forth above, the holders of shares of Series B Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Series A Preferred Stock, Junior A Preferred Stock, Junior Preferred Stock or Common Stock by reason of their ownership thereof, an amount per share equal to the Series B Original Issue Price, plus any dividends declared but unpaid thereon (the "**Series B Preferential Amount**"). If upon any such liquidation, dissolution or winding up of the Corporation, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series B Preferred Stock the full amount to which they shall be entitled under this Subsection 2.3, the holders of shares of Series B Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares of Series B Preferred Stock held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

3.4 Preferential Payments to Holders of Series A Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, upon full payment of the Series D Preferential Amount, the Series C Preferential Amount and the Series B Preferential Amount as set forth above, the holders of shares of Series A Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Junior A Preferred Stock, Junior Preferred Stock or Common Stock by reason of their ownership thereof, an amount per share equal to the Series A Original Issue Price, plus any dividends declared but unpaid thereon (the "**Series A Preferential Amount**"). If upon any such liquidation, dissolution or winding up of the Corporation, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series A Preferred Stock the full

amount to which they shall be entitled under this Subsection 2.4, the holders of shares of Series A Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares of Series A Preferred Stock held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

3.5 Preferential Payments to Holders of Junior A Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, upon full payment of the Series D Preferential Amount, the Series C Preferential Amount, the Series B Preferential Amount and the Series A Preferential Amount as set forth above, the holders of shares of Junior A Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Junior Preferred Stock or Common Stock by reason of their ownership thereof, an amount per share equal to the Junior A Original Issue Price, plus any dividends declared but unpaid thereon (the "**Junior A Preferential Amount**"). If upon any such liquidation, dissolution or winding up of the Corporation, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Junior A Preferred Stock the full amount to which they shall be entitled under this Subsection 2.5, the holders of shares of Junior A Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares of Junior A Preferred Stock held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

3.6 Preferential Payments to Holders of Junior Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, upon full payment of the Series D Preferential Amount, the Series C Preferential Amount, the Series B Preferential Amount, the Series A Preferential Amount and the Junior A Preferential Amount as set forth above, the holders of shares of Junior Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Common Stock by reason of their ownership thereof, an amount per share equal to the Junior Original Issue Price, plus any dividends declared but unpaid thereon (the "**Junior Preferential Amount**"). If upon any such liquidation, dissolution or winding up of the Corporation, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Junior Preferred Stock the full amount to which they shall be entitled under this Subsection 2.6, the holders of shares of Junior Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares of Junior Preferred Stock held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

3.7 Distribution of Remaining Assets. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, after the payment of the Series D Preferential Amount, the Series C Preferential Amount, the Series B Preferential Amount, the Series A Preferential Amount, the Junior A Preferential Amount and the Junior Preferential Amount, the remaining assets of the Corporation available for distribution to its stockholders shall be distributed among the holders of the shares of Series D Preferred Stock and

Common Stock, pro rata based on the number of shares held by each such holder, treating for this purpose all such shares of Series D Preferred Stock as if they had been converted to Common Stock pursuant to the terms of the Certificate of Incorporation immediately prior to such liquidation, dissolution or winding up of the Corporation; provided, however, that if the aggregate amount which the holders of Series D Preferred Stock are entitled to receive under Subsections 2.1 and 2.7 shall exceed $5.776976 per share (subject to appropriate adjustment in the event of a stock split, stock dividend, combination, reclassification, or similar event affecting the Series D Preferred Stock so that such adjusted per share dollar amount shall, at all times, be equal to four (4) times the then applicable Series D Original Issue Price) (the "**Maximum Participation Amount**"), each holder of Series D Preferred Stock shall be entitled to receive upon such liquidation, dissolution or winding up of the Corporation the greater of (i) the Maximum Participation Amount and (ii) the amount such holder would have received if all shares of Series D Preferred Stock had been converted into Common Stock immediately prior to such liquidation, dissolution or winding up of the Corporation. The aggregate amount which a holder of a share of Series D Preferred Stock is entitled to receive under Subsections 2.1 and 2.7 is hereinafter referred to as the "**Series D Liquidation Amount**."

The amount each holder of Prior Preferred, Junior A Preferred Stock and/or Junior Preferred Stock shall be entitled to receive upon such liquidation, dissolution or winding up of the Corporation in consideration for such holder's shares of Prior Preferred, Junior A Preferred Stock and/or Junior Preferred Stock shall be the greater of (i) the cumulative amount such holder would receive pursuant to Subsections 2.2, 2.3, 2.4, 2.5 and 2.6 above and (ii) the amount such holder would have received if such holder had converted all of his, her or its shares of Prior Preferred, Junior A Preferred Stock and/or Junior Preferred Stock into Common Stock immediately prior to such liquidation, dissolution or winding up of the Corporation (the greater of which is hereinafter referred to as the "**Series A Liquidation Amount**", in the case of the Series A Preferred Stock, the "**Series B Liquidation Amount**", in the case of the Series B Preferred Stock, the "**Series C Liquidation Amount**", in the case of the Series C Preferred Stock, the **"Junior A Liquidation Amount"**, in the case of the Junior A Preferred Stock and the **"Junior Liquidation Amount"**, in the case of the Junior Preferred Stock).

3.8 Deemed Liquidation Events.

3.8.1 Definition. Each of the following events shall be considered a liquidation of the Corporation (a "**Deemed Liquidation Event**") unless (x) the holders of at least 67% of the outstanding shares of Series D Preferred Stock and (y) the holders of at least 55% of the outstanding shares of Series C Preferred Stock elect otherwise by written notice sent to the Corporation at least 20 days prior to the effective date of any such event:

(a) a merger or consolidation in which

(i) the Corporation is a constituent party or

(ii) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation,

except any such merger or consolidation involving the Corporation or a subsidiary of the Corporation in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation (provided that, for the purpose of this Subsection 2.8.1, all shares of Common Stock issuable upon exercise of Options (as defined below) outstanding immediately prior to such merger or consolidation or upon conversion of Convertible Securities (as defined below) outstanding immediately prior to such merger or consolidation shall be deemed to be outstanding immediately prior to such merger or consolidation and, if applicable, converted or exchanged in such merger or consolidation on the same terms as the actual outstanding shares of Common Stock are converted or exchanged); or

(b) the sale or exchange of shares of capital stock that represents, immediately following such sale or exchange, at least a majority, by voting power, of the capital stock of the Corporation, other than any such sale or exchange of the Corporation's capital stock in connection with a bona fide financing transaction, or any sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole or the sale or disposition (whether by merger or otherwise) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Corporation.

3.8.2 Effecting a Deemed Liquidation Event.

(a) The Corporation shall not have the power to effect a Deemed Liquidation Event referred to in Subsection 2.8.1(a)(i) above unless the agreement or plan of merger or consolidation for such transaction (the **"Merger Agreement"**) provides that the consideration payable to the stockholders of the Corporation shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 and 2.7 above.

(b) In the event of a Deemed Liquidation Event referred to in Subsection 2.8.1(a)(ii) or 2.8.1(b), if the Corporation does not effect a dissolution of the Corporation under the General Corporation Law within 90 days after such Deemed Liquidation Event, then the Corporation shall redeem all of the outstanding shares of Preferred Stock not later than 120 days after such Deemed Liquidation Event (such date, the "**Redemption Date**"), unless otherwise specified, in writing, by the (x) holders of at least 67% of the outstanding shares of Series D Preferred Stock and (y) holders of at least 55% of the outstanding shares of Series C Preferred Stock. In connection with any redemption of the Preferred Stock in accordance with this Subsection 2.8(2)(b), the Corporation shall use the consideration received by the Corporation from such Deemed Liquidation Event (net of any retained liabilities associated with the assets

sold or technology licensed, as determined in good faith by the Board of Directors of the Corporation), together with any other assets of the Corporation available for distribution to its stockholders (the "**Available Proceeds**"), to the extent legally available therefor, on the Redemption Date, to redeem all outstanding shares of Preferred Stock at a price per share equal to (i) in the case of the Series D Preferred Stock, the Series D Liquidation Amount, (ii) in the case of the Series C Preferred Stock, the Series C Liquidation Amount, (iii) in the case of the Series B Preferred Stock, the Series B Liquidation Amount, (iv) in the case of the Series A Preferred Stock, the Series A Liquidation Amount, (v) in the case of the Junior A Preferred Stock, the Junior A Liquidation Amount and (vi) in the case of the Junior Preferred Stock, the Junior Liquidation Amount. The consideration to be allocated to the holders of Preferred Stock upon such redemption shall be allocated among the holders of Preferred Stock in accordance with (and subject to the priorities set forth in) Subsections 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 and 2.7 above. In the event of a redemption pursuant to this Subsection 2.8.2(b), if the Available Proceeds (after being allocated in accordance with and subject to the priorities set forth in Subsections 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 and 2.7 above) are not sufficient to redeem all outstanding shares of a particular series of Preferred Stock, the Corporation shall redeem a pro rata portion of each holder's shares of such particular series of Preferred Stock to the fullest extent of the Available Proceeds for such particular series of Preferred Stock (after such Available Proceeds are allocated in accordance with and subject to the priorities set forth in Subsections 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 and 2.7 above), based on the respective amounts which would otherwise be payable in respect of the shares of such particular series to be redeemed if the Available Proceeds for such particular series of Preferred Stock were sufficient to redeem all such shares of such series, and shall redeem the remaining shares of such particular series (as well as any other series of Preferred Stock that remains outstanding) as soon as practicable after the Corporation has funds legally available therefor. Prior to the distribution or redemption provided for in this Subsection 2.8.2(b), the Corporation shall not expend or dissipate the consideration received for such Deemed Liquidation Event, except to discharge expenses incurred in connection with such Deemed Liquidation Event.

3.8.3 Amount Deemed Paid or Distributed. If the amount deemed paid or distributed to the holders of capital stock of the Corporation upon any liquidation, dissolution, winding up or Deemed Liquidation Event under this Section 2 is made in property other than in cash, the value of such distribution shall be the fair market value of such property, determined as follows:

(a) For securities not subject to investment letters or other similar restrictions on free marketability,

(i) if traded on a securities exchange or the NASDAQ Stock Market, the value shall be deemed to be the average of the closing prices of the securities on such exchange or market over the 30-day period ending three days prior to the closing of such transaction;

(ii) if actively traded over-the-counter, the value shall be deemed to be the average of the closing bid prices over the 30-day period ending three days prior to the closing of such transaction; or

(iii) if there is no active public market, the value shall be the fair market value thereof, as determined in good faith by the Board of Directors of the Corporation.

(b) The method of valuation of securities subject to investment letters or other similar restrictions on free marketability (other than restrictions arising solely by virtue of a stockholder's status as an affiliate or former affiliate) shall take into account an appropriate discount (as determined in good faith by the Board of Directors of the Corporation) from the market value as determined pursuant to clause (a) above so as to reflect the approximate fair market value thereof.

4. Voting.

4.1 General. On any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Senior Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Senior Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Notwithstanding anything to the contrary set forth herein, neither the Junior A Preferred Stock nor the Junior Preferred Stock shall have any voting rights, and neither shares of Junior A Preferred Stock nor the Junior Preferred Stock shall be included (either in the numerator or in the denominator) for purposes of determining the number of votes cast or required to be cast, with respect to any matter with respect to which the stockholders of the Corporation shall be permitted to vote. Except as provided by law or by the other provisions of the Certificate of Incorporation, holders of Senior Preferred Stock shall vote together with the holders of Common Stock, as a single class.

4.2 Election of Directors. The holders of record of the shares of Series D Preferred Stock, exclusively and as a separate class, shall be entitled to elect one (1) director of the Corporation (the **"Series D Director"**), and Rho Ventures VI, L.P. shall have the right to nominate the Series D Director subject to Section 1.2(a) of the voting agreement entered into in connection with the Series D Purchase Agreement (as defined in Subsection 3.3(c) below). The holders of record of the shares of Series C Preferred Stock, exclusively and as a separate class, shall be entitled to elect three (3) directors of the Corporation (the **"Series C Directors"**); the holders of a majority of the outstanding shares of Series C Preferred Stock, voting together on an as-converted basis as a single class, shall have the right to nominate one of such Series C Directors and, so long as each owns not less than five percent (5%) of the outstanding shares of the Corporation's capital stock, each of Alta Biopharma Partners III Limited Partnership and Devon Park Bioventures, L.P. shall have the right to nominate one of such Series C Directors. The holders of record of the shares of Common Stock, exclusively and as a separate class, shall

be entitled to elect two (2) directors of the Corporation (the **"Common Directors"**), and Esperante AB shall have the right to nominate one such Common Director, so long as it owns not less than five percent (5%) of the outstanding shares of the Corporation's capital stock. The holders of record of the shares of Senior Preferred Stock, voting together on an as-converted basis as a single class, shall be entitled to elect one (1) director, who shall be nominated by the holders of a majority of the shares of Senior Preferred Stock, voting together on an as-converted basis as a single class. Any additional directors shall be appointed in accordance with the General Corporation Law and this Corporation's by-laws, subject to the terms of any voting rights agreement among this Corporation and certain of its stockholders. Any director elected as provided in the preceding sentences may be removed without cause by, and only by, the affirmative vote of the holders of the shares of the class or series of capital stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of stockholders. At any meeting held for the purpose of electing a director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the class or series entitled to elect such director shall constitute a quorum for the purpose of electing such director. A vacancy in any directorship filled by the holders of any class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series or by any remaining director or directors elected by the holders of such class or series pursuant to this Subsection 3.2.

4.3 Series C Preferred Stock and Series D Preferred Stock Protective Provisions. The Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by law or the Certificate of Incorporation) the written consent or affirmative vote of the holders of at least a majority of the then outstanding shares of Series C Preferred Stock and Series D Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) as a single class:

(a) liquidate, dissolve or wind-up the business and affairs of the Corporation, effect any merger, consolidation, acquisition of all or substantially all of the assets or capital stock of another person, reorganization, sale or exclusive license of all or substantially all of the Corporation's assets (including without limitation a Deemed Liquidation Event) or consent to any of the foregoing;

(b) amend, alter or repeal any provision of the Certificate of Incorporation or Bylaws of the Corporation;

(c) create, or authorize the creation of, or issue or obligate itself to issue shares of, any additional class or series of capital stock unless the same ranks junior to the Series D Preferred Stock with respect to the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends and rights of redemption, other than the issuance of additional shares of Series D Preferred Stock pursuant to the Series D Preferred Stock Purchase Agreement dated on or about the Series D Original Issue Date, by and between the Corporation and the Purchasers set forth on Exhibit A thereto (the "**Series D Purchase Agreement**");

(d) increase or decrease the number of authorized shares of Common Stock or Preferred Stock;

(e) purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation other than (i) redemptions of Preferred Stock following a Deemed Liquidation Event in accordance with Subsection 2.8.2(b), (ii) dividends or other distributions payable on the Common Stock solely in the form of additional shares of Common Stock and (iii) unless otherwise approved by the Board of Directors, including the approval of the Series D Director and at least one Series C Director, repurchases of stock (A) from former employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at the lower of the original purchase price or the then-current fair market value thereof or (B) pursuant to the exercise by the Corporation of contractual rights of first refusal;

(f) create, or authorize the creation of, or issue, or authorize the issuance of any debt security or enter into any credit agreement, or permit any subsidiary to take any such action with respect to any debt security, if the aggregate indebtedness of the Corporation and its subsidiaries for borrowed money following such action would exceed $500,000, unless such debt security or credit agreement has received the prior approval of the Board of Directors, including the approval of the Series D Director and at least one Series C Director;

(g) increase or decrease the size of the Board of Directors; or

(h) create, or hold capital stock in, any subsidiary that is not wholly owned (either directly or through one or more other subsidiaries) by the Corporation, or sell, transfer or otherwise dispose of any capital stock of any direct or indirect subsidiary of the Corporation, or permit any direct or indirect subsidiary to sell, lease, transfer, exclusively license or otherwise dispose (in a single transaction or series of related transactions) of all or substantially all of the assets of such subsidiary.

4.4 Series D Preferred Stock Protective Provisions. The Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by law or the Certificate of Incorporation) the written consent or affirmative vote of the holders of at least 67% of the then outstanding shares of Series D Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class:

(a) amend, alter or repeal any provision of the Certificate of Incorporation or Bylaws of the Corporation in a manner that adversely affects the powers, preferences or rights of the Series D Preferred Stock, or otherwise take any action that adversely alters, amends or repeals any of the rights, preferences and privileges of the Series D Preferred Stock;

(b) increase the authorized number of shares of Series D Preferred Stock or issue any shares of Series D Preferred Stock in excess of the amount contemplated pursuant to the Series D Purchase Agreement; or

(c) purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation other than (i) redemptions of Preferred Stock following a Deemed Liquidation Event in accordance with Subsection 2.8.2(b), (ii) dividends or other distributions payable on the Common Stock solely in the form of additional shares of Common Stock, and (iii) unless otherwise approved by the Board of Directors, including the approval of the Series D Director and at least one Series C Director, repurchases of stock (A) from former employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at the lower of the original purchase price or the then-current fair market value thereof or (B) pursuant to the exercise by the Corporation of contractual rights of first refusal.

5. Optional Conversion.

The holders of the Preferred Stock shall have conversion rights as follows (the "**Conversion Rights**"):

5.1 Right to Convert.

5.1.1 Conversion Ratio. Each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing the applicable Original Issue Price by the applicable Preferred Conversion Price (as defined below) in effect at the time of conversion. The **"Series A Conversion Price"** shall initially be equal to $1.00. The **"Series B Conversion Price"** shall initially be equal to $1.84. The **"Series C Conversion Price"** shall initially be equal to $2.62. The **"Series D Conversion Price"** shall initially be equal to $1.444244. The **"Junior A Conversion Price"** shall initially be equal to $3.80. The **"Junior Conversion Price"** shall initially be equal to $2.88. The Series A Conversion Price, the Series B Conversion Price, the Series C Conversion Price, the Series D Conversion Price, the Junior A Conversion Price and the Junior Conversion Price, collectively, may be referred to as the **"Preferred Conversion Price"**, and individually as the **"applicable Preferred Conversion Price"**. Such initial Preferred Conversion Price, and the rate at which shares of Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

5.1.2 Termination of Conversion Rights. In the event of a liquidation, dissolution or winding up of the Corporation or a Deemed Liquidation Event, the Conversion Rights shall terminate at the close of business on the last full day preceding the date fixed for the payment of any such amounts distributable on such event to the holders of Preferred Stock.

5.2 Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Common Stock as determined in good faith by the Board of Directors of the Corporation. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Preferred Stock the holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion.

5.3 Mechanics of Conversion.

5.3.1 Notice of Conversion. In order for a holder of Preferred Stock to voluntarily convert shares of Preferred Stock into shares of Common Stock, such holder shall surrender the certificate or certificates for such shares of Preferred Stock (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent), together with written notice that such holder elects to convert all or any number of the shares of the Preferred Stock represented by such certificate or certificates and, if applicable, any event on which such conversion is contingent. Such notice shall state such holder's name or the names of the nominees in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. If required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his, her or its attorney duly authorized in writing. The close of business on the date of receipt by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) of such certificates (or lost certificate affidavit and agreement) and notice shall be the time of conversion unless a later date is specified in the conversion notice (the "Conversion Time"), and the shares of Common Stock issuable upon conversion of the shares represented by such certificate shall be deemed to be outstanding of record as of such date. The Corporation shall, as soon as practicable after the Conversion Time, issue and deliver to such holder of Preferred Stock, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable upon such conversion in accordance with the provisions hereof, a certificate for the number (if any) of the shares of Preferred Stock represented by the surrendered certificate that were not converted into Common Stock, and cash as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and payment of any declared but unpaid dividends on the shares of Preferred Stock converted.

5.3.2 Reservation of Shares. The Corporation shall at all times when the Preferred Stock shall be outstanding, reserve and keep available out of its authorized but unissued capital stock, for the purpose of effecting the conversion of the Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion

of all then outstanding shares of the Preferred Stock, the Corporation shall take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in reasonable best efforts to obtain the requisite stockholder approval of any necessary amendment to the Certificate of Incorporation. Before taking any action which would cause an adjustment reducing any Preferred Conversion Price below the then par value of the shares of Common Stock issuable upon conversion of the applicable Preferred Stock, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and nonassessable shares of Common Stock at such adjusted Preferred Conversion Price.

5.3.3 Effect of Conversion. All shares of Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor and to receive payment of any dividends declared but unpaid thereon. Any shares of Preferred Stock so converted shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

5.3.4 No Further Adjustment. Upon any such conversion, no adjustment to the applicable Preferred Conversion Price shall be made for any declared but unpaid dividends on the Preferred Stock surrendered for conversion or on the Common Stock delivered upon conversion.

5.3.5 Taxes. The Corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Preferred Stock pursuant to this Section 4. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

5.4 Adjustments to Preferred Conversion Price for Diluting Issues.

5.4.1 Special Definitions. For purposes of this Article Fourth, the following definitions shall apply:

(a) "**Option**" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(b) "**Junior A Original Issue Date**" shall mean the date on which the first share of Junior A Preferred Stock was issued.

(c) "**Convertible Securities**" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(d) "**Additional Shares of Common Stock**" shall mean all shares of Common Stock issued (or, pursuant to Subsection 4.4.3 below, deemed to be issued) by the Corporation after the Junior A Original Issue Date, other than the following shares of Common Stock, and shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (collectively "**Exempted Securities**"):

(i) shares of Common Stock issued or issuable upon conversion of shares of the Preferred Stock;

(ii) shares of Common Stock, Options or Convertible Securities issued as a dividend or distribution on Preferred Stock;

(iii) shares of Common Stock, Options or Convertible Securities issued by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Subsection 4.5, 4.6, 4.7 or 4.8 below;

(iv) shares of Common Stock or Options to purchase Common Stock issued to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors of the Corporation, up to an aggregate limit of 3,119,898 (as such number may be increased or decreased by the approval by the Board of Directors of the Corporation, including the approval of the Series D Director and at least one Series C Director);

(v) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or shares of Common Stock actually issued upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security;

(vi) shares of Common Stock, Options or Convertible Securities issued to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment

leasing or real property leasing transaction approved by the Board of Directors of the Corporation, which in the case of any issuance after the date on which the first share of Series D Preferred Stock was issued shall also include the approval of the Series D Director and at least one Series C Director; or

(vii) shares of the Corporation's Preferred Stock issued or issuable upon conversion of each of the Convertible Promissory Notes issued by the Corporation pursuant to that certain Convertible Note Purchase Agreement dated as of December 28, 2012, as amended from time to time.

5.4.2 No Adjustment of Preferred Conversion Price. No adjustment in the applicable Preferred Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if, with respect to the Series A Conversion Price or the Series B Conversion Price, the Corporation receives written notice from the holders of at least a majority of the then outstanding shares of Series A Preferred Stock or Series B Preferred Stock, as applicable, or with respect to the Series C Conversion Price, 55% of the then outstanding shares of Series C Preferred Stock, or with respect to the Series D Conversion Price, 67% of the then outstanding shares of Series D Preferred Stock, or with respect to the Junior A Conversion Price, a majority of the then outstanding shares of Junior A Preferred Stock, or with respect to the Junior Conversion Price, a majority of the then outstanding shares of Junior Preferred Stock, agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

5.4.3 Deemed Issue of Additional Shares of Common Stock.

(a) If the Corporation at any time or from time to time after the Junior A Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(b) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to any Preferred Conversion Price pursuant to the terms of Subsection 4.4.4 below, are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but

excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, any affected Preferred Conversion Price computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Preferred Conversion Price as would have resulted had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this clause (b) shall have the effect of increasing any Preferred Conversion Price to an amount which exceeds the lower of (i) the Preferred Conversion Price in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the Preferred Conversion Price that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(c) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the applicable Preferred Conversion Price pursuant to the terms of Subsection 4.4.4 below (either because the consideration per share (determined pursuant to Subsection 4.4.5 hereof) of the Additional Shares of Common Stock subject thereto was equal to or greater than the applicable Preferred Conversion Price then in effect, or because such Option or Convertible Security was issued before the Junior A Original Issue Date), are revised after the Junior A Original Issue Date as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Subsection 4.4.3(a) above) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(d) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to any Preferred Conversion Price pursuant to the terms of Subsection 4.4.4 below, the applicable Preferred Conversion Price shall be readjusted to such Preferred Conversion Price as would have resulted had such Option or Convertible Security (or portion thereof) never been issued.

(e) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the

consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the applicable Preferred Conversion Price provided for in this Subsection 4.4.3 shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (b) and (c) of this Subsection 4.4.3). If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the applicable Preferred Conversion Price that would result under the terms of this Subsection 4.4.3 at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to the applicable Preferred Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

5.4.4 Adjustment of Preferred Conversion Price Upon Issuance of Additional Shares of Common Stock.

(a) In the event the Corporation shall at any time after the Junior A Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4.4.3), without consideration or for a consideration per share less than the Series D Conversion Price in effect immediately prior to such issue, then the Series B Conversion Price, the Series C Conversion Price and the Series D Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

$$CP_2 = CP_1 * (A + B) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

(i) "CP_2" shall mean the applicable Preferred Conversion Price in effect immediately after such issuance (or deemed issuance) of Additional Shares of Common Stock;

(ii) "CP_1" shall mean the applicable Preferred Conversion Price in effect immediately prior to such issuance (or deemed issuance) of Additional Shares of Common Stock;

(iii) "A" shall mean the number of shares of Common Stock outstanding immediately prior to such issuance (or deemed issuance) of Additional Shares

of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issuance (or deemed issuance) or upon conversion or exchange of Convertible Securities (including the Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issuance (or deemed issuance));

(iv) "B" shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued at a price per share equal to the Series D Conversion Price in effect immediately prior to such issuance (or deemed issuance) of Additional Shares of Common Stock (determined by dividing the aggregate consideration received by the Corporation in respect of such issuance (or deemed issuance) of Additional Shares of Common Stock by the Series D Conversion Price in effect immediately prior to such issuance (or deemed issuance) of Additional Shares of Common Stock); and

(v) "C" shall mean the number of such Additional Shares of Common Stock issued (or deemed issued) in such transaction.

(b) In the event the Corporation shall at any time after the Junior A Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4.4.3), without consideration or for a consideration per share less than the Series A Conversion Price, with respect to the Series A Preferred Stock, the Junior A Conversion Price, with respect to the Junior A Preferred Stock or the Junior Conversion Price, with respect to the Junior Preferred Stock, in each case as in effect immediately prior to such issue, then the applicable Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

$$CP_2 = CP_1 * (A + B) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

(i) "CP_2" shall mean the applicable Conversion Price in effect immediately after such issuance (or deemed issuance) of Additional Shares of Common Stock;

(ii) "CP_1" shall mean the applicable Conversion Price in effect immediately prior to such issuance (or deemed issuance) of Additional Shares of Common Stock;

(iii) "A" shall mean the number of shares of Common Stock outstanding immediately prior to such issuance (or deemed issuance) of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issuance (or deemed issuance) or upon conversion or exchange of Convertible Securities (including the Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issuance (or deemed issuance));

(iv) "B" shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued at a price per share equal to the applicable Conversion Price in effect immediately prior to such issuance (or deemed issuance) of Additional Shares of Common Stock (determined by dividing the aggregate consideration received by the Corporation in respect of such issuance (or deemed issuance) of Additional Shares of Common Stock by the applicable Conversion Price in effect immediately prior to such issuance (or deemed issuance) of Additional Shares of Common Stock); and

(v) "C" shall mean the number of such Additional Shares of Common Stock issued (or deemed issued) in such transaction.

5.4.5 Determination of Consideration. For purposes of this Subsection 4.4, the consideration received by the Corporation for the issuance (or deemed issuance) of any Additional Shares of Common Stock shall be computed as follows:

(a) Cash and Property: Such consideration shall:

(i) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;

(ii) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors of the Corporation; and

(iii) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (i) and (ii) above, as determined in good faith by the Board of Directors of the Corporation.

(b) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Subsection 4.4.3, relating to Options and Convertible Securities, shall be determined by dividing

(i) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(ii) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

5.4.6 Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the applicable Preferred Conversion Price pursuant to the terms of Subsection 4.4.4 above, and such issuance dates occur within a period of no more than 90 days from the first such issuance to the final such issuance, then, upon the final such issuance, the applicable Preferred Conversion Price shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

5.5 Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Junior A Original Issue Date effect a subdivision of the outstanding Common Stock, the applicable Preferred Conversion Price in effect immediately before that subdivision shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Junior A Original Issue Date combine the outstanding shares of Common Stock, the applicable Preferred Conversion Price in effect immediately before the combination shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

5.6 Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the Junior A Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event the applicable Preferred Conversion Price in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the applicable Preferred Conversion Price then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution.

Notwithstanding the foregoing, (a) if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the applicable Preferred Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the applicable Preferred Conversion Price shall be adjusted pursuant to this subsection as of the time of actual payment of such dividends or distributions; and (b) that no such adjustment shall be made if the holders of the applicable class of Preferred Stock simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of such class of Preferred Stock had been converted into Common Stock on the date of such event.

5.7 Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Junior A Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 1 do not apply to such dividend or distribution, then and in each such event the holders of affected Preferred Stock shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of the applicable class of Preferred Stock had been converted into Common Stock on the date of such event.

5.8 Adjustment for Merger or Reorganization, etc. Subject to the provisions of Subsection 2.8, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not the Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Subsections 4.4, 4.6 or 4.7), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Preferred Stock not so converted shall thereafter be convertible in lieu of the Common Stock into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of such Preferred Stock immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board of Directors of the Corporation) shall be made in the application of the provisions in this Section 4 with respect to the rights and interests thereafter of the holders of such Preferred Stock, to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the applicable Preferred Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the Preferred Stock.

5.9 Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of any Preferred Conversion Price pursuant to this Section 4, the Corporation at its expense shall, as promptly as reasonably practicable but in any event not later than 20 days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of the affected class of Preferred Stock a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which such Preferred Stock is convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, as promptly as reasonably practicable after the written request at any time of any holder of the affected class of Preferred Stock (but in any event not later than 20 days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the applicable Preferred Conversion Price then in effect, and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the conversion of such Preferred Stock.

5.10 Notice of Record Date. In the event:

(a) the Corporation shall take a record of the holders of its Common Stock (or other capital stock or securities at the time issuable upon conversion of the Preferred Stock) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of capital stock of any class or any other securities, or to receive any other security; or

(b) of any capital reorganization of the Corporation, any reclassification of the Common Stock of the Corporation, or any Deemed Liquidation Event; or

(c) of the voluntary or involuntary liquidation, dissolution or winding-up of the Corporation,

then, and in each such case, the Corporation will send or cause to be sent to the holders of the Preferred Stock a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other capital stock or securities at the time issuable upon the conversion of the Preferred Stock) shall be entitled to exchange their shares of Common Stock (or such other capital stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per share and character of such exchange applicable to the Preferred Stock and the Common Stock. Such notice shall be sent at least 20 days prior to the record date or effective date for the event specified in such notice.

6. Mandatory Conversion.

6.1 Trigger Events. Upon either (a) the closing of the sale of shares of Common Stock to the public at a price of at least $4.332 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar

recapitalization with respect to the Common Stock), in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, resulting in at least $40,000,000 of gross proceeds to the Corporation, or (b) the date and time, or the occurrence of an event, specified by vote or written consent of the holders of at least (x) a majority of the then outstanding shares of Preferred Stock and (y) 67% of the then outstanding shares of Series D Preferred Stock (the time of such closing or the date and time specified or the time of the event specified in such vote or written consent is referred to herein as the **"Mandatory Conversion Time"**), (i) all outstanding shares of Preferred Stock shall automatically be converted into shares of Common Stock, at the then effective conversion rate calculated in accordance with Section 4.1.1 above and (ii) such shares may not be reissued by the Corporation.

6.2 Procedural Requirements. All holders of record of shares of Preferred Stock shall be sent written notice of the Mandatory Conversion Time and the place designated for mandatory conversion of all such shares of Preferred Stock pursuant to this Section 5. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. Upon receipt of such notice, each holder of shares of Preferred Stock shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice, and shall thereafter receive certificates for the number of shares of Common Stock to which such holder is entitled pursuant to this Section 5. At the Mandatory Conversion Time, all outstanding shares of Preferred Stock shall be deemed to have been converted into shares of Common Stock, which shall be deemed to be outstanding of record, and all rights with respect to the Preferred Stock so converted, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate, except only the rights of the holders thereof, upon surrender of their certificate or certificates (or lost certificate affidavit and agreement) therefor, to receive the items provided for in the last sentence of this Subsection 5.2. If so required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. As soon as practicable after the Mandatory Conversion Time and the surrender of the certificate or certificates (or lost certificate affidavit and agreement) for Preferred Stock, the Corporation shall issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof, together with cash as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the shares of Preferred Stock converted.

6.3 Effect of Mandatory Conversion. All shares of Preferred Stock shall, from and after the Mandatory Conversion Time, no longer be deemed to be outstanding and, notwithstanding the failure of the holder or holders thereof to surrender the certificates for such shares on or prior to such time, all rights with respect to such shares shall immediately cease and

terminate at the Mandatory Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor and to receive payment of any dividends declared but unpaid thereon. Such converted Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

7. Redeemed or Otherwise Acquired Shares. Any shares of Preferred Stock which are redeemed or otherwise acquired by the Corporation or any of its subsidiaries shall be automatically and immediately cancelled and retired and shall not be reissued, sold or transferred. Neither the Corporation nor any of its subsidiaries may exercise any voting or other rights granted to the holders of Preferred Stock following redemption.

8. Waiver. Any of the rights, powers, preferences and other terms of the Preferred Stock set forth herein may be waived on behalf of all holders of Preferred Stock by the affirmative written consent or vote of the holders of at least a majority of the shares of Preferred Stock then outstanding; provided, however, that (i) any waiver of any rights, powers, preferences or other terms of the Series C Preferred Stock shall also require the affirmative consent or vote of holders of at least 55% of the shares of Series C Preferred Stock then outstanding and (ii) any waiver of any rights, powers, preferences or other terms of the Series D Preferred Stock shall also require the affirmative consent or vote of holders of at least 67% of the shares of Series D Preferred Stock then outstanding.

9. Notices. Any notice required or permitted by the provisions of this Article Fourth to be given to a holder of shares of Preferred Stock shall be mailed, postage prepaid, to the post office address last shown on the records of the Corporation, or given by electronic communication in compliance with the provisions of the General Corporation Law, and shall be deemed sent upon such mailing or electronic transmission.

FIFTH: Subject to any additional vote required by the Certificate of Incorporation, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of the Corporation.

SIXTH: Subject to any additional vote required by the Certificate of Incorporation, the number of directors of the Corporation shall be determined in the manner set forth in the Bylaws of the Corporation.

SEVENTH: Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

EIGHTH: Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws of the Corporation may provide. The books of the Corporation may be kept outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of the Corporation.

NINTH: To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the General Corporation Law or any other law of the State of Delaware is amended after approval by the stockholders of this Article Ninth to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law as so amended.

Any repeal or modification of the foregoing provisions of this Article Ninth by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director occurring prior to, such repeal or modification.

TENTH: To the fullest extent permitted by applicable law, the Corporation is authorized to provide indemnification of (and advancement of expenses to) directors, officers and agents of the Corporation (and any other persons to which General Corporation Law permits the Corporation to provide indemnification) through Bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the General Corporation Law.

Any amendment, repeal or modification of the foregoing provisions of this Article Tenth shall not adversely affect any right or protection of any director, officer or other agent of the Corporation existing at the time of such amendment, repeal or modification.

ELEVENTH: The Corporation renounces any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, any Excluded Opportunity. An "**Excluded Opportunity**" is any matter, transaction or interest that is presented to, or acquired, created or developed by, or which otherwise comes into the possession of, (i) any director of the Corporation who is not an employee of the Corporation or any of its subsidiaries, or (ii) any holder of Preferred Stock or any partner, member, director, stockholder, employee or agent of any such holder, other than someone who is an employee of the Corporation or any of its subsidiaries (collectively, "**Covered Persons**"), unless such matter, transaction or interest is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person's capacity as a director of the Corporation.

* * *

3: That the foregoing amendment and restatement was approved by the holders of the requisite number of shares of this corporation in accordance with Section 228 of the General Corporation Law.

4: That this Amended and Restated Certificate of Incorporation, which restates and integrates and further amends the provisions of this corporation's Certificate of Incorporation, has been duly adopted in accordance with Sections 242 and 245 of the General Corporation Law.

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of this corporation on this 23rd day of April, 2013

By: */s/ Derek Chalmers*
Derek Chalmers
President

Signature Page to Amended and Restated Certificate of Incorporation

Exhibit 3.2

CERTIFICATE OF AMENDMENT
OF
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
CARA THERAPEUTICS, INC.

Cara Therapeutics, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of the State of Delaware (the "**DGCL**"), does hereby certify as follows:

FIRST: The name of the corporation is Cara Therapeutics, Inc., (hereinafter referred to as the "**Corporation**").

SECOND: The date of filing its original Certificate of Incorporation with the Secretary of State was July 2, 2004.

THIRD: Pursuant to Section 242 of the DGCL, this Certificate of Amendment of Amended and Restated Certificate of Incorporation of the Corporation (the "**Certificate of Amendment**") hereby amends Article Fourth of the Amended and Restated Certificate of Incorporation of the Corporation, as amended from time to time (the "**Restated Certificate**") as set forth below to amend and restate the first paragraph of Article Fourth and to amend the first paragraph of Part C of Article Fourth.

1. The first paragraph of Article Fourth of the Restated Certificate is hereby amended and restated to read in its entirety as follows:

1.

"The total number of shares of all classes of stock which the Corporation shall have authority to issue is (i) 50,000,000 shares of Common Stock, $0.001 par value per share (the "**Common Stock**") and (ii) 29,402,200 shares of Preferred Stock, $0.001 par value per share (the "**Preferred Stock**")."

2. The reference to "9,353,283 shares" in the first paragraph of Part C of Article FOURTH of the Restated Certificate be and hereby is deleted in its entirety and "12,260,845 shares" is inserted in lieu thereof.

FOURTH: The foregoing Certificate of Amendment has been duly approved and adopted by the Board of Directors and stockholders of the Corporation in accordance with Sections 141, 228 and 242 of the DGCL.

FIFTH: Other than as set forth in this Certificate of Amendment, the Restated Certificate shall remain in full force and effect, without modification, amendment or change.

[*Signature page follows*]

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment of Amended and Restated Certificate of Incorporation to be executed by a duly authorized officer of this corporation on this 18th day of September, 2013.

CARA THERAPEUTICS, INC.

By: */s/ Derek Chalmers*
Name: Derek Chalmers
Title: President

Exhibit 3.4

AMENDED AND RESTATED BYLAWS OF

CARA THERAPEUTICS, INC.

(Bylaws initially adopted on July 2, 2004;

Amended & Restated Bylaws adopted November 17, 2006)

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AMENDED AND RESTATED BYLAWS

OF CARA THERAPEUTICS, INC.

ARTICLE I

CORPORATE OFFICES

1.1 REGISTERED OFFICE.

The registered office of CARA THERAPEUTICS, INC. (the "Corporation") shall be fixed in the Corporation's certificate of incorporation, as the same may be amended from time to time.

1.2 OTHER OFFICES.

The Corporation's Board of Directors (the "Board") may at any time establish other offices at any place or places where the Corporation is qualified to do business.

ARTICLE II

MEETINGS OF STOCKHOLDERS

2.1 PLACE OF MEETINGS.

Meetings of stockholders shall be held at any place, within or outside the State of Delaware, designated by the Board. The Board may, in its sole discretion, determine that a meeting of stockholders shall not be held at any place, but may instead be held solely by means of remote communication as authorized by Section 211(a)(2) of the Delaware General Corporation Law (the "DGCL"). In the absence of any such designation or determination, stockholders' meetings shall be held at the Corporation's principal executive office.

2.2 ANNUAL MEETING.

The annual meeting of stockholders shall be held each year. The Board shall designate the date and time of the annual meeting. In the absence of such designation the annual meeting of stockholders shall be held on the second Tuesday of May of each year at 10:00 a.m. However, if such day falls on a legal holiday, then the meeting shall be held at the same time and place on the next succeeding business day. At the annual meeting, directors shall be elected and any other proper business may be transacted.

2.3 SPECIAL MEETING.

A special meeting of the stockholders may be called at any time by the Board, chairperson of the Board, chief executive officer or president (in the absence of a chief executive officer) or by one or more stockholders holding shares in the aggregate entitled to cast not less than 10% of the votes at that meeting.

If any person(s) other than the Board calls a special meeting, the request shall:

(i) be in writing;

(ii) specify the time of such meeting and the general nature of the business proposed to be transacted; and

(iii) be delivered personally or sent by registered mail or by facsimile transmission to the chairperson of the Board, the chief executive officer, the president (in the absence of a chief executive officer) or the secretary of the Corporation.

The officer(s) receiving the request shall cause notice to be promptly given to the stockholders entitled to vote at such meeting, in accordance with the provisions of Sections 2.4 and 2.5 of these bylaws, that a meeting will be held at the time requested by the person or persons calling the meeting. No business may be transacted at such special meeting other than the business specified in such notice to stockholders. Nothing contained in this paragraph of this Section 2.3 shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board may be held.

2.4 NOTICE OF STOCKHOLDERS' MEETINGS.

All notices of meetings of stockholders shall be sent or otherwise given in accordance with either Section 2.5 or Section 8.1 of these bylaws not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting. The notice shall specify the place, if any, date and hour of the meeting, the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called.

2.5 MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE.

Notice of any meeting of stockholders shall be given:

(i) if mailed, when deposited in the United States mail, postage prepaid, directed to the stockholder at his or her address as it appears on the Corporation's records; or

(ii) if electronically transmitted as provided in Section 8.1 of these bylaws.

An affidavit of the secretary or an assistant secretary of the Corporation or of the transfer agent or any other agent of the Corporation that the notice has been given by mail or by a form of electronic transmission, as applicable, shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

2.6 QUORUM.

The holders of a majority of the stock issued and outstanding and entitled to vote, present in person or represented by proxy, shall constitute a quorum for the transaction of business at all meetings of the stockholders. If, however, such quorum is not present or represented at any meeting of the stockholders, then either (i) the chairperson of the meeting, or (ii) the stockholders entitled to vote at the meeting, present in person or represented by proxy, shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present or represented. At such adjourned meeting at which a quorum is present or represented, any business may be transacted that might have been transacted at the meeting as originally noticed.

2.7 ADJOURNED MEETING; NOTICE.

When a meeting is adjourned to another time or place, unless these bylaws otherwise require, notice need not be given of the adjourned meeting if the time, place if any thereof, and the means of remote communications if any by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting are announced at the meeting at which the adjournment is taken. At the continuation of the adjourned meeting, the Corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than 30 days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

2.8 CONDUCT OF BUSINESS.

The chairperson of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of business.

2.9 VOTING.

The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of Section 2.11 of these bylaws, subject to Section 217 (relating to voting rights of fiduciaries, pledgors and joint owners of stock) and Section 218 (relating to voting trusts and other voting agreements) of the DGCL.

Except as may be otherwise provided in the certificate of incorporation or these bylaws, each stockholder shall be entitled to one vote for each share of capital stock held by such stockholder.

2.10 STOCKHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING.

Unless otherwise provided in the certificate of incorporation, any action required by the DGCL to be taken at any annual or special meeting of stockholders of a corporation, or any action which may be taken at any annual or special meeting of such stockholders, may be taken without a meeting, without prior notice, and without a vote, if a consent or consents in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of holders to take the action were delivered to the Corporation as provided in Section 228 of the DGCL. In the event that the action which is consented to is such as would have required the filing of a certificate under any provision of the DGCL, if such action had been voted on by stockholders at a meeting thereof, the certificate filed under such provision shall state, in lieu of any statement required by such provision concerning any vote of stockholders, that written consent has been given in accordance with Section 228 of the DGCL.

2.11 RECORD DATE FOR STOCKHOLDER NOTICE; VOTING; GIVING CONSENTS.

In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board may fix, in advance, a record date, which record date shall not precede the date on which the resolution fixing the record date is adopted and which shall not be more than 60 nor less than 10 days before the date of such meeting, nor more than 60 days prior to any other such action.

If the Board does not so fix a record date:

(i) The record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held.

(ii) The record date for determining stockholders entitled to express consent to corporate action in writing without a meeting, when no prior action by the Board is necessary, shall be the day on which the first written consent is expressed.

(iii) The record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board adopts the resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board may fix a new record date for the adjourned meeting.

2.12 PROXIES.

Each stockholder entitled to vote at a meeting of stockholders or to express consent or dissent to corporate action in writing without a meeting may authorize another person or persons to act for such stockholder by proxy authorized by an instrument in writing or by a transmission permitted by law filed in accordance with the procedure established for the meeting, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212 of the DGCL.

2.13 LIST OF STOCKHOLDERS ENTITLED TO VOTE.

The officer who has charge of the stock ledger of the Corporation shall prepare and make, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. The Corporation shall not be required to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting for a period of at least 10 days prior to the meeting: (i) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours, at the Corporation's principal executive office. In the event that the Corporation determines to make the list available on an electronic network, the Corporation may take reasonable steps to ensure that such information is available only to stockholders of the Corporation. If the meeting is to be held at a place, then the list shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. Such list shall presumptively determine the identity of the stockholders entitled to vote at the meeting and the number of shares held by each of them.

ARTICLE III

DIRECTORS

3.1 POWERS.

Subject to the provisions of the DGCL and any limitations in the certificate of incorporation or these bylaws relating to action required to be approved by the stockholders or by the outstanding shares, the business and affairs of the Corporation shall be managed and all corporate powers shall be exercised by or under the direction of the Board.

3.2 NUMBER OF DIRECTORS.

The authorized number of directors shall be determined from time to time by resolution of the Board, which shall at all times be consistent with the provisions set forth in that certain Voting Agreement dated as of November 17, 2006 by and between the Corporation and certain of its stockholders (the "Voting Agreement"); provided that the Board shall consist of at least one member. No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

3.3 ELECTION, QUALIFICATION AND TERM OF OFFICE OF DIRECTORS.

Except as provided in Section 3.4 of these bylaws, directors shall be elected at each annual meeting of stockholders to hold office until the next annual meeting. Directors need not be stockholders unless so required by the certificate of incorporation or these bylaws. The certificate of incorporation or these bylaws may prescribe other qualifications for directors. Each director, including a director elected to fill a vacancy, shall hold office until such director's successor is elected and qualified or until such director's earlier death, resignation or removal.

All elections of directors shall be by written ballot, unless otherwise provided in the certificate of incorporation; if authorized by the Board, such requirement of a written ballot shall be satisfied by a ballot submitted by electronic transmission, provided that any such electronic transmission must be either set forth or be submitted with information from which it can be determined that the electronic transmission authorized by the stockholder or proxy holder.

3.4 RESIGNATION AND VACANCIES.

Any director may resign at any time upon notice given in writing or by electronic transmission to the Corporation. When one or more directors so resigns and the resignation is effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office as provided in this section in the filling of other vacancies.

Unless otherwise provided in the certificate of incorporation or these bylaws:

(i) Vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director.

(ii) Whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the certificate of incorporation, vacancies and newly created directorships of such class or classes or series may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected.

If at any time, by reason of death or resignation or other cause, the Corporation should have no directors in office, then any officer or any stockholder or an executor, administrator, trustee or guardian of a stockholder, or other fiduciary entrusted with like responsibility for the person or estate of a stockholder, may call a special meeting of stockholders in accordance with the provisions of the certificate of incorporation or these bylaws, or may apply to the Court of Chancery for a decree summarily ordering an election as provided in Section 211 of the DGCL.

If, at the time of filling any vacancy or any newly created directorship, the directors then in office constitute less than a majority of the whole Board (as constituted immediately prior to any such increase), then the Court of Chancery may, upon application of any stockholder or stockholders holding at least 10% of the total number of the shares at the time outstanding

having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid, which election shall be governed by the provisions of Section 211 of the DGCL as far as applicable.

3.5 PLACE OF MEETINGS; MEETINGS BY TELEPHONE.

The Board may hold meetings, both regular and special, either within or outside the State of Delaware.

Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the Board, or any committee designated by the Board, may participate in a meeting of the Board, or any committee, by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

3.6 REGULAR MEETINGS.

Regular meetings of the Board may be held without notice at such time and at such place as shall from time to time be determined by the Board.

3.7 SPECIAL MEETINGS; NOTICE.

Special meetings of the Board for any purpose or purposes may be called at any time by the chairperson of the Board, the chief executive officer, the president, the secretary or any two directors.

Notice of the time and place of special meetings shall be:

(i) delivered personally by hand, by courier or by telephone;

(ii) sent by United States first-class mail, postage prepaid;

(iii) sent by facsimile; or

(iv) sent by electronic mail,

directed to each director at that director’s address, telephone number, facsimile number or electronic mail address, as the case may be, as shown on the Corporation’s records.

If the notice is (i) delivered personally by hand, by courier or by telephone, (ii) sent by facsimile or (iii) sent by electronic mail, it shall be delivered or sent at least 24 hours before the time of the holding of the meeting. If the notice is sent by United States mail, it shall be deposited in the United States mail at least four days before the time of the holding of the meeting. Any oral notice may be communicated to the director. The notice need not specify the place of the meeting (if the meeting is to be held at the Corporation’s principal executive office) nor the purpose of the meeting.

3.8 QUORUM.

At all meetings of the Board, a majority of the authorized number of directors shall constitute a quorum for the transaction of business, which shall include, for so long as the holders of shares of Series C Preferred Stock of the Corporation are entitled to elect one or more Series C Directors pursuant to the certificate of incorporation, at least one Series C Director. The vote of a majority of the directors present at any meeting at which a quorum is present, shall be the act of the Board, except as may be otherwise specifically provided by statute, the certificate of incorporation or these bylaws. If a quorum is not present at any meeting of the Board, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present.

A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

3.9 BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING.

Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board, or of any committee thereof, may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

3.10 FEES AND COMPENSATION OF DIRECTORS.

Unless otherwise restricted by the certificate of incorporation or these bylaws, the Board shall have the authority to fix the compensation of directors.

3.11 APPROVAL OF LOANS TO OFFICERS.

The Corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the Corporation or of its subsidiary, including any officer or employee who is a director of the Corporation or its subsidiary, whenever, in the judgment of the Board, such loan, guaranty or assistance may reasonably be expected to benefit the Corporation. The loan, guaranty or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board shall approve, including, without limitation, a pledge of shares of stock of the Corporation.

3.12 REMOVAL OF DIRECTORS.

Unless otherwise restricted by statute, the certificate of incorporation or these bylaws, and subject to the provisions set forth in the Voting Agreement, any director or the entire Board may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors.

No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of such director's term of office.

ARTICLE IV

COMMITTEES

4.1 COMMITTEES OF DIRECTORS.

The Board may designate one or more committees, each committee to consist of one or more of the directors of the Corporation. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board or in these bylaws, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers that may require it; but no such committee shall have the power or authority to (i) approve or adopt, or recommend to the stockholders, any action or matter expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopt, amend or repeal any bylaw of the Corporation.

4.2 COMMITTEE MINUTES.

Each committee shall keep regular minutes of its meetings and report the same to the Board when required.

4.3 MEETINGS AND ACTION OF COMMITTEES.

Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of:

(i) Section 3.5 (place of meetings and meetings by telephone);

(ii) Section 3.6 (regular meetings);

(iii) Section 3.7 (special meetings and notice);

(iv) Section 3.8 (quorum);

(v) Section 7.13 (waiver of notice); and

(vi) Section 3.9 (action without a meeting)

with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the Board and its members. However:

(i) the time of regular meetings of committees may be determined either by resolution of the Board or by resolution of the committee;

(ii) special meetings of committees may also be called by resolution of the Board; and

(iii) notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The Board may adopt rules for the government of any committee not inconsistent with the provisions of these bylaws.

ARTICLE V

OFFICERS

5.1 OFFICERS.

The officers of the Corporation shall be a president and a secretary. The Corporation may also have, at the discretion of the Board, a chairperson of the Board, a vice chairperson of the Board, a chief executive officer, a chief financial officer or treasurer, one or more vice presidents, one or more assistant vice presidents, one or more assistant treasurers, one or more assistant secretaries, and any such other officers as may be appointed in accordance with the provisions of these bylaws. Any number of offices may be held by the same person.

5.2 APPOINTMENT OF OFFICERS.

The Board shall appoint the officers of the Corporation, except such officers as may be appointed in accordance with the provisions of Sections 5.3 and 5.5 of these bylaws, subject to the rights, if any, of an officer under any contract of employment.

5.3 SUBORDINATE OFFICERS.

The Board may appoint, or empower the chief executive officer or, in the absence of a chief executive officer, the president, to appoint, such other officers and agents as the business of the Corporation may require. Each of such officers and agents shall hold office for such period, have such authority, and perform such duties as are provided in these bylaws or as the Board may from time to time determine.

5.4 REMOVAL AND RESIGNATION OF OFFICERS.

Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by an affirmative vote of the majority of the Board at any regular or special meeting of the Board or, except in the case of an officer chosen by the Board, by any officer upon whom such power of removal may be conferred by the Board.

Any officer may resign at any time by giving written notice to the Corporation. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice. Unless otherwise specified in the notice of resignation, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the Corporation under any contract to which the officer is a party.

5.5 VACANCIES IN OFFICES.

Any vacancy occurring in any office of the Corporation shall be filled by the Board or as provided in Section 5.2.

5.6 CHAIRPERSON OF THE BOARD.

The chairperson of the Board, if such an officer be elected, shall, if present, preside at meetings of the Board and exercise and perform such other powers and duties as may from time to time be assigned to him by the Board or as may be prescribed by these bylaws. If there is no chief executive officer or president, then the chairperson of the Board shall also be the chief executive officer of the Corporation and shall have the powers and duties prescribed in Section 5.7 of these bylaws.

5.7 CHIEF EXECUTIVE OFFICER.

Subject to such supervisory powers, if any, as the Board may give to the chairperson of the Board, the chief executive officer, if any, shall, subject to the control of the Board, have general supervision, direction, and control of the business and affairs of the Corporation and shall report directly to the Board. All other officers, officials, employees and agents shall report directly or indirectly to the chief executive officer. The chief executive officer shall see that all orders and resolutions of the Board are carried into effect. The chief executive officer shall serve as chairperson of and preside at all meetings of the stockholders. In the absence of a chairperson of the Board, the chief executive officer shall preside at all meetings of the Board.

5.8 PRESIDENT.

In the absence or disability of the chief executive officer, the president shall perform all the duties of the chief executive officer. When acting as the chief executive officer, the president shall have all the powers of, and be subject to all the restrictions upon, the chief executive officer. The president shall have such other powers and perform such other duties as from time to time may be prescribed for him by the Board, these bylaws, the chief executive officer or the chairperson of the Board.

5.9 VICE PRESIDENTS.

In the absence or disability of the president, the vice presidents, if any, in order of their rank as fixed by the Board or, if not ranked, a vice president designated by the Board, shall perform all the duties of the president. When acting as the president, the appropriate vice president shall have all the powers of, and be subject to all the restrictions upon, the president. The vice presidents shall have such other powers and perform such other duties as from time to time may be prescribed for them respectively by the Board, these bylaws, the chairperson of the Board, the chief executive officer or, in the absence of a chief executive officer, the president.

5.10 SECRETARY.

The secretary shall keep or cause to be kept, at the principal executive office of the Corporation or such other place as the Board may direct, a book of minutes of all meetings and actions of directors, committees of directors, and stockholders. The minutes shall show

(i) the time and place of each meeting;

(ii) whether regular or special (and, if special, how authorized and the notice given);

(iii) the names of those present at directors' meetings or committee meetings;

(iv) the number of shares present or represented at stockholders' meetings;

(v) and the proceedings thereof.

The secretary shall keep, or cause to be kept, at the principal executive office of the Corporation or at the office of the Corporation's transfer agent or registrar, as determined by resolution of the Board, a share register, or a duplicate share register showing;

(i) the names of all stockholders and their addresses;

(ii) the number and classes of shares held by each;

(iii) the number and date of certificates evidencing such shares; and

(iv) the number and date of cancellation of every certificate surrendered for cancellation.

The secretary shall give, or cause to be given, notice of all meetings of the stockholders and of the Board required to be given by law or by these bylaws. The secretary shall keep the seal of the Corporation, if one be adopted, in safe custody and shall have such other powers and perform such other duties as may be prescribed by the Board or by these bylaws.

5.11 CHIEF FINANCIAL OFFICER.

The chief financial officer shall keep and maintain, or cause to be kept and maintained, adequate and correct books and records of accounts of the properties and business transactions of the Corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital retained earnings, and shares. The books of account shall at all reasonable times be open to inspection by any director.

The chief financial officer shall deposit all moneys and other valuables in the name and to the credit of the Corporation with such depositories as the Board may designate. The chief financial officer shall disburse the funds of the Corporation as may be ordered by the Board, shall render to the chief executive officer or, in the absence of a chief executive officer, the president and directors, whenever they request it, an account of all his or her transactions as chief financial officer and of the financial condition of the Corporation, and shall have other powers and perform such other duties as may be prescribed by the Board or these bylaws.

The chief financial officer shall be the treasurer of the Corporation.

5.12 ASSISTANT SECRETARY.

The assistant secretary, or, if there is more than one, the assistant secretaries in the order determined by the stockholders or Board (or if there be no such determination, then in the order of their election) shall, in the absence of the secretary or in the event of the secretary's inability or refusal to act, perform the duties and exercise the powers of the secretary and shall perform such other duties and have such other powers as may be prescribed by the Board or these bylaws.

5.13 ASSISTANT TREASURER.

The assistant treasurer, or, if there is more than one, the assistant treasurers, in the order determined by the stockholders or Board (or if there be no such determination, then in the order of their election), shall, in the absence of the chief financial officer or in the event of the chief financial officer's inability or refusal to act, perform the duties and exercise the powers of the chief financial officer and shall perform such other duties and have such other powers as may be prescribed by the Board or these bylaws.

5.14 REPRESENTATION OF SHARES OF OTHER CORPORATIONS.

The chairperson of the Board, the president, any vice president, the treasurer, the secretary or assistant secretary of this Corporation, or any other person authorized by the Board or the president or a vice president, is authorized to vote, represent, and exercise on behalf of this Corporation all rights incident to any and all shares of any other corporation or corporations standing in the name of this Corporation. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

5.15 AUTHORITY AND DUTIES OF OFFICERS.

In addition to the foregoing authority and duties, all officers of the Corporation shall respectively have such authority and perform such duties in the management of the business of the Corporation as may be designated from time to time by the Board or the stockholders.

ARTICLE VI

RECORDS AND REPORTS

6.1 MAINTENANCE AND INSPECTION OF RECORDS.

The Corporation shall, either at its principal executive office or at such place or places as designated by the Board, keep a record of its stockholders listing their names and addresses and the number and class of shares held by each stockholder, a copy of these bylaws as amended to date, accounting books, and other records.

Any stockholder of record, in person or by attorney or other agent, shall, upon written demand under oath stating the purpose thereof, have the right during the usual hours for business to inspect for any proper purpose the Corporation's stock ledger, a list of its stockholders, and its other books and records and to make copies or extracts therefrom. A proper purpose shall mean a purpose reasonably related to such person's interest as a stockholder. In every instance where an attorney or other agent is the person who seeks the right to inspection, the demand under oath shall be accompanied by a power of attorney or such other writing that authorizes the attorney or other agent so to act on behalf of the stockholder. The demand under oath shall be directed to the Corporation at its registered office in Delaware or at its principal executive office.

6.2 INSPECTION BY DIRECTORS.

Any director shall have the right to examine the Corporation's stock ledger, a list of its stockholders, and its other books and records for a purpose reasonably related to his or her position as a director. The Court of Chancery is hereby vested with the exclusive jurisdiction to determine whether a director is entitled to the inspection sought. The Court may summarily order the Corporation to permit the director to inspect any and all books and records, the stock ledger, and the stock list and to make copies or extracts therefrom. The Court may, in its discretion, prescribe any limitations or conditions with reference to the inspection, or award such other and further relief as the Court may deem just and proper.

ARTICLE VII

GENERAL MATTERS

7.1 CHECKS.

From time to time, the Board shall determine by resolution which person or persons may sign or endorse all checks, drafts, other orders for payment of money, notes or other evidences of indebtedness that are issued in the name of or payable to the Corporation, and only the persons so authorized shall sign or endorse those instruments.

7.2 EXECUTION OF CORPORATE CONTRACTS AND INSTRUMENTS.

The Board, except as otherwise provided in these bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the Corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the Board or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

7.3 STOCK CERTIFICATES; PARTLY PAID SHARES.

The shares of the Corporation shall be represented by certificates, provided that the Board may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation. Notwithstanding the

adoption of such a resolution by the Board, every holder of stock represented by certificates and upon request every holder of uncertificated shares shall be entitled to have a certificate signed by, or in the name of the Corporation by the chairperson or vice-chairperson of the Board, or the president or vice-president, and by the treasurer or an assistant treasurer, or the secretary or an assistant secretary of such Corporation representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he were such officer, transfer agent or registrar at the date of issue.

The Corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, upon the books and records of the Corporation in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the Corporation shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

7.4 SPECIAL DESIGNATION ON CERTIFICATES.

If the Corporation is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the Corporation shall issue to represent such class or series of stock; provided, however, that, except as otherwise provided in Section 202 of the DGCL, in lieu of the foregoing requirements there may be set forth on the face or back of the certificate that the Corporation shall issue to represent such class or series of stock a statement that the Corporation will furnish without charge to each stockholder who so requests the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

7.5 LOST CERTIFICATES.

Except as provided in this Section 7.5, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the Corporation and cancelled at the same time. The Corporation may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the Corporation may require the owner of the lost, stolen or destroyed certificate, or such owner’s legal representative, to give the Corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

7.6 CONSTRUCTION; DEFINITIONS.

Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the DGCL shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term "person" includes both a Corporation and a natural person.

7.7 DIVIDENDS.

The Board, subject to any restrictions contained in either (i) the DGCL, or (ii) the certificate of incorporation, may declare and pay dividends upon the shares of its capital stock. Dividends may be paid in cash, in property, or in shares of the Corporation's capital stock.

The Board may set apart out of any of the funds of the Corporation available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve. Such purposes shall include but not be limited to equalizing dividends, repairing or maintaining any property of the Corporation, and meeting contingencies.

7.8 FISCAL YEAR.

The fiscal year of the Corporation shall be fixed by resolution of the Board and may be changed by the Board.

7.9 SEAL.

The Corporation may adopt a corporate seal, which shall be adopted and which may be altered by the Board. The Corporation may use the corporate seal by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

7.10 TRANSFER OF STOCK.

Upon surrender to the Corporation or the transfer agent of the Corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, it shall be the duty of the Corporation to issue a new certificate to the person entitled thereto, cancel the old certificate, and record the transaction in its books.

7.11 STOCK TRANSFER AGREEMENTS.

The Corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the Corporation to restrict the transfer of shares of stock of the Corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

7.12 REGISTERED STOCKHOLDERS.

The Corporation:

(i) shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner;

(ii) shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares; and

(iii) shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

7.13 WAIVER OF NOTICE.

Whenever notice is required to be given under any provision of the DGCL, the certificate of incorporation or these bylaws, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time of the event for which notice is to be given, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the certificate of incorporation or these bylaws.

ARTICLE VIII

NOTICE BY ELECTRONIC TRANSMISSION

8.1 NOTICE BY ELECTRONIC TRANSMISSION.

Without limiting the manner by which notice otherwise may be given effectively to stockholders pursuant to the DGCL, the certificate of incorporation or these bylaws, any notice to stockholders given by the corporation under any provision of the DGCL, the certificate of incorporation or these bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice to the Corporation. Any such consent shall be deemed revoked if:

(i) the Corporation is unable to deliver by electronic transmission two consecutive notices given by the Corporation in accordance with such consent; and

(ii) such inability becomes known to the secretary or an assistant secretary of the Corporation or to the transfer agent, or other person responsible for the giving of notice.

However, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

Any notice given pursuant to the preceding paragraph shall be deemed given:

(i) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice;

(ii) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice;

(iii) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (A) such posting and (B) the giving of such separate notice; and

(iv) if by any other form of electronic transmission, when directed to the stockholder.

An affidavit of the secretary or an assistant secretary or of the transfer agent or other agent of the Corporation that the notice has been given by a form of electronic transmission shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

8.2 DEFINITION OF ELECTRONIC TRANSMISSION.

An “electronic transmission” means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved, and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process.

8.3 INAPPLICABILITY.

Notice by a form of electronic transmission shall not apply to Sections 164, 296, 311, 312 or 324 of the DGCL.

ARTICLE IX

AMENDMENTS

These bylaws may be adopted, amended or repealed by the stockholders entitled to vote. However, the Corporation may, in its certificate of incorporation, confer the power to adopt, amend or repeal bylaws upon the directors. The fact that such power has been so conferred upon the directors shall not divest the stockholders of the power, nor limit their power to adopt, amend or repeal bylaws.

ARTICLE X

INDEMNIFICATION

10.1 INDEMNIFICATION OF DIRECTORS AND OFFICERS.

The Corporation shall indemnify and hold harmless, to the fullest extent permitted by General Corporation Law of Delaware as it presently exists or may hereafter be amended, any director or officer of the Corporation who was or is made or is threatened to be made a party or is

otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "Proceeding") by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director, officer, employee or agent of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses reasonably incurred by such person in connection with any such action, suit, or proceeding. The Corporation shall be required to indemnify a person in connection with a proceeding initiated by such person only if the proceeding was authorized by the Board of Directors of the Corporation.

10.2 INDEMNIFICATION OF OTHERS.

The Corporation shall have the power to indemnify and hold harmless, to the extent permitted by applicable law as it presently exists or may hereafter be amended, any employee or agent of the Corporation who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was an employee or agent of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or non-profit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses reasonably incurred by such person in connection with any such action, suit, or proceeding.

10.3 PREPAYMENT OF EXPENSES.

The Corporation shall pay the expenses incurred by any officer or director of the Corporation, and may pay the expenses incurred by any employee or agent of the Corporation, in defending any proceeding in advance of its final disposition; provided, however, that the payment of expenses incurred by a person in advance of the final disposition of the proceeding shall be made only upon receipt of an undertaking by the person to repay all amounts advanced if it should be ultimately determined that the person is not entitled to be indemnified under this Article 9 or otherwise.

10.4 DETERMINATION; CLAIM.

If a claim for indemnification or payment of expenses under this Article 9 is not paid in full within sixty days after a written claim therefor has been received by the Corporation the claimant may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim. In any such action the Corporation shall have the burden of proving that the claimant was not entitled to the requested indemnification or payment of expenses under applicable law.

10.5 NON-EXCLUSIVITY OF RIGHTS.

The rights conferred on any person by this Article 9 shall not be exclusive of any other rights which such person may have or hereafter acquire under any statute, provision of the certificate of incorporation, these bylaws, agreement, vote of stockholders or disinterested directors or otherwise.

10.6 INSURANCE.

The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him or her and incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the Corporation would have the power to indemnify him or her against such liability under the provisions of the General Corporation Law of Delaware.

10.7 OTHER INDEMNIFICATION.

The Corporation's obligation, if any, to indemnify any person who was or is serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, enterprise or nonprofit entity shall be reduced by any amount such person may collect as indemnification from such other corporation, partnership, joint venture, trust, enterprise or non-profit enterprise.

10.8 AMENDMENT OR REPEAL.

Any repeal or modification of the foregoing provisions of this Article 9 shall not adversely affect any right or protection hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification.

CARA THERAPEUTICS, INC.

CERTIFICATE OF AMENDMENT OF BYLAWS

The undersigned hereby certifies that he is the duly elected, qualified and acting Secretary of Cara Therapeutics, Inc., a Delaware corporation (the "Corporation"), and that the foregoing bylaws were amended and restated as the Corporation's Amended and Restate Bylaws on November 17, 2006 by the person appointed in the Certificate of Incorporation to act as the sole incorporator of the Corporation and such action was ratified by the Corporation's board of directors on November 17, 2006.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand this 17th day of November, 2006.

Michael Lewis
Secretary

Exhibit 4.2

EXECUTION VERSION

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY STATE SECURITIES LAWS. THEY MAY NOT BE SOLD OR OFFERED FOR SALE IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AS TO THE SECURITIES UNDER SAID ACT AND ANY APPLICABLE STATE SECURITIES LAWS OR THE AVAILABILITY OF AN EXEMPTION FROM REGISTRATION UNDER SAID ACT AND ANY APPLICABLE STATE SECURITIES LAWS.

STOCK SUBSCRIPTION WARRANT

To Purchase 49,628 Shares of Common Stock of

CARA THERAPEUTICS, INC. (the "Company")

DATE OF INITIAL ISSUANCE: September 25, 2007

THIS CERTIFIES THAT for value received, **CONNECTICUT INNOVATIONS, INCORPORATED** or its registered assigns (the **"Holder")** is entitled to purchase from the Company, at any time during the Term of this Warrant, 49,628 shares of Common Stock of the Company (as defined and set forth below), at the Warrant Price (as defined below), payable in lawful money of the United States of America to be paid upon the exercise hereof. This Warrant may be exercised, in whole or in part, subject to the provisions, limitations and restrictions herein contained. The exercise of this Warrant shall be subject to the provisions, limitations and restrictions herein contained, and may be exercised in whole or in part.

SECTION 1. DEFINITIONS.

For all purposes of this Warrant, the following terms shall have the meanings indicated:

1.1 Common Stock means and include the Company's authorized Common Stock, $0,001 par value.

1.2 Current Market Price means, at any date and with respect to one share of Common Stock, the average of the daily closing prices for the 30 consecutive business days ending five business days before the day in question (as adjusted for any stock dividend, split, combination or reclassification that took effect during such 30 business day period). The closing price for each day shall be the last reported sales price or, in case no such reported sales took place on such day, the average of the last reported bid and asked prices, in either case on the principal national securities exchange on which the Common Stock is listed or admitted to trading or as reported by Nasdaq (or if the Common Stock is not at the time listed or admitted for trading on any such exchange or if the prices of the Common Stock are not reported by Nasdaq then such price shall be equal to the average of the last reported bid and asked prices on such day as reported by The National Quotation Bureau Incorporated or any similar reputable quotation and reporting service, if such quotation is

not reported by The National Quotation Bureau Incorporated); provided, however, that if the Common Stock is not traded in such manner that the quotations referred to herein are available for the period required hereunder, the Current Market Price shall be determined in good faith by the Board of Directors of the Company or, if such determination cannot be made, by a nationally recognized independent investment banking firm selected by the Board of Directors of the Company (or if such selection cannot be made, by a nationally recognized independent investment banking firm selected by the American Arbitration Association in accordance with its rules).

1.3 Securities Act means the Securities Act of 1933, as amended.

1.4 Term of this Warrant means the period beginning on the date hereof and ending on the earlier of: (i) the date on which all Warrant Shares have been issued, and (ii) the seventh (7^{th}) anniversary the date hereof.

1.5 Warrant Price means $4.03 per Warrant Share, subject to adjustment as provided in Section 5 below.

1.6 Warrant Shares means shares of Common Stock purchased or purchasable by the Holder of this Warrant upon the exercise hereof, subject to adjustment as provided in Section 4 below,

SECTION 2. EXERCISE OF WARRANT.

2.1. Procedure for Exercise of Warrant. To exercise this Warrant in whole or in part (but not as to any fractional share of Common Stock), the Holder shall deliver to the Company at its office referred to in Section 13 hereof at any time and from time to time during the Term of this Warrant: (i) the Notice of Exercise in the form attached hereto, (ii) cash, certified or official bank check payable to the order of the Company, wire transfer of funds to the Company's account, or evidence of any indebtedness of the Company to the Holder (or any combination of any of the foregoing) in the amount of the Warrant Price for each share being purchased, and (iii) this Warrant. Notwithstanding any provisions herein to the contrary, if the Current Market Price is greater than the Warrant Price (at the date of calculation, as set forth below), in lieu of exercising this Warrant as hereinabove permitted, the Holder may elect to receive shares of Common Stock equal to the value (as determined below) of this Warrant (or the portion thereof being canceled) by surrender of this Warrant at the office of the Company referred to in Section 13 hereof, together with the Notice of Exercise, in which event the Company shall issue to the Holder that number of shares of Common Stock computed using the following formula:

$$CS = \frac{WCS \times (CMP-WP)}{CMP}$$

where:

"CS" equals the number of shares of Common Stock to be issued to the Holder;

"WCS" equals the number of shares of Common Stock purchasable under the Warrant, or if only a portion of the Warrant is being exercised, the portion of the Warrant being exercised (at the date of such calculation);

"CMP" equals the Current Market Price (at the date of such calculation); and

"WP" equals the Warrant Price (as adjusted to the date of such calculation).

In the event of any exercise of the rights represented by this Warrant, a certificate or certificates for the shares of Common Stock so purchased, registered in the name of the Holder or such other name or names as may be designated by the Holder, shall be delivered to the Holder hereof within a reasonable time, not exceeding fifteen business days, after the rights represented by this Warrant shall have been so exercised; and, unless this Warrant has expired, a new Warrant representing the number of shares (except a remaining fractional share), if any, with respect to which this Warrant shall not then have been exercised shall also be issued to the Holder hereof within such time. The person in whose name any certificate for shares of Common Stock is issued upon exercise of this Warrant shall for all purposes be deemed to have become the holder of record of such shares on the date on which the Warrant was surrendered and payment of the Warrant Price and any applicable taxes was made, irrespective of the date of delivery of such certificate, except that, if the date of such surrender and payment is a date when the stock transfer books of the Company are closed, such person shall be deemed to have become the holder of such shares at the close of business on the next succeeding date on which the stock transfer books are open.

2.2. Transfer Restriction Legend. Each certificate for Warrant Shares shall bear the following legend (and any additional legend required by (i) any applicable state securities laws and (ii) any securities exchange upon which such Warrant Shares may, at the time of such exercise, be listed) on the face thereof unless at the time of exercise such Warrant Shares shall be registered under the Securities Act:

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. THESE SECURITIES MAY NOT BE SOLD, OFFERED, PLEDGED, HYPOTHECATED OR TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT OR AN EXEMPTION THEREFROM UNDER SAID ACT.

Any certificate issued at any time in exchange or substitution for any certificate bearing such legend (except a new certificate issued upon completion of a public distribution under a registration statement of the securities represented thereby) shall also bear such legend unless, in the opinion of counsel for the holder thereof (which counsel shall be reasonably satisfactory to counsel for the Company) the securities represented thereby are not, at such time, required by law to bear such legend.

SECTION 3. COMPANY COVENANTS. The Company covenants and agrees that all shares of Common Stock that may be issued upon the exercise of the rights represented by this Warrant will, upon issuance, be validly issued, fully paid and nonassessable, and free from all taxes (other than income taxes that may be payable by the Holder), liens and charges with respect to the issue thereof. Without limiting the generality of the foregoing, the Company covenants that it will from time to time take all such action as may be required to assure that the stated or par value per share, if any, of the Common Stock is at all times equal to or less than the then Warrant Price. The Company further covenants and agrees that it will pay when due and payable any and all federal and state taxes which may be payable by the Company in respect of the issue of this Warrant or any Common Stock or certificates therefor issuable upon the exercise of this Warrant (other than income taxes that may be payable by the Holder). The Company further covenants and agrees that the Company will at all times have authorized and reserved a sufficient number of shares of Common Stock to provide for the exercise of the rights represented by this Warrant.

SECTION 4. ADJUSTMENT OF NUMBER OF SHARES. Upon each adjustment of the Warrant Price as provided in Section 5, the Holder shall thereafter be entitled to purchase, at the Warrant Price resulting from such adjustment, the number of shares (calculated to the nearest tenth of a share) obtained by multiplying the Warrant Price in effect immediately prior to such adjustment by the number of shares purchasable pursuant hereto immediately prior to such adjustment and dividing the product thereof by the Warrant Price resulting from such adjustment.

SECTION 5. ADJUSTMENT OF WARRANT PRICE. The Warrant Price shall be subject to adjustment from time to time as follows:

5.1 Stock Dividends, Subdivisions, Split-Ups. If, at any time during the Term of this Warrant, the number of shares of Common Stock outstanding is increased by a stock dividend payable in shares of Common Stock or by a subdivision or split-up of shares of Common Stock, then, following the record date fixed for the determination of holders of Common Stock entitled to receive such stock dividend, subdivision or split-up, the Warrant Price shall be appropriately decreased so that the number of shares of Common Stock issuable upon the exercise hereof shall be increased in proportion to such increase in outstanding shares.

5.2 Stock Combinations. If, at any time during the Term of this Warrant, the number of shares of Common Stock outstanding is decreased by a combination of the outstanding shares of Common Stock, then, following the record date for such combination, the Warrant Price shall be appropriately increased so that the number of shares of Common Stock issuable upon the exercise hereof shall be decreased in proportion to such decrease in outstanding shares.

5.3 General.

(a) All calculations of Warrant Price under this Section 5 shall be made to the nearest cent or to the nearest one-tenth (1/10) of a share, as the case may be.

(b) Adjustments made pursuant to Sections 5.1 or 5.2 above shall be made on the date such dividend, subdivision, split-up or combination, as the case may be, is made, and shall become effective at the opening of business on the business day next following the record date for the determination of stockholders entitled to such dividend, subdivision, split-up or combination.

(c) In the event the Company shall propose to take any action of the types described in Sections 5.1 or 5.2 of this Section 5, the Company shall forward, at the same time and in the same manner, to the Holder of this Warrant such notice, if any, which the Company shall give to the holders of capital stock of the Company.

(d) In any case in which the provisions of this Section 5 require that an adjustment become effective immediately after a record date for an event, the Company may defer until the occurrence of such event issuing to the Holder of all or any part of this Warrant which is exercised after such record date and before the occurrence of such event the additional shares of capital stock issuable upon such exercise by reason of the adjustment required by such event over and above the shares of capital stock issuable upon such exercise before giving effect to such adjustment exercise; provided, however, that the Company shall deliver to such Holder a due bill or other appropriate instrument evidencing such Holder's right to receive such additional shares upon the occurrence of the event requiring such adjustment.

(e) Whenever the Warrant Price shall be adjusted as provided in this Section 5, the Company shall prepare a statement showing the facts requiring such adjustment and the Warrant Price that shall be in effect after such adjustment. The Company shall mail a copy of such statement first class postage prepaid, to each Holder of this Warrant at its, his or her address appearing on the Company's records. Where appropriate, such copy may be given in advance and may be included as part of the notice required to be mailed under the provisions of Section 5.3(d).

SECTION 6. OWNERSHIP.

6.1. Ownership of This Warrant. The Company may deem and treat the person in whose name this Warrant is registered as the holder and owner hereof (notwithstanding any notations of ownership or writing hereon made by anyone other than the Company) for all purposes and shall not be affected by any notice to the contrary until presentation of this Warrant for registration of transfer as provided in this Section 6.

6.2. Transfer and Replacement. Subject to compliance with applicable federal and state securities laws, this Warrant and all rights hereunder are transferable in whole or in part upon the books of the Company by the Holder hereof (in its sole discretion) in person or by its duly authorized attorney without the prior written consent of the Company; and, upon any such transfer, a new Warrant or Warrants, of the same tenor as this Warrant but registered in the name of the transferee or transferees (and in the name of the Holder, if a partial transfer is effected), shall be made and delivered by the Company upon surrender of this Warrant duly endorsed, at the office of the Company referred to in Section 13 hereof. Notwithstanding the foregoing, the Company may refuse to transfer this Warrant or issue Warrant Shares to any person (whether legal or natural) who is reasonably determined in good faith by the Company's Board of Directors to be an actual or potential competitor of the Company, or an affiliate thereof. Upon receipt by the Company of

evidence reasonably satisfactory to it of the loss, theft or destruction, and, in such case, of indemnity or security reasonably satisfactory to it, and upon surrender of this Warrant if mutilated, the Company will make and deliver a new Warrant of like tenor, in lieu of this Warrant; provided that if the Holder hereof is an instrumentality of a state or local government or an institutional holder or a nominee for such an instrumentality or institutional holder an irrevocable agreement of indemnity by such Holder shall be sufficient for all purposes of this Section 6, and no evidence of loss or theft or destruction shall be necessary. This Warrant shall be promptly cancelled by the Company upon the surrender hereof in connection with any transfer or replacement. Except as otherwise provided above, in the case of the loss, theft or destruction of a Warrant, the Company shall pay all expenses, taxes and other charges payable in connection with any transfer or replacement of this Warrant, other than stock transfer taxes (if any) payable in connection with a transfer of this Warrant, which shall be payable by the Holder. Holder will not transfer this Warrant and the rights hereunder except in compliance with federal and state securities laws.

SECTION 7. MERGERS, CONSOLIDATION, SALES. In the case of any proposed consolidation or merger of the Company with another entity, or the proposed sale of all or substantially all of its assets to another person or entity, or any proposed reorganization or reclassification of the capital stock of the Company, then, as a condition of such consolidation, merger, sale, reorganization or reclassification, lawful and adequate provision shall be made whereby the Holder of this Warrant shall thereafter have the right to receive upon the basis and upon the terms and conditions specified herein, in lieu of the shares of the Common Stock of the Company immediately theretofore purchasable hereunder, such shares of stock, securities or assets as may (by virtue of such consolidation, merger, sale, reorganization or reclassification) be issued or payable with respect to or in exchange for the number of shares of such Common Stock purchasable hereunder immediately before such consolidation, merger, sale, reorganization or reclassification. In any such case appropriate provision shall be made with respect to the rights and interests of the Holder of this Warrant to the end that the provisions hereof shall thereafter be applicable as nearly as may be, in relation to any shares of stock, securities or assets thereafter deliverable upon the exercise of this Warrant. In the case of any proposed consolidation or merger of the Company with another entity, or the proposed sale of all or substantially all of its assets to another person or entity, or any proposed reorganization or reclassification of the capital stock of the Company in which the holders of the Company's Common Stock are to receive assets in exchange for shares of such Common Stock, then, as a condition of such consolidation, merger, sale, reorganization or reclassification, lawful and adequate provision shall be made whereby the Holder of this Warrant shall have the opportunity to exercise this Warrant at the time of such consolidation, merger, sale, reorganization or reclassification and receive upon the basis and upon the terms and conditions specified herein, in lieu of the Warrant Shares of the Company immediately theretofore purchasable hereunder, such assets as may (by virtue of such consolidation, merger, sale, reorganization or reclassification) be issued or payable with respect to or in exchange for the number of Warrant Shares purchasable hereunder immediately before such consolidation, merger, sale, reorganization or reclassification.

SECTION 8. NOTICE OF DISSOLUTION OR LIQUIDATION. In case of any distribution of the assets of the Company in dissolution or liquidation (except under circumstances when the foregoing Section 7 shall be applicable), the Company shall give notice thereof to the Holder hereof and shall make no distribution to shareholders until the expiration of thirty (30) days from the date of mailing of the aforesaid notice and, in any case, the Holder hereof may exercise this Warrant within thirty (30) days from the date of the giving of such notice, and all rights herein granted not so exercised within such 30-day period shall thereafter become null and void.

SECTION 9. NOTICE OF EXTRAORDINARY DIVIDENDS. If the Board of Directors of the Company shall declare any extraordinary dividend (which, without limiting the foregoing, shall not include any dividend payable on any preferred stock of the Company in accordance with its terms) or other distribution on its Common Stock or any other capital stock of the Company, except by way of a stock dividend payable in shares of its Common Stock or other class of capital stock of the Company, the Company shall mail notice thereof to the Holder hereof not less than thirty (30) days prior to the record date fixed for determining shareholders entitled to participate in such dividend or other distribution, and the Holder hereof shall not participate in such dividend or other distribution unless this Warrant is exercised prior to such record date.

SECTION 10. FRACTIONAL SHARES. Fractional shares shall not be issued upon the exercise of this Warrant but in any case where the Holder would, except for the provisions of this Section 10, be entitled under the terms hereof to receive a fractional share upon the complete exercise of this Warrant, the Company shall, upon the exercise of this Warrant for the largest number of whole shares then called for, pay a sum in cash equal to the excess of the value of such fractional share (determined in such reasonable manner as may be prescribed in good faith by the Board of Directors of the Company) over the Warrant Price for such fractional share.

SECTION 11. SPECIAL ARRANGEMENTS OF THE COMPANY. The Company covenants and agrees that during the Term of this Warrant, unless otherwise approved by the Holder of this Warrant:

11.1. Will Reserve Shares. The Company will reserve and set apart and have available for issuance at all times the number of shares of authorized but unissued Common Stock deliverable upon the exercise of this Warrant.

11.2. Will Not Amend Certificate. The Company will not amend its Certificate of Incorporation to eliminate as an authorized class of capital stock that class denominated as “Common Stock” on the date hereof.

11.3. Will Bind Successors. This Warrant shall be binding upon any corporation or other person or entity succeeding to the Company by merger, consolidation or acquisition of all or substantially all of the Company’s assets.

SECTION 12. CONNECTICUT PRESENCE; PUT AGREEMENT. The Company agrees that this Warrant and the Warrant Shares are subject to that certain Put Agreement between the Company and the Holder dated as of the date hereof.

SECTION 13. NOTICES. Any notice or other document required or permitted to be given or delivered to the Holder shall be delivered at, or sent by certified or registered mail to, the Holder at 200 Corporate Place, 3rd Floor, Rocky Hill, CT 06067, Attn: President or to such other address as shall have been furnished to the Company in writing by the Holder. Any notice or other document required or permitted to be given or delivered to the Company shall be delivered at, or sent by certified or registered mail to, the Company at One Parrott Drive, Shelton, CT 06484-4733, Attn: President or to such other address as shall have been furnished in writing to the Holder by the Company. Any notice so addressed and mailed by registered or certified mail shall be deemed to be given when so mailed. Any notice so addressed and otherwise delivered shall be deemed to be given when actually received by the addressee.

SECTION 14. NO RIGHTS AS STOCKHOLDER; LIMITATION OF LIABILITY. This Warrant shall not entitle the Holder to any of the rights of a stockholder of the Company. No provision hereof, in the absence of affirmative action by the Holder to purchase shares of Common Stock, and no mere enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the Warrant Price hereunder or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

SECTION 15. REPRESENTATIONS AND WARRANTIES. The Company hereby represents and warrants to the Holder hereof as follows:

(a) The Company is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware, has the corporate power and authority to conduct its business as presently conducted, has the corporate power and authority to execute, issue and deliver this Warrant and to perform its obligations under this Warrant, has the corporate power and authority and legal right to own and lease its properties and is duly qualified and in good standing as a foreign corporation in each jurisdiction in which it owns or leases real property or in which the conduct of its business requires such qualification, except where failure to be so qualified could not be reasonably expected to have a material adverse effect on the Company and its subsidiaries taken as a whole.

(b) The execution, delivery, issuance and performance by the Company of this Warrant and the issuance of the Warrant Shares upon exercise of this Warrant have been duly authorized by all necessary corporate action and do not and will not violate, or result in a breach of, or constitute a default under, or require any consent under, or result in the creation of any lien, charge or encumbrance upon the assets of the Company pursuant to, any law, statute, ordinance, rule, regulation, order or decree of any court, governmental body or regulatory authority or administrative agency having jurisdiction over the Company or its subsidiaries or any material contract, mortgage, loan agreement, note, lease or other instrument binding upon the Company or its subsidiaries or by which their properties are bound.

(c) This Warrant has been duly executed, issued and delivered by the Company and constitutes a legal, valid, binding and enforceable obligation of the Company. The Warrant Shares, when issued upon exercise of this Warrant in accordance with the terms hereof, will be duly authorized, validly issued, fully paid and nonassessable shares of Common Stock, with no personal liability attaching to the ownership thereof.

(d) The Company has authorized capital stock consisting of (x) 23,000,000 shares of Common Stock, $.001 par value, of which 7,955,000 shares are issued and outstanding, and (y) 12,111,935 shares of Preferred Stock, $.001 par value, of which 2,000,000 shares are designated as Series A Preferred Stock, all of which are issued and outstanding, and of which 2,370,000 shares are designated as Series B Preferred Stock, all of which are issued and outstanding, and of which 7,741,935 shares are designated as Series C Preferred Stock, all of which are issued and outstanding.

SECTION 16. LAW GOVERNING. This Warrant shall be governed by, and construed and enforced in accordance with, the laws of the State of New York.

SECTION 17. MISCELLANEOUS. This Warrant and any provision hereof may be changed, waived, discharged or terminated only by an instrument in writing signed by the party (or any predecessor in interest thereof) against which enforcement of the same is sought. The headings in this Warrant are for purposes of reference only and shall not affect the meaning or construction of any of the provisions hereof

[intentionally left blank - signature page follows]

[signature page to Warrant]

IN WITNESS WHEREOF, the Company has caused this Warrant to be signed by its duly authorized officer as of the date first written above.

CARA THERAPEUTICS, INC.

By: /s/ Josef C Schoell
Name: Josef C Schoell
Title: CFO

FORM OF NOTICE OF EXERCISE

[To be signed only upon exercise of the Warrant]

**TO BE EXECUTED BY THE REGISTERED HOLDER
TO EXERCISE THE WITHIN WARRANT**

The undersigned hereby exercises the right to purchase shares of Common Stock which the undersigned is entitled to purchase by the terms of the within Warrant according to the conditions thereof, and herewith makes payment of the Warrant Price of such shares in full. All shares to be issued pursuant hereto shall be issued in the name of, and the initial address of such person to be entered on the books of the Company shall be:

_____
_____
_____

The shares are to be issued in certificates of the following denominations:

_____

[Type Name of Holder]

By: _____
Title: _____

Dated: _____

FORM OF ASSIGNMENT
(ENTIRE)

[To be signed only upon transfer of entire Warrant]

TO BE EXECUTED BY THE REGISTERED HOLDER
TO TRANSFER THE WITHIN WARRANT

FOR VALUE RECEIVED hereby sells, assigns and transfers unto all rights of the undersigned under and pursuant to the within Warrant, and the undersigned does hereby irrevocably constitute and appoint Attorney to transfer the said Warrant on the books of the Company, with full power of substitution.

_____

[Type Name of Holder]

By: _____
Title: _____

Dated: _____

NOTICE

The signature to the foregoing Assignment must correspond to the name as written upon the face of the within Warrant in every particular, without alteration or enlargement or any change whatsoever.

CARA THERAPEUTICS, INC.

2004 STOCK INCENTIVE PLAN

Adopted by the Board on September 7, 2004

Approved by the Stockholders on September 7, 2004

TABLE OF CONTENTS

CARA THERAPEUTICS, INC.

2004 STOCK INCENTIVE PLAN

SECTION 1. PURPOSE.

The Plan was adopted by the Board of Directors effective September 7, 2004. The purpose of the Plan is to offer selected service providers the opportunity to acquire equity in the Company through awards of Options (which may constitute incentive stock options or nonstatutory stock options) and the award or sale of Shares.

The award of Options and the award or sale of Shares under the Plan is intended to be exempt from the securities qualification requirements of the California Corporations Code by satisfying the exemption under section 25102(o) of the California Corporations Code. However, awards of Options and the award or sale of Shares may be made in reliance upon other state securities law exemptions. To the extent that such other exemptions are relied upon, the terms of this Plan which are included only to comply with section 25102(o) shall be disregarded to the extent provided in the Stock Option Agreement or Restricted Share Agreement.

SECTION 2. DEFINITIONS.

2.1 *"Board"* shall mean the Board of Directors of the Company, as constituted from time to time.

2.2 *"Change in Control"* shall mean the occurrence of any of the following events:

(a) The consummation of a merger or consolidation of the Company with or into another entity or any other corporate reorganization, if persons who were not stockholders of the Company immediately prior to such merger, consolidation or other reorganization own immediately after such merger, consolidation or other reorganization fifty percent (50%) or more of the voting power of the outstanding securities of each of (A) the continuing or surviving entity and (B) any direct or indirect parent corporation of such continuing or surviving entity;

(b) The consummation of the sale, transfer or other disposition of all or substantially all of the Company's assets or the stockholders of the Company approve a plan of complete liquidation of the Company; or

(c) Any "person" (as defined below) who, by the acquisition or aggregation of securities, is or becomes the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the combined voting power of the Company's then outstanding securities ordinarily (and apart from rights accruing under special circumstances) having the right to vote at elections of directors (the "Base Capital Stock"); except that any change in the relative beneficial ownership of the Company's securities by any person resulting solely from a reduction in the aggregate number of outstanding shares of Base Capital Stock, and any decrease thereafter in such person's ownership of securities, shall be disregarded until such person increases in any manner, directly or indirectly, such person's beneficial ownership of any securities of the Company.

For purposes of Section 2.2(c), the term "person" shall have the same meaning as when used in sections 13(d) and 14(d) of the Exchange Act but shall exclude (1) a trustee or other fiduciary holding securities under an employee benefit plan maintained by the Company or a Parent or Subsidiary and (2) a corporation owned directly or indirectly by the stockholders of the Company in substantially the same proportions as their ownership of the Stock.

Notwithstanding the foregoing, the term "Change in Control" shall not include a transaction the sole purpose of which is (a) to change the state of the Company's incorporation, (b) to form a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; or (c) to make an initial public offering of the Company's Stock.

2.3 "*Code*" shall mean the Internal Revenue Code of 1986, as amended.

2.4 "*Committee*" shall mean the committee designated by the Board, which is authorized to administer the Plan, as described in Section 3 hereof.

2.5 "*Company*" shall mean Cara Therapeutics, Inc., a Delaware corporation.

2.6 "*Consultant*" shall mean a consultant or advisor who is not an Employee or Outside Director and who performs bona fide services for the Company, a Parent or Subsidiary.

2.7 "*Disability*" shall mean a condition that renders an individual unable to engage in substantial gainful activity by reason of any medically determinable physical or mental impairment.

2.8 "*Employee*" shall mean any individual who is a common-law employee of the Company, a Parent or a Subsidiary and who is an "employee" within the meaning of section 3401(c) of the Code and regulations issued thereunder.

2.9 "*Exchange Act*" shall mean the U.S. Securities and Exchange Act of 1934, as amended.

2.10 "*Exercise Price*" shall mean the amount for which one Share may be purchased upon the exercise of an Option, as specified in a Stock Option Agreement.

2.11 "*Fair Market Value*" means, with respect to a Share, the market price of one Share of Stock, determined by the Board in good faith. Such determination shall be conclusive and binding on all persons.

2.12 "*ISO*" shall mean an incentive stock option described in section 422(b) of the Code.

2.13 "*NSO*" shall mean a stock option that is not an ISO.

2.14 "*Option*" shall mean an ISO or NSO granted under the Plan and entitling the holder to purchase Shares.

2.15 "*Optionee*" shall mean an individual or estate that holds an Option.

2.16 *"Outside Director"* shall mean a member of the Board of the Company, a Parent or a Subsidiary who is not an Employee.

2.17 *"Parent"* shall mean any corporation (other than the Company) in an unbroken chain of corporations ending with the Company, if each of the corporations other than the Company owns stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain. A corporation that attains the status of a Parent on a date after the adoption of the Plan shall be considered a Parent commencing as of such date.

2.18 *"Plan"* shall mean the Cara Therapeutics, Inc. 2004 Stock Incentive Plan.

2.19 *"Purchase Price"* shall mean the consideration for which one Share may be acquired under the Plan (other than upon exercise of an Option).

2.20 *"Purchaser"* shall mean a person to whom the Board has offered the right to acquire Shares under the Plan (other than upon exercise of an Option).

2.21 *"Restricted Share Agreement"* shall mean the agreement between the Company and a Purchaser who acquires Shares under the Plan that contains the terms, conditions and restrictions pertaining to the acquisition of such Shares.

2.22 *"Securities Act"* shall mean the U.S. Securities Act of 1933, as amended.

2.23 *"Service"* shall mean service as an Employee, a Consultant or an Outside Director. Service shall be deemed to continue during a bona fide leave of absence approved by the Company in writing if and to the extent that continued crediting of Service for purposes of the Plan is expressly required by the terms of such leave or by applicable law, as determined by the Company. However, for purposes of determining whether an Option is entitled to ISO status, and to the extent required under the Code, an Employee's Service will be treated as terminating ninety (90) days after such Employee went on leave, unless such Employee's right to return to active work is guaranteed by law or by a contract or such Employee immediately returns to active work.

2.24 *"Share"* shall mean one share of Stock, as adjusted in accordance with Section 9 (if applicable).

2.25 *"Stock"* shall mean the common stock of the Company.

2.26 *"Stock Option Agreement"* shall mean the agreement between the Company and an Optionee which contains the terms, conditions and restrictions pertaining to the Optionee's Option.

2.27 *"Subsidiary"* means any corporation (other than the Company) in an unbroken chain of corporations beginning with the Company, if each of the corporations other than the last corporation in the unbroken chain owns stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain. A corporation that attains the status of a Subsidiary on a date after the adoption of the Plan shall be considered a Subsidiary commencing as of such date.

2.28 *"Ten-Percent Stockholder"* means an individual who owns more than ten percent (10%) of the total combined voting power of all classes of outstanding stock of the Company, its Parent or any of its Subsidiaries. In determining stock ownership for purposes of this Section 2.28, the attribution rules of section 424(d) of the Code shall be applied.

SECTION 3. ADMINISTRATION.

3.1 *General Rule.* The Plan shall be administered by the Board. However, the Board may delegate any or all administrative functions under the Plan otherwise exercisable by the Board to one or more Committees. Each Committee shall consist of two (2) or more members of the Board who have been appointed by the Board. Each Committee shall have the authority and be responsible for such functions as the Board has assigned to it. If a Committee has been appointed, any reference to the Board in the Plan shall be construed as a reference to the Committee to whom the Board has assigned a particular function.

3.2 *Board Authority and Responsibility.* Subject to the provisions of the Plan, the Board shall have full authority and discretion to take any actions it deems necessary or advisable for the administration of the Plan. All decisions, interpretations and any other actions of the Board with respect to the Plan shall be final and binding on all persons deriving rights under the Plan.

SECTION 4. ELIGIBILITY.

4.1 *General Rule.* Only Employees shall be eligible for the grant of ISOs. Only Employees, Consultants and Outside Directors shall be eligible for the grant of NSOs or the award or sale of Shares.

SECTION 5. STOCK SUBJECT TO PLAN.

5.1 *Share Limit.* Subject to Sections 5.2 and 9, the aggregate number of Shares which may be issued under the Plan shall not exceed one million (1,000,000) Shares. The number of Shares which are subject to Options or other rights outstanding at any time shall not exceed the number of Shares which then remain available for issuance under the Plan. The Company, during the term of the Plan, shall at all times reserve and keep available sufficient Shares to satisfy the requirements of the Plan. Shares offered under the Plan may be authorized but unissued Shares or treasury Shares.

5.2 *Additional Shares.* In the event that any outstanding Option or other right expires or is canceled for any reason, the Shares allocable to the unexercised portion of such Option or other right shall remain available for issuance pursuant to the Plan. If a Share previously issued under the Plan is reacquired by the Company pursuant to a forfeiture provision, right of repurchase or right of first refusal, then such Share shall again become available for issuance under the Plan.

SECTION 6. RESTRICTED SHARES.

6.1 *Restricted Share Agreement.* Each award or sale of Shares under the Plan (other than upon exercise of an Option) shall be evidenced by a Restricted Share Agreement between the Purchaser and the Company. Such award or sale shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions imposed by the Board, as set forth in the Restricted Share Agreement, that are not inconsistent with the Plan. The provisions of the various Restricted Share Agreements entered into under the Plan need not be identical.

6.2 *Duration of Offers and Nontransferability of Purchase Rights.* Any right to acquire Shares (other than an Option) shall automatically expire if not exercised by the Purchaser within thirty (30) days after the Company communicates the grant of such right to the Purchaser. Such right shall be nontransferable and shall be exercisable only by the Purchaser to whom the right was granted.

6.3 *Purchase Price.* The Purchase Price of Shares offered under the Plan shall be determined by the Board in its sole discretion. The Purchase Price shall be payable in a form described in Section 8.

6.4 *Vesting, Repurchase Rights and Transfer Restrictions.* Each award or sale of Shares shall be subject to such vesting, forfeiture conditions, rights of repurchase, rights of first refusal and other transfer restrictions as the Board may determine, subject to the requirements of Section 10. Such restrictions shall be set forth in the applicable Restricted Share Agreement and shall apply in addition to any restrictions otherwise applicable to holders of Shares generally. A Restricted Share Agreement may provide for accelerated vesting in the event of the Purchaser's death, Disability or retirement or other events. The Board may determine, at the time of the award or sale of Shares or thereafter, that all or part of such Shares shall become vested in the event that a Change in Control occurs with respect to the Company.

SECTION 7. STOCK OPTIONS.

7.1 *Stock Option Agreement.* Each grant of an Option under the Plan shall be evidenced by a Stock Option Agreement between the Optionee and the Company. The Option shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions imposed by the Board, as set forth in the Stock Option Agreement, which are not inconsistent with the Plan. The provisions of the various Stock Option Agreements entered into under the Plan need not be identical.

7.2 *Number of Shares; Kind of Option.* Each Stock Option Agreement shall specify the number of Shares that are subject to the Option and shall provide for the adjustment of such number in accordance with Section 9. The Stock Option Agreement shall also specify whether the Option is intended to be an ISO or an NSO.

7.3 *Exercise Price.* Each Stock Option Agreement shall set forth the Exercise Price, which shall be payable in a form described in Section 8. The Exercise Price per Share of an ISO shall not be less than one hundred percent (100%) of the Fair Market Value of a Share on the date of grant; *provided, however*, that the Exercise Price per Share of an ISO granted to a Ten-Percent Stockholder shall not be less than one hundred ten percent (110%) of the Fair Market Value of a Share on the date of grant. Subject to the foregoing requirements, the Exercise Price under any Option shall be determined by the Board in its sole discretion.

7.4 *Term.* Each Stock Option Agreement shall specify the term of the Option. The term of an Option shall in no event exceed ten (10) years from the date of grant. The term of an ISO granted to a Ten-Percent Stockholder shall not exceed five (5) years from the date of grant. Subject to the foregoing, the Board in its sole discretion shall determine when an Option shall expire.

7.5 *Exercisability.* Each Stock Option Agreement shall specify the date when all or any installment of the Option is to become exercisable; *provided, however*, that no Option shall be exercisable unless the Optionee has delivered to the Company an executed copy of the Stock Option Agreement. The Board in its sole discretion shall determine when all or any installment of an Option is to become exercisable and may, in its discretion, provide for accelerated exercisability in the event of a Change in Control or other events. A Stock Option Agreement may permit the Optionee to exercise the Option as to Shares that are subject to a right of repurchase by the Company in accordance with the requirements of Section 10.1.

7.6 *Vesting.* Each Stock Option Agreement shall specify the date or dates when the Option or the Shares subject to the Option shall be vested. The Board in its sole discretion shall determine when all or any portion of the Option or the Shares subject to an Option shall be vested and may, in its discretion, provide for accelerated vesting in the event of the Optionee's death, Disability or retirement or other events and may provide for the cessation of vesting prior to the end of its term in the event of the termination of the Optionee's Service.

7.7 *Repurchase Rights and Transfer Restrictions.* Shares purchased on exercise of Options shall be subject to such forfeiture conditions, rights of repurchase, rights of first refusal and other transfer restrictions as the Board may determine, subject to the requirements of Section 10. Such restrictions shall be set forth in the applicable Stock Option Agreement and shall apply in addition to any restrictions otherwise applicable to holders of Shares generally.

7.8 *Transferability of Options.* During an Optionee's lifetime, his or her Options shall be exercisable only by the Optionee, and shall not be transferable other than by will or the laws of descent and distribution. Notwithstanding the foregoing, however, to the extent that a Stock Option Agreement so provides, an NSO may be transferred by the Optionee to one or more family members or a trust established for the benefit of the Optionee and/or one or more family members to the extent permitted by Rule 701 of the Securities Act.

7.9 *Exercise of Options on Termination of Service.* Each Option shall set forth the extent to which the Optionee shall have the right to exercise the Option following termination of the Optionee's Service. Such provisions shall be determined in the sole discretion of the Board, need not be uniform among all Options issued pursuant to the Plan, and may reflect distinctions based on the reasons for termination of Service.

7.10 *No Rights as a Stockholder.* An Optionee, or a transferee of an Optionee, shall have no rights as a stockholder with respect to any Shares covered by the Option until such person becomes entitled to receive such Shares by filing a notice of exercise and paying the Exercise Price pursuant to the terms of the Option. No adjustments shall be made, except as provided in Section 9.

7.11 *Modification, Extension and Renewal of Options.* Within the limitations of the Plan, the Board may modify, extend or renew outstanding Options or may accept the cancellation of outstanding Options (to the extent not previously exercised), whether or not granted hereunder, in return for the grant of new Options for the same or a different number of Shares and at the same or a different Exercise Price. The foregoing notwithstanding, no modification of an Option shall, without the consent of the Optionee, impair his or her rights or increase the Optionee's obligations under such Option.

SECTION 8. PAYMENT FOR SHARES.

8.1 *General.* The entire Purchase Price or Exercise Price of Shares issued under the Plan shall be payable in cash, cash equivalents or one of the other forms provided in this Section 8.

8.2 *Surrender of Stock.* To the extent that a Stock Option Agreement so provides, payment may be made in whole or in part by surrendering, or attesting to ownership of, Shares which have already been owned by the Optionee; *provided, however*, that payment may not be made in such form if such action would cause the Company to recognize any (or additional) compensation expense with respect to the Option for financial reporting purposes. Such Shares shall be surrendered to the Company in good form for transfer and shall be valued at their Fair Market Value on the date of Option exercise.

8.3 *Services Rendered.* As determined by the Board in its discretion, Shares may be awarded under the Plan in consideration of past services rendered to the Company, a Parent or Subsidiary.

8.4 *Promissory Notes.* To the extent that a Stock Option Agreement or Restricted Share Agreement so provides, payment may be made in whole or in part with a full-recourse promissory note executed by the Optionee or Purchaser. The interest rate payable under the promissory note shall not be less than the minimum rate required to avoid the imputation of income for U.S. federal income tax purposes. Shares shall be pledged as security for payment of the principal amount of the promissory note, and interest thereon; *provided*, that if the Optionee or Purchaser is a Consultant, such note must be collateralized with such additional security as required by applicable laws. In no event shall the stock certificate(s) representing such Shares be released to the Optionee or Purchaser until such note is paid in full. Subject to the foregoing, the Board shall determine the term, interest rate and other provisions of the note.

8.5 *Exercise/Sale.* To the extent that a Stock Option Agreement so provides and a public market for the Shares exists, payment may be made in whole or in part by delivery (on a form prescribed by the Company) of an irrevocable direction to a securities broker approved by the Company to sell Shares and to deliver all or part of the sale proceeds to the Company in payment of all or part of the Exercise Price and any withholding taxes.

8.6 *Exercise/Pledge.* To the extent that a Stock Option Agreement so provides and a public market for the Shares exists, payment may be made in whole or in part by delivery (on a form prescribed by the Company) of an irrevocable direction to a securities broker or lender approved by the Company to pledge Shares, as security for a loan, and to deliver all or part of the loan proceeds to the Company in payment of all or part of the Exercise Price and any withholding taxes.

8.7 *Other Forms of Payment.* To the extent provided in the Stock Option Agreement or Restricted Share Agreement, payment may be made in any other form that is consistent with applicable laws, regulations and rules.

SECTION 9. ADJUSTMENT OF SHARES.

9.1 *General.* In the event of a subdivision of the outstanding Stock, a declaration of a dividend payable in Shares, a declaration of an extraordinary dividend payable in a form other than Shares in an amount that has a material effect on the Fair Market Value of the Stock, a combination or consolidation of the outstanding Stock into a lesser number of Shares, a recapitalization, a spin-off, a reclassification, or a similar occurrence, the Board shall make appropriate adjustments to one or more of the following: (i) the number of Shares available for future awards under Section 5; (ii) the number of Shares covered by each outstanding Option; (iii) the Exercise Price under each outstanding Option; or (iv) the price of Shares subject to the Company's right of repurchase.

9.2 *Dissolution or Liquidation.* To the extent not previously exercised or settled, Options shall terminate immediately prior to the dissolution or liquidation of the Company.

9.3 *Mergers and Consolidations.* In the event that the Company is a party to a merger or other consolidation, or in the event of a transaction providing for the sale of all or substantially all of the Company's stock or assets, outstanding Options shall be subject to the agreement of merger, consolidation or sale. Such agreement may provide for one or more of the following: (i) the continuation of the outstanding Options by the Company, if the Company is a surviving corporation; (ii) the assumption of the Plan and outstanding Options by the surviving corporation or its parent; (iii) the substitution by the surviving corporation or its parent of options with substantially the same terms for such outstanding Options; (iv) immediate exercisability of such outstanding Options followed by the cancellation of such Options; or (v) settlement of the full value of the outstanding Options (whether or not then exercisable) in cash or cash equivalents followed by the cancellation of such Options; in each case without the Optionee's consent.

9.4 *Reservation of Rights.* Except as provided in this Section 9, an Optionee or offeree shall have no rights by reason of any subdivision or consolidation of shares of stock of any class, the payment of any dividend or any other increase or decrease in the number of shares of stock of any class. Any issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall not affect, and no adjustment by reason thereof shall be made with respect to, the number or Exercise Price of Shares subject to an Option. The grant of an Option pursuant to the Plan shall not affect in any way the right or power of the Company to make adjustments, reclassifications, reorganizations or changes of its capital or business structure, to merge or consolidate or to dissolve, liquidate, sell or transfer all or any part of its business or assets.

SECTION 10. REPURCHASE RIGHTS.

10.1 *Company's Right To Repurchase Shares.* The Company shall have the right to repurchase Shares that have been acquired through an award or sale of Shares or exercise of an Option upon termination of the Purchaser's or Optionee's Service if provided in the applicable Restricted Share Agreement or Stock Option Agreement.

SECTION 11. WITHHOLDING TAXES.

11.1 *General.* An Optionee or Purchaser or his or her successor shall make arrangements satisfactory to the Board for the satisfaction of any federal, state, local or foreign withholding tax obligations that may arise in connection with the Plan. The Company shall not be required to issue any Shares or make any cash payment under the Plan until such obligations are satisfied.

11.2 *Share Withholding.* The Board may permit an Optionee or Purchaser to satisfy all or part of his or her withholding or income tax obligations by having the Company withhold all or a portion of any Shares that otherwise would be issued to him or her or by surrendering all or a portion of any Shares that he or she previously acquired; *provided*, *however*, that in no event may an Optionee or Purchaser surrender Shares in excess of the legally required withholding amount. Such Shares shall be valued at their Fair Market Value on the date when taxes otherwise would be withheld in cash. Any payment of taxes by assigning Shares to the Company may be subject to restrictions, including any restrictions required by rules of any federal or state regulatory body or other authority.

11.3 *Cashless Exercise/Pledge.* The Board may provide that if Company Shares are publicly traded at the time of exercise, arrangements may be made to meet the Optionee's or Purchaser's withholding obligation by cashless exercise or pledge.

11.4 *Other Forms of Payment.* The Board may permit such other means of tax withholding as it deems appropriate.

SECTION 12. SECURITIES LAW REQUIREMENTS.

12.1 *General.* Shares shall not be issued under the Plan unless the issuance and delivery of such Shares complies with (or is exempt from) all applicable requirements of law, including (without limitation) the Securities Act, the rules and regulations promulgated thereunder, state securities laws and regulations, and the regulations of any stock exchange or other securities market on which the Company's securities may then be listed.

12.2 *Voting and Dividend Rights.* The holders of Shares acquired under the Plan shall have the same voting, dividend and other rights as the Company's other stockholders. A Restricted Share Agreement, however, may require that the holders of Shares invest any cash dividends received in additional Shares. Such additional Shares shall be subject to the same conditions and restrictions as the award with respect to which the dividends were paid.

12.3 *Financial Reports.* At least annually, the Company shall furnish its financial statements, including a balance sheet regarding the Company's financial condition and results of operations, to Optionees, Purchasers and stockholders who have received Shares under the Plan, unless such persons are key employees whose duties at the Company assure them access to equivalent information. Financial statements need not be audited.

SECTION 13. NO RETENTION RIGHTS.

No provision of the Plan, or any right or Option granted under the Plan, shall be construed to give any Optionee or Purchaser any right to become an Employee, to be treated as an Employee, or to continue in Service for any period of time, or restrict in any way the rights of the Company (or Parent or subsidiary to whom the Optionee or Purchaser provides Service), which rights are expressly reserved, to terminate the Service of such person at any time and for any reason, with or without cause, without thereby incurring any liability to him or her.

SECTION 14. DURATION AND AMENDMENTS.

14.1 *Term of the Plan.* The Plan, as set forth herein, shall become effective on the date of its adoption by the Board, subject to the approval of the Company's stockholders. In the event that the stockholders fail to approve the Plan within twelve (12) months after its adoption by the Board, any grants, exercises or sales that have already occurred under the Plan shall be rescinded, and no additional grants, exercises or sales shall be made under the Plan after such date. The Plan shall terminate automatically ten (10) years after its adoption by the Board. The Plan may be terminated on any earlier date pursuant to Section 14.2 below.

14.2 *Right to Amend or Terminate the Plan.* The Board may amend, suspend, or terminate the Plan at any time and for any reason. An amendment of the Plan shall not be subject to the approval of the Company's stockholders unless it (i) increases the number of Shares available for issuance under the Plan (except as provided in Section 9) or (ii) materially changes the class of persons who are eligible for the grant of Options or the award or sale of Shares.

14.3 *Effect of Amendment or Termination.* No Shares shall be issued or sold under the Plan after the termination thereof, except upon exercise of an Option granted prior to such termination. The termination of the Plan, or any amendment thereof, shall not adversely affect any Shares previously issued or any Option previously granted under the Plan without the holder's consent.

SECTION 15. EXECUTION.

To record the adoption of the Plan by the Board on September 7, 2004, effective on such date, the Company has caused its authorized officer to execute the same.

CARA THERAPEUTICS, INC.

By _____

Name: Derek Chalmers
Title: Chairman, President and Chief Executive Officer, and Treasurer

Amendments to 2004 Stock Incentive Plan

Effective February 24, 2005, the 2004 Stock Incentive Plan was amended by the Board and stockholders to increase the number of shares of Common Stock reserved for issuance from 1,000,000 to 1,045,000.

Effective November 17, 2006, the 2004 Stock Incentive Plan was amended by the Board and stockholders to increase the number of shares of Common Stock reserved for issuance from 1,045,000 to 2,045,000.

Effective July 19, 2010, the 2004 Stock Incentive Plan was amended by the Board and stockholders to increase the number of shares of Common Stock reserved for issuance from 2,045,000 to 3,341,501.

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED OR QUALIFIED UNDER THE U.S. SECURITIES ACT OF 1933 OR THE SECURITIES LAWS OF ANY STATE OR FOREIGN JURISDICTION, AND MAY BE OFFERED AND SOLD ONLY IF REGISTERED AND QUALIFIED PURSUANT TO THE RELEVANT PROVISIONS OF U.S. FEDERAL AND STATE OR APPLICABLE FOREIGN SECURITIES LAWS OR IF THE COMPANY IS PROVIDED AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT REGISTRATION AND QUALIFICATION UNDER U.S. FEDERAL AND STATE OR APPLICABLE FOREIGN SECURITIES LAWS IS NOT REQUIRED.

CARA THERAPEUTICS, INC.
2004 STOCK INCENTIVE PLAN
NOTICE OF STOCK OPTION GRANT

CARA THERAPEUTICS, INC. (the "Company") hereby grants you the following Option to purchase shares of its common stock ("Shares"). The terms and conditions of this Option are set forth in the Stock Option Agreement and the Cara Therapeutics, Inc. 2004 Stock Incentive Plan (the "Plan"), both of which are attached to and made a part of this document.

Date of Grant:	
Name of Optionee:	
Number of Option Shares:	
Exercise Price per Share:	$0. per Share
Vesting Start Date:	
Type of Option:	ISO
Vesting Schedule:	The Option vests with respect to the first 25% of the Shares when the Optionee completes 12 months of continuous Service after the Vesting Start Date and with respect to an additional 1/48th of the Shares when the Optionee completes each full month of continuous Service thereafter.
Payment Forms:	By cash, cash equivalents, or Shares owned by the Optionee for at least six months, and if the Company's Shares become publicly traded, by "cashless" exercise, as set forth in the Stock Option Agreement.

By signing this document, you acknowledge receipt of a copy of the Plan, and agree that (a) you have carefully read, fully understand and agree to all of the terms and conditions described in the attached Stock Option Agreement, the Plan document and "Notice of Exercise and Common Stock Purchase Agreement" (the "Exercise Notice"); (b) you hereby make the purchaser's investment representations contained in the Exercise Notice with respect to the grant of this Option; (c) you understand and agree that this Stock Option

Agreement, including its cover sheet and attachments, constitutes the entire understanding between you and the Company regarding this Option, and that any prior agreements, commitments or negotiations concerning this Option are replaced and superseded; and (d) you have been given an opportunity to consult legal counsel with respect to all matters relating to this Option prior to signing this cover sheet and that you have either consulted such counsel or voluntarily declined to consult such counsel.

CARA THERAPEUTICS, INC.

By: _____

Its: _____

CARA THERAPEUTICS, INC.

2004 STOCK INCENTIVE PLAN

STOCK OPTION AGREEMENT

SECTION 1. KIND OF OPTION.

This Option is intended to be either an Incentive Stock Option intended to meet the requirements of section 422 of the Internal Revenue Code (an "ISO") or a Non-Statutory Option (an "NSO"), which is not intended to meet the requirements of an ISO, as indicated in the Notice of Stock Option Grant. Even if this Option is designated as an ISO, it shall be deemed to be an NSO to the extent required by the $100,000 annual limitation under Section 422(d) of the Code.

SECTION 2. VESTING.

Subject to the terms and conditions of the Plan and this Stock Option Agreement (the "Agreement"), your Option will be exercisable with respect to the Shares that have become vested in accordance with the schedule set forth in the Notice of Stock Option Grant. After your Service terminates for any reason, vesting of your Shares immediately stops and your Option expires immediately as to the number of Shares that are not vested as of your Service termination date.

SECTION 3. TERM.

Your Option will expire in any event at the close of business at Company Headquarters ten (10) years after the Date of Grant; provided, however, that if your Option is an ISO it will expire five (5) years after the Date of Grant if you are a Ten-Percent Stockholder of the Company (the "Expiration Date"). Also, your Option will expire earlier if your Service terminates, as described below.

SECTION 4. REGULAR TERMINATION.

(a) If your Service terminates for any reason except death or disability, the vested portion of your Option will expire at the close of business at Company Headquarters on the date three (3) months after your termination of Service. During that three (3) month period, you may exercise the portion of your Option that was vested on your termination date. Notwithstanding the foregoing, the Option may not be exercised after the Expiration Date determined under Section 3 above.

(b) If your Option is an ISO and you exercise it more than three months after termination of your Service as an Employee for any reason other than death or Disability expected to result in death or to last for a continuous period of at least twelve (12) months, your Option will cease to be eligible for ISO tax treatment.

(c) Your Option will cease to be eligible for ISO tax treatment if you exercise it more than three months after the 90th day of a bona fide leave of absence approved by the Company, unless your right to reemployment after your leave was guaranteed by statute or contract.

SECTION 5. DEATH.

If you die while in Service with the Company, the vested portion of your Option will expire at the close of business at Company headquarters on the date twelve (12) months after the date of your death. During that twelve (12) month period, your estate, legatees or heirs may exercise that portion of your Option that was vested on the date of your death. Notwithstanding the foregoing, the Option may not be exercised after the Expiration Date determined under Section 3 above.

SECTION 6. DISABILITY.

(a) If your Service terminates because of a Disability, the vested portion of your Option will expire at the close of business at Company headquarters on the date six (6) months after your termination date. During that six (6) month period, you may exercise that portion of your Option that was vested on the date of your Disability. "Disability" means that you are unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment. Notwithstanding the foregoing, the Option may not be exercised after the Expiration Date determined under Section 3 above.

(b) If your Option is an ISO and your Disability is not expected to result in death or to last for a continuous period of at least twelve (12) months, your Option will be eligible for ISO tax treatment only if it is exercised within three (3) months following the termination of your Service as an Employee.

SECTION 7. EXERCISING YOUR OPTION.

To exercise your Option, you must execute the Notice of Exercise and Common Stock Purchase Agreement (the "Exercise Notice"), attached as Exhibit A. You must submit this form, together with full payment, to the Company. Your exercise will be effective when it is received by the Company. If someone else wants to exercise your Option after your death, that person must prove to the Company's satisfaction that he or she is entitled to do so.

SECTION 8. PAYMENT FORMS.

When you exercise your Option, you must include payment of the Exercise Price for the Shares you are purchasing in one of the payment forms indicated in the cover sheet. To the extent that a public market for the Shares exists and to the extent permitted by applicable law, in each case as determined by the Company, you also may exercise your Option by delivery (on a form prescribed by the Company) of an irrevocable direction to a securities broker to sell Shares and to deliver all or part of the sale proceeds to the Company in payment of the aggregate Exercise Price. The Company will provide the forms necessary to make such a cashless exercise.

SECTION 9. TAX WITHHOLDING AND REPORTING.

(a) You will not be allowed to exercise this Option unless you make acceptable arrangements to pay any withholding or other taxes that may be due as a result of the Option exercise or the sale of Shares acquired upon exercise of this Option.

(b) If you sell or otherwise dispose of any of the Shares acquired pursuant to an ISO on or before the later of (i) two years after the grant date, or (ii) one year after the exercise date, you shall immediately notify the Company in writing of such disposition.

SECTION 10. RIGHT OF FIRST REFUSAL.

In the event that you propose to sell, pledge or otherwise transfer to a third party any Shares acquired under this Agreement, or any interest in such Shares, the Company shall have a "Right of First Refusal" with respect to such Shares in accordance with the provisions of the Exercise Notice.

SECTION 11. RESALE RESTRICTIONS/MARKET STAND-OFF.

In connection with any underwritten public offering by the Company of its equity securities pursuant to an effective registration statement filed under the U.S. Securities Act of 1933, as amended, including the Company's initial public offering, you may be prohibited from engaging in any transaction with respect to any of the Company's common stock without the prior written consent of the Company or its underwriters in accordance with the provisions of the Exercise Notice.

SECTION 12. TRANSFER OF OPTION.

Prior to your death, only you may exercise this Option. This Option and the rights and privileges conferred hereby cannot be sold, pledged or otherwise transferred (whether by operation of law or otherwise) and shall not be subject to sale under execution, attachment, levy or similar process. For instance, you may not sell this Option or use it as security for a loan. If you attempt to do any of these things, this Option will immediately become invalid. You may, however, dispose of this Option in your will. Regardless of any marital property settlement agreement, the Company is not obligated to honor an Exercise Notice from your spouse or former spouse, nor is the Company obligated to recognize such individual's interest in your Option in any other way.

SECTION 13. RETENTION RIGHTS.

This Agreement does not give you the right to be retained by the Company in any capacity. The Company reserves the right to terminate your Service at any time and for any reason without thereby incurring any liability to you.

SECTION 14. STOCKHOLDER RIGHTS.

Neither you nor your estate or heirs have any rights as a stockholder of the Company until a certificate for the Shares acquired upon exercise of this Option has been issued. No adjustments are made for dividends or other rights if the applicable record date occurs before your stock certificate is issued, except as described in the Plan.

SECTION 15. ADJUSTMENTS.

In the event of a stock split, a stock dividend or a similar change in the Company's Stock, the number of Shares covered by this Option and the Exercise Price per share may be adjusted pursuant to the Plan. Your Option shall be subject to the terms of the agreement of merger, liquidation or reorganization in the event the Company is subject to such corporate activity as set forth in the Plan.

SECTION 16. LEGENDS.

All certificates representing the Shares issued upon exercise of this Option shall, where applicable, have endorsed thereon the following legends:

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED OR QUALIFIED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED, OR THE SECURITIES LAWS OF ANY STATE OR FOREIGN JURISDICTION, AND MAY BE OFFERED AND SOLD ONLY IF REGISTERED AND QUALIFIED PURSUANT TO THE RELEVANT PROVISIONS OF U.S. FEDERAL AND STATE OR APPLICABLE FOREIGN SECURITIES LAWS OR IF THE COMPANY IS PROVIDED AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT REGISTRATION AND QUALIFICATION UNDER U.S. FEDERAL AND STATE OR APPLICABLE FOREIGN SECURITIES LAWS IS NOT REQUIRED.

THE SECURITIES REPRESENTED BY THIS CERTIFICATE MAY NOT BE SOLD, TRANSFERRED, ENCUMBERED OR IN ANY MANNER DISPOSED OF, EXCEPT IN COMPLIANCE WITH THE TERMS OF A WRITTEN AGREEMENT BETWEEN THE COMPANY AND THE INITIAL HOLDER HEREOF. SUCH AGREEMENT PROVIDES FOR CERTAIN TRANSFER RESTRICTIONS, INCLUDING RIGHTS OF FIRST REFUSAL UPON AN ATTEMPTED TRANSFER OF THE SECURITIES. THE SECRETARY OF THE COMPANY WILL UPON WRITTEN REQUEST FURNISH A COPY OF SUCH AGREEMENT TO THE HOLDER HEREOF WITHOUT CHARGE.

If the Option is an ISO, then the following legend should be included:

THE SHARES REPRESENTED BY THIS CERTIFICATE WERE ISSUED UPON EXERCISE OF AN INCENTIVE STOCK OPTION, AND THE COMPANY MUST BE NOTIFIED IF THE SHARES SHALL BE TRANSFERRED BEFORE THE LATER OF THE TWO (2) YEAR ANNIVERSARY OF THE DATE OF GRANT OF THE OPTION OR THE ONE (1) YEAR ANNIVERSARY OF THE DATE ON WHICH THE OPTION WAS EXERCISED. THE REGISTERED HOLDER MAY RECOGNIZE ORDINARY INCOME IF THE SHARES ARE TRANSFERRED BEFORE SUCH DATE.

SECTION 17. APPLICABLE LAW AND TAX DISCLAIMER.

This Agreement will be interpreted and enforced under the laws of the State of New York (without regard to their choice of law provisions). You agree that you are responsible for consulting your own tax advisor as to the tax consequences associated with your Option. The tax rules governing options are complex, change frequently and depend on the individual taxpayer's situation. Although the Company will make available to you general tax information about stock options, you agree that the Company shall not be held liable or responsible for making such information available to you and any tax or financial consequences that you may incur in connection with your Option.

SECTION 18. THE PLAN AND OTHER AGREEMENTS.

The text of the Plan is incorporated in this Agreement by reference. Certain capitalized terms used in this Agreement are defined in the Plan. The Notice of Stock Option Grant, this Agreement, including its attachments, and the Plan constitute the entire understanding between you and the Company regarding this Option. Any prior agreements, commitments or negotiations concerning this Option are superseded.

EXHIBIT A

CARA THERAPEUTICS, INC. 2004 STOCK INCENTIVE PLAN
NOTICE OF EXERCISE AND COMMON STOCK PURCHASE AGREEMENT

THIS AGREEMENT is dated as of , , between CARA THERAPEUTICS, INC. (the "Company"), and XXX ("Purchaser").

W I T N E S E T H:

WHEREAS, the Company and Purchaser are parties to a stock option agreement dated as of , (the "Option Agreement") under which Purchaser has the right to purchase up to XXXX shares of the Company's common stock (the "Option Shares"); and

WHEREAS, the Option is exercisable with respect to certain of the Option Shares as of the date hereof; and

WHEREAS, pursuant to the Option Agreement, Purchaser desires to purchase shares of the Company as herein described, on the terms and conditions set forth in this Agreement, the Option Agreement and the Cara Therapeutics, Inc. 2004 Stock Incentive Plan (the "Plan"). Certain capitalized terms used in this Agreement are defined in the Plan.

NOW, THEREFORE, it is agreed between the parties as follows:

SECTION 1. PURCHASE OF SHARES.

(i) Pursuant to the terms of the Option Agreement, Purchaser hereby agrees to purchase from the Company and the Company agrees to sell and issue to Purchaser shares of the Company's common stock (the "Common Stock") for the Exercise Price per share specified in the Option Agreement payable by personal check, cashier's check, money order or otherwise as permitted by the Option Agreement. Payment shall be delivered at the Closing, as such term is defined below.

(ii) The closing (the "Closing") under this Agreement shall occur at the offices of the Company as of the date hereof, or such other time and place as may be designated by the Company (the "Closing Date").

SECTION 2. ADJUSTMENT OF SHARES.

Subject to the provisions of the Certificate of Incorporation of the Company, if (a) there is any stock dividend or liquidating dividend of cash and/or property, stock split or other change in the character or amount of any of the outstanding securities of the Company, or (b) there is any consolidation, merger or sale of all or substantially all of the assets of the Company, then, in such event, any and all new, substituted or additional securities or other property to which Purchaser is entitled by reason of Purchaser's ownership of the shares shall be immediately subject to the Right of First Refusal, as defined below, with the same force and effect as the shares subject to the Right of First Refusal. Appropriate adjustments shall be made to the

number and/or class of shares subject to the Right of First Refusal to reflect the exchange or distribution of such securities. In the event of a merger or consolidation of the Company with or into another entity or any other corporate reorganization, the Right of First Refusal may be exercised by the Company's successor.

SECTION 3. THE COMPANY'S RIGHT OF FIRST REFUSAL.

Before any shares of Common Stock registered in the name of Purchaser may be sold or transferred, such shares shall first be offered to the Company as follows (the "Right of First Refusal"):

(i) Purchaser shall promptly deliver a notice ("Notice") to the Company stating (i) Purchaser's bona fide intention to sell or transfer such shares, (ii) the number of such shares to be sold or transferred, and the basic terms and conditions of such sale or transfer, (iii) the price for which Purchaser proposes to sell or transfer such shares, (iv) the name of the proposed purchaser or transferee, and (v) proof satisfactory to the Company that the proposed sale or transfer will not violate any applicable U.S. federal, state or foreign securities laws. The Notice shall be signed by both Purchaser and the proposed purchaser or transferee and must constitute a binding commitment subject to the Company's Right of First Refusal as set forth herein.

(ii) Within thirty (30) days after receipt of the Notice, the Company may elect to purchase all or any portion of the shares to which the Notice refers, at the price per share specified in the Notice. If the Company elects not to purchase all or any portion of the shares, the Company may assign its right to purchase all or any portion of the shares. The assignees may elect within thirty (30) days after receipt by the Company of the Notice to purchase all or any portion of the shares to which the Notice refers, at the price per share specified in the Notice. An election to purchase shall be made by written notice to Purchaser. Payment for shares purchased pursuant to this Section 3 shall be made within thirty (30) days after receipt of the Notice by the Company and, at the option of the Company, may be made by cancellation of all or a portion of outstanding indebtedness, if any, or in cash or both.

(iii) If all or any portion of the shares to which the Notice refers are not elected to be purchased, as provided in subparagraph 3(b), Purchaser may sell those shares to any person named in the Notice at the price specified in the Notice, provided that such sale or transfer is consummated within sixty (60) days of the date of said Notice to the Company, and provided, further, that any such sale is made in compliance with applicable U.S. federal, state and foreign securities laws and not in violation of any other contractual restrictions to which Purchaser is bound. The third-party purchaser shall be bound by, and shall acquire the shares of stock subject to, the provisions of this Agreement, including the Company's Right of First Refusal.

(iv) Any proposed transfer on terms and conditions different from those set forth in the Notice, as well as any subsequent proposed transfer shall again be subject to the Company's Right of First Refusal and shall require compliance with the procedures described in this Section 3.

(v) Purchaser agrees to cooperate affirmatively with the Company, to the extent reasonably requested by the Company, to enforce rights and obligations pursuant to this Agreement.

(vi) Notwithstanding the above, neither the Company nor any assignee of the Company under this Section 3 shall have any right under this Section 3 at any time subsequent to the closing of a public offering of the common stock of the Company pursuant to a registration statement declared effective under the U.S. Securities Act of 1933, as amended (the "Securities Act").

(vii) This Section 3 shall not apply to (i) a transfer by will or intestate succession, or (ii) a transfer to one or more members of Purchaser's Immediate Family (defined below) or to a trust established by Purchaser for the benefit of Purchaser and/or one or more members of Purchaser's Immediate Family, provided that the transferee agrees in writing on a form prescribed by the Company to be bound by all of the provisions of this Agreement to the same extent as they apply to Purchaser. The transferee shall execute a copy of the attached Exhibit B and file the same with the Secretary of the Company. For purposes of this Agreement, Immediate Family means any child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law or sister-in-law, and shall include adoptive relationships.

SECTION 4. PURCHASER'S RIGHTS AFTER EXERCISE OF RIGHT OF FIRST REFUSAL.

If the Company makes available, at the time and place and in the amount and form provided in this Agreement, the consideration for the Common Stock to be repurchased in accordance with the provisions of Section 3 of this Agreement, then from and after such time the person from whom such shares are to be repurchased shall no longer have any rights as a holder of such shares (other than the right to receive payment of such consideration in accordance with this Agreement). Such shares shall be deemed to have been repurchased in accordance with the applicable provisions hereof, whether or not the certificate(s) therefor have been delivered as required by this Agreement.

SECTION 5. LEGEND OF SHARES.

All certificates representing the Common Stock purchased under this Agreement shall, where applicable, have endorsed thereon the following legends and any other legends required by applicable securities laws:

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED OR QUALIFIED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED, OR THE SECURITIES LAWS OF ANY STATE OR FOREIGN JURISDICTION, AND MAY BE OFFERED AND SOLD ONLY IF REGISTERED AND QUALIFIED PURSUANT TO THE RELEVANT PROVISIONS OF U.S. FEDERAL AND STATE OR APPLICABLE FOREIGN SECURITIES LAWS OR IF THE COMPANY IS PROVIDED AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT REGISTRATION AND QUALIFICATION UNDER U.S. FEDERAL AND STATE OR APPLICABLE FOREIGN SECURITIES LAWS IS NOT REQUIRED.

THE SECURITIES REPRESENTED BY THIS CERTIFICATE MAY NOT BE SOLD, TRANSFERRED, ENCUMBERED OR IN ANY MANNER DISPOSED OF, EXCEPT IN COMPLIANCE WITH THE TERMS OF A WRITTEN AGREEMENT BETWEEN THE COMPANY AND THE INITIAL HOLDER HEREOF. SUCH AGREEMENT PROVIDES FOR CERTAIN TRANSFER RESTRICTIONS, INCLUDING RIGHTS OF FIRST REFUSAL UPON AN ATTEMPTED TRANSFER OF THE SECURITIES. THE SECRETARY OF THE COMPANY WILL UPON WRITTEN REQUEST FURNISH A COPY OF SUCH AGREEMENT TO THE HOLDER HEREOF WITHOUT CHARGE.

If the Option is an ISO, then the following legend should be included:

THE SHARES REPRESENTED BY THIS CERTIFICATE WERE ISSUED UPON EXERCISE OF AN INCENTIVE STOCK OPTION, AND THE COMPANY MUST BE NOTIFIED IF THE SHARES SHALL BE TRANSFERRED BEFORE THE LATER OF THE TWO (2) YEAR ANNIVERSARY OF THE DATE OF GRANT OF THE OPTION OR THE ONE (1) YEAR ANNIVERSARY OF THE DATE ON WHICH THE OPTION WAS EXERCISED. THE REGISTERED HOLDER MAY RECOGNIZE ORDINARY INCOME IF THE SHARES ARE TRANSFERRED BEFORE SUCH DATE.

SECTION 6. PURCHASER'S INVESTMENT REPRESENTATIONS.

(i) This Agreement is made with Purchaser in reliance upon Purchaser's representation to the Company, which by Purchaser's acceptance hereof Purchaser confirms, that the Common Stock which Purchaser will receive will be acquired with Purchaser's own funds for investment for an indefinite period for Purchaser's own account, not as a nominee or agent, and not with a view to the sale or distribution of any part thereof, and that Purchaser has no present intention of selling, granting participation in, or otherwise distributing the same, but subject, nevertheless, to any requirement of law that the disposition of Purchaser's property shall at all times be within Purchaser's control. By executing this Agreement, Purchaser further represents that Purchaser does not have any contract, understanding or agreement with any person to sell, transfer, or grant participation to such person or to any third person, with respect to any of the Common Stock.

(ii) Purchaser understands that the Common Stock will not be registered or qualified under applicable U.S. federal, state or foreign securities laws on the ground that the sale provided for in this Agreement is exempt from registration or qualification under applicable U.S. federal, state or foreign securities laws and that the Company's reliance on such exemption is predicated on Purchaser's representations set forth herein.

(iii) Purchaser agrees that in no event shall Purchaser make a disposition of any of the Common Stock (including a disposition under Section 3 of this Agreement), unless and until (i) Purchaser shall have notified the Company of the proposed disposition and shall have furnished the Company with a statement of the circumstances surrounding the proposed disposition and (ii) Purchaser shall have furnished the Company with an opinion of counsel satisfactory to the Company to the effect that (A) such disposition will not require registration or qualification of such Common Stock under applicable U.S. federal, state or foreign securities laws or (B) appropriate action necessary for compliance with the applicable U.S. federal, state or foreign securities laws has been taken or (iii) the Company shall have waived, expressly and in writing, its rights under clauses (i) and (ii) of this Section.

(iv) With respect to a transaction occurring prior to such date as the Plan and Common Stock there-under are covered by a valid Form S-8 or similar U.S. federal registration statement, this Subsection shall apply unless the transaction is covered by an exemption. In connection with the investment representations made herein, Purchaser represents that Purchaser is able to fend for himself or herself in the transactions contemplated by this Agreement, has such knowledge and experience in financial and business matters as to be capable of evaluating the merits and risks of Purchaser's investment, has the ability to bear the economic risks of Purchaser's investment and has been furnished with and has had access to such information as would be made available in the form of a registration statement together with such additional information as is necessary to verify the accuracy of the information supplied and to have all questions answered by the Company.

(v) Purchaser understands that if the Company does not register with the U.S. Securities and Exchange Commission pursuant to section 12 of the U.S. Securities Exchange Act of 1934, as amended, or if a registration statement covering the Common Stock (or a filing pursuant to the exemption from registration under Regulation A of the Securities Act) under the Securities Act is not in effect when Purchaser desires to sell the Common Stock, Purchaser may be required to hold the Common Stock for an indeterminate period. Purchaser also acknowledges that Purchaser understands that any sale of the Common Stock which might be made by Purchaser in reliance upon Rule 144 under the Securities Act may be made only in limited amounts in accordance with the terms and conditions of that Rule.

SECTION 7. NO DUTY TO TRANSFER IN VIOLATION OF THIS AGREEMENT.

The Company shall not be required (a) to transfer on its books any shares of Common Stock of the Company which shall have been sold or transferred in violation of any of the provisions set forth in this Agreement or (b) to treat as owner of such shares or to accord the right to vote as such owner or to pay dividends to any transferee to whom such shares shall have been so transferred.

SECTION 8. RIGHTS OF PURCHASER.

(i) Except as otherwise provided herein, Purchaser shall, during the term of this Agreement, exercise all rights and privileges of a stockholder of the Company with respect to the Common Stock.

(ii) Nothing in this Agreement shall be construed as a right by Purchaser to be retained by the Company, or a parent or subsidiary of the Company in any capacity. The Company reserves the right to terminate Purchaser's Service at any time and for any reason without thereby incurring any liability to Purchaser.

SECTION 9. RESALE RESTRICTIONS/MARKET STAND-OFF.

Purchaser hereby agrees that in connection with any underwritten public offering by the Company of its equity securities pursuant to an effective registration statement filed under the Securities Act, including the Company's initial public offering, Purchaser shall not, directly or indirectly, engage in any transaction prohibited by the underwriter, or sell, make any short sale of, contract to sell, transfer the economic risk of ownership in, loan, hypothecate, pledge, grant any option for the purchase of, or otherwise dispose or transfer for value or agree to engage in any of the foregoing transactions with respect to any Common Stock without the prior written consent of the Company or its underwriters, for such period of time after the effective date of such registration statement as may be requested by the Company or such underwriters. Such period of time shall not exceed one hundred eighty (180) days and may be required by the underwriter as a market condition of the offering; provided, however, that if either (a) during the last seventeen (17) days of such one hundred eighty (180) day period, the Company issues an earnings release or material news or a material event relating to the Company occurs or (b) prior to the expiration of such one hundred eighty (180) day period, the Company announces that it will release earnings results during the sixteen (16) day period beginning on the last day of the one hundred eighty (180) day period, then the restrictions imposed during such one hundred eighty (180) day period shall continue to apply until the expiration of the eighteen (18) day period beginning on the issuance of the earnings release or the occurrence of the material news or material event; provided, further, that in the event the Company or the underwriter requests that the one hundred eighty (180) day period be extended or modified pursuant to then-applicable law, rules, regulations or trading policies, the restrictions imposed during the one hundred eighty (180) day period shall continue to apply to the extent requested by the Company or the underwriter to comply with such law, rules, regulations or trading policies. Purchaser hereby agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriter which are consistent with the foregoing or which are necessary to give further effect thereto. To enforce the provisions of this Section, the Company may impose stop-transfer instructions with respect to the Common Stock until the end of the applicable stand-off period.

SECTION 10. OTHER NECESSARY ACTIONS.

The parties agree to execute such further instruments and to take such further action as may reasonably be necessary to carry out the intent of this Agreement.

SECTION 11. NOTICE.

Any notice required or permitted under this Agreement shall be given in writing and shall be deemed effectively given upon the earliest of personal delivery, receipt or the third full day following deposit in the United States Post Office with postage and fees prepaid, addressed to the other party hereto at the address last known or at such other address as such party may designate by ten (10) days' advance written notice to the other party hereto.

SECTION 12. SUCCESSORS AND ASSIGNS.

This Agreement shall inure to the benefit of the successors and assigns of the Company and, subject to the restrictions on transfer herein set forth, be binding upon Purchaser and Purchaser's heirs, executors, administrators, successors and assigns. The failure of the Company in any instance to exercise the Right of First Refusal described herein shall not constitute a waiver of any other Right of First Refusal that may subsequently arise under the provisions of this Agreement. No waiver of any breach or condition of this Agreement shall be deemed to be a waiver of any other or subsequent breach or condition, whether of a like or different nature.

SECTION 13. APPLICABLE LAW.

This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York, as such laws are applied to contracts entered into and performed in such state.

SECTION 14. NO ORAL MODIFICATION.

No modification of this Agreement shall be valid unless made in writing and signed by the parties hereto.

SECTION 15. ENTIRE AGREEMENT.

This Agreement, the Option Agreement and the Plan constitute the entire complete and final agreement between the parties hereto with regard to the subject matter hereof.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first above written.

CARA THERAPEUTICS, INC.

(PURCHASER)

By _____

_____
Signature

Its _____

EXHIBIT B

ACKNOWLEDGMENT OF AND AGREEMENT TO BE BOUND
BY THE NOTICE OF EXERCISE AND COMMON STOCK PURCHASE AGREEMENT
OF
CARA THERAPEUTICS, INC.

The undersigned, as transferee of shares of Cara Therapeutics, Inc. hereby acknowledges that he or she has read and reviewed the terms of the Notice of Exercise and Common Stock Purchase Agreement of Cara Therapeutics, Inc. and hereby agrees to be bound by the terms and conditions thereof, as if the undersigned had executed said Agreement as an original party thereto.

Dated: _____, _____.

_____
(Signature of Transferee)

_____
(Printed Name of Transferee)

EXHIBIT C

U.S. FEDERAL TAX INFORMATION

(Current as of July 2008)

The following memorandum briefly summarizes current U.S. federal income tax law. The discussion is intended to be used solely for general information purposes and does not make specific representations to any participant. A taxpayer's particular situation may be such that some variation of the basic rules is applicable to him or her. In addition, the U.S. federal income tax laws and regulations are revised frequently and may change again in the future. Each participant is urged to consult a tax advisor, both with respect to U.S. federal income tax consequences as well as any foreign, state or local tax consequences, before exercising any option or before disposing of any shares of stock acquired under the Plan.

Initial Grant of Options

The grant of an option, whether a nonqualified or nonstatutory stock option ("NSO") or an incentive stock option ("ISO"), is not a taxable event for the Optionee, and the Company obtains no deduction for the grant of the option. Note, however, that under new Section 409A of the Internal Revenue Code, which is generally effective January 1, 2005, options granted at a discount from fair market value may be considered "deferred compensation" subject to adverse tax consequences, including immediate income tax upon the vesting of the option (whether or not exercised) and a 20% tax penalty.

Nonqualified or Nonstatutory Stock Options

The exercise of an NSO is a taxable event to the Optionee. The amount by which the fair market value of the shares on the date of exercise exceeds the exercise price (the "spread") will be taxed to the Optionee as ordinary income. The spread will also be considered "wages" for purposes of FICA taxes. The Company will be entitled to a deduction in the same amount as the ordinary income recognized by the Optionee from the exercise of the option that is reported to the IRS by the Optionee or the Company. In general, the Optionee's tax basis in the shares acquired by exercising an NSO is equal to the fair market value of such shares on the date of exercise. Upon a subsequent sale of any such shares in a taxable transaction, the Optionee will realize capital gain or loss (long-term or short-term, depending on whether the shares were held for the required holding period before the sale) in an amount equal to the difference between his or her basis in the shares and the sale price.

Internal Revenue Service regulations generally provide that, for the purpose of avoiding federal tax penalties, a taxpayer may rely only on formal written advice meeting specific requirements. The tax discussion in this document does not meet those requirements. Accordingly, the tax discussion was not intended or written to be used, and it cannot be used, for the purpose of avoiding federal tax penalties that may be imposed on you. Further, the tax discussion in this document could be considered to support the promotion or marketing of the transaction or matter discussed herein. You and any other person reading the tax discussion should seek advice based on his, her or its particular circumstances from an independent tax advisor.

The capital gains holding periods are complex. If shares are held for more than one year, the maximum tax rate on the gain has been reduced from twenty percent (20%) to fifteen percent (15%) for gain recognized on or after May 6, 2003, and before January 1, 2011. Because the rules are complex and can vary in individual circumstances, each participant should consider consulting his or her own tax advisor.

If an Optionee exercises an NSO and pays the exercise price with previously acquired shares of stock, special rules apply. The transaction is treated as a tax-free exchange of the old shares for the same number of new shares, except as described below with respect to shares acquired pursuant to ISOs. The Optionee's basis in the new shares is the same as his or her basis in the old shares, and the capital gains holding period runs without interruption from the date when the old shares were acquired. The value of any new shares received by the Optionee in excess of the number of old shares surrendered minus any cash the Optionee pays for the new shares will be taxed as ordinary income. The Optionee's basis in the additional shares is equal to the fair market value of such shares on the date the shares were transferred, and the capital gain holding period commences on the same date. The effect of these rules is to defer recognition of any gain in the old shares when those shares are used to buy new shares. Stated differently, these rules allow an Optionee to finance the exercise of an NSO by using shares of stock that he or she already owns, without paying current tax on any unrealized appreciation in those old shares.

Incentive Stock Options

The holder of an ISO will not be subject to U.S. federal income tax upon the exercise of the ISO, and the Company will not be entitled to a tax deduction by reason of such exercise, provided that the holder is employed by the Company on the exercise date (or the holder's employment terminated within the three (3) months preceding the exercise date). Exceptions to this exercise timing requirement apply in the event the Optionee dies or becomes disabled. A subsequent sale of the shares received upon the exercise of an ISO will result in the realization of long-term capital gain or loss in the amount of the difference between the amount realized on the sale and the exercise price for such shares, provided that the sale occurs more than one (1) year after the exercise of the ISO and more than two (2) years after the grant of the ISO. In general, if a sale or disposition of the shares occurs prior to satisfaction of the foregoing holding periods (referred to as a "disqualifying disposition"), the Optionee will recognize ordinary income and the Company will be entitled to a corresponding deduction, generally equal to the amount of ordinary income recognized by the Optionee from the disqualifying disposition that is reported to the IRS by the Optionee or the Company.

Favorable tax treatment is accorded to an Optionee only to the extent that the value of the shares (determined at the time of grant) covered by an ISO first exercisable in any single calendar year does not exceed one hundred thousand dollars ($100,000). If ISOs for shares whose aggregate value exceeds one hundred thousand dollars ($100,000) become exercisable in the same calendar year, the excess will be treated as NSOs.

A special rule applies if an Optionee pays all or part of the exercise price of an ISO by surrendering shares of stock that he or she previously acquired by exercising any other ISO. If the Optionee has not held the old shares for the full duration of the applicable holding periods, then the surrender of such shares to fund the exercise of the new ISO will be treated as a disqualifying disposition of the old shares. As described above, the result of a disqualifying disposition is the loss of favorable tax treatment with respect to the acquisition of the old shares pursuant to the previously exercised ISO.

Where the applicable holding period requirements have been met, the use of previously acquired shares of stock to pay all or a portion of the exercise price of an ISO may offer significant tax advantages. In particular, a deferral of the recognition of any appreciation in the surrendered shares is available in the same manner as discussed above with respect to NSOs.

Alternative Minimum Tax

Alternative minimum tax is paid when such tax exceeds a taxpayer's regular U.S. federal income tax. Alternative minimum tax is calculated based on alternative minimum taxable income, which is taxable income for U.S. federal income tax purposes, modified by certain adjustments and increased by tax preference items.

The "spread" under an ISO—that is, the difference between (a) the fair market value of the shares of stock at exercise and (b) the exercise price—is classified as alternative minimum taxable income for the year of exercise. Alternative minimum taxable income may be subject to the alternative minimum tax. However, if the shares of stock purchased upon the exercise of an ISO are sold in the same taxable year in which they are acquired, then the amount includible in the taxpayer's alternative minimum taxable income will in no event exceed the amount realized upon such sale less the option exercise price paid for those shares.

In general, when a taxpayer sells stock acquired through the exercise of an ISO, only the difference between the fair market value of the shares on the date of exercise and the date of sale is used in computing any alternative minimum tax for the year of the sale. The portion of a taxpayer's alternative minimum tax attributable to certain items of tax preference (including the spread upon the exercise of an ISO) can be credited against the taxpayer's regular liability in later years subject to certain limitations.

Withholding Taxes

Exercise of an NSO produces taxable income which is subject to withholding. The Company will not deliver shares to the Optionee unless the Optionee has agreed to satisfactory arrangements for meeting all applicable U.S. federal, state and local withholding tax requirements.

U.S. federal tax law does not require unrecognized gain on exercise of an ISO to be treated as "wages" for the purposes of FICA taxes.

THIS TAX SUMMARY IS GENERAL IN NATURE AND SHOULD NOT BE RELIED UPON BY ANY PERSON IN DECIDING WHETHER OR WHEN TO EXERCISE AN OPTION. EACH PERSON SHOULD CONSULT HIS OR HER OWN TAX ADVISOR REGARDING THESE MATTERS.

Exhibit 10.5

CARA THERAPEUTICS, INC.

FOURTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT

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FOURTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT

THIS FOURTH AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT ("**Agreement**") is made as of the 25th day of April, 2013, by and between Cara Therapeutics, Inc., a Delaware corporation (the "**Company**"), each of the investors listed on Schedule A hereto, each of which is referred to in this Agreement as an "Investor" and each of the stockholders listed on Schedule B hereto, each of whom is referred to herein as a "Key Holder" and any purchaser of Additional Shares (as defined in the Series D Purchase Agreement) that becomes a party to this Agreement in accordance with Section 6.9 hereof.

RECITALS

WHEREAS, certain of the Investors (the "**Existing Investors**") hold shares of the Company's Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock, Junior Preferred Stock and/or shares of Common Stock and possess registration rights, information rights, rights of first offer, and other rights pursuant to an Amended and Restated Investors' Rights Agreement dated as of May 15, 2012 between the Company, the Existing Investors and the Key Holders, as further amended to date (the "**Prior Agreement**"); and

WHEREAS, the Existing Investors are the holders of at least 55% of the Series C Preferred Stock of the Company and the holders of at least 67% of the Series D Preferred Stock of the Company, and desire to amend and restate the Prior Agreement in its entirety and to accept the rights created pursuant to this Agreement in lieu of the rights granted to them under the Prior Agreement; and

WHEREAS, Maruishi Pharmaceutical Co., Ltd., a corporation organized under the laws of Japan, and the Company are the parties to that certain Junior A Preferred Stock Purchase Agreement of even date herewith (the "**Purchase Agreement**"), under which certain of the Company's and such Investor's obligations to consummate the Closing (as defined in the Purchase Agreement) are conditioned upon the execution and delivery of this Agreement by such Investor and the Company.

NOW, THEREFORE, the Company and the Existing Investors hereby agree that the Prior Agreement shall be amended and restated and superseded and replaced in its entirety by this Agreement and the parties to this Agreement further agree as follows:

1. Definitions. For purposes of this Agreement:

1.1 "**Affiliate**" means, with respect to any specified Person, any other Person who or which, directly or indirectly, controls, is controlled by, or is under common control with such specified Person, including without limitation any partner, officer, director, manager, member or committee member or employee of such Person and any venture capital fund now or hereafter existing that is controlled by or under common control with one or more general partners or managing members of, or shares the same management company with, such Person.

1.2 “**Common Stock**” means shares of the Company’s common stock, par value $0.001 per share.

1.3 “**Damages**” means any loss, claim, damage, or liability (joint or several) to which a party hereto may become subject under the Securities Act, the Exchange Act, or other federal or state law, insofar as such loss, claim, damage, or liability (or any action in respect thereof) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Company, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto; (ii) an omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by any other party hereto of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act, or any state securities law.

1.4 “**Derivative Securities**” means any securities or rights convertible into, or exercisable or exchangeable for, Common Stock, including options and warrants.

1.5 “**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

1.6 “**Excluded Registration**” means a registration relating either to the sale of securities to employees of the Company pursuant to a stock option, stock purchase, or similar plan or to an SEC Rule 145 transaction; a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities; or a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered.

1.7 “**Form S-3**” means such form under the Securities Act as in effect on the date hereof or any registration form under the Securities Act subsequently adopted by the SEC that permits incorporation of substantial information by reference to other documents filed by the Company with the SEC.

1.8 “**GAAP**” means generally accepted accounting principles in the United States.

1.9 “**Holder**” means any holder of Registrable Securities who is a party to this Agreement.

1.10 “**Immediate Family Member**” means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, of a natural person referred to herein.

1.11 “**Initiating Holders**” means, collectively, Holders who properly initiate a registration request under this Agreement.

1.12 "**IPO**" means the Company's first underwritten public offering of its Common Stock under the Securities Act.

1.13 "**Junior Preferred Holders**" means any holder of Junior Preferred Stock who is a party to this Agreement.

1.14 "**Junior A Preferred Holders**" means any holder of Junior A Preferred Stock who is a party to this Agreement.

1.15 "**Junior Preferred Stock Purchase Agreement**" means that certain Junior Preferred Stock Purchase Agreement by and among the Company and Chong Kun Dang Pharmaceuticals Corp. dated May 15, 2012.

1.16 "**Junior Preferred Stock**" means shares of the Company's Junior Preferred Stock, par value $0.001 per share.

1.17 "**Junior A Preferred Stock**" means shares of the Company's Junior A Preferred Stock, par value $0.001 per share.

1.18 "Key Employee" means any executive-level employee (including division director and vice president-level positions) as well as any employee who, either alone or in concert with others, develops, invents, programs, or designs any Company Intellectual Property (as defined in the Purchase Agreement).

1.19 "**Major Investor**" means each of MVM International Life Sciences Fund No. 1 Limited Partnership ("**MVM**")**,** Alta Biopharma Partners III Limited Partnership, Ascent Biomedical Ventures I, L.P., Ascent Biomedical Ventures I NY, L.P, Devon Park Bioventures, L.P. and Rho Ventures VI, L.P.; provided that any Major Investor holding any shares of Common Stock issued upon conversion of Preferred Stock in connection with a Special Mandatory Conversion (as defined in the Prior Certificate) shall no longer be deemed a Major Investor for purposes hereof.

1.20 "**New Securities**" means, collectively, equity securities of the Company, whether or not currently authorized, as well as rights, options, or warrants to purchase such equity securities, or securities of any type whatsoever that are, or may become, convertible or exchangeable into or exercisable for such equity securities.

1.21 "**Person**" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

1.22 "**Preferred Stock**" means, collectively, shares of the Company's Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock, Junior A Preferred Stock and Junior Preferred Stock.

1.23 "**Prior Certificate**" means the Company's Amended and Restated Certificate of Incorporation dated May 8, 2012, as further amended to date.

1.24 "**Register**," "**registered**," and "**registration**" refer to a registration effected by preparing and filing a registration statement or similar document in compliance with the Securities Act, and the declaration or ordering of effectiveness of such registration statement or document.

1.25 "**Registrable Securities**" means (i) the Common Stock issuable or issued upon conversion of the Series C Preferred Stock, Series D Preferred Stock, Junior A Preferred Stock and Junior Preferred Stock; (ii) any Common Stock issued or issuable upon conversion of any capital stock of the Company acquired by the Investors after the date hereof; (iii) any shares of Common Stock held by, or issued or issuable upon conversion of any capital stock of the Company held by, the Key Holders, provided, however, that such shares of Common Stock shall not be deemed Registrable Securities and the Key Holders shall not be deemed Holders for the purposes of Sections 2.1, 2.3, 2.11, 3.1, 3.2, 4.1 and 6.6; and (iv) any Common Stock issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the shares referenced in clauses (i), (ii) and (iii) above; excluding in all cases, however, any Registrable Securities sold by a Person in a transaction in which the rights under Section 2 hereof are not assigned or any shares for which registration rights have terminated pursuant to Section 2.15 of this Agreement. Notwithstanding anything to the contrary contained herein, any shares of Common Stock issued upon conversion of Preferred Stock in connection with the Special Mandatory Conversion (as defined in the Prior Certificate) shall not constitute Registrable Securities for purposes of this Agreement.

1.26 "**Registrable Securities then outstanding**" means the number of shares determined by adding the Common Stock outstanding that qualifies as Registrable Securities and the Common Stock issuable pursuant to then exercisable or convertible securities that are Registrable Securities.

1.27 "**Restated Certificate**" means the Company's Amended and Restated Certificate of Incorporation dated April 23, 2013.

1.28 "**Restricted Securities**" means the securities of the Company required to bear the legend set forth in Section 2.14(b) hereof.

1.29 "**SEC**" means the Securities and Exchange Commission.

1.30 "**SEC Rule 144**" means Rule 144 promulgated by the SEC under the Securities Act.

1.31 "**SEC Rule 145**" means Rule 145 promulgated by the SEC under the Securities Act.

1.32 "**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

1.33 "**Selling Expenses**" means all underwriting discounts, selling commissions, and stock transfer taxes applicable to the sale of Registrable Securities, and fees and disbursements of counsel for any Holder, except as provided in Section 2.7.

1.34 "**Series A Preferred Stock**" means shares of the Company's Series A Preferred Stock, par value $0.001 per share.

1.35 "**Series B Preferred Stock**" means shares of the Company's Series B Preferred Stock, par value $0.001 per share.

1.36 "**Series C Directors**" means the directors of the Company that the holders of record of the Series C Preferred Stock are entitled to elect pursuant to the Restated Certificate.

1.37 "**Series C Preferred Stock**" means shares of the Company's Series C Preferred Stock, par value $0.001 per share.

1.38 "**Series D Director**" means the director of the Company that the holders of record of the Series D Preferred Stock are entitled to elect pursuant to the Restated Certificate.

1.39 "**Series D Preferred Stock**" means shares of the Company's Series D Preferred Stock, par value $0.001 per share.

2. Registration Rights.

The Company covenants and agrees as follows:

2.1 Demand Registration.

(a) If at any time after the earlier of (i) three (3) years after the date of this Agreement or (ii) one hundred eighty (180) days after the effective date of the registration statement for the IPO, the Company receives a request from Holders of twenty percent (20%) of the Registrable Securities then outstanding that the Company effect a registration with respect to Registrable Securities then outstanding, the reasonably anticipated aggregate offering price, net of Selling Expenses, of which would exceed $10,000,000, then the Company shall (i) within ten (10) days after the date such request is given, give notice thereof (the "**Demand Notice**") to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within sixty (60) days after the date such request is given by the Initiating Holders, file a registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Section 2.1(b).

(b) Notwithstanding the foregoing obligations, if the Company furnishes to Holders requesting a registration pursuant to this Section 2.1 a certificate signed by the Company's chief executive officer stating that in the good faith judgment of the Company's Board of Directors it would be materially detrimental to the Company and its stockholders for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective, because such action would (i) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Company; (ii) require premature disclosure of material information that the Company has a bona fide business purpose for preserving as confidential; or

(iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, then the Company shall have the right to defer taking action with respect to such filing for a period of not more than ninety (90) days after the request of the Initiating Holders is given; provided, however, that the Company may not invoke this right more than twice in any twelve (12) month period; and provided further that the Company shall not register any securities for its own account or that of any other stockholder during such ninety (90) day period other than pursuant to an Excluded Registration.

(c) The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to this Section 2.1 (i) during the period that is sixty (60) days before the Company's good faith estimate of the date of filing of, and ending on a date that is one hundred eighty (180) days after the effective date of, a Company-initiated registration, provided, that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; (ii) after the Company has effected two registrations pursuant to this Section 2.1; or (iii) if the Initiating Holders propose to dispose of shares of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Section 2.3. A registration shall not be counted as "effected" for purposes of this Section 2.1 until such time as the applicable registration statement has been declared effective by the SEC, unless the Initiating Holders withdraw their request for such registration, elect not to pay the registration expenses therefor, and forfeit their right to one demand registration statement pursuant to Section 2.7, in which case such withdrawn registration statement shall be counted as "effected" for purposes of this Section 2.1.

2.2 Company Registration. If the Company proposes to register (including, for this purpose, a registration effected by the Company for stockholders other than the Holders) any of its stock or other securities under the Securities Act in connection with the public offering of such securities solely for cash (other than an Excluded Registration), the Company shall, at such time, promptly give each Holder notice of such registration. Upon the request of each Holder given within twenty (20) days after such notice is given by the Company, the Company shall, subject to the provisions of Section 2.4, cause to be registered all of the Registrable Securities that each such Holder has requested to be included in such registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.2 before the effective date of such registration, whether or not any Holder has elected to include Registrable Securities in such registration. The expenses of such withdrawn registration shall be borne by the Company in accordance with Section 2.7.

2.3 Form S-3 Registration. If the Company receives a request from Holders of at least ten percent (10%) of the Registrable Securities then outstanding that the Company effect a registration on Form S-3 with respect to all or a part of the Registrable Securities owned by such Initiating Holders, then the Company shall:

(a) within ten (10) days after the date such request is given, give notice of the proposed registration to all Holders other than the Initiating Holders (the "S-3 Notice"); and

(b) as soon as practicable, use its commercially reasonable efforts to effect such registration as would permit or facilitate the sale and distribution of all or such portion of such Initiating Holders' Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any other Holders joining in such request as are specified in a request given to the Company within fifteen (15) days after the S-3 Notice is given; provided, however, that the Company shall not be obligated to effect any such registration pursuant to this Section 2.3 (i) if Form S-3 is not then available for such offering by the Holders; (ii) if the Holders, together with the holders of any other securities of the Company entitled to and requesting inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) at an aggregate price to the public (net of Selling Expenses) of less than $5 million; (iii) if the Company furnishes to the Holders a certificate signed by the chief executive officer of the Company stating that in the good-faith judgment of the Board of Directors of the Company, it would be materially detrimental to the Company and its stockholders for such Form S-3 registration to be effected at such time, in which event the Company shall have the right to defer the filing of the Form S-3 registration statement for a period of not more than ninety (90) days after receipt of the request of the Initiating Holders under this Section 2.3; provided, however, that the Company shall not invoke this right more than twice in any twelve (12) month period; and provided further that the Company shall not register any securities for its own account or that of any other stockholder during such ninety (90) day period other than pursuant to an Excluded Registration; (iv) if the Company has, within the twelve (12) month period preceding the date of such request, already effected two registrations on Form S-3 for the Holders pursuant to this Section 2.3; or (v) during the period ending one hundred eighty (180) days after the effective date of a registration made under Section 2.2 hereof.

(c) Registrations effected pursuant to this Section 2.3 shall not be counted as demands for registration or registrations effected pursuant to Section 2.1.

2.4 Underwriting Requirements.

(a) If, pursuant to Section 2.1 or Section 2.3, the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to Section 2.1(a) or Section 2.3, and the Company shall include such information in the Demand Notice or the S-3 Notice, as the case may be. The underwriter will be selected by the Company and shall be reasonably acceptable to a majority in interest of the Initiating Holders. In such event, the right of any Holder to include such Holder's Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in Section 2.5(e)) enter into an underwriting agreement in customary form with the managing underwriter(s) selected for such underwriting. Notwithstanding any other provision of this Section 2.4, if the managing underwriter(s) advise(s) the Initiating Holders in writing that marketing factors require a limitation on the number of shares to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities that otherwise would be underwritten pursuant hereto, and the number of Registrable Securities that may be included in the underwriting shall be allocated among all Holders of Registrable Securities, including the Initiating Holders, in proportion (as nearly as practicable) to the number of Registrable Securities of the Company owned by each Holder; provided, however, that the

number of Registrable Securities held by the Holders to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest 100 shares.

(b) In connection with any offering involving an underwriting of shares of the Company's capital stock pursuant to Section 2.2, the Company shall not be required to include any of the Holders' Registrable Securities in such underwriting unless the Holders accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such quantity as the underwriters in their sole discretion determine will not jeopardize the success of the offering by the Company. If the total number of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the number of securities to be sold (other than by the Company) that the underwriters in their reasonable discretion determine is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters and the Company in their sole discretion determine will not jeopardize the success of the offering. In no event shall any Registrable Securities be excluded from such offering unless all other stockholders' securities have been first excluded. If the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be apportioned (1) first, pro rata among the Investors that are selling Holders based on the number of Registrable Securities held by all Investors that are selling Holders or in such other proportions as shall mutually be agreed to by all such Investors that are selling Holders and (2) second, pro rata among the Key Holders that are selling Holders based on the number of Registrable Securities held by all Key Holders that are selling Holders or in such other proportions as shall mutually be agreed to by all such Key Holders that are selling Holders. For purposes of the provision in this Section 2.4(b) concerning apportionment, for any selling stockholder that is a Holder and a partnership, limited liability company, or corporation, the partners, members, retired partners, retired members, stockholders, and Affiliates of such Holder, or the estates and Immediate Family Members of any such partners, retired partners, members, and retired members and any trusts for the benefit of any of the foregoing Persons, shall be deemed to be a single "selling Holder," and any pro rata reduction with respect to such "selling Holder" shall be based upon the aggregate number of Registrable Securities owned by all Persons included in such "selling Holder," as defined in this sentence.

(c) For purposes of Section 2.1 and Section 2.3, a registration shall not be counted as "effected" if, as a result of an exercise of the underwriter's cutback provisions in Section 2.4(a), fewer than fifty percent (50%) of the total number of Registrable Securities that Holders have requested to be included in such registration statement are actually included.

2.5 Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its commercially reasonable efforts to cause such registration statement to become effective and, upon the request of the Holders of a majority of

the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or, if earlier, until the distribution contemplated in the registration statement has been completed; provided, however, that (i) such one hundred twenty (120) day period shall be extended for a period of time equal to the period the Holder refrains, at the request of an underwriter of Common Stock (or other securities) of the Company, from selling any securities included in such registration, and (ii) in the case of any registration of Registrable Securities on Form S-3 that are intended to be offered on a continuous or delayed basis, subject to compliance with applicable SEC rules, such one hundred twenty (120) day period shall be extended for up to thirty (30) days (or such longer period as may be requested by the holders of a majority of the Registrable Securities specified in clauses (i) and (ii) of the defined term Registrable Securities), if necessary, to keep the registration statement effective until all such Registrable Securities are sold;

(b) prepare and file with the SEC such amendments and supplements to such registration statement, and the prospectus used in connection with such registration statement, as may be necessary to comply with the Securities Act in order to enable the disposition of all securities covered by such registration statement;

(c) furnish to the selling Holders such numbers of copies of a prospectus, including a preliminary prospectus, as required by the Securities Act, and such other documents as the Holders may reasonably request in order to facilitate their disposition of their Registrable Securities;

(d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or blue-sky laws of such jurisdictions as shall be reasonably requested by the selling Holders; provided that the Company shall not be required to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter of such offering;

(f) use its commercially reasonable efforts to cause all such Registrable Securities covered by such registration statement to be listed on a national securities exchange or trading system and each securities exchange and trading system (if any) on which similar securities issued by the Company are then listed;

(g) provide a transfer agent and registrar for all Registrable Securities registered pursuant to this Agreement and provide a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(h) promptly make available for inspection by the selling Holders, any managing underwriter participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling Holders, all financial and other records, pertinent corporate documents, and properties of

the Company, and cause the Company's officers, directors, employees, and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant, or agent in connection with any such registration statement;

(i) notify each selling Holder, promptly after the Company receives notice thereof, of the time when such registration statement has been declared effective or a supplement to any prospectus forming a part of such registration statement has been filed; and

(j) after such registration statement becomes effective, notify each selling Holder of any request by the SEC that the Company amend or supplement such registration statement or prospectus.

2.6 Furnish Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as is reasonably required to effect the registration of such Holder's Registrable Securities.

2.7 Expenses of Registration. All expenses (other than Selling Expenses) incurred in connection with registrations, filings, or qualifications pursuant to Section 2, including all registration, filing, and qualification fees; printers' and accounting fees; fees and disbursements of counsel for the Company; and the reasonable fees and disbursements, not to exceed $25,000, of one counsel for the selling Holders, shall be borne and paid by the Company; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 2.1 or Section 2.3 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all selling Holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one registration pursuant to Section 2.1 or Section 2.3, as the case may be; provided further that if, at the time of such withdrawal, the Holders have learned of a material adverse change in the condition, business, or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness after learning of such information, then the Holders shall not be required to pay any of such expenses and shall not forfeit their right to one registration pursuant to Section 2.1 or Section 2.3. All Selling Expenses relating to Registrable Securities registered pursuant to this Section 2 shall be borne and paid by the Holders pro rata on the basis of the number of Registrable Securities registered on their behalf.

2.8 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.9 Indemnification. If any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each selling Holder, and the partners, members, officers, directors, and stockholders of each such selling Holder; legal counsel and accountants for each such selling Holder; any underwriter (as defined in the Securities Act) for each such selling Holder; and each Person, if any, who controls such selling Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any Damages, and the Company will pay to each such selling Holder, underwriter, controlling Person, or other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating any matter or defending any proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.9(a) shall not apply to amounts paid in settlement of any such investigation or proceeding if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of any such selling Holder, underwriter, controlling Person, or other aforementioned Person expressly for use in connection with such registration.

(b) To the extent permitted by law, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any underwriter (as defined in the Securities Act), any other Holder selling securities in such registration statement, and any controlling Person of any such underwriter or other selling Holder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of such selling Holder expressly for use in connection with such registration; and each such selling Holder will pay to the Company and each other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating any investigation or defending any proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.9(b) shall not apply to amounts paid in settlement of any such investigation or proceeding if such settlement is effected without the consent of such selling Holder, which consent shall not be unreasonably withheld; and provided further that in no event shall any indemnity under this Section 2.9(b) exceed the proceeds from the offering (net of any Selling Expenses) received by such selling Holder, except in the case of fraud or willful misconduct by such selling Holder.

(c) Promptly after receipt by an indemnified party under this Section 2.9 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.9, give the indemnifying party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees

and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.9, to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.9.

(d) The foregoing indemnity agreements of the Company and the selling Holders are subject to the condition that, insofar as they relate to any Damages arising from any untrue statement or alleged untrue statement of a material fact contained in, or omission or alleged omission of a material fact from, a preliminary prospectus (or necessary to make the statements therein not misleading) that has been corrected in the form of prospectus included in the registration statement at the time it becomes effective, or any amendment or supplement thereto filed with the SEC pursuant to Rule 424(b) under the Securities Act (the "**Final Prospectus**"), such indemnity agreement shall not inure to the benefit of any Person if a copy of the Final Prospectus was furnished to the indemnified party and such indemnified party failed to deliver, at or before the confirmation of the sale of the shares registered in such offering, a copy of the Final Prospectus to the Person asserting the loss, liability, claim, or damage in any case in which such delivery was required by the Securities Act.

(e) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Section 2.9 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Section 2.9 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Section 2.9, then, and in each such case, such parties will contribute to the aggregate losses, claims, damages, liabilities, or expenses to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of the each of indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; provided, however, that, in any such case, (x) no Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; and provided further that in no event shall a Holder's liability

pursuant to this Section 2.9(e), when combined with the amounts paid or payable by such Holder pursuant to Section 2.9(b), exceed the proceeds from the offering (net of any Selling Expenses) received by such Holder, except in the case of willful misconduct or fraud by such Holder.

(f) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(g) Unless otherwise superseded by an underwriting agreement entered into in connection with the underwritten public offering, the obligations of the Company and Holders under this Section 2.9 shall survive the completion of any offering of Registrable Securities in a registration under this Section 2, and otherwise shall survive the termination of this Agreement.

2.10 Reports Under Exchange Act. With a view to making available to the Holders the benefits of SEC Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company shall:

(a) make and keep public information available, as those terms are understood and defined in SEC Rule 144, at all times after the effective date of the registration statement filed by the Company for the IPO;

(b) use commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after the Company has become subject to such reporting requirements); and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after ninety (90) days after the effective date of the registration statement filed by the Company for the IPO), the Securities Act, and the Exchange Act (at any time after the Company has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after the Company so qualifies); (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company; and (iii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration (at any time after the Company has become subject to the reporting requirements under the Exchange Act) or pursuant to such Form S-3 (at any time after the Company so qualifies to use such form).

2.11 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of 55% the Registrable Securities then outstanding, enter into any agreement with any holder or prospective holder of any securities of the Company that would allow such holder or prospective

holder (i) to include such securities in any registration unless, under the terms of such agreement, such holder or prospective holder may include such securities in any such registration only to the extent that the inclusion of such securities will not reduce the number of the Registrable Securities of the Holders that are included or (ii) to demand registration of any securities held by such holder or prospective holder; provided that this limitation shall not apply to any Purchaser who becomes a party to this Agreement in the capacity of an Investor in accordance with Section 6.9.

2.12 "Market Stand-off" Agreement. Each Holder hereby agrees that it will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the IPO and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (180) days) or, if required by such underwriter, such longer period of time as is necessary to enable such underwriter to issue a research report or make a public appearance that relates to an earnings release or announcement by the Company within seventeen (17) days before or after the date that is one hundred eighty (180) days after the effective date of the registration statement relating to such offering, but in any event not to exceed two hundred ten (210) days following the effective date of the registration statement relating to such offering, (i) lend; offer; pledge; sell; contract to sell; sell any option or contract to purchase; purchase any option or contract to sell; grant any option, right, or warrant to purchase; or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock (whether such shares or any such securities are then owned by the Holder or are thereafter acquired) or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Common Stock, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or other securities, in cash, or otherwise. The foregoing provisions of this Section 2.12 shall apply only to the IPO, shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement, and shall be applicable to the Holders only if all officers, directors, and stockholders individually owning more than one percent (1%) of the Company's outstanding Common Stock are subject to the same restrictions. The underwriters in connection with the IPO are intended third-party beneficiaries of this Section 2.12 and shall have the right, power, and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in the IPO that are consistent with this Section 2.12 or that are necessary to give further effect thereto.

2.13 Assignment of Registration Rights. The rights to cause the Company to register Registrable Securities pursuant to this Section 2 may be assigned (but only with all related obligations) by a Holder to a transferee of such Registrable Securities that (i) is an Affiliate, partner, member, limited partner, retired partner, retired member, or stockholder of a Holder; (ii) is a Holder's Immediate Family Member or trust for the benefit of an individual Holder or one or more of such Holder's Immediate Family Members; or (iii) after such transfer, holds at least (a) 250,000 shares of Registrable Securities (subject to appropriate adjustment for stock splits, stock dividends, combinations, and other recapitalizations), (b) solely with respect to the holders of the Junior A Preferred Stock, 2,000,000 shares of Registrable Securities (as adjusted for any stock combination, stock split, stock dividend, recapitalization or other similar transaction) or (c) solely with respect to the holders of the Junior Preferred Stock, 170,000 shares

of Registrable Securities (as adjusted for any stock combination, stock split, stock dividend, recapitalization or other similar transaction); provided, however, that (x) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such registration rights are being transferred; and (y) such transferee agrees in writing to be bound by and subject to the terms and conditions of this Agreement, including the provisions of Section 2.12. For the purposes of determining the number of shares of Registrable Securities held by a transferee, the holdings of a transferee (1) that is an Affiliate, limited partner, retired partner, member, retired member, or stockholder of a Holder; (2) who is a Holder's Immediate Family Member; or (3) that is a trust for the benefit of an individual Holder or such Holder's Immediate Family Member shall be aggregated together with those of the transferring Holder; provided further that all transferees who would not qualify individually for assignment of registration rights shall have a single attorney-in-fact for the purpose of exercising any rights, receiving notices, or taking any action under this Section 2.

2.14 Restrictions on Transfer.

(a) The Preferred Stock and the Registrable Securities shall not be sold, pledged, or otherwise transferred, and the Company shall not recognize any such sale, pledge, or transfer, except upon the conditions specified in this Agreement, which conditions are intended to ensure compliance with the provisions of the Securities Act. A transferring Holder will cause any proposed purchaser, pledgee, or transferee of the Preferred Stock and the Registrable Securities held by such Holder to agree to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement.

(b) Each certificate representing (i) the Preferred Stock, (ii) the Registrable Securities, and (iii) any other securities issued in respect of the securities referenced in clauses (i) and (ii), upon any stock split, stock dividend, recapitalization, merger, consolidation, or similar event, shall (unless otherwise permitted by the provisions of Section 2.14(c)) be stamped or otherwise imprinted with a legend in the following form:

THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933. SUCH SHARES MAY NOT BE SOLD, PLEDGED, OR TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR A VALID EXEMPTION FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SAID ACT.

THE SHARES REPRESENTED BY THIS CERTIFICATE MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

The Holders consent to the Company making a notation in its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer set forth in this Section 2.14.

(c) The holder of each certificate representing Restricted Securities, by acceptance thereof, agrees to comply in all respects with the provisions of this Section 2. Before any proposed sale, pledge, or transfer of any Restricted Securities, unless there is in effect a registration statement under the Securities Act covering the proposed transaction, the Holder thereof shall give notice to the Company of such Holder's intention to effect such sale, pledge, or transfer. Each such notice shall describe the manner and circumstances of the proposed sale, pledge, or transfer in sufficient detail and, if reasonably requested by the Company, shall be accompanied at such Holder's expense by either (i) a written opinion of legal counsel who shall, and whose legal opinion shall, be reasonably satisfactory to the Company, addressed to the Company, to the effect that the proposed transaction may be effected without registration under the Securities Act; (ii) a "no action" letter from the SEC to the effect that the proposed sale, pledge, or transfer of such Restricted Securities without registration will not result in a recommendation by the staff of the SEC that action be taken with respect thereto; or (iii) any other evidence reasonably satisfactory to counsel to the Company to the effect that the proposed sale, pledge, or transfer of the Restricted Securities may be effected without registration under the Securities Act, whereupon the Holder of such Restricted Securities shall be entitled to sell, pledge, or transfer such Restricted Securities in accordance with the terms of the notice given by the Holder to the Company. The Company will not require such a legal opinion or "no action" letter (x) in any transaction in compliance with Rule 144 or (y) in any transaction in which such Holder distributes Restricted Securities to an Affiliate of such Holder for no consideration; provided that each transferee agrees in writing to be subject to the terms of this Section 2.14(c). Each certificate evidencing the Restricted Securities transferred as above provided shall bear, except if such transfer is made pursuant to Rule 144, the appropriate restrictive legend set forth in Section 2.14(b), except that such certificate shall not bear such restrictive legend if, in the opinion of counsel for such Holder and the Company, such legend is not required in order to establish compliance with any provisions of the Securities Act.

2.15 Termination of Registration Rights. The right of any Holder to request registration or inclusion of Registrable Securities in any registration pursuant to Section 2.1, Section 2.2, or Section 2.3 shall terminate upon the earlier of:

(a) the closing of a Deemed Liquidation Event, as such term is defined in the Restated Certificate; or

(b) when all of such Holder's Registrable Securities could be sold without restriction under SEC Rule 144.

3. Information Rights.

3.1 Delivery of Financial Statements. The Company shall deliver to each Major Investor:

(a) as soon as practicable, but in any event within sixty (60) days after the end of each fiscal year of the Company, (i) an unaudited balance sheet as of the end of such year; (ii) unaudited statements of income and of cash flows for such year; and (iii) an unaudited statement of stockholders' equity as of the end of such year, all prepared in accordance with GAAP (except that the financial report may (x) be subject to normal year-end audit adjustments and (y) not contain notes thereto that may be required in accordance with GAAP);

(b) as soon as practicable, but in any event within one hundred and fifty (150) days after the end of each fiscal year of the Company, (i) a balance sheet as of the end of such year; (ii) statements of income and of cash flows for such year; and (iii) a statement of stockholders' equity as of the end of such year, audited and certified by independent public accountants of nationally recognized standing selected by the Company;

(c) as soon as practicable, but in any event within thirty (30) days after the end of each of the first three (3) quarters of each fiscal year of the Company, unaudited statements of income and of cash flows for such fiscal quarter, and an unaudited balance sheet as of the end of such fiscal quarter, all prepared in accordance with GAAP (except that the financial report may (i) be subject to normal year-end audit adjustments and (ii) not contain notes thereto that may be required in accordance with GAAP);

(d) as soon as practicable, but in any event within thirty (30) days of the end of each month, an unaudited income statement and statement of cash flows for such month, and an unaudited balance sheet as of the end of such month, all prepared in accordance with GAAP (except that the financial report may (i) be subject to normal year-end audit adjustments and (ii) not contain notes thereto that may be required in accordance with GAAP);

(e) as soon as practicable, but in any event sixty (60) days before the end of each fiscal year, a budget for the next fiscal year approved in accordance with Section 5.5 hereof (the "**Budget**"), prepared on a monthly basis, including balance sheets, income statements, and statements of cash flow for such months and, promptly after prepared, any other budgets or revised budgets prepared by the Company;

(f) with respect to the financial statements called for in Section 3.1(a), Section 3.1(b), Section 3.1(c) and Section 3.1(d), an instrument executed by the chief financial officer and chief executive officer of the Company certifying that such financial statements were prepared in accordance with GAAP consistently applied with prior practice for earlier periods (except as otherwise set forth in Section 3.1(a), Section 3.1(c) and Section 3.1(d)) and fairly present the financial condition of the Company and its results of operation for the periods specified therein; and

(g) such other information relating to the financial condition, business, prospects, or corporate affairs of the Company as any Major Investor may from time to time reasonably request; provided, however, that the Company shall not be obligated under this Section 3.1 to provide information (i) that the Company reasonably determines in good faith to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in form mutually acceptable to the Company and such Major Investor) or (ii) the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

If, for any period, the Company has any subsidiary whose accounts are consolidated with those of the Company, then in respect of such period the financial statements delivered pursuant to the foregoing sections shall be the consolidated and consolidating financial statements of the Company and all such consolidated subsidiaries.

Notwithstanding anything else in this Section 3.1 to the contrary, the Company may cease providing the information set forth in this Section 3.1 during the period starting with the date sixty (60) days before the Company's good-faith estimate of the date of filing of a registration statement if it reasonably concludes it must do so to comply with the SEC rules applicable to such registration statement and related offering; provided that the Company's covenants under this Section 3.1 shall be reinstated at such time as the Company is no longer actively employing its commercially reasonable efforts to cause such registration statement to become effective.

3.2 Inspection. The Company shall permit each Major Investor, at such Major Investor's expense, to visit and inspect the Company's properties; examine its books of account and records; and discuss the Company's affairs, finances, and accounts with its officers, during normal business hours of the Company as may be reasonably requested by the Major Investor; provided, however, that the Company shall not be obligated pursuant to this Section 3.2 to provide access to any information that it reasonably considers to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in form mutually acceptable to the Company and such Major Investor) or the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

3.3 Observer Rights.

(a) As long as MVM (together with its Affiliates) owns not less than fifty percent (50%) of the shares of Preferred Stock it owns on the date hereof (or an equivalent amount of Common Stock issued upon conversion thereof) and no such shares of Preferred Stock have been converted into Common Stock pursuant to a Special Mandatory Conversion (as defined in the Prior Certificate), the Company shall invite a representative of MVM to attend all meetings of its Board of Directors in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents, and other materials that it provides to its directors at the same time and in the same manner as provided to such directors; provided, however, that such representative shall agree to hold in confidence and trust with respect to all information so provided; and provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if: (i) access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel, or (ii) the Company, acting in good faith, believes that access to such information is reasonably likely to be detrimental to the Company.

(b) As long as Michael Lewis owns not less than two percent (2%) of the total Common Stock of the Company then outstanding (assuming full conversion and/or exercise, as applicable, of all outstanding Derivative Securities), the Company shall invite Michael Lewis to attend all meetings of its Board of Directors in a nonvoting observer capacity and, in this respect, shall give Michael Lewis copies of all notices, minutes, consents, and other materials that it provides to its directors at the same time and in the same manner as provided to such directors; provided, however, that Michael Lewis hereby agrees to hold in confidence and trust with respect to all information so provided; and provided further, that the Company reserves

the right to withhold any information and to exclude Michael Lewis from any meeting or portion thereof if: (i) access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel, or (ii) the Company, acting in good faith, believes that access to such information is reasonably likely to be detrimental to the Company.

3.4 Termination of Information and Observer Rights. The covenants set forth in Section 3.1, Section 3.2 and Section 3.3 shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, as such term is defined in the Restated Certificate, whichever event occurs first.

3.5 Confidentiality. Each Investor agrees that such Investor will keep confidential and will not disclose, divulge, or use for any purpose (other than to monitor its investment in the Company) any confidential information obtained from the Company pursuant to the terms of this Agreement (including notice of the Company's intention to file a registration statement), unless such confidential information (a) is known or becomes known to the public in general (other than as a result of a breach of this Section 3.5 by such Investor), (b) is or has been independently developed or conceived by the Investor without use of the Company's confidential information, or (c) is or has been made known or disclosed to the Investor by a third party without a breach of any obligation of confidentiality such third party may have to the Company; provided, however, that an Investor may disclose confidential information (i) to its attorneys, accountants, consultants, and other professionals to the extent necessary to obtain their services in connection with monitoring its investment in the Company; (ii) to any prospective purchaser of any Registrable Securities from such Investor, if such prospective purchaser agrees to be bound by the provisions of this Section 3.5; (iii) to any Affiliate, partner, member, stockholder, or wholly owned subsidiary of such Investor in the ordinary course of business, provided that such Investor informs such Person that such information is confidential and directs such Person to maintain the confidentiality of such information; or (iv) as may otherwise be required by law, provided that the Investor promptly notifies the Company of such disclosure and takes reasonable steps to minimize the extent of any such required disclosure. The Company acknowledges that certain of the Investors are in the business of venture capital investing and therefore review the business plans and related proprietary information of many enterprises, including enterprises that may have products or services that compete directly or indirectly with those of the Company. Nothing in this Agreement shall preclude or in any way restrict the Investors from investing or participating in any particular enterprise, regardless of whether such enterprise has products or services that compete with those of the Company.

4. Rights to Future Stock Issuances.

4.1 Right of First Offer. Subject to the terms and conditions of this Section 4.1 and applicable securities laws, if the Company proposes to offer or sell any New Securities, the Company shall first offer such New Securities to each Investor, provided, however, that neither the Junior A Preferred Holders nor the Junior Preferred Holders shall be deemed Investors for the purposes of Section 4. An Investor shall be entitled to apportion the right of first offer hereby granted to it among itself and its Affiliates in such proportions as it deems appropriate.

(a) The Company shall give notice (the "**Offer Notice**") to each Investor, stating (i) its bona fide intention to offer such New Securities, (ii) the number of such New Securities to be offered, and (iii) the price and terms upon which it proposes to offer such New Securities.

(b) By notification to the Company within twenty (20) days after the Offer Notice is given, each Investor may elect to purchase or otherwise acquire, at the price and on the terms specified in the Offer Notice, up to that portion of such New Securities which equals the proportion that the Common Stock (excluding any Common Stock issued upon conversion of Preferred Stock in connection with the Special Mandatory Conversion (as defined in the Prior Certificate)) issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of any Derivative Securities then held, by such Investor bears to the total Common Stock of the Company then outstanding (assuming full conversion and/or exercise, as applicable, of all outstanding Derivative Securities, but excluding any Common Stock issued upon conversion of Preferred Stock in connection with the Special Mandatory Conversion (as defined in the Prior Certificate)). At the expiration of such twenty (20) day period, the Company shall promptly notify each Investor that elects to purchase or acquire all the shares available to it (each, a "**Fully Exercising Investor**") of any other Investor's failure to do likewise. During the ten (10) day period commencing after the Company has given such notice, each Fully Exercising Investor may, by giving notice to the Company, elect to purchase or acquire, in addition to the number of shares specified above, up to that portion of the New Securities for which Investors were entitled to subscribe but that were not subscribed for by the Investors which is equal to the proportion that the Common Stock (excluding any Common Stock issued upon conversion of Preferred Stock in connection with the Special Mandatory Conversion (as defined in the Prior Certificate)) issued and held, or issuable upon conversion of Preferred Stock then held, by such Fully Exercising Investor bears to the Common Stock issued and held, or issuable upon conversion of the Preferred Stock then held (excluding any Common Stock issued upon conversion of Preferred Stock in connection with the Special Mandatory Conversion (as defined in the Prior Certificate)), by all Fully Exercising Investors who wish to purchase such unsubscribed shares. The closing of any sale pursuant to this Section 4.1(b) shall occur within ninety (90) days of the date that the Offer Notice is given.

(c) If all New Securities referred to in the Offer Notice are not elected to be purchased or acquired as provided in Section 4.1(b), the Company may, during the ninety (90) day period following the expiration of the periods provided in Section 4.1(b), offer and sell the remaining unsubscribed portion of such New Securities to any Person or Persons at a price not less than, and upon terms no more favorable to the offeree than, those specified in the Offer Notice. If the Company does not enter into an agreement for the sale of the New Securities within such period, or if such agreement is not consummated within thirty (30) days of the execution thereof, the right provided hereunder shall be deemed to be revived and such New Securities shall not be offered unless first reoffered to the Investors in accordance with this Section 4.1.

(d) The right of first offer in this Section 4.1 shall not be applicable to (i) Exempted Securities (as defined in the Restated Certificate); (ii) shares of Common Stock issued in the IPO or (iii) shares of Junior A Preferred Stock issued pursuant to the Purchase Agreement.

4.2 Termination. The covenants set forth in Section 4.1 shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, as such term is defined in the Restated Certificate, whichever event occurs first.

5. Additional Covenants.

5.1 Insurance. The Company shall use its commercially reasonable efforts to maintain, from financially sound and reputable insurers, Directors and Officers Errors and Omissions insurance in an amount satisfactory to the Board of Directors, until such time as the Board of Directors determines that such insurance should be discontinued. Upon request of the Board of Directors, the Company shall take out key man insurance policies on certain of the Company's Key Employees, as determined by the Board of Directors.

5.2 Employee Agreements. The Company will cause each Person now or hereafter employed by it or by any subsidiary (or engaged by the Company or any subsidiary as a consultant/independent contractor) with access to confidential information and/or trade secrets to enter into a nondisclosure and proprietary rights assignment agreement substantially in the form approved by the Board of Directors. In addition, the Company shall not amend, modify, terminate, waive, or otherwise alter, in whole or in part, any of the above-referenced agreements or any restricted stock agreement between the Company and any employee, without the consent of the Board of Directors.

5.3 Employee Stock. Unless otherwise approved by the Board of Directors, all employees and consultants of the Company who purchase, receive options to purchase, or receive awards of shares of the Company's capital stock after the date hereof shall be required to execute restricted stock or option agreements, as applicable, providing for (i) vesting of shares over a four (4) year period, with the first twenty-five percent (25%) of such shares vesting following twelve (12) months of continued employment or service, and the remaining shares vesting in equal monthly installments over the following thirty-six (36) months, and (ii) a market stand-off provision substantially similar to that in Section 2.12. In addition, unless otherwise approved by the Board of Directors, the Company shall retain a "right of first refusal" on employee transfers until the Company's IPO and shall have the right to repurchase unvested shares at cost upon termination of employment of a holder of restricted stock.

5.4 Matters Requiring Investor Director Approval. The Company hereby covenants and agrees with each of the Investors that it shall not, without approval of the Board of Directors, which approval must include the affirmative vote of the Series D Director (so long as the holders of Series D Preferred Stock are entitled to elect the Series D Director) and at least one Series C Director (so long as the holders of Series C Preferred Stock are entitled to elect at least two (2) Series C Directors):

(a) make, or permit any subsidiary to make, any loan or advance to, or own any stock or other securities of, any subsidiary or other corporation, partnership or other entity unless it is wholly owned by the Company;

(b) make, or permit any subsidiary to make, any loan or advance to any person, including, without limitation, any employee or director of the Company or any subsidiary, except advances and similar expenditures in the ordinary course of business or under the terms of an employee stock or option plan approved by the Board of Directors;

(c) approve any new budget or business plan, or material deviations from an approved budget or business plan;

(d) make any expenditures in excess of $100,000 for fixed or capital assets or for any stock or securities of another company, unless such expenditure is included in a budget approved pursuant to paragraph (c) above;

(e) incur any indebtedness that is not already included in a budget approved by the Board of Directors, other than (i) current liabilities and accounts payable incurred in the ordinary course of business, (ii) equipment leases, or (iii) to a bank or other financial institution in the ordinary course of business;

(f) change the compensation of the executive officers, including approving any option grants or stock awards to executive officers;

(g) engage in a search for or elect a new executive officer of the Company; or

(h) sell, transfer, license, in-license, securitize, pledge, give options to license or enter into any joint development agreements with respect to the Company's intellectual property or technology, if the value of the intellectual property or technology that is the subject of such transaction or agreement exceeds $1,000,000.

5.5 Meetings of the Board of Directors; Committees of the Board. Unless otherwise determined by the vote of a majority of the directors then in office, the Board of Directors shall meet at least six times per year in accordance with an agreed-upon schedule. Any committee shall be established and members appointed with the approval of the Series D Director and at least one (1) Series C Director. Each committee of the Board of Directors shall include at least one (1) Series C Director. The Series D Director shall have the right to serve on each committee of the Board of Directors.

5.6 Successor Indemnification. If the Company or any of its successors or assignees (i) consolidates with or merges into any other Person and is not the continuing or surviving corporation or entity of such consolidation or merger or (ii) transfers or conveys all or substantially all of its properties and assets to any Person, then, and in each such case, to the extent necessary, proper provision shall be made so that the successors and assignees of the Company assume the obligations of the Company with respect to indemnification of members of the Board of Directors as in effect immediately before such transaction, whether such obligations are contained in the Company's Bylaws, the Restated Certificate, or elsewhere, as the case may be.

5.7 Board Expenses. The Company shall reimburse the directors for all reasonable out-of-pocket travel expenses incurred (consistent with the Company's travel policy) in connection with attending meetings of the Board of Directors or any committees thereof.

5.8 Termination of Covenants. The covenants set forth in this Section 5, except for Section 5.7, shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO or (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, as such term is defined in the Restated Certificate, whichever event occurs first.

6. Miscellaneous.

6.1 Successors and Assigns. Each Investor hereby agrees that it shall not, and may not, assign any of its rights and obligations hereunder, unless such rights and obligations are assigned by such Investor to any Person to which Registrable Securities are transferred by such Investor pursuant to Section 2.13; provided that such assignment of rights shall be contingent upon the assignee providing a written instrument to the Company notifying the Company of such assignment and agreeing in writing to be bound by the terms of this Agreement. The terms and conditions of this Agreement inure to the benefit of and are binding upon the respective successors and permitted assignees of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assignees any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided herein.

6.2 Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the State of New York, without regard to its principles of conflicts of laws.

6.3 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may also be executed and delivered by facsimile signature and in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

6.4 Titles and Subtitles. The titles and subtitles used in this Agreement are for convenience only and are not to be considered in construing or interpreting this Agreement.

6.5 Notices. All notices, requests, and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given (i) upon personal delivery to the party to be notified; (ii) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient, and if not so confirmed, then on the next business day; (iii) five (5) days after having been sent by registered or certified mail,

return receipt requested, postage prepaid; or (iv) one (1) day after deposit with a nationally recognized overnight courier, specifying next-day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their addresses as set forth on the signature page or Schedule A or Schedule B (as applicable) hereto, or to such email address, facsimile number, or address as subsequently modified by written notice given in accordance with this Section 6.5. If notice is given to the Company, a copy shall also be sent to Cooley LLP, 1114 Avenue of the Americas, New York, New York 10036, Attention: Babak Yaghmaie, Esq.

6.6 Amendments and Waivers. Any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance, and either retroactively or prospectively) only with the written consent of the Company, the holders of 55% of the shares of Series C Preferred Stock then outstanding and the holders of 67% of the shares of Series D Preferred Stock then outstanding; provided that the Company may in its sole discretion waive compliance with Section 2.14(c) (and the Company's failure to object promptly in writing to a proposed assignment allegedly in violation of Section 2.14(c) shall be deemed to be a waiver). Notwithstanding the foregoing, this Agreement may not be amended or terminated and the observance of any term hereof may not be waived with respect to any Investor without the written consent of such Investor, unless such amendment, termination, or waiver applies to all Investors in the same fashion with respect to their rights and obligations as holders of shares of Preferred Stock (it being agreed that a waiver of the provisions of Section 4 with respect to a particular transaction shall be deemed to apply to all Investors in the same fashion if such waiver does so by its terms, notwithstanding the fact that certain Investors may nonetheless, by agreement with the Company, purchase securities in such transaction; provided that each of the Investors is similarly offered the opportunity to purchase its pro rata portion (based on each Investor's equity holdings in the Company) of the securities available to the Investors in such transaction), provided, however, that neither the Junior A Preferred Holders nor the Junior Preferred Holders shall be deemed Investors for the purposes of Section 4. The Company shall give prompt notice of any amendment or termination hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment, termination, or waiver. Any amendment, termination, or waiver effected in accordance with this Section 6.6 shall be binding on all parties hereto, regardless of whether any such party has consented thereto. No waivers of or exceptions to any term, condition, or provision of this Agreement, in any one or more instances, shall be deemed to be or construed as a further or continuing waiver of any such term, condition, or provision.

6.7 Severability. In case any one or more of the provisions contained in this Agreement is for any reason held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and such invalid, illegal, or unenforceable provision shall be reformed and construed so that it will be valid, legal, and enforceable to the maximum extent permitted by law.

6.8 Aggregation of Stock. All shares of Registrable Securities held or acquired by Affiliates shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

6.9 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company issues additional shares of the Company's Series D Preferred Stock after the date hereof, whether pursuant to that Certain Series D Preferred Stock Purchase Agreement by and among the Company and certain of the Investors dated July 19, 2010 (the "**Series D Purchase Agreement**") or otherwise, any purchaser of such shares of Series D Preferred Stock may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement, and thereafter shall be deemed an "Investor" for all purposes hereunder. No action or consent by the Investors shall be required for such joinder to this Agreement by such additional Investor, so long as such additional Investor has agreed in writing to be bound by all of the obligations as an "Investor" hereunder. Furthermore, Schedule A may be updated from time to time without the consent of the parties to reflect any Additional Shares (as defined in the Series D Purchase Agreement) purchased by any of the Investors in accordance with the terms of the Series D Purchase Agreement.

6.10 Entire Agreement. This Agreement (including any Schedules and Exhibits hereto and the Management Rights Letters provided by the Company to each Major Investor on the date hereof) constitutes the full and entire understanding and agreement between the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled. Upon the effectiveness of this Agreement, the Prior Agreement automatically shall be deemed amended and restated and superseded by this Agreement, and shall be of no further force and effect.

6.11 Dispute Resolution. Any unresolved controversy or claim arising out of or relating to this Agreement, except (i) as otherwise provided in this Agreement, or (ii) for any such controversies or claims arising out of either party's intellectual property rights for which a provisional remedy or equitable relief is sought, shall be submitted to arbitration by one arbitrator mutually agreed upon by the parties, and if no agreement can be reached within thirty (30) days after names of potential arbitrators have been proposed by the American Arbitration Association (the "**AAA**"), then by one arbitrator having reasonable experience in corporate finance transactions of the type provided for in this Agreement and who is chosen by the AAA. The arbitration shall take place in New York, New York, in accordance with the AAA rules then in effect, and judgment upon any award rendered in such arbitration will be binding and may be entered in any court having jurisdiction thereof. There shall be limited discovery prior to the arbitration hearing as follows: (a) exchange of witness lists and copies of documentary evidence and documents relating to or arising out of the issues to be arbitrated, (b) depositions of all party witnesses and (c) such other depositions as may be allowed by the arbitrators upon a showing of good cause. Depositions shall be conducted in accordance with the New York Code of Civil Procedure, the arbitrator shall be required to provide in writing to the parties the basis for the award or order of such arbitrator, and a court reporter shall record all hearings, with such record constituting the official transcript of such proceedings. Each party will bear its own costs in respect of any disputes arising under this Agreement.

6.12 Delays or Omissions. No delay or omission to exercise any right, power, or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such nonbreaching or nondefaulting party, nor shall it be construed to be a waiver of or acquiescence to any such breach or default, or to any similar breach or default thereafter occurring, nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. All remedies, whether under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have executed this Fourth Amended and Restated Investors' Rights Agreement as of the date first written above.

CARA THERAPEUTICS, INC.

By: /s/ Derek Chalmers
Name: Derek Chalmers
Title: Chief Executive Officer

INVESTORS:

RHO VENTURES VI, L.P.
By: RMV VI, L.LC., its General Partner
By: Rho Capital Partners LLC, its
Managing Member

By: /s/ Jeffrey Martin
Name: Jeffrey Martin
Date:

INVESTORS (Cont'd):

DEVON PARK BIOVENTURES, L.P.
By: Devon Park Associates, L.P.,
its general partner

By: /s/ Chris Moller
Name: Chris Moller
Title: General Partner

INVESTORS (Cont'd):

ALTA BIOPHARMA PARTNERS III, L.P.
By: Alta BioPharma Management III, LLC

By: /s/ Hilary Strain
Name: Hilary Strain
Title: Chief Financial Officer

ALTA BIOPHARMA PARTNERS III GMBH & CO. BETEILIGUNGS KG
By: Alta BioPharma Management III, LLC

By: /s/ Hilary Strain
Name: Hilary Strain
Title: Chief Financial Officer

ALTA EMBARCADERO BIOPHARMA PARTNERS III, LLC

By: /s/ Hilary Strain
Name: Hilary Strain
Title: Chief Financial Officer

INVESTORS (Cont'd):

ASCENT BIOMEDICAL VENTURES I, L.P.
By: ABV, LLC, its General Partner

By: /s/ Geoffrey W. Smith
Name: Geoffrey W. Smith
Title: Director

ASCENT BIOMEDICAL VENTURES I NY, L.P.
By: ABV, LLC, its General Partner

By: /s/ Geoffrey W. Smith
Name: Geoffrey W. Smith
Title: Director

INVESTORS (Cont'd):

MARUISHI PHARMACEUTICAL CO., LTD.

By: /s/ Keiichi Inoue
Name: Keiichi Inoue
Title: President and Representative Director
Date: April 23, 2013

KEY HOLDERS:

/s/ Derek Chalmers
Derek Chalmers

KEY HOLDERS (Cont'd):

/s/ Michael E. Lewis
Michael E. Lewis

KEY HOLDERS (Cont’d):

/s/ Frederique Menzaghi
Frederique Menzaghi

KEY HOLDERS (Cont'd):

ESPERANTE AB

By: /s/ Dean Slagel
Name: Dean Slagel
Title: Managing Director

KEY HOLDERS (Cont'd):

ASCENT BIOMEDICAL VENTURES I, LP
By: ABV, LLC, its General Partner

By: /s/ Geoffrey W. Smith
Name: Geoffrey W. Smith
Title: Director

ASCENT BIOMEDICAL VENTURES I NY, LP
By: ABV, LLC, its General Partner

By: /s/ Geoffrey W. Smith
Name: Geoffrey W. Smith
Title: Director

SCHEDULE A
INVESTORS

Name and Address	Number of Shares Held
Rho Ventures VI, L.P. c/o Rho Capital Partners Carnegie Hall Tower 152 West 57th Street 23rd Floor New York, New York 10019 Fax: 212.751.3613 Attention: Jeffrey I. Martin, Esq.	5,539,230 Series D Preferred
MVM International Life Sciences Fund No. 1 Limited Partnership 6 Henrietta Street London WC2E 8PU	1,787,090 Series C Preferred
MVM Executive Limited 6 Henrietta Street London WC2E 8PU	18,051 Series C Preferred
Alta BioPharma Partners III, L.P. One Embarcadero Center, 37th Floor San Francisco, CA 94111	2,363,654 Series C Preferred 945,933 Series D Preferred
Alta BioPharma Partners III GmbH & Co. Beteiligungs KG One Embarcadero Center, 37th Floor San Francisco, CA 94111	158,741 Series C Preferred 63,528 Series D Preferred
Alta Embarcadero BioPharma Partners III, LLC One Embarcadero Center, 37th Floor San Francisco, CA 94111	58,250 Series C Preferred 23,313 Series D Preferred
Ascent Biomedical Ventures I, LP 41 West 57th Street, 6th Floor New York, NY 10019	1,129,032 Series C Preferred 530,385 Series D Preferred

Ascent Biomedical Ventures I NY, LP 41 West 57th Street, 6th Floor New York, NY 10019	564,516 Series C Preferred 447,499 Series D Preferred
MC Life Science Ventures, Inc. 655 Third Avenue New York, NY 10017	483,870 Series C Preferred 167,829 Series D Preferred
Healthcare Private Equity Limited Partnership Edinburgh One, Morrison Street Edinburgh, EH3 8BE, Scotland	1,290,322 Series C Preferred 516,388 Series D Preferred
Devon Park Bioventures, L.P. 1400 Liberty Ridge Drive Suite 103 Wayne, PA 19087	2,258,065 Series C Preferred 903,678 Series D Preferred
Connecticut Innovations, Incorporated 200 Corporate Place 3rd Floor Rocky Hill, CT 06067 Attn: Kevin Crowley	483,871 Series C Preferred 194,153 Series D Preferred
Martha Morris 234 Broughton Lane Villanova, PA 19085	69,315 Series C Preferred
I. Wistar Morris 234 Broughton Lane Villanova, PA 19085	103,306 Series C Preferred
Eleventh Generation LP 234 Broughton Lane Villanova, PA 19085	69,315 Series C Preferred
Dal LaMagna 2020 Lutes Road Poulsbo, WA 98370	80,645 Series C Preferred
Dean V. Camp 1597 Baltimore Pike Chadds Ford, PA 19317	12,903 Series C Preferred 21,347 Series D Preferred
Chong Kun Dang Pharmaceuticals Corp. 68, 3-Ga, Chungjeong-Ro Seodaemun-Gu, Seoul 120-756 Korea	173,611 Junior Preferred
Maruishi Pharmaceutical CO., LTD. 4-2 Imazunaka 2-chome, Tsurumi-ku, Osaka 538-0042 Japan	2,105,263 Junior A Preferred

SCHEDULE B
KEY HOLDERS

Name and Address	Number of Shares Held
Derek Chalmers 1 Parrott Drive Shelton, CT 06484	2,416,875 Common 200,000 Series A Preferred
Michael E. Lewis 438 Ground Hog College Road W. Chester, PA 19382	805,625 Common 100,000 Series A Preferred
Frederique Menzaghi 1 Parrott Drive Shelton, CT 06484	400,000 Common
Esperante AB PO Box 20127 20074 Malmo Sweden	3,457,500 Common 200,000 Series A Preferred
G U Holdings Limited NO 13 The Square University Avenue Glasgow LANARKSHIRE G12 8QQ Company No. SC176354	500,000 Common
Pillsbury Winthrop Shaw Pittman LLP 1540 Broadway New York, NY 10036	105,000 Common
Pierre Riviere Ferring Research Institute Inc. 3550 General Atomics Court San Diego, CA 92121	135,000 Common
Jerzy Trojnar Ferring Research Institute Inc. 3550 General Atomics Court San Diego, CA 9212	135,000 Common

Ascent Biomedical Ventures I, L.P. 41 West 57th Street, 6th Floor New York, NY 10019	500,000 Series B Preferred
Ascent Biomedical Ventures I NY, L.P. 41 West 57th Street, 6th Floor New York, NY 10019	250,000 Series B Preferred
Martha Morris 234 Broughton Lane Villanova, PA 19085	150,000 Series A Preferred 175,000 Series B Preferred
I. Wistar Morris 234 Broughton Lane Villanova, PA 19085	150,000 Series A Preferred 262,500 Series B Preferred
Eleventh Generation LP 234 Broughton Lane Villanova, PA 19085	150,000 Series A Preferred 175,000 Series B Preferred
Dal LaMagna 2020 Lutes Road Poulsbo, WA 98370	250,000 Series A Preferred 200,000 Series B Preferred
Sonz Partners Holdings, LP* 2840 West Bay Drive, #144 Belleair Bluffs, FL 33770	6,177 Series A Preferred
Paul D. Sonz* 201 Bluff View Drive Belleair Bluffs, FL 33770	80,186 Series A Preferred
Paul D. Sonz Partners, LLC* 2840 West Bay Drive, #144 Belleair Bluffs, FL 33770	17,547 Series A Preferred
Christina Lee Kobland* 5 Johns Lane Lafayette Hill, PA 19444	6,939 Series A Preferred

Angelo Calvello, IRA, Account # 1AR9354* UBS Financial Securities, FBO Angelo Calvello, IRA ATTN: Jim Klein 555 Claifornia Street, Suite 3400 San Francisco, CA 94104	3,901 Series A Preferred
Randall L-W Caudill* 1080 Chestnut 16A San Francisco, CA 94109	29,353 Series A Preferred
Lee M. Caudill Marital Trust dated June 22, 2007* 1080 Chestnut 16A San Francisco, CA 94109	14,396 Series A Preferred
Cees Seven* 7 Brookside Drive Rumson, NJ 07760	20,844 Series A Preferred
Robert & Corina Chcoine* 56 Wrights Mill Road Armonk, NY 10504	1,062 Common
David Chung* 2196 Jackson Street San Francisco, CA 94115	5,855 Series A Preferred
Excalibur Partners* David A. Barrett, c/o Baldwin Brothers 204 Spring Street Marion, MA 02738	41,741 Series A Preferred
Mark S. Flegenheimer* 555 Foxboro Road Saginaw, MI 48603-6364	7,286 Series A Preferred
Steven Gomez* 1177 California Street, Suite A San Francisco, CA 94108	4,879 Series A Preferred

Albert C. Hurwitt Roth IRA, Account # 1BE9542* UBS Financial Securities, FBO Albert Hurwit, IRA ATTN: Jim Klein 555 Claifornia Street, Suite 3400 San Francisco, CA 94104	12,651 Common
George Kellner* 117 E. 78th Street New York, NY 10075	9,044 Series A Preferred
The Lerner Family Foundation* 2800 Quarry Lake Drive, Suite 300 Baltimore, MD 21209	6,282 Series A Preferred
John & Chrysa Livanos* 56 Wrights Mill Road Armonk, NY 10504	10,120 Common
Robert D. Long* 64 Lukeswood Road New Canaan, CT 06840	12,693 Series A Preferred
Mauerer Revocable Trust dated 9/21/94* 1790 McCauley Rd. Clearwater, FL 33765	9,974 Common
Gwen Melincoff* 1707 Hibberd Lane West Chester, PA 19380	4,187 Series A Preferred
Jonathan Morgan and Julie Lee* 170 30th Avenue San Francisco, CA 94120	9,216 Series A Preferred
Robin Raborn* 525 Barbara Way Hillsborough, CA 94010	979 Common
Lincoln Y. Rathnam* 14 Crooked Meadow Lane Hingham, MA 02043	2,294 Series A Preferred

Matthew Rebold* 15 Arrowhead Way Weston, CT 06883	10,393 Series A Preferred
Sonz Family Trust dated 4/5/01* 201 Bluff View Drive Belleair Bluffs, FL 33770	3,096 Common
Linda Field and Lawrence R. Spivak* 1185 Wisteria Drive Malven, PA 19355	18,551 Series A Preferred
Jeffrey Tarrant* PO Box 158 St. Georges, DE 19733	5,311 Series A Preferred
Mark D. Whatley* 123 Van Ripper Lane Orinda, CA 94563	1,895 Series A Preferred
Morton and Debbie Wiggins* 1296 Lohrman Lane Petaluma, CA 94952	15,077 Series A Preferred
Morton Wiggins IRA, Account # FG07353* UBS Financial Securities, FBO Morton B. Wiggins, IRA ATTN: Jim Klein 555 Claifornia Street, Suite 3400 San Francisco, CA 94104	3,272 Series A Preferred
Richard Wood* 53 Claybrook Road Dover, MA 02030	24,799 Series A Preferred
Paul D. Sonz 1001 Second Street, Suite 255 Napa, CA 94559	50,000 Series A Preferred
The Margherita Baldwin Trust* c/o Michael Baldwin, Baldwin Brothers 204 Spring Street Marion, MA 02738	4,919 Series B Preferred

David A Barrett Trust* P.O. BOX 418 Marion, MA 02738	4,919 Series B Preferred
Kristina Bieker-Brady* 42 Hinkley Road Milton, MA 02186	4,919 Series B Preferred
Christina Lee Kobland* 5 Johns Lane Lafayette Hill, PA 19444	4,919 Series B Preferred
Angelo Calvello & Lisa Sparagna* 6625 Green Road Woodbridge, IL 60517	4,919 Series B Preferred
Robert Chicoine & Corina Livanos* 56 Wrights Mill Road Armonk, NY 10504	5,346 Common
Dunsford Hill Capital Partners* 1080 Chestnut 16A San Francisco, CA 94109	12,299 Series B Preferred
Kannon H. Feshbach* 1230 S. Myrtle Avenue, #401 Clearwater, FL 33756	12,299 Series B Preferred
Stephen Gomez* 1177 California Street, Suite A San Francisco, CA 94108	4,919 Series B Preferred
Matthew Gotlin* 6 Huntersworth Court Owings Mills, MD 21117	12,299 Series B Preferred
Michael R. Greenberg* 3876 La Playa Boulevard. Coconut Grove, FL 33133	98,387 Series B Preferred

Andrew Grossman* 8218 Pumpkin Hill Court Baltimore, MD 21208	12,299 Series B Preferred
Albert Hurwitt* 1076 Prospect Avenue Hartford, CT 06105	5,346 Common
George Kellner* 117 E. 78th Street New York, NY 10075	122,984 Series B Preferred
Lerner Holdings LLC* 2800 Quarry Lake Drive, Suite 300 Baltimore, MD 21209	106,919 Common 98,408 Series B Preferred
Michael & Carmen Mauerer* 1790 McCauley Road Clearwater, FL 33765	8,020 Common
Stephen Miller* 2026 Greenspring Valley Road Stevenson, MD 21136	49,194 Series B Preferred
Morgan Family Trust* 170 30th Avenue San Francisco, CA 94120	12,298 Series B Preferred
Robert E. Rice* 14 Wyndham Road, Short Hills, NJ 07078	24,597 Series B Preferred
James & Deborah Nolan* 6190 SW 102 Street Miami, FL 33156	24,597 Series B Preferred
Louis & Mary S. Sarkes* 12 Club Road Baltimore, MD 21210	12,298 Series B Preferred

Paul D. Sonz IRA Account # FG01127* UBS Financial Securities, FBO Paul D. Sonz, IRA ATTN: Jim Klein 555 Claifornia Street, Suite 3400 San Francisco, CA 94104	24,597 Series B Preferred
Paul & Julie Sonz* 201 Bluff View Drive Belleair Bluffs, FL 33770	36,895 Series B Preferred
Linda Field & Lawrence Spivack* 1185 Wisteria Drive Malven, PA 19355	4,919 Series B Preferred
Jeffrey Tarrant* PO Box 158 St. Georges, DE 19733	24,597 Series B Preferred
Mark D. Whatley* 123 Van Ripper Lane Orinda, CA 94563	9,839 Series B Preferred
Morton Wiggins* 1296 Lohrman Lane Petaluma, CA 94952	24,597 Series B Preferred
Charles M. Robins 452 Hollow Road Phoenixville, PA 19460	25,000 Series A Preferred 25,000 Series B Preferred
Dean V. Camp 1597 Baltimore Pike Chadds Ford, PA 19317	20,000 Series A Preferred 20,000 Series B Preferred
James Kauer 605 Willow Glen Road Kennett Square, PA 10348	20,000 Series A Preferred
Sunrise Equity Partners, L.P. 641 Lexington Avenue, 25th Fl. New York, NY 10022	285,000 Common

* Shares distributed by Sonz Partners LP and Sonz Cara Fund LP.

Exhibit 10.6

LEASE

By and between

SHELTON PARROTT ASSOCIATES, L.L.C.,
as Landlord

and

CARA THERAPEUTICS, INC.,
as Tenant

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ARTICLE ILEASE

THIS LEASE is made and entered into as of September 18TH, 2006, , by and between **SHELTON PARROTT ASSOCIATES, L.L.C.**, a Connecticut limited liability company, having principal offices at c/o Cambridge-Hanover, L.P, 65 Locust Avenue, New Canaan, Connecticut 06840 ("Landlord") and **CARA THERAPEUTICS, INC.**, a Delaware corporation, having an address at 765 Old Saw Mill River Road, Tarrytown, New York 10591 ("Tenant").

W I T N E S S E T H:

ARTICLE 1. Basic Lease Information

The following terms are referred to in other provisions of the Lease. Each such reference shall incorporate the applicable Basic Lease Information. In the event of any conflict between the Basic Lease Information and the provisions of the Lease, the latter shall control.

"ADA" shall mean the Americans with Disabilities Act of 1990 and all similar present or future laws, together with all regulations promulgated pursuant thereto.

"Allocated Number of Parking Spaces" shall mean the integer of the product of 3 multiplied by a fraction, the numerator of which is the total Rentable Area of the Premises and the denominator of which is 1,000.

"Allocated Share" shall mean fifty-two and fifty-one hundredths percent (52.51%) of the Building. If the area of the Premises or the area of the Building is changed after the Date of this Lease, the Allocated Share shall be equitably adjusted.

"Alterations" shall mean any alteration, addition, or improvement in or on or to the Premises of any kind ox nature, including, but not limited to, Tenant Improvements.

"Annual Base Rent" and "Base Rent" shall mean the amounts set forth in the schedule attached as Exhibit B to this Lease and made a part of this Lease. On the first day of the Second Lease Year and each Lease Year thereafter, the Annual Base Rent in effect shall be increased by an amount equal to the product of (i) the Base Rent Annual Escalation Percentage multiplied by (ii) the Annual Base Rent in effect immediately before the increase, calculated on a square foot basis and without regard to any rental abatement, allowance or other concession granted by Landlord during such Lease year.

"Bankruptcy Code" shall mean the United States Bankruptcy Code, as amended from time to time.

"Base Operating Expenses" shall mean the Expenses (other than Real Estate Taxes) incurred during the calendar year 2007.

"Base Real Estate Taxes" shall mean Real Estate Taxes incurred during the calendar year 2007 (i.e. real estate taxes as determined in October, 2006, and payable in July, 2007, and January, 2008).

"Base Rent Annual Escalation Percentage" shall mean three percent (3%).

"Building" shall mean the building located at, and known as, One Parrott Drive, Shelton, Connecticut, known for real estate tax purposes as 1 Parrott Dr (Bank: 529; Id: 18.1-16).

"Building Project" shall mean the Building and all of the land known as One Parrott Drive, Shelton, Connecticut.

"Business Days" shall mean all days other than Saturdays, Sundays, or days on which banks in the State of Connecticut are permitted to be closed.

"Commencement Date" shall mean the earlier of (i) the date Tenant occupies the Premises for business operation and (ii) March 1, 2007. Promptly after the Commencement Date is ascertained, Landlord and Tenant shall execute the Commencement Date Agreement attached as **Exhibit E**.

"Common Areas" shall have the definition set forth in Article 12.

"Communication" shall mean any notice, demand, request, election, or other communication required or permitted to be given or made to or by any party to this Lease or otherwise given or made under or pursuant to this Lease (See Section 31.06).

"Date of Taking" shall have the definition set forth in Section 15.02.

"Effective Date of this Lease" shall mean the date first above written.

"Environmental Laws" shall mean all applicable environmental ordinances, rules, regulations, statutes, orders, and laws of all local, state, or federal agencies or bodies with jurisdiction over the Premises or the activities conducted on the Premises (See Article 13).

"Expenses" shall mean the total of all of the reasonable costs and expenses (but excluding charges separately paid, in full, by tenants of the Building or third parties) incurred or borne by Landlord with respect to the operation, maintenance, repair, and replacement of the Building Project and the services provided tenants in the Building Project, including, but not limited to, the costs and expenses incurred for and with respect to: security (subject to Section 22.06), water and sewer; HVAC maintenance and repair, repairs, maintenance, and alteration of Common Areas, roof membrane and other nonstructural components of the roof, and curtain wall of the Building; painting of non-tenant areas; repairs, maintenance, replacements, and improvements which are appropriate for the continued operation of the Building Project as a first class building;

exterior landscaping; fertilization and irrigation supply; parking area maintenance, supply, and replacement; all utilities serving the Building Project; depreciation on machinery and equipment used in the maintenance of the Building Project; fire, extended coverage, all risks, earthquake, change in condition, sprinkler apparatus, plate glass, rental guaranty or interruption, public liability and property damage, flood, and any other additional insurance customarily carried by owners of comparable buildings or required by any mortgagee of the Building Project; supplies; service and maintenance contracts for the Building Project; property management fees; and legal, accounting and administrative costs. Landlord may contract for the performance of some or all of the management and maintenance functions generally described in this subsection with such persons or entities as Landlord shall deem appropriate, including persons or entities which are affiliated with Landlord.

Expenses shall exclude, or have deducted from them if so included:

(a) Cost of the Landlord Improvements as defined and described in Section 12.05;

(b) Costs incurred or a result of Landlord's gross negligence or willful misconduct;

(c) Leasing commissions, rent concessions to tenants, and tenant improvements;

(d) Executive's salaries above the grade of building manager;

(e) Expenditures for capital items, except (i) capital expenditures required by law (other than capital expenditures incurred by Landlord to correct any noncompliance of the Building with applicable statutes, laws, codes, ordinances, rules and regulations in effect on the Date of the Lease (and prior to Tenant's occupancy) and any noncompliance of Landlord's Improvements, as defined and described in Section 12.05 with applicable statutes, laws, codes, ordinances, rules and regulations in effect at the time of the installation of the Landlord Improvements), (ii) expenditures for capital equipment or any other capital expenditure, whether purchased, leased, or otherwise engaged, designed to result in savings or reductions (or avoid increases) in Expenses, then the costs are to be included within the definition of "Expenses" for the year in which the costs are incurred and subsequent years, if applicable, on a basis reasonably determined by Landlord to the extent that such items are amortized over such period of time as reasonably can be estimated as the time in which such savings or reductions in Expenses are expected to equal Landlord's cost for such capital equipment or capital expenditure with an interest factor equal to the Prime Rate but not in excess of the Maximum Rate, and (iii) expenditures for materials, tools, supplies, and equipment purchased by Landlord to enable Landlord to supply services which Landlord would otherwise have obtained from a third party, in any of which cases the cost of such capital improvements or expenditures shall be included in Expenses for the year in which the costs are incurred and subsequent years, amortized on a straight-line basis over the life of the asset for book purposes in accordance with generally accepted accounting principles, but in no event more than ten (10) years, with an interest factor equal to the Prime Rate in effect at the time of Landlord's having incurred such expenditure, but in no event greater than the Maximum Rate;

(f) Painting, redecorating, or other work or service which Landlord performs or provided for any tenant or prospective tenant of the Building Project;

(g) Those costs incurred in negotiating or enforcing leases against tenants, including attorneys' fees;

(h) Real Estate Taxes; and

(i) Those costs incurred by Landlord in correcting any violation of Environmental Laws for which Landlord is responsible to cure at its sole cost and expense pursuant to the provisions hereof.

If during any period covered by a statement of Expenses (including the Base Year), Landlord shall not furnish any particular item(s) of work, services, or utilities (which would constitute an Expense under this subsection) to portions of the Building Project (or shall not incur an Expense, including the management fee) due to the fact that such portions are not occupied or leased, or because such item of work, services, or utilities is not required or desired by the tenant of such portion of the Building Project, or such tenant is itself obtaining and providing such item of work, services, or utilities or is separately paying Landlord for same (and not pursuant to a provision in its lease substantially the same as this subsection), or for other such reasons, then, for the purpose of computing the Additional Rent payable under this Lease, the amount of the Expenses, for such item for such period, shall be increased by an amount equal to the additional operating and maintenance expenses which would reasonably have been incurred during such period by Landlord if it had at its own expense furnished such item of work, services, or utilities to such portion of the Building Project. All decisions regarding Expenses will be made in accordance with the good faith determination of Landlord applying sound equitable accounting and property management principles. Landlord shall have the right to allocate equitably any of the Expenses to particular tenants or classes of tenants of the Building Project to reflect Landlord's good faith determination that measurably different amounts or types of services, work or benefits associated with Expenses are being provided to or conferred upon such tenants or class of tenants.

"Indemnified Parties" shall have the definition set forth in Article 19.

"Landlord Improvements" shall have the definition set forth in Section 12.05.

"Landlord's Notice Address" shall mean Shelton Parrott Associates, L.L.C., c/o Cambridge Hanover, Inc., 65 Locust Avenue, New Canaan, Connecticut 06840, Attention: Jonathan Garrity, with a copy to Surish Sani, c/o Sani Corp., 3409 Queens Boulevard, Long Island City, New York 11101.

"Landlord's Property" shall have the definition set forth in Section 12.05.

"Maximum Rate" shall mean the highest rate of interest permitted to be charged by applicable law.

"Non-Monetary Default" shall have the definition set forth in Section 9.01.

"Normal Business Hours" shall mean 8:00 a.m. to 6:00 p.m. Monday through Friday, legal holidays excluded.

"Parking Areas" shall mean the areas available for automobile parking in connection with the Building Project as more particularly described in Article 30.

"Parking Spaces" shall mean one hundred fifty-six (156) parking spaces in the Parking Areas (defined below).

"Premises" shall mean approximately 52,000 square feet on the ground floor of the Building (plus a 2% core factor for a total of 53,040 rentable sq. ft.). The Premises are depicted in the sketch attached hereto and made a part hereof as Exhibit A. No other space is demised by intention or omission.

"Prime Rate" shall mean the per annum interest rate as published in the Wall Street Journal from time to time as the "prime rate".

"Procuring Broker" shall mean CB Richard Ellis (See Article 27).

"Real Estate Taxes" shall mean the total of all of the taxes, governmental charges, general assessments, special assessments, and any water, sewer, or other assessments, levied, assessed, or imposed at any time by any governmental authority with respect to any period during the Term which (i) are related to the ownership, operation, use, or maintenance of the Building Project or any portion of the Building Project, any personal property owned by Landlord with respect to the Building Project, or any alterations or improvements to the Building Project; or (ii) may become a lien on the Building Project, any personal property owned by Landlord with respect to the Building Project, or any improvements to the Building Project or any portion of the Building Project. If, due to a future change in the method of taxation or in the taxing authority, or for any other reason, a tax or governmental imposition, however designated, shall be levied against Landlord in substitution in whole or in part for the Real Estate Taxes, or in lieu of additions to or increases of said Real Estate Taxes, then such franchise tax or governmental imposition shall be deemed to be included within the definition of "Real Estate Taxes". Except as set forth above, "Real Estate Taxes" shall not include any franchise, excise, income, estate, inheritance, gift or capital stock tax. As to special assessments which are payable over a period of time extending beyond the Term, only a pro rata portion of such special assessments, covering the portion of the Term which is unexpired at the time of the imposition of such assessment shall be included in "Real Estate Taxes". If, by law, any assessment may be paid in installments, then, for the purposes of this Lease: (a) such assessment shall be deemed to have been payable in the maximum number of installments permitted by law; and (b) there shall be included in Real

Estate Taxes, for each year in which such installments may be paid, the installments of such assessments so becoming payable during such year, together with any interest payable on such assessments during such year. "Real Estate Taxes" shall also include all costs and expenses incurred by Landlord in connection with any action by Landlord to contest the amount of the assessment of the Building Project made with respect to Real Estate Taxes, including attorneys' and appraisers' fees.

"Reletting Expenses" shall mean all costs and expenses incurred by Landlord in connection with the reletting of the Premises following a default by Tenant, including, without limitation, the expenses of obtaining possession of the Premises, the costs of cleaning, renovation, repairs, decoration, and alteration of the Premises for a new tenant or tenants, all advertising and marketing expenses, all brokerage and legal fees, the costs of protecting or caring for the Premises while vacant, the costs of removing and storing any property located on the Premises, any increase in insurance premiums caused by the vacancy of the Premises, and any other out-of- pocket expenses incurred by Landlord including tenant inducements such as the cost of moving the new tenant or tenants and the cost of assuming any portion of the existing lease(s) of the new tenant(s) (See Section 9.03(c)).

"Rent" shall have the definition set forth in Section 4.02.

"Rent Commencement Date" shall mean the earlier of (i) sixty (60) days after the Commencement Date and (ii) May 1, 2007, provided that if (i) Landlord has delayed Tenant in completing the Tenant Improvements (a "Landlord Delay"), (ii) Tenant has not, using reasonable diligence, completed the Tenant Improvements by May 1, 2007, and (iii) Tenant has notified Landlord in writing within seven (7) days after such Landlord Delay has occurred with reasonable but adequate documentation of the extent and reason for such Landlord Delay, then the Rent Commencement Date shall be deferred by one (1) day for each day of such Landlord Delay.

"Rentable Area of the Premises" is stipulated to be 53,040 square feet.

"Security Deposit" shall mean the cash or letter of credit required to be deposited with Landlord to secure the payment and performance of Tenant's obligations under this Lease (See Article 23).

"Security Deposit Amount" shall mean $2,170,000, as such amount may be increased or thereafter further increased or decreased from time to time as more particularly provided herein (see Article 23).

"Tenant Allowance" shall have the definition set forth in Exhibit D.

"Tenant Improvements" shall have the definition set forth in Exhibit D.

"Tenant's Notice Address" shall mean 765 Old Saw Mill River Road, Tarrytown, New York 10591.

"Tenant's Property" shall have the definition set forth in Article 29.

"Term" shall mean the period commencing on the Commencement Date and ending ten (10) years and two (2) months after the Commencement Date (the "Initial Term"), as extended or sooner terminated pursuant to the terms of this Lease (See Article 2).

ARTICLE 2. Term; Right of First Offer

Section 2.01 Tenant shall have and hold the Premises for the Term. The Term shall commence on the Commencement Date.

Section 2.02 [Intentionally deleted]

Section 2.03 This Lease shall be effective and binding upon the parties hereto as of the date of this Lease. Tenant shall observe and perform all of its obligations under this Lease from the Effective Date of this Lease except (i) its obligations relating to use and occupancy shall not begin until the Commencement Date and (ii) its obligations to pay Rent shall not begin until the Rent Commencement Date. Tenant shall have the right of access from and after the Effective Date for purposes of preparing the Premises for, and constructing and installing, the Tenant Improvements in accordance with and subject to the terms of this Lease including Exhibits D through D-2 hereof so long as such access and work is coordinated with Landlord and does not interfere with the construction and installation of the Landlord Improvements. Landlord and Tenant shall reasonably cooperate with each other in scheduling work with the objective that Landlord Improvements be completed by March 1, 2007 and Tenant Improvements be completed by May 1, 2007.

Section 2.04 Tenant is given and granted an option to renew the Term of this Lease for two (2) successive terms of five (5) years each (each a "Renewal Term") on the same terms and conditions (other than Annual Base Rent shall be adjusted to an amount equal to the greater of (i) the "Fair Market Rent" as hereinafter determined and (ii) the amount of the Base Rent for the immediately preceding Lease Year, but only if Tenant is not in default under this Lease, either at the time of the exercise of the option or at the expiration of the Initial Term or Renewal Term, as applicable. To exercise its option, Tenant shall give Landlord a notice in writing not less than two hundred seventy (270) days prior to the end of the Initial Term or the then existing Renewal Term. The Initial Term and the Renewal Terms shall sometimes be referred to herein as the "Term". The Landlord and Tenant shall attempt to agree upon the Fair Market Rent, but if the parties do not so agree, the Fair Market Rent shall be determined by a reputable real estate broker/agent (a "broker") who has at least ten (10) years experience in leasing commercial industrial buildings in the Shelton, Connecticut area comparable to the Building and who is mutually acceptable to Landlord and Tenant. The broker's fee shall be paid equally by Landlord

and Tenant. If Landlord and Tenant do not agree as to one broker, Landlord and Tenant shall each select a broker, who will be paid by such party. These two brokers shall independently determine the Fair Market Rent. If the amounts thus arrived at by the two brokers do not vary by more than five percent (5%), the two amounts shall be averaged, and such average shall be deemed to be the Fair Market Rent. If, however, the amounts thus arrived at by the two brokers do vary by more than five percent (5%), the two brokers shall select a third broker, whose fee will be paid equally by Landlord and Tenant, and who shall independently determine the Fair Market Rent. If the amount thus determined by the third broker lies between the two amounts previously determined by the other two brokers, the Fair Market Rent shall be the amount determined by the third broker. If, however, the amount determined by the third broker does not lie between the two amounts previously determined by the other two brokers, the Fair Market Rent shall be the amount determined by one of the first two brokers that is closer to the amount determined by the third broker.

The renewal option shall be personal to Tenant and each Tenant Affiliate and Permitted Transferee (each hereinafter defined in Section 7.03) and may not be exercised or be assigned, voluntarily or involuntarily, by or to any person or entity other than Tenant or a Tenant Affiliate or Permitted Transferee nor shall the renewal option be assignable separate and apart from this Lease.

The Base Rent for each subsequent Lease Year in the Renewal Term shall increase by the Base Rent Annual Escalation Percentage. The commencement date and termination date of the Renewal Term and the Base Rent payable during the Renewal Term shall be acknowledged by Landlord and Tenant in a side letter agreement.

Section 2.05 Landlord does hereby grant Tenant during the entire Term of this Lease (but not prior to the Commencement Date), a continuing Right of First Offer to lease any contiguous space in the improvements comprising part of the Building Project which previously has been leased to other third party tenants and subsequently becomes available for leasing, such right to be governed by the following provisions:

(a) Tenant’s Right of First Offer shall apply only to space which initially has been leased by other tenants and is subsequently vacated or to be vacated by such tenant.

(b) Anything herein to the contrary notwithstanding, Tenant’s rights pursuant to this Section 2.05 shall in all respects be subject and subordinate to all rights of renewal and rights to expand contained in the leases to any tenants of such space.

(c) In the event that Landlord shall wish to offer for lease any space to which Tenant’s Right of First Offer applies, Landlord shall submit to Tenant an Offer Notice with respect to such space.

(d) The terms of the Right of First Offer shall include the following: (i) all, but not less than all, of the offered space must be leased, (ii) the offered space shall be leased in

its “as-is” condition, (iii) the Tenant Allowance does not apply to the offered space; (iv) no Rent abatement or other concessions shall apply to the offered space, (v) the rental for the offered space shall be at the then current market rate for comparable space on comparable terms, and (vi) the term shall be for a minimum of five (5) years and subject to the renewal requirements specified in clause (f) below.

(e) Upon receipt of the Offer Notice, Tenant shall have ten (10) Business Days (time being of the essence) to notify Landlord that Tenant wishes to lease such space in accordance with the terms contained in such Offer Notice.

(f) If Tenant in any instance provides Landlord with the notice provided in clause (e) above, then within twenty (20) days after Tenant has so provided Landlord with such notice, Landlord and Tenant shall enter into an Addendum to this Lease which shall modify the terms of this Lease to include such new space as part of the Demised Premises on the terms and conditions contained in this Lease and in the Offer Notice, but in the event of any inconsistency between the terms of this Lease and those contained in the Offer Notice, the terms contained in the Offer Notice shall prevail with respect to such new space only. In addition, if the term in the Offer Notice for the Lease of such space shall extend beyond the current term of this Lease, as a condition of such acceptance, Tenant shall be required to exercise its right of renewal(s) hereunder, if any, and the term in the Offer Notice shall be adjusted, if necessary, so that the term of this Lease and the term in the Offer Notice shall be coterminous.

(g) In the event that Tenant shall fail pursuant to clause (e) above within such ten (10) day period to notify Landlord of Tenant’s intention to lease the space described in the Offer Notice, then Tenant shall be conclusively deemed to have declined to lease such space, but Tenant’s Right of First Offer shall again apply after such space has been leased and then becomes available for leasing.

ARTICLE 3. Purpose and Use

Section 3.01 Provided such use is in full compliance with all applicable laws, statutes, codes, ordinances, rules and regulations, including, without limitation, the local zoning ordinance, Tenant may use and occupy the Premises only for (i) operation of a cell and molecular biology facility related to drug discovery, chemical laboratory and small animal facility, and general, executive, and administrative offices in connection therewith and permitted uses incidental thereto, and (ii) general office purposes and permitted uses incidental thereto. Tenant shall not use or permit or suffer the use of the Premises for any other business or purpose.

ARTICLE 4. Rent

Section 4.01 Tenant shall pay to Landlord in lawful United States currency the Annual Base Rent. All Annual Base Rent shall be payable, in equal monthly installments, in advance, beginning on the Rent Commencement Date, and continuing on the first day of each and every calendar month thereafter during the Term. Should the Rent Commencement Date fall on a day other than the first day of the month, then Tenant shall pay Rent for the fractional month

commencing on the Rent Commencement Date and ending on the last day of the month in which the Rent Commencement Date occurs on a per diem basis (calculated on the basis of a thirty-day month), payable upon occupancy of the Premises by Tenant. The Rent payment due under this Lease for any fractional month shall be calculated and paid on a per diem basis. All Rent, including, without limitation, Additional Rent, and other payments to Landlord under this Lease shall be paid to Landlord, without demand, setoff, or deduction whatsoever, except as specifically provided in this Lease, at Landlord's Notice Address or at such other place as Landlord shall designate in writing to Tenant. Except to the extent otherwise provided herein, Tenant's obligations to pay Rent and other amounts due under this Lease are covenants independent of the Landlord's obligations under this Lease.

Section 4.02 All monetary obligations of Tenant to Landlord under this Lease, of any type or nature, other than Annual Base Rent, shall be denominated as "Additional Rent". Landlord shall have the same rights and remedies with respect to defaults in the payment of Additional Rent as set forth in this Lease with respect to payment of Annual Base Rent. The term "Rent" when used in this Lease shall be deemed to include Annual Base Rent and ail forms of Additional Rent.

ARTICLE 5. Expenses

Section 5.01 Tenant shall pay to Landlord, as Additional Rent, in accordance with the terms and provisions of this Article, Tenant's Allocated Share of the Expenses which exceed the Base Operating Expenses (payable, in advance, in monthly installments).

Section 5.02

(a) Landlord shall reasonably estimate the Expenses which will be payable for each calendar year during the Term in advance and Tenant shall pay one-twelfth (1/12) of its Allocated Share of such Expenses which exceed Base Operating Expenses monthly in advance, together with the payment of Base Rent. Within one hundred twenty (120) days after the end of each calendar year, or as soon as possible, after such 120 day period, Landlord shall furnish Tenant a statement, in reasonable detail, of the actual Expenses for the year and an adjustment shall be made between Landlord and Tenant with payment to or repayment by Landlord, as the case may require, to the end that Landlord shall receive the entire amount actually owed by Tenant for its Allocated Share of Expenses for such year and Tenant shall receive reimbursement for any overpayments. Any payment adjustment owed by Tenant will be due forthwith. Any refund will be credited against Tenant's monthly Additional Rent obligations or paid to Tenant if the Term has expired.

(b) Tenant waives and releases any and all objections or claims relating to Expenses for any calendar year unless, within one hundred eighty (180) days after Landlord provides Tenant with the annual statement of the actual Expenses for the calendar year, Tenant provides Landlord with written notice that it disputes the accuracy of the statement or its appropriateness, which notice shall specify the particular respects in which the statement is allegedly inaccurate or inappropriate. If Tenant shall dispute the statement then, pending the

resolution of such dispute, Tenant shall pay the Additional Rent to Landlord in accordance with the disputed statement. Tenant, or its authorized agent, shall have the right, at its own cost and expense, within the one hundred eighty (180) day period after the date Landlord's statement is delivered to Tenant, but not thereafter, to inspect and/or audit, (using an auditor other than a contingent fee auditor) Landlord's detailed records for such calendar year with respect to Tenant's Allocated Share of Expenses to insure that Landlord is complying with all Lease requirements. Within fifteen (15) Business Days of Tenant's written notice to Landlord of its desire to review Landlord's books and records, Landlord will make available to Tenant or Tenant's representative at Landlord's office where the records are kept, general ledger for the Building Project, and all escalation worksheets and their supporting documentation for the year being reviewed. Landlord shall cooperate with Tenant in making all pertinent records available to Tenant for inspection. Upon completion of the audit, Tenant's auditor shall be required to deliver a copy of the audit promptly to both Landlord and Tenant. If Landlord and Tenant agree that such audit discloses that the amount paid by Tenant as Tenant's Allocated Share of Expenses has been overstated then, repay such overpayment to Tenant (or credit same to the Additional Rent obligations) as set forth above and if such overstatement is more than five percent (5%), Landlord shall pay Tenant's costs of audit. If Tenant believes that such audit establishes an overstatement and Landlord disagrees with that conclusion, the parties will meet and attempt, in good faith, to resolve the disagreement. If the parties are unable to reach agreement within thirty (30) days of the date Tenant's audit results are delivered to both Landlord and Tenant, then, within ten (10) Business Days thereafter, the parties shall select a qualified CPA, that has not worked for either party, to act as an arbitrator. The CPA shall render his/her decision within thirty (30) days and the decision of the CPA shall be final and binding on the parties. If the parties are unable to agree on a CPA, the parties shall submit a request to the nearest Chapter of the American Arbitration Association for the designation of a CPA.

Section 5.03 In no event shall the Base Rent under this Lease be reduced by virtue of this Article.

Section 5.04 If the Rent Commencement Date is not January 1, then the Additional Rent due under this section for the first year of the Term shall be a proportionate share of the Additional Rent for the entire year, such proportionate share to be based upon the length of time that the Term will be in existence during such first year. Upon the date of any expiration or termination of this Lease (except termination because of Tenant's default), whether such date is the date set forth in this Lease for the expiration of the Term or any prior or subsequent date, a proportionate share of the Expenses for the year during which such expiration or termination occurs shall immediately become due and payable by Tenant to Landlord, if not previously billed and paid. Such proportionate share shall be based upon the number of days that this Lease shall have been in existence during such year. Notwithstanding any expiration or sooner termination of this Lease, Landlord shall, as soon as reasonably practicable, compute the Additional Rent due from Tenant, as aforesaid, which computations shall either be based on that year's actual figures or be an estimate based upon the most recent statements previously prepared by Landlord and furnished to Tenant under this section. If an estimate is used, then Landlord shall cause statements to be prepared on the basis of the year's actual figures promptly after they are available, and within ten (10) days after such statement or statements Landlord and Tenant shall make appropriate adjustments of any estimated payments previously made.

Section 5.05 Subject to applicable statutes of limitation, any delay or failure of Landlord in billing for any Additional Rent under this section shall not constitute a waiver of or in any way impair the continuing obligation of Tenant to pay such Additional Rent. If any statement of Expenses should not be determined on a timely basis, Tenant shall continue to make payments at the rate in effect during the preceding period, and, promptly following such final determination by Landlord, there shall be an appropriate adjustment and payment by Tenant of all amounts on account of Expenses which would have been made if such Expenses had been timely determined. If any amount is owed Tenant pursuant to such final determination, then Tenant shall deduct such amount from Additional Rent next due hereunder following the month in which such final determination is made, provided, however, that if the Term shall have expired in due course (and not because of a default by Tenant) on the date when such final determination is made, then Landlord shall promptly pay to Tenant all such amounts which are then due and owing.

ARTICLE 6. Taxes

Section 6.01 (a) Tenant shall pay monthly to Landlord, as Additional Rent, any sales, use, or other tax (excluding State and/or Federal Income Tax) now or hereafter imposed by the United States of America, the State in which the Premises are located, or any political subdivision thereof, upon any form of Rents due under this Lease, or in substitution for any such Rents, notwithstanding the fact that the statute, ordinance, or enactment imposing the same may endeavor to impose the tax on Landlord.

(b) Tenant shall pay to Landlord, as Additional Rent, in accordance with the terms and provisions of this Article, Tenant's Allocated Share of the Real Estate Taxes which exceed the Base Real Estate Taxes.

(c) Landlord shall notify Tenant of the amount of Tenant's Allocated Share of the Real Estate Taxes which exceed the Base Real Estate Taxes payable for each calendar year during the Term in advance (or if the Real Estate Taxes have not been determined for the calendar year, Landlord shall provide a reasonable estimate of Tenant's Allocated Share of the Real Estate Taxes which exceed the Base Real Estate Taxes and Tenant shall pay one-twelfth (1/12) of Tenant's Allocated Share of such Real Estate Taxes which exceed the Base Real Estate Taxes monthly in advance, together with the payment of Base Rent. Within one hundred eighty (180) days after the end of each real estate tax year, or as soon as possible after such 180 day period, Landlord shall furnish Tenant a statement of the actual Real Estate Taxes for the year; and an adjustment shall be made between Landlord and Tenant with payment to or repayment by Landlord, as the case may require, to the end that Landlord shall receive the entire amount actually owed by Tenant for Real Estate Taxes for such year and Tenant shall receive reimbursement for any overpayments. Any payment adjustment owed by Tenant will be due forthwith. Any refund will be credited against Tenant's monthly Rent obligations.

(d) Tenant waives and releases any and all objections or claims relating to Real Estate Taxes for any real estate tax year unless, within one hundred eighty (180) days after the end of the calendar year or, if Real Estate Tax payments are based on an estimate for a calendar year, within one hundred eighty (180) days after Landlord provides Tenant with the annual statement of the actual Real Estate Taxes for the real estate tax year, Tenant provides Landlord with written notice that it disputes the accuracy of the statement or its appropriateness, which notice shall specify the particular respects in which the statement is allegedly inaccurate or inappropriate. If Tenant shall dispute the statement then, pending the resolution of such dispute, Tenant shall pay the Additional Rent to Landlord in accordance with the disputed statement.

Section 6.02 Tenant shall pay before delinquency all personal property taxes and assessments and other taxes or charges which are levied or assessed on Tenant's furniture, fixtures, trade fixtures, equipment, and other property located in the Premises and on additions and improvements to the Premises belonging to Tenant. In addition, Tenant shall pay any and all Real Estate Taxes and other ad valorem property taxes levied or assessed by any governmental authority against the leasehold interest of Tenant in the Premises.

Section 6.03 In no event shall the Base Rent under this Lease be reduced by virtue of this Article.

Section 6.04 If the Rent Commencement Date is not the first day of the real estate tax year, then the Additional Rent due under Section 6.01 for the first year of the Term shall be a proportionate share of the Additional Rent for the entire year, such proportionate share to be based upon the length of time that the Term will be in existence during such first real estate tax year. Upon the date of any expiration or termination of this Lease (except termination because of Tenant's default), whether such date is the date set forth in this Lease for the expiration of the Term or any prior or subsequent date, a proportionate share of the Real Estate Taxes for the real estate tax year during which such expiration or termination occurs shall immediately become due and payable by Tenant to Landlord, if not previously billed and paid. Such proportionate share shall be based upon the number of days that this Lease shall have been in existence during such year. Notwithstanding any expiration or sooner termination of this Lease, Landlord shall, as soon as reasonably practicable, compute the Additional Rent due from Tenant, as aforesaid, which computations shall either be based on that year's actual figures or be an estimate based upon the most recent statements previously prepared by Landlord and furnished to Tenant under this Article. If an estimate is used, then Landlord shall cause statements to be prepared on the basis of the real estate tax year's actual figures promptly after they are available, and within ten (10) days after such statement or statements Landlord and Tenant shall make appropriate adjustments of any estimated payments previously made.

Section 6.05 Any delay or failure of Landlord in billing for any Additional Rent under this Article shall not constitute a waiver of or in any way impair the continuing obligation of Tenant to pay such Additional Rent. If any statement of Real Estate Taxes should not be determined on a timely basis, Tenant shall continue to make payments at the rate in effect during the preceding period, and, promptly following such final determination by Landlord, there shall be an appropriate adjustment and payment by Tenant of all amounts on account of Real Estate

Taxes which would have been made if such Real Estate Taxes had been timely determined. If any amount is owed Tenant pursuant to such final determination, then Tenant shall deduct such amount from Additional Rent next due hereunder following the month in which such final determination is made, provided, however, that if the Term shall have expired in due course (and not because of a default by Tenant) on the date when such final determination is made, then Landlord shall promptly pay to Tenant all such amounts which are then due and owing.

Section 6.06 Tenant may, at its sole cost and expense, contest any Real Estate Taxes by appropriate proceedings diligently conducted in good faith. Upon the written request of Tenant, Landlord will cooperate with and join with Tenant in such a proceeding, including allowing Tenant to bring such contest in the name of Landlord. Landlord shall pay to Tenant, upon receipt by Landlord, Tenant's share of any refund ultimately obtained from the taxing authorities. Tenant agrees to pay to Landlord, upon demand, any increase in Real Estate Taxes resulting from such contest. Tenant hereby indemnifies and agrees to hold harmless Landlord from and against any cost, damage or expense (including reasonable attorney's fees) in connection with any such proceedings.

ARTICLE 7. Assignment or Subletting

Section 7.01 Except as provided in Section 7.03, Tenant may not assign or encumber this Lease or its interest in the Premises arising under this Lease, and may not sublet all or any part of the Premises without first obtaining the written consent of Landlord, provided that Landlord does not unreasonably withhold its consent. Landlord will be deemed reasonable in withholding its consent based on any of the following factors: (i) the financial condition of the proposed assignee or subtenant is not consistent with Landlord's then current, but reasonable, underwriting standards for tenants of the Building Project; (ii) the proposed assignee's or subtenant's use is not in keeping with the quality of the Building Project; (iii) the proposed assignee or subtenant has a poor business reputation; (iv) the proposed assignee or subtenant is an existing tenant in any other space in the Building or has, within the last one hundred twenty (120) days, had discussions with Landlord with respect to other space in the Building; or (v) Tenant is in default under any of the provisions of this Lease. If Tenant desires to assign or sublease, Tenant must provide ten (10) Business Days' prior written notice to Landlord describing the proposed transaction in reasonable detail and providing all documentation (including detailed financial information for the proposed assignee or subtenant) reasonably necessary to let Landlord evaluate the proposed transaction. Landlord shall notify Tenant within said ten (10) Business Days of its receipt of such notice whether Landlord elects to exercise its recapture right under Section 7.12, and, if not, whether Landlord consents to the requested assignment or sublease. If Landlord fails to respond within such ten (10) Business Day period, Tenant shall give Landlord a second written notice clearly marked "Second Notice" requesting Landlord's consent within five (5) Business Days, whereupon Landlord's nonresponse within said five (5) Business Days will be deemed a consent. One consent shall not be the basis for any further consent. The foregoing notwithstanding, Landlord shall have no recapture rights for subleases which, along with other then existing subleases, constitute less than thirty percent (30%) of the Premises, nor for any subleases or assignments for which Landlord has no consent rights pursuant to Section 7.03.

Section 7.02 [Reserved].

Section 7.03 Notwithstanding the foregoing, Tenant may assign this Lease, or sublease part or all of the Premises, without Landlord's prior consent, to: (i) any corporation, limited liability company, partnership or other legal entity that controls, is controlled by, or is under common control with, Tenant (each a "Tenant Affiliate") at the Effective Date of this Lease; or (ii) any corporation, limited liability company, or other legal entity resulting from the merger or consolidation with Tenant or to any entity that acquires all or substantially all of Tenant's assets as a going concern of the business that is being conducted on the Premises ("Permitted Transferee"); provided however, the assignor in either clause (i) or (ii) above, remains liable under the Lease as a principal (and not as a surety) and the assignee or sublessee is a bona fide entity and assumes the obligations of Tenant, has a net worth at least equal to the net worth of Tenant on the Commencement Date, maintain the Security Deposit required herein, and continues the same Permitted Use as provided under Article 3.

Section 7.04 Landlord must be given at least ten (10) days prior written notice of every assignment or subletting, which may be made without Landlord's prior consent, and failure to do so shall constitute a default hereunder.

Section 7.05 Except as otherwise expressly provided herein, this Lease shall not be assignable by operation of any law. Acceptance of Rent by Landlord after any non-permitted assignment or sublease shall not constitute approval thereof by Landlord.

Section 7.06 Any assignment or sublease for which Landlord's consent is required shall not include the right to exercise any options to renew the Term, expand the Premises, cancel the Lease, or similar options, unless specifically provided for in the consent.

Section 7.07 No assignment or sublease shall release Tenant of any of its obligations under this Lease.

Section 7.08 If the Premises (or any portion) is sublet and Tenant defaults under its obligations to Landlord which is not cured within any applicable grace or cure period, then Landlord is authorized, at its option, to collect all sublease rents directly from the subtenant.

Section 7.09 If Tenant assigns this Lease or subleases all or part of the Premises (other than pursuant to Section 7.03 hereof), Tenant shall pay to Landlord (promptly following receipt) fifty percent (50%) of (i) the amount by which all sublease rental and other payments received by Tenant from any subtenant with respect to the Premises, less any reasonable costs incurred by Tenant in obtaining such sublease such as, without limitation, legal, advertising, consulting, brokerage and other leasing and renovation costs, exceeds the total of the rental or other amounts payable by Tenant pursuant to this Lease for the portion of the Premises subleased, with the rental or other amounts payable by Tenant for the Premises allocated on the basis of square footage and (ii) the amount of any consideration with respect to the Premises received by Tenant from an assignment. The provisions of this Section shall apply regardless of whether or not such assignment, subleasing or occupation is made in compliance with the terms of this Lease. Any

payments made to Landlord pursuant to these provisions, or Landlord's acceptance or endorsement thereof, shall not constitute a consent to any assignment, subleasing or occupation or cure any default under this Lease.

Section 7.10 Tenant shall reimburse Landlord for all third party, out-of-pocket expenses (including, without limitation, reasonable attorneys' fees, architects fees and engineering fees) incurred by Landlord in connection with any assignment or sublease transaction for which consent is required unless Landlord elects to recapture the space.

Section 7.11 Any unauthorized assignment or sublease shall constitute a default under the terms of this Lease.

Section 7.12 Tenant's request for Landlord's consent to the assignment of this Lease shall constitute an offer to Landlord to recapture the Premises, to be exercised within thirty (30) days following receipt by Landlord of such request. If Landlord exercises its option to recapture, Tenant shall execute an assignment of the Lease to Landlord in the form and substance acceptable to Landlord. If Landlord exercises its right to recapture the Premises, Tenant shall be released of all further liability accruing under this Lease after the date of recapture, except for any obligations which survive the expiration or earlier termination of this Lease and accrue after the recapture date.

ARTICLE 8. Tenant's Compliance; Insurance Requirements

Section 8.01 Throughout the Term, Tenant, at its sole cost and expense, shall keep or cause to be kept for the mutual benefit of Landlord, Landlord's Property Manager, and Tenant, Commercial General Liability Insurance (ISO CGL Form CG0001 or its equivalent) with a combined single limit, each Occurrence and General Aggregate-per location of at least Two Million Dollars ($2,000,000.00), which policy shall insure against liability of Tenant, arising out of and in connection with Tenant's use of the Premises, and which shall insure the indemnity provisions contained in this Lease. Not more frequently than once every three (3) years, Landlord may require the limits to be increased if in its reasonable judgment (or that of its mortgagee) the coverage is insufficient.

Section 8.02 Tenant shall also carry the equivalent of ISO Special Form Property Insurance on Tenant's Property for full replacement value and with coinsurance waived. For purposes of this provision, "Tenant's Property" shall mean Tenant's personal property and fixtures, and any Non-Standard Improvements to the Premises. Tenant shall neither have, nor make, any claim against Landlord for any loss or damage to the Tenant's Property, regardless of the cause of the loss or damage.

Section 8.03 Prior to taking possession of the Premises, and annually thereafter, Tenant shall deliver to Landlord certificates or other evidence of insurance satisfactory to Landlord. All such policies shall be non-assessable and shall contain language to the extent obtainable that: (i) any loss shall be payable notwithstanding any act or negligence of Landlord or Tenant that might otherwise result in forfeiture of the insurance; (ii) that the policies are primary and

non-contributing with any insurance that Landlord may carry; and (iii) that the policies cannot be canceled, non-renewed, or coverage reduced except after thirty (30) days' prior notice to Landlord. If Tenant fails to provide Landlord with such certificates or other evidence of insurance coverage, Landlord may (after notice to Tenant and five (5) days to cure) obtain such coverage and the cost of such coverage shall be Additional Rent payable by Tenant upon demand.

Section 8.04 Tenant's insurance policies required by this Lease shall: (i) be issued by insurance companies licensed to do business in the state in which the Premises are located with a general policyholder's ratings of at least A- and a financial rating of at least VI in the most current Best's Insurance Reports available on the Commencement Date, or if the Best's ratings are changed or discontinued, the parties shall agree to a comparable method of rating insurance companies; (ii) name Landlord and current or future Mortgagee as an additional insured as its interest may appear [other landlords or tenants may be added as additional insureds in a blanket policy]; (iii) provide that the insurance not be canceled, non-renewed or coverage materially reduced unless thirty (30) days advance notice is given to Landlord; (iv) be primary policies; (v) provide that any loss shall be payable notwithstanding any gross negligence of Landlord or Tenant which might result in a forfeiture thereunder of such insurance or the amount of proceeds payable; (vi) have no deductible exceeding Ten Thousand Dollars ($10,000.00), unless approved in writing by Landlord; and (vii) be maintained during the entire Term and any extension terms.

Section 8.05 Landlord shall keep the Building, including the improvements (but excluding Tenant's Property), insured against damage and destruction by perils insured by the equivalent of ISO Special Form Property Insurance in the amount of the full replacement value of the Building and shall maintain Commercial General Liability Insurance with respect to the Building Project with a combined single limit, each Occurrence and General Aggregate of at least Two Million Dollars ($2,000,000), which policy shall insure against liability of Landlord for Landlord's negligence in connection with the Building Project and shall insure the indemnity provisions contained in this Lease.

Section 8.06 Anything in this Lease to the contrary notwithstanding, Landlord hereby releases and waives unto Tenant (including all partners, stockholders, members, officers, directors, employees and agents thereof), its successors and assigns, and Tenant hereby releases and waives unto Landlord (including all partners, stockholders, officers, directors, employees and agents thereof), its successors and assigns, all rights to claim damages for any injury, loss, cost or damage to persons or to the Premises or any other casualty, as long as the amount of such injury, loss, cost or damage has been paid either to Landlord, Tenant, or any other person, firm or corporation, under the terms of any Property, General Liability, or other policy of insurance, to the extent such releases or waivers are permitted under applicable law. As respects all policies of insurance carried or maintained pursuant to this Lease and to the extent permitted under such policies, Tenant and Landlord each waive the insurance carriers' rights of subrogation.

ARTICLE 9. Default

Section 9.01 If (i) Tenant defaults in the payment of Base Rent, any Additional Rent, or any other sums payable by it under this Lease when due (a "Monetary Default"); or (ii) Tenant shall default in the performance of any other covenant or agreement of this Lease or any rules and regulations attached to this Lease or promulgated by Landlord pursuant to this Lease (a "Non-Monetary Default"); or (iii) Tenant or any Guarantor or surety for Tenant's obligations under this Lease shall become bankrupt or insolvent or make a general assignment for the benefit of creditors or take the benefit of any insolvency act, or if any debtor proceedings be taken by or against Tenant or any such Guarantor or surety and such proceedings taken against Tenant or any such Guarantor shall not have been vacated or set aside within sixty (60) days from the date of filing; or (iv) a receiver or trustee in bankruptcy be appointed for the Tenant's property and such appointment be not vacated and set aside within sixty (60) days from the date of such appointment; or (v) the leasehold estate granted to Tenant by this Lease shall be taken on execution or other process of law or equity in any action against Tenant; then Tenant shall be in default under this Lease.

Section 9.02 Notwithstanding anything contained in this Lease to the contrary, Tenant shall have a period of five (5) Business Days after written notice from Landlord to cure a Monetary Default and a period of thirty (30) days after written notice from Landlord to cure a Non-Monetary Default; provided, however, Tenant will not be entitled to more than two (2) notices in any twelve (12) consecutive month period for any Monetary Default in any regularly scheduled payment under, or any Non-Monetary Default of the same provision of, this Lease and the third default within such twelve (12) month period will not be subject to cure as aforesaid. In addition, provided that Landlord or the Building Project is not otherwise jeopardized, the grace period for a Non-Monetary Default shall be extended if the default is of a nature that it cannot, with due diligence, be completely cured within the thirty (30) day period solely as a result of non-financial circumstances outside of Tenant's control, provided that Tenant has promptly commenced all appropriate actions to cure the default and such actions are thereafter diligently and continuously pursued by Tenant in good faith. In no event, however, shall the grace period exceed a total of one hundred eighty (180) days. If the Monetary or Non-Monetary Default is not cured prior to the expiration of the applicable grace period, then Landlord may pursue any or all of its remedies.

Section 9.03 In the event of a default by Tenant, after the expiration of any applicable grace period, in addition to any and all other remedies available to Landlord at law or in equity, Landlord may:

(a) Terminate this Lease and any right of renewal and retake possession of the Premises;

(b) Enter the Premises and relet the same or any part of the Premises in the name of Landlord, or otherwise, as Tenant's agent, for a term shorter or longer than the balance of the Term, and may grant concessions or free Rent in connection therewith, thereby terminating Tenant's right to possess the Premises, without terminating Tenant's obligations to

pay (a) the entire balance of all forms of Base Rent and Additional Rent for the remainder of the Term, plus (b) the Reletting Expenses. Landlord agrees that, subject to the provisions of Section 9.05, it will use reasonable efforts to relet the Premises, but its failure to do so, or failure to collect Rent on reletting, shall not affect Tenant's liability under this Lease. Landlord shall not, in any event, be required to pay Tenant any surplus of any sums received by Landlord on a reletting of the Premises in excess of the Rent provided in this Lease. Any entry or re-entry by Landlord, whether had or taken under summary proceedings or otherwise, shall not absolve or discharge Tenant from liability under this Lease. "Re-enter" and "re-entry" as used in this Lease are not restricted to their technical legal meaning. No such re-entry or taking possession of the Premises by Landlord shall be construed as an election on Landlord's part to terminate this Lease or to accept a surrender of the Premises unless a written notice of such intention is given to Tenant. Notwithstanding any such re-letting without termination, Landlord may at all times thereafter elect to terminate this Lease for such previous default;

(c) Stand by and do nothing, and hold Tenant liable for all Base Rent and Additional Rent payable under this Lease through the remainder of the Term;

(d) Obtain injunctive and declaratory relief, temporary or permanent, or both, against Tenant or any acts, conduct, or omissions of Tenant, and further to obtain specific performance of any term, covenant, or condition of this Lease;

(e) After regaining possession of the Premises, remove all or any part of Tenant's property from the Premises and any property removed may be stored at the cost of, and for the account of, Tenant, and Landlord shall not be responsible for the care or safekeeping of such property whether in transport, storage, or otherwise, and Tenant waives any and all claims against Landlord for loss, destruction, damage, or injury which may be occasioned by any of the aforesaid acts. Landlord may retain possession of such property until all storage charges and all other amounts owed by Tenant to Landlord under this Default section have been paid in full. Nothing set forth in this subsection shall limit Landlord's rights to enforce any rights in favor of Landlord against any such property of Tenant; and

(f) If all or any part of the Premises is then assigned, sublet, transferred, or occupied by someone other than Tenant, Landlord, at its option, may collect directly from the assignee, subtenant, transferee, or occupant all Rent becoming due to Tenant by reason of the assignment, sublease, transfer, or occupancy. Any collection directly by Landlord from the assignee, subtenant, transferee, or occupant shall not be construed to constitute a novation or a release of Tenant from the further performance of its obligations under this Lease.

Section 9.04 If Landlord exercises the remedies provided in Section 9.03(b) and Section 9.03(c), Landlord may declare the entire balance of all forms of Rent due under this Lease for the remainder of the Term to be forthwith due and payable and may collect by distress or otherwise an amount equal to the then present value of (a) such Rents minus (b) the aggregate reasonable rental value of the Premises for the same period (calculated using a discount equal to the yield then obtainable from the United States Treasury Bill or Note with a maturity date closest to the date of expiration of the Term) plus (c) the costs of recovering the Premises and all

other expenses incurred by Landlord due to Tenant's default including, without limitation, costs of alterations and remodeling, commissions, and reasonable attorney's fees, plus (d) the Unpaid Rent earned as of the date of termination, plus interest. The accelerated Additional Rent for Expenses shall be calculated by multiplying the highest Additional Rent amount for Expenses payable by Tenant in any calendar year times the number of calendar years (including any fractional calendar year) remaining in the Term following the date of default. If Landlord exercises the remedy provided in Section 9.03 and collects from Tenant all forms of Rent owed for the remainder of the Term.

Section 9.05 In determining whether Landlord has used reasonable efforts to relet the Premises, or any part thereof, the following shall apply:

(a) Landlord reserves the right to lease any other comparable space available in the Building, or in other buildings or projects located within one (1) mile of the Project, owned, operated, or managed by Landlord or its Affiliates, prior to offering the Premises, or any part thereof, for lease;

(b) Landlord reserves the right to refuse to lease the Premises, or any part thereof, to any prospective new tenant which: (1) is a Tenant Affiliate, (2) is not acceptable to Landlord's lenders, (3) requires material improvements beyond new carpet and new paint to the Premises, (4) is unwilling to accept lease terms then proposed by Landlord, including: (A) leasing for a shorter or longer term than remains under this Lease, (B) re-configuring or combining the Premises with other space, and/or (C) taking all or only part of the Premises; (5) in the good faith business judgment of Landlord, is of a character that is not in keeping with the standards of Landlord for the Building Project, or which proposes to use the Premises for a use that is not appropriate for or compatible with the Building Project; (6) has a negative reputation in the business or legal community or as to which Landlord has a good faith business reason for not having such proposed new tenant as an occupant of the Building Project (e.g., a prior negative relationship between Landlord and such proposed new tenant); (7) does not have the financial strength and/or creditworthiness, in Landlord's good faith business judgment, sufficient to satisfy and perform Tenant's obligations under this Lease; or (8) in any other way does not meet Landlord's standards and criteria for leasing other comparable space in the Building.

(c) Landlord reserves the right to refuse to lease the Premises, or any part thereof, to any prospective new tenant for any of the reasons set forth in Section 7.01, above, pertaining to assignment and/or subletting.

(d) Without limiting the generality of the efforts of Landlord that constitute "reasonable efforts" to relet, Landlord shall be presumed to have used reasonable efforts under the circumstances if it does not accept a prospective tenant for any of the reasons set forth in subparagraphs (b) or (c) above, in Landlord's good faith business judgment.

In any proceedings to enforce Tenant's obligations, Landlord shall be presumed to have used reasonable efforts to relet the Premises, and Tenant shall bear the burden of proof to establish that such reasonable efforts were not used.

Section 9.06 Should Tenant default in the observance or performance of any term or covenant on Tenant's part to be observed or performed pursuant to this Lease, which is not cured within any applicable grace or cure period, Landlord may perform the obligations of Tenant, and if Landlord, in connection therewith, makes any expenditures or incurs any obligation for the payment of money, including, but not limited to, reasonable attorneys' fees, such sums so paid or obligations incurred shall be deemed to be Additional Rent under this Lease and shall be paid by Tenant to Landlord within five (5) days of rendition of a bill or statement to Tenant therefor. If the Term shall have expired at the time of the making of such expenditures or incurring of such obligations, such sums shall be recoverable by Landlord as damages. This section shall survive the expiration or sooner termination of this Lease.

Section 9.07 Tenant consents that any legal action or proceeding arising out of or in any way connected with this Lease may be instituted or brought by Landlord or its agents in any court (federal or state) located in Fairfield County, Connecticut, and submits to the jurisdiction of such court in any such legal action or proceeding. In addition, Tenant waives any objection that Tenant may now or hereafter have to the laying of venue of any action or proceeding in such courts, and farther waives the right to plead or claim that any such action or proceeding brought in any such court has been brought in an inconvenient forum.

Section 9.08 The remedies provided in this Lease or presently or hereafter existing at law or in equity shall be cumulative and concurrent, and may be exercised as often as occasion therefor shall occur. No single or partial exercise by Landlord of any remedy shall preclude any other or further exercise of such remedy or of any other remedy.

Section 9.09

(a) Tenant acknowledges that the Rights of First Offer, or the option to renew the Term, and any other similar rights or options which have been granted to Tenant under this Lease are conditioned upon the prompt and diligent performance of the terms of this Lease by Tenant. Accordingly, if a Monetary Default occurs with respect to any regularly scheduled payment under, or a Non-Monetary Default occurs with respect to the same provision of, this Lease on three (3) or more occasions during any twelve (12) month period for which Tenant has received notice pursuant to Section 9.02, in addition to all other remedies available to Landlord, all such rights and options shall automatically, and without further action on the part of any party, expire and be deemed canceled and of no further force and effect.

(b) Should Tenant default in the payment of Base Rent, Additional Rent, or any other sums payable by Tenant under this Lease on two (2) or more occasions during any twelve (12) month period, regardless of whether any such default is cured, then, in addition to all other remedies otherwise available to Landlord, Tenant shall, within ten (10) days after demand by Landlord, post a security deposit in, or increase the existing Security Deposit by, a sum equal to three (3) months' installments of Base Rent. Any security deposit posted pursuant to the foregoing sentence shall be governed by the Security Deposit section of this Lease.

(c) If a Monetary Default occurs with respect to any regularly scheduled payment under, or if any Non-Monetary Default occurs with respect to the same provision of, this Lease on two (2) or more occasions during any twelve (12) month period for which Tenant has received notice pursuant to Section 9.02, in addition to all other remedies available to Landlord, any notice requirements or cure periods otherwise set forth in this Lease with respect to the same default by Tenant shall not apply.

Section 9.10 If any payment due Landlord under this Lease shall not be paid within five (5) days of the date when due, Tenant shall pay, in addition to the payment then due, an administrative charge equal to the greater of: (i) five (5%) percent of the past due payment; and (ii) Two Hundred Fifty and 00/100 ($250.00) Dollars.

Section 9.11 All overdue installments of Base Rent and Additional Rent shall bear interest at the lesser of: (i) the Prime Rate in effect as of the date when the installment was due, plus 500 basis points; or (ii) the Maximum Rate, accruing from the date the obligation arose through the date payment is actually received by Landlord, Interest shall not be payable on late charges incurred by Tenant nor on any amounts upon which late charges are paid by Tenant.

Section 9.12 Landlord shall be in default under this Lease if Landlord has not commenced and pursued with reasonable diligence the cure of any failure of Landlord to meet its obligations under this Lease within thirty (30) days of the receipt by Landlord of written notice from Tenant of the alleged failure to perform. Except as otherwise provided in this Lease, in the event of a default by Landlord, Tenant shall be entitled to any remedies available at law or in equity. Notwithstanding anything in this Lease to the contrary, Landlord shall never be liable to Tenant in the event of a default by Landlord or otherwise under any provision of this Lease for any loss of business or profits or other consequential damages or for punitive or special damages of any kind. None of Landlord’s officers, employees, agents, directors, shareholders, or partners shall ever have any personal liability to Tenant under or in connection with this Lease. Tenant shall look solely to Landlord’s estate and interest in the Building Project for the satisfaction of any right or remedy of Tenant under this Lease, or for the collection of any judgment (or other judicial process) requiring the payment of money by Landlord, and no other property or assets of Landlord or its principals shall be subject to levy, execution, or other enforcement procedure for the satisfaction of Tenant’s rights or remedies under this Lease, the relationship of Landlord and Tenant under this Lease, Tenant’s use and occupancy of the Premises, or any other liability of Landlord to Tenant of whatever kind or nature. Except as specifically provided in this Lease, Tenant expressly, knowingly, and voluntarily waives any right, claim, or remedy otherwise available to Tenant to terminate or rescind this Lease as a result of Landlord’s default as to any covenant or agreement contained in this Lease or as a result of the breach of any promise or inducement allegedly made on behalf of Landlord, whether in this Lease or elsewhere. No act or omission of Landlord or its agents shall constitute an actual or constructive eviction of Tenant unless Landlord shall have first received written notice of Tenant’s claim and shall have failed to cure it after having been afforded a reasonable time to do so, which in no event shall be less than thirty (30) days.

ARTICLE 10. Alterations

Section 10.01 Tenant shall make no alterations, installations, additions or improvements ("Alterations") in or to the Premises without Landlord's prior written consent, and then only by contractors approved by Landlord. Tenant shall ensure that its contractors maintain labor harmony in the Building. All contractors shall be required to comply with Landlord's construction rules in effect from time to time. Alterations of a purely decorative nature, such as painting or wallpapering, and which do not require a building permit shall not require Landlord's approval, but shall be required to comply with all other provisions of this Article 10. All Alterations shall be done at Tenant's sole expense (subject to the Tenant Allowance for the initial Tenant Improvements) and at such times and in such manner as Landlord may from time to time designate (or as specifically provided for in Exhibit D for the initial Tenant Improvements) and in full compliance with all applicable statutes, laws, codes, ordinance, rules and regulations and with all governmental authorities having jurisdiction thereof. All Alterations made or affixed to the Building including the initial Tenant Improvements shall, if Landlord so elects, become the property of Landlord and remain upon, and be surrendered with the Premises at the termination of this Lease. Tenant shall remove Alterations including, without limitation, any initial Tenant Improvements designated by Landlord to be removed at Tenant's sole expense and shall restore the Premises to the condition prior to the installation of such Alterations; provided, however, Tenant shall not be required to remove any Tenant Improvements unless they constitute Tenant Specialty Items (hereinafter defined in Article 29). Tenant shall correct or replace any installation that causes damage to or failure of any Building facility or service. In the event that Tenant fails to correct such installation, Landlord may make such correction and charge Tenant for the cost thereof. Any sums so expended by Landlord shall be deemed Additional Rent.

Section 10.02 Prior to commencing any Alterations, Tenant shall furnish to Landlord all of the following:

(a) Unconditional waivers of mechanics' lien rights signed by all parties to perform any work or furnish materials in connection with any Alterations which waivers shall be filed by Landlord at Tenant's expense; provided, however, if unconditional waivers of mechanics lien rights in advance are not possible or customary, mechanics lien waivers may be provided as the work progresses in a manner and on a schedule agreed upon by Landlord;

(b) Copies of all governmental permits and authorizations which may be required in connection with such work;

(c) A certificate evidencing that Tenant's contractors have procured the insurance required by Article 8;

(d) If requested by Landlord, builder's risk coverage in an amount equal to the cost of the Alterations; and

(e) Plans and specifications for such Alterations complying with applicable building code.

Section 10.03 Notwithstanding the provisions of Section 10.02, if any mechanics' lien or attachment is filed against the Property for work claimed to have been done for, or materials claimed to have been furnished to Tenant, it shall be discharged by Tenant within ninety (90) days thereafter, at Tenant's sole cost. If Tenant fails to discharge such mechanic's lien or attachment within said ninety (90) day period, Landlord may, but is not obligated to do so, by payment without inquiring into the validity of said lien or attachment. All costs incurred by Landlord in discharging any such lien or attachment shall be deemed Additional Rent.

Section 10.04 Nothing in this Lease shall be deemed or construed in any way as constituting the consent or request of Landlord, express or implied by inference or otherwise, to any contractor, subcontractor, laborer or materialman for the performance of any labor or the furnishing of any materials for any specific Alterations, addition, improvement or repair to the Premises or any part thereof. Nothing in this Lease or in any other document executed by Landlord shall be construed to constitute an acknowledgment that any work done or material provided by any contractor, subcontractor or materialman of Tenant was done or provided for the immediate use and benefit of Landlord.

ARTICLE 11. Access to Premises

Section 11.01 Landlord reserves the right to install, use, maintain, and repair pipes, ducts, and conduits in and through the Premises. Landlord and persons authorized by Landlord may enter the Premises at any time without notice to Tenant in the event of an emergency involving possible injury to property or persons in or around the Premises or the Building Project; provided, however, Landlord shall give Tenant such notice as shall be deemed by Landlord as practicable under the circumstances. Landlord and persons authorized by Landlord shall also have the right to enter the Premises at all reasonable times and upon reasonable advance written notice for the purposes of making inspections, repairs, replacements, and improvements which may be Landlord's obligation under this Lease or which Landlord deems necessary for the safety, protection, or preservation of the Building Project or when such entry will facilitate repairs, alterations, or additions to the Building Project or any tenant's premises. If reasonably necessary for the protection and safety of Tenant and its agents and employees, Landlord may temporarily close the Premises, or portions thereof, to perform repairs, alterations, or additions to the Building Project, so long as Landlord shall use reasonable efforts to perform all such work after Normal Business Hours.

Section 11.02 Landlord may exhibit the Premises to prospective purchasers or mortgagees of Landlord's interest in the Premises or others with a legitimate purpose during Normal Business Hours after reasonable advance oral or written notice. During the last nine (9) months of the Term, Landlord or its agents may exhibit the Premises to prospective tenants during Normal Business Hours.

Section 11.03 Except in the event of emergency, all access to the Premises pursuant to this Article 11 shall be on not less than one (1) business day prior notice to Tenant. A representative of Tenant shall be permitted to accompany those persons entering any laboratory areas and such persons shall be required to wear appropriate safety glasses and/or coats, Landlord shall maintain the confidentiality of all operations and procedures which may be observed in the course of such access.

ARTICLE 12. Building Project and Common Areas

Section 12.01 Landlord shall make available within the Building Project such areas and facilities (the "Common Areas") including, but not limited to, walkways, landscaped and planted areas, parking facilities, and loading docks as Landlord shall, acting in good faith, deem appropriate. Landlord shall operate, manage, equip, light, repair, and maintain the Common Areas for their intended purposes and for such purposes may incur expenses as Landlord shall, in its good faith determination applying sound accounting and property management principles, deem appropriate, all of which expenses shall be included within the definition of Expenses. Landlord may, at any time and from time to time, without the same constituting an actual or constructive eviction, and without otherwise incurring any liability to Tenant, increase, reduce, or change the number, type, size, location, elevation, nature, and use of any of the Common Areas, make improvements, alterations, or additions to the Building Project, remove or change the arrangement and/or location of entrances or passageways, corridors, elevators, stairs, public restrooms, or other public parts of the Building Project, and change the name or number by which the Building Project is known. Notwithstanding the foregoing, Tenant shall have access at all times to the loading docks comprising a part of the Common Areas subject to such reasonable rules and regulations as Landlord deems appropriate for security purposes, occupation and use thereof by other tenants of the Building Project, and such periods of time as such loading docks are unavailable for purposes of maintenance and repairs. Landlord may also temporarily close the other Common Areas to make repairs.

Section 12.02 As long as Tenant is entitled to possession of the Premises, Tenant shall have a non-exclusive right, in common with Landlord, the other tenants of the Building Project, and all others to whom Landlord has granted or may hereafter grant rights, to use the Common Areas, subject to the terms of this Lease and such rules and regulations as Landlord may from time to time impose. The Common Areas shall at all times be subject to the exclusive control and management of Landlord. Landlord may grant third parties specific rights with respect to portions of the Common Areas and any such grant shall not be deemed an infringement on any rights granted to Tenant pursuant to this Lease or otherwise, so long as such rights granted to third parties do not unreasonably interfere with Tenant's rights under this Lease.

Section 12.03 [Reserved]

Section 12.04 Tenant shall conform to the reasonable rules and regulations promulgated by Landlord regarding the use of the Building Project of which Tenant is given written notice. No failure of Landlord to enforce such rules and regulations against any other tenant shall be deemed a default by Landlord under this Lease, or excuse compliance with the rules and regulations by Tenant.

Section 12.05 Landlord covenants and agrees, at Landlord's sole cost and expense to complete the following improvements (collectively, the "Landlord Improvements") to the

Building Project: (i) new roof for the Premises, which roof shall meet the specifications for the existing roof for the remainder of the Building and shall have a warranty of not less than fifteen (15) years; (ii) new HVAC units for the Premises (Trane, or equivalent) with a 200 ton capacity, (iii) approximately sixteen (16) additional 6' x 6' punch out windows; (iv) gas and electric utility lines brought to Premises with submeter; and (v) new restroom facilities which comply with the Americans With Disabilities Act and the regulations and accessibility guidelines promulgated thereunder. The Landlord Improvements shall also be constructed in accordance with all applicable statutes, laws, codes, ordinances, rules and regulations (the new restroom facilities being based on Tenant's occupancy so long as Tenant provides Landlord with the requisite information prior to Landlord's design of same).

ARTICLE 13. Environmental Laws

Section 13.01 Tenant represents and warrants to Landlord that Tenant's use of, and activities on, the Premises shall be conducted in compliance with all Environmental Laws. In the event any of Tenant's activities require the use of "hazardous' or "toxic" substances, as such terms are defined by any of the Environmental Laws, then Tenant represents and warrants to Landlord that Tenant has received all permits and approvals required under the Environmental Laws with respect to such toxic or hazardous substances. Tenant covenants and agrees to maintain the Premises in a "clean" condition during the Term, as extended or renewed. As used in this section, the term "clean" shall mean that the Premises are in complete compliance with the standards set forth under the Environmental Laws and any standards set forth in this Lease.

Section 13.02 In the event Tenant breaches any of its representations, warranties, or covenants and agreements contained in this section or fails to notify Landlord of the release of any hazardous or toxic substances from the Premises, then such breach or failure to notify shall be deemed a material default under this Lease and Landlord shall have all rights and remedies available to it, including, but not limited to, the right to terminate this Lease and the right to initiate a clean-up of the Premises, in which case Landlord shall be immediately reimbursed by Tenant for, and indemnified by Tenant from, any and all costs, expenses, losses, and liabilities incurred in connection with such clean-up (including all reasonable attorneys' fees) by Landlord. In the alternative, Landlord may require Tenant to clean-up the Premises and to fully indemnify and hold Landlord harmless from any and all losses, liabilities, expenses (including but not limited to reasonable attorneys' fees), and costs incurred by Landlord in connection with Tenant's clean-up action. Notwithstanding anything herein, Tenant agrees to pay, and shall indemnify Landlord from and against, any and all losses, claims, liabilities, costs, and expenses (including reasonable attorneys' fees) incurred by Landlord as a result of any breach by Tenant of this section, and as a result of any contamination of the Premises due to Tenant's use of hazardous or toxic substances on the Premises.

Section 13.03 If Tenant's operations require the ongoing use of hazardous or toxic substances, then Tenant shall retain copies of reports and any other monitoring information required by the Environmental Laws and make same available to Landlord for inspection and copying at Landlord's request, and any failure by Tenant to do so shall be, at Landlord's option, a default under this Lease. As used in this section, "Premises" shall mean and refer to the property

which is the subject of this Lease as well as any portion of the Building Project owned by Landlord which may be damaged or contaminated by the release of any toxic or hazardous substance.

Section 13.04 Landlord represents and warrants that, to Landlord's knowledge, without investigation, as of the date hereof, except as otherwise set forth in the environmental reports on the Building Project which have been provided to Tenant, there is no violation, and Landlord has not received any written notice of any violation, of any Environmental Laws by the Building Project. In addition, and notwithstanding anything to the contrary in this Section or any other provision of this Lease, Landlord shall be responsible for correcting, at its sole cost and expense (and without including same in Expenses), any violation by the Building Project, or any portion thereof, of Environmental Laws based on conditions existing on the date of this Lease; provided, however, Landlord shall be required to undertake such corrective action only if, and to the extent, corrective action is mandated by a governmental entity, agency, department, board, commission or instrumentality, or by a court of competent jurisdiction. Landlord agrees to pay and shall indemnify Tenant from and against any and all losses, claims, liabilities, costs and expenses (including reasonable attorneys fees) incurred by Tenant as a result of (i) any environmental condition of the Building Project on the date of this Lease and (ii) any breach by Landlord of the foregoing representations, warranties, covenants and agreements contained in this Section.

Section 13.05 This Article shall survive the expiration or sooner termination of this Lease.

ARTICLE 14. Destruction

Section 14.01 If: (i) the Building Project shall be so damaged that it will take more than one hundred eighty (180) days to repair same; or (ii) any mortgagee of the Building Project should require that the insurance proceeds payable as a result of a casualty be applied to the payment of the mortgage debt; or (iii) the Premises shall be partially damaged by casualty during the last two (2) years of the Term, and the estimated cost of repair exceeds ten (10%) percent of the Base Rent then remaining to be paid by Tenant for the balance of the Term; Landlord may, within ninety (90) days after such casualty, give written notice to Tenant of Landlord's election to cancel and terminate this Lease, and the balance of the Term shall automatically expire on the fifth (5th) day after such notice is delivered.

Section 14.02 If Landlord does not have the right to terminate this Lease pursuant to Section 14.01, or if Landlord has the right to terminate and does not elect to do so, Landlord shall commence and proceed with reasonable diligence to restore the Building Project and the Premises (including the initial Tenant Improvements) (provided that Landlord shall not be required to restore any unleased premises in the Building Project so long as the remainder of the Building Project is restored as a complete architectural unit) to substantially the same condition they were in immediately prior to the happening of the casualty. When repairs to the Premises which are Landlord's obligation pursuant to this section, if any, have been completed by Landlord, Tenant shall complete the restoration or replacement of the Premises and all of

Tenant's Property necessary to permit Tenant's reoccupancy of the Premises, and Tenant shall present Landlord with evidence satisfactory to Landlord of Tenant's ability to pay such cost prior, and as a condition, to Landlord's commencement of repair and restoration of any portion of the Premises. In the event the Premises are not substantially restored to a condition rendering same useable within two hundred seventy (270) days after such casualty, Tenant shall have the right to terminate this Lease.

Section 14.03 Notwithstanding Section 14.01 and Section 14.02: (i) Landlord shall have no duty to restore, rebuild, or replace any Alterations (except the initial Tenant Improvements) or Tenant's Property; and (ii) Landlord's obligations to repair, rebuild, or restore the Building Project or the Premises shall exist only to the extent that insurance proceeds are actually received by Landlord in connection with the casualty which gave rise to Landlord's obligation to repair, rebuild, or restore.

Section 14.04 Rent shall abate in proportion to the portion of the Premises not useable by Tenant as a result of any casualty, as of the date on which the Premises becomes unusable. Landlord shall not be liable to Tenant for any delay in restoring the Premises or any inconvenience or annoyance to Tenant or injury to Tenant's business resulting in any way from such damage or the repairs, Tenant's sole remedy being the right to an abatement of Rent.

ARTICLE 15. Condemnation

Section 15.01 If during the Term all of the Premises are permanently taken for any public or quasi-public use under any statute or by right of eminent domain, or purchased under threat of such taking, this Lease shall automatically terminate on the date on which the condemning authority takes possession of the Premises (the "date of such taking").

Section 15.02 If during the Term only part of the Building is taken or purchased as set provided in Section 16.01, then (i) if in the reasonable opinion of Landlord substantial alteration or reconstruction of the Building is necessary or desirable as a result thereof, whether or not the Premises are or may be affected, Landlord shall have the right to terminate this Lease by giving Tenant at least thirty (30) days written notice of such termination; and (ii) if more than one-third of the number of Square Feet in the Premises is included in such taking or purchase (or Tenant's parking spaces are reduced by more than ten percent (10%)), Landlord and Tenant shall each have the right to terminate this Lease by giving the other at least thirty (30) days written notice thereof. If either party exercises its right of termination hereunder, this Lease shall terminate on the date stated in the notice, provided, however, that no termination pursuant to notice hereunder may occur later than sixty (60) days after the date of such taking.

Section 15.03 On any such date of termination under Section 15.01 and Section 15.02, Tenant shall immediately surrender to Landlord the Premises and all interest therein under this Lease. Landlord may re-enter and take possession of the Premises and remove Tenant therefrom, and the Rent shall no longer accrue from the date of termination, except that if the date of such taking differs from the date of termination, Rent shall no longer accrue from the former date in respect of the portion taken. After such termination, and on notice from Landlord stating the Rent then owing, Tenant shall forthwith pay Landlord such Rent.

Section 15.04 If any portion of the Premises (but less than the whole thereof) is so taken and no rights of termination herein conferred are timely exercised, the Term shall expire with respect to the portion so taken on the date of such taking. In such event the Rent payable hereunder with respect to such portion so taken shall no longer accrue from such date, and the Rent thereafter payable with respect to the remainder not so taken shall be adjusted pro rata by Landlord in order to account for the resulting reduction in the number of Square Feet in the Premises

Section 15.05 Upon any such taking or purchase, Landlord shall be entitled to receive and retain the entire award or consideration for the affected lands and improvements subject to the rights of any mortgagee of Landlord's interest in the Land or the Building as their respective interests may appear, and Tenant shall not have nor advance any claim against Landlord for the value of Tenant's property or Tenant's leasehold estate or the unexpired Term, or for costs of removal or relocation, or business interruption expense or any other damages arising out of such taking or purchase. Nothing herein shall give Landlord any interest in or preclude Tenant from seeking and recovering on its own account from the condemning authority any award or compensation attributable to the taking or purchase of Tenant's chattels or trade fixtures or attributable to Tenant's relocation expenses provided that any such separate claim by Tenant shall not reduce or adversely affect the amount of Landlord's award. If any such award made or compensation paid to either party specifically includes an award or amount for the other, the party first receiving the same shall promptly account therefor to the other.

ARTICLE 16. Maintenance of Premises

Section 16.01 Landlord shall repair and maintain in good order and condition, ordinary wear and tear excepted, the structural portions of the Building (i.e., foundation, load bearing walls, exterior walls, and roof) and the Common Areas. Landlord also agrees to repair and maintain in good order and condition, ordinary wear and tear excepted, the HVAC Units comprising a part of the Landlord Improvements, 100% of the increase in the costs in excess of the costs incurred by Landlord during the calendar year 2007 of which shall be paid by Tenant. Notwithstanding the foregoing sentence, the aggregate amount required to be paid by Tenant in any one year for such maintenance and repair of the HVAC Units in excess of the payments made under any maintenance agreement (the "Maintenance Agreement Payments") shall be Seven Thousand Five Hundred Dollars ($7,500.00) (the "HVAC Expense Cap"). Any amounts incurred in one year in excess of the HVAC Expense Cap shall be carried over to the next succeeding year or years until paid. In no event shall Tenant be required to pay more than the Maintenance Agreement Payments plus the HVAC Expense Cap in any one year for the HVAC maintenance and repairs. Tenant waives the provisions of any law, or any right Tenant may have under common law, permitting Tenant to make repairs at Landlord's expense or to withhold Rent or terminate this Lease based on any alleged failure of Landlord to make repairs; provided, however, in the event Tenant obtains a judgment against Landlord for breach by Landlord of any of its obligations to make repairs and such judgment is not paid within thirty (30) days after

entry, Tenant shall have the right to offset the amount of such judgment against Rent as it becomes due so long as such amount, together with all other amounts being offset against Rent under any provisions of this Lease shall not exceed twenty-five percent (25%) of the Base Rent due for such month. Any excess will carry over to future months, subject to the cap, until fully recovered.

Section 16.02 Except as provided in Section 16.01, Landlord shall have no maintenance obligation with respect to the Premises and no obligation to make any repairs, in, on, or to the Premises. Tenant assumes the full and sole responsibility for the condition, operation, repair, replacement, maintenance, and management of the Premises including plumbing, electrical, mechanical and HVAC systems servicing the Premises (regardless of location), and all improvements, throughout the Term, except to the extent otherwise expressly set forth in Section 16.01. Tenant shall maintain the Premises (including, without limitation, all furniture, fixtures, equipment, and decorations) in good repair and in a clean, attractive, first-class condition. Without limiting the generality of foregoing, Tenant agrees to repair, replace, and maintain in good and operational order and condition the non-structural interior portions of the Premises, including interior doors, interior windows, plate and window glass, floor coverings, wall coverings, furniture, fixtures, equipment, and appliances and the electrical and mechanical systems not considered Building Project standard which have been installed for the exclusive use and benefit of Tenant such as electrical services for computers or similar items and security or telephone systems for the Premises. All replacements shall be of equal quality and class to the original items replaced. Tenant shall not commit or allow to be committed any waste on any portion of the Premises.

ARTICLE 17. Estoppel Certificates

From time to time, a party, upon not less than ten (10) Business Days' prior written request from the other party, shall execute and deliver to the requesting party a statement in writing certifying: (i) that this Lease is unmodified and in full force and effect (or if there shall have been any modification, that the same is in full force and effect as modified and stating the modification); (ii) the amount of any prepaid Rent or security deposit paid under this Lease; (iii) the dates to which the Rent and other charges have been paid; (iv) if Landlord is the requesting party, whether or not Tenant claims any defenses or offsets with respect to its obligations under this Lease and whether or not, to Tenant's knowledge, Landlord is in default in the performance of any covenant, agreement, or condition contained in this Lease on its part to be performed, and, if so, specifying each such defense, offset, or default of which Tenant may have knowledge; and (v) such other matters as may be reasonably requested by such party or by institutional lenders and others in similar estoppel certificates. In addition, if requested, Tenant shall provide such financial information concerning Tenant and Tenant's business operations and Guarantor as may be reasonably requested by any mortgagee or prospective mortgagee or purchaser of the Premises.

ARTICLE 18. Subordination/Nondisturbance

Section 18.01. This Lease is and shall be subject and subordinate to any ground, overriding, or underlying leases and the rights of the landlords under such leases and to all mortgages which may now or hereafter affect such leases or the Building Project, and to all renewals, modifications, consolidations, replacements, and extensions of such leases and mortgages. This section shall be self-operative and no further instrument of subordination shall be necessary. However, in confirmation of such subordination, Tenant shall execute promptly any certificate that Landlord may reasonably request. The failure of Tenant to execute any such certificate within ten (10) Business Days following written demand by Landlord shall constitute a material default under the terms of this Lease. If any ground or underlying lease is terminated, or any mortgage foreclosed, this Lease shall not terminate or be terminable by Tenant unless Tenant was specifically named in any termination or foreclosure judgment or final order. If any ground or underlying lease is terminated as aforesaid, or if the interest of Landlord under this Lease is transferred by reason of or assigned in lieu of foreclosure or other proceedings for enforcement of any mortgage, or if the holder of any mortgage acquires a lease in substitution therefor, or if this Lease is terminated by termination of any lease or by foreclosure of any mortgage to which this Lease is or may be subordinate, then Tenant will, at the option to be exercised in writing by the landlord under any ground or underlying lease or such purchaser, assignee, or tenant, as the case may be (i) attorn to it and will perform for its benefit all the terms, covenants, and conditions of this Lease on Tenant's part to be performed with the same force and effect as if said landlord or such purchaser, assignee, or tenant were the landlord originally named in this Lease; or (ii) enter into a new lease with the landlord or the purchaser, assignee, or tenant for the remainder of the Term and otherwise on the same terms, conditions, and Rents as provided in this Lease.

Section 18.02. Landlord agrees to provide Tenant with a Non-Disturbance Agreement executed by the lessor under any ground, overriding, or underlying lease and any mortgagee or beneficiary of the deed of trust which is superior in title to this Lease whereby such lessor, mortgagee or beneficiary agrees not to disturb Tenant's possession and quiet enjoyment of the Premises so long as Tenant is not in default under the terms of this Lease beyond any applicable grace or cure period. The Non-Disturbance Agreement shall be in form and substance reasonably acceptable to Tenant and such lessor, mortgagee or beneficiary, and the agreement attached as Exhibit F shall be deemed acceptable to Tenant.

ARTICLE 19. Indemnity

Section 19.01 Subject to the insurance requirements, releases and mutual waivers of subrogation set forth in this Lease, Tenant agrees as follows:

(a) Tenant shall indemnify and hold Landlord harmless from and against any and all claims, damages, losses, liabilities, lawsuits, costs and expenses (including attorneys' fees at all tribunal levels) arising out of or related to (i) any activity, work, or other thing done, permitted or suffered by Tenant in or about the Premises or the Building or the condition, maintenance, repair, alteration, use, occupation or operation of the Premises; (ii) any breach or default by Tenant in the performance of any of its obligations under this Lease; or (iii) any act or omission of Tenant, or any officer, agent, employee, contractor, servant, invitee or guest of Tenant.

(b) If any such action is brought against Landlord, then Tenant, upon notice from Landlord, shall defend the same through counsel reasonably acceptable to Landlord. The provisions of this Section shall survive the termination of this Lease.

Section 19.02 [Reserved]

Section 19.03 Subject to the insurance requirements, releases and mutual waivers of subrogation set forth in this Lease, Landlord agrees as follows:

(a) Landlord shall indemnify and hold Tenant harmless from and against any and all claims, damages, losses, liabilities, lawsuits, costs and expenses (including attorneys' fees at all tribunal levels) arising out of or related to (i) any breach or default by Landlord in the performance of any of its obligations under this Lease; or (ii) the negligence or willful misconduct of Landlord, or any manager, member, agent, or employee of Landlord.

(b) If any such action is brought against Tenant, then Landlord, upon notice from Tenant, shall defend the same through counsel reasonably acceptable to Tenant. The provisions of this Section shall survive the termination of this Lease.

ARTICLE 20. Anti-Waiver

The failure of a party to insist upon the strict performance of any provision of this Lease or to exercise any remedy for any default shall not be construed as a waiver. The waiver of any noncompliance with this Lease shall not prevent subsequent similar noncompliance from being a default. No notice to or demand on a party shall of itself entitle such party to any other or further notice or demand in similar or other circumstances. No waiver shall be effective unless expressed in writing and signed by the waiving party. The receipt by Landlord of any Rent after default on the part of Tenant (whether such Rent is due before or after such default) shall not be deemed to operate as a waiver of the right of Landlord to enforce the payment of any other Rent reserved in this Lease which may be due and owing at such time, or otherwise, or to pursue any other remedies provided in this Lease or otherwise available to Landlord. No payment by Tenant, or receipt by Landlord, of a lesser amount than the Rent actually owed pursuant to the terms of this Lease shall be deemed to be other than on account of the earliest stipulated Rent, nor shall any endorsement of, or statement on, any check or any letter accompanying any check or payment of Rent be deemed an accord and satisfaction. Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such Rent or to pursue any other remedy provided under this Lease. No act of Landlord shall be deemed an acceptance of a surrender of the Premises and no agreement to accept such surrender shall be valid unless in writing and signed by Landlord. The acceptance of the keys to the Premises by the Landlord from the Tenant prior to the termination of this Lease will not operate as a termination of the Lease or a surrender of the Premises unless done pursuant to a written agreement duly executed on behalf of Landlord and specifically evidencing an express intention by Landlord so to effect a termination or accept a surrender. It is the intention of the parties that this Section modify the common law rules of waiver and estoppel.

ARTICLE 21. No Representations by Landlord

Neither Landlord nor Landlord's agents have made any representations or promises with respect to the physical condition of the Building Project or the Premises, the Rents, leases, expenses of operation, or any other matter affecting or relating to the Premises, except as expressly set forth in this Lease and no rights, easements, or licenses are acquired by Tenant by implication or otherwise except as expressly set forth in this Lease.

ARTICLE 22. Services and Utilities

Section 22.01 Tenant shall arrange for and pay, when due, all costs and expenses incurred in connection with provision of utility services to the Premises, including, but not limited to electricity (the Building is served by a 4,000 AMP, 208/120 volt, 3 phase service), gas, water, sewer services, telephone, data and telecommunication services, janitorial services, vermin and pest control, repair and maintenance of the interior of the Premises, and such other services as Tenant, in accordance with the terms and provisions of this Lease, requires for the Premises not otherwise specifically required to be furnished by Landlord in this Lease. Such costs and expenses shall include but not be limited to the utility charges for ongoing service, and all costs associated with the provision of separate meters to the Premises.

Section 22.02 Tenant's right to obtain telecommunications access shall be subject to Plans and Specifications to be approved in advance in writing by Landlord at its sole and absolute discretion. Tenant acknowledges and agrees that any and all telephone and telecommunication services desired by Tenant shall be ordered and utilized at the sole expense of Tenant. Unless Landlord requests otherwise or consents in writing, all of Tenant's telecommunications equipment shall be located and remain solely in the Premises. Landlord shall not have any responsibility for the maintenance of Tenant's telecommunications equipment, including wiring; nor for any wiring or other infrastructure to which Tenant's telecommunications equipment may be connected. Tenant agrees that, to the extent any telecommunications service is interrupted, curtailed or discontinued, Landlord shall have no obligation or liability with respect thereto. Landlord shall have the right, upon reasonable prior oral or written notice to Tenant, to interrupt or turn off telecommunications facilities in the event of emergency or as necessary in connection with repairs to the Building or installation of telecommunications equipment for other tenants of the Building. In the event that Tenant wishes at any time to utilize the services of a telephone or telecommunications provider whose equipment is not then servicing the Building, the provider shall not be permitted to install its lines or other equipment within the Building without first securing the prior written consent of Landlord so long as such consent is not unreasonably withheld. The provision of this paragraph may be enforced solely by Tenant and Landlord, are not for the benefit of any other party, and specifically but without limitation, no telephone or telecommunications provider shall be deemed a third party beneficiary of this Lease. Tenant shall not utilize any wireless communications equipment (other than usual and customary cellular telephones), including antennae and satellite

receiver dishes, within the Premises or the Building, without Landlord's prior written consent so long as such consent is not unreasonably withheld. At Landlord's option, Tenant may be required to remove any and all telecommunications equipment (including wireless equipment) installed in the Premises or elsewhere in or on the Building by or on behalf of Tenant, including wiring, or other facilities for telecommunications transmittal prior to the expiration or termination of the Lease and at Tenant's sole cost. Subject to local, state and federal regulations, and the applicable provisions of the Rules and Regulations for Design and Construction of Tenant Work attached to this Lease as Exhibit D-2, Tenant will have the non-exclusive license to install, at a location on the roof of the Premises acceptable to Landlord, for Tenant's use only supplemental HVAC equipment and one satellite dish provided such installations do not void or adversely affect Landlord's roof warranty. All such installations will be at Tenant's sole cost and expense and Tenant will maintain the same in compliance with all local, state and federal laws and regulations and Landlord's insurance requirements. Landlord will have the right to approve all proposed installations (including the locations thereof and the plans and specifications therefor) in accordance with the Rules and Regulations set forth in Exhibit D-2. Tenant shall be responsible for the construction of all rooftop equipment platforms and roof screens for visual concealment of such rooftop equipment and platforms in a manner reasonably acceptable to Landlord. All conduit locations and installation methods will be subject to Landlord's prior written approval. Tenant's equipment shall not interfere with the use or operation of any other satellite dishes, antennae, lines or equipment or HVAC equipment or utilities.

Section 22.03 Landlord represents and warrants that the Building is equipped with a fire alarm system and is sprinklered (collectively, the "Fire Safety Systems") and such systems are, as of the date hereof, in compliance with all applicable statutes, laws, codes, ordinances, rules and regulations. Tenant shall pay for the costs of any upgrades or other modification to the Fire Safety Systems or any other Building Project utility or service systems necessary for Tenant's occupancy or otherwise to accommodate Tenant. Notwithstanding the foregoing, Landlord shall not be required to make any modification to the Fire Safety Systems or any other utility or service systems of the Building Project on behalf of Tenant.

Section 22.04 Landlord shall not be liable to Tenant for any loss or damage or expense which Tenant may sustain or incur if either the quantity or character of electric service or any other utility service to the Premises is changed or is no longer available or suitable for Tenant's requirements. Tenant's use of electrical and heating, ventilating, and air conditioning services furnished by Landlord shall not exceed, either in voltage, rated capacity, use, or overall load, that which Landlord deems to be standard for the Building Project. If Tenant requests permission to consume electrical or heating, ventilating, and air conditioning services in excess of those deemed by Landlord to be standard for the Building Project, Landlord may refuse to consent to such usage or may consent upon such conditions as Landlord elects (including the installation of utility service upgrades, submeters, air handlers, or cooling units), and all costs associated with such additional usage and the installation and maintenance of facilities therefor shall be paid by Tenant as Additional Rent.

Section 22.05 In no event shall Landlord be liable for damages resulting from any of the fixtures or equipment in the Building Project being out of repair, or for injury to persons,

property, or business caused by any defects in the electric, HVAC, telecommunications systems, or water and sewer apparatus, or for any damages arising out of the failure to furnish HVAC, water and sewer, janitor, or other service (except to the extent such loss, or damage results solely from any fault, default, negligence, act or omission of Landlord or its agents, servants, employees, or any other person for whom Landlord is in law responsible and covered by insurance), and any such interruption or failure shall in no manner constitute an actual or constructive eviction of Tenant or entitle Tenant to abatement of any Rent due under this Lease. In the event any essential service (water, sanitary sewer, electrical, or HVAC service) to the Premises is interrupted solely as a result of Landlord's negligence and (i) the interruption renders all or a material portion of the Premises untenantable for a period (the "Service Interruption Period") of thirty (30) consecutive days or more, (ii) the Tenant discontinues operations from the Premises during the Service Interruption Period, and (iii) Tenant is unable, using due diligence, to restore the services within thirty (30) days of the commencement of the service interruption, Rent shall equitably abate (based on the portion of the Premises rendered untenantable) after such 30 days of service interruption until the earlier of the restoration of the service or Tenant resumes operations in the portion of the Premises rendered untenantable.

Section 22.06 Tenant expressly acknowledges that if Landlord, from time to time, elects to provide security services, Landlord shall not be deemed to have warranted the efficiency of such security personnel, services, procedures, or equipment and Landlord shall not be liable in any manner for the failure of any such security personnel, services, procedures, or equipment to prevent or control, or apprehend anyone suspected of, personal injury or property damage in, on, or around the Building Project. If at any time during the Term the Building Project has any type of card access system for the Parking Areas or the building in which the Premises are located, Tenant shall purchase access cards for all occupants of the Premises from Landlord at a building standard charge and shall comply with building standard terms relating to access to the Parking Areas and the building.

Section 22.07 Tenant shall have the right to install back-up power generators in an area designated by Landlord outside of, but adjacent to, the Premises, which area does not exceed 250 square feet. Tenant shall be responsible for all work performed for the installation of the back- up generators and connection thereto. Subject to Tenant's compliance with all applicable codes, ordinances, laws, rules and regulations, Tenant shall have the right, subject to Landlord's prior written consent, so long as such consent is not unreasonably withheld, to install an umbilical "pig-tail" cord within the Premises and the Building for purposes of obtaining electricity from the back-up generators. All work performed in connection with the umbilical "pig-tail" connection should be performed in accordance with the terms of Article 10 of this Lease. Tenant shall also screen the back-up generators and other equipment located outside the Premises in a manner acceptable to Landlord. Any fuel for the back-up generators shall be stored in facilities which meet specifications required by Landlord as well as all fire, safety and environmental laws, rules, regulations, codes and ordinances.

ARTICLE 23. Security Deposit

Section 23.01 Simultaneously with the execution of this Lease by Landlord and Tenant, Tenant shall deposit with Landlord the Security Deposit Amount in cash or by Letter of Credit. The Security Deposit shall be held by Landlord as security for Tenant's full and faithful performance of the terms, covenants, and conditions of this Lease including, without limitation, the payment of Base Rent and Additional Rent. The Security Deposit shall not be considered an advance payment of Rent and shall never constitute liquidated damages for any default by Tenant. The Security Deposit, if in cash, may be commingled with other funds of Landlord but any interest earned on the Security Deposit, if invested, shall accrue to the benefit of, and be taxed to, Tenant, but shall be deemed to become, and be treated, as part of the Security Deposit.

Section 23.02 Landlord may use, apply, or retain the whole or any part of the Security Deposit to the extent required for the payment of any Base Rent and Additional Rent, or any other sum as to which Tenant is in default or for any sum which Landlord may expend or may be required to expend by reason of Tenant's default under any of the provisions of this Lease. ***Tenant expressly acknowledges that Tenant shall not have the right to apply the Security Deposit to Rent.*** Application of the Security Deposit to Rents owed shall be at the sole option of Landlord, and the right to possession of the Premises by Landlord for nonpayment of Rent or for any other reason shall not in any event be affected by the existence of the Security Deposit.

Section 23.03 If Landlord uses, applies, or retains the whole or any part of the Security Deposit, Tenant shall deliver to Landlord such sums as necessary to replenish the Security Deposit to its original sum within five (5) days after notification from Landlord of the amount due. Failure to pay the amount due within the required time period shall constitute a material default under this Lease.

Section 23.04 In the event of a sale, or transfer of the Building Project or any part of the Building Project, Landlord shall transfer the Security Deposit to the vendee, tenant, or mortgagee and when the Security Deposit is so transferred, Landlord shall thereafter be relieved from any liability with respect to the Security Deposit.

Section 23.05 Tenant shall not assign or encumber its rights with respect to the Security Deposit. Landlord and its successors or assigns shall not be bound by any purported assignment or have any liability to any purported assignee.

Section 23.06 If Tenant fully and faithfully complies with all of the terms, covenants, and conditions of this Lease, any part of the Security Deposit not used or retained by Landlord pursuant to the terms of this Lease shall be returned to Tenant within thirty (30) days after the expiration of the Term and after Tenant's delivery of possession of the Premises to Landlord.

Section 23.07 Tenant, in Tenant's sole discretion, shall have the right to deposit the Security Deposit Amount with Landlord in the form an irrevocable letter of credit issued in favor of Landlord (the "Letter of Credit"), consistent with the provisions set forth below pertaining to letters of credit and issued by a commercial bank reasonably acceptable to Landlord substantially in the form attached hereto as Exhibit C hereto. The Letter of Credit shall be payable to Landlord on sight in partial or full draws, shall be transferable by Landlord, and shall allow for

presentment at offices located in the United States either in person or by overnight delivery. Tenant will endeavor to have the issuer of the Letter of Credit allow presentation by facsimile solely for purposes of meeting any deadline for presentation, with payment being made only against original documents. Tenant is hereby obligated to maintain the Letter of Credit, or an acceptable replacement letter of credit, from the date of providing such letter of credit through and including the sixtieth (60th) day after the expiration of the Term. In addition, The Letter of Credit shall contain an "evergreen" provision that provides that it is automatically renewed on an annual basis unless the issuer delivers thirty (30) days' prior written notice of cancellation to Landlord and Tenant. The Letter of Credit shall also contain such other terms and conditions as shall be reasonably acceptable to Landlord. Any and all fees or costs charged by the issuer in connection with the Letter of Credit shall be paid by Tenant. Landlord shall have the right to draw upon the Letter of Credit in any of the following circumstances: (i) upon a default by Tenant under this Lease which is not cured within any applicable grace or cure period, (ii) if the credit rating of the senior debt of the issuer of the letter of credit is downgraded by any rating agency, the issuer of the Letter of Credit shall enter into any supervisory agreement with any governmental authority, or the issuer of the letter of credit shall fail to meet any capital requirements imposed by applicable law, and Tenant fails to deliver to Landlord a replacement letter of credit complying with the terms of this Lease within thirty (30) days of request therefor from Landlord, or (iii) if Tenant fails to provide Landlord with any renewal or replacement letter of credit complying with the terms of this Lease at least thirty (30) days prior to expiration of the then-current letter of credit, where the issuer of such letter of credit has advised Landlord of its intention not to renew the letter of credit. In the event the letter of credit is drawn upon due solely to the circumstances described in the foregoing clause (ii), the amount drawn shall be held by Landlord as a security deposit to be otherwise retained, expended or disbursed by Landlord for any amounts or sums due under this Lease to which the proceeds of the Letter of Credit could have been applied pursuant to this Lease. The Letter of Credit will provide that so long as no drawing has been made against the Letter of Credit, the stated amount thereof will be automatically reduced by Two Hundred Ninety-Four Thousand Dollars ($294,000) on each anniversary date of the issuance of the Letter of Credit until the stated amount of the Letter of Credit is equal to Seven Hundred Thousand Dollars ($700,000.00). No further reductions in the stated amount of the Letter of Credit shall occur after the earlier of (i) the date of a drawing against the Letter of Credit, and (ii) the date the Letter of Credit is reduced to Seven Hundred Thousand Dollars ($700,000.00).

ARTICLE 24. Governmental Regulations

Section 24.01 Tenant, at its sole cost and expense, shall promptly comply with all applicable statutes, laws, codes, ordinances, orders, rules, and regulations of all county, municipal, state, federal, and other applicable governmental authorities, and all recorded covenants and restrictions affecting the Building Project, now in force, or which may hereafter be in force, pertaining to Tenant, Tenant Improvements, and Tenant's use of the Premises, and shall faithfully observe, in the use of the Premises, all municipal and county ordinances and state and federal laws now in force or which may hereafter be in force, which shall impose any duty upon Tenant with respect to the Premises or the use or occupancy of the Premises, including, but not limited to, all such laws relating to fire and safety, hazardous materials, indoor air quality,

and to persons with disabilities (whether the requirements be structural or non-structural), and specifically, but without limitation, installation and maintenance of sprinklers, fire alarms, smoke detectors and other sensors, and alterations and other measures necessary to comply with the ADA.

Section 24.02 Tenant shall, at its sole cost and expense, comply with all requirements of the Board of Fire Underwriters of the state of Connecticut or any other similar body affecting the Premises and shall not use the Premises in a manner which shall increase the rate of fire insurance or other insurance of Landlord over that in effect during the year prior to the Commencement Date. If the use of the Premises by Tenant increases any such insurance rate with respect to the Building Project, Tenant shall reimburse Landlord for all such increased costs.

Section 24.03 Tenant shall, at its sole cost and expense, promptly apply for, and with due diligence obtain, all licenses and permits from time to time required to enable Tenant to conduct its business under this Lease. No failure of Tenant to obtain or maintain such licenses or permits, or extensions or renewals thereof, shall release Tenant from the performance and observance of Tenant's obligations under this Lease.

Section 24.04 Landlord represents and warrants that, to the best of Landlord's knowledge, on the date hereof (and prior to Tenant's commencement of Tenant Improvements or occupancy), the structural components of the Building and the Premises are in compliance in all material respects with applicable federal, state and local laws, ordinances, codes, rules and regulations.

Section 24.05 Landlord shall promptly comply with all applicable statutes, laws, codes, ordinances, orders, rules and regulations of all county, municipal, state, federal and other applicable governmental authorities and all recorded covenants and restrictions affecting the structural portions of the Building (i.e. foundation, load bearing walls, exterior walls and roof) and the Common areas, subject, however, to reimbursement as an Expense to the extent applicable.

ARTICLE 25. Signs

Except as hereinafter provided and except to the extent otherwise approved by Landlord as part of the Tenant Improvements, Tenant will not place or permit to be placed or maintained on any portion of the Building Project, including on any exterior door, wall, or window of the Premises, or within the interior of the Premises, if visible from the exterior of the Premises, any signage or advertising matter of any kind, without first obtaining Landlord's written approval and consent, which approval and consent may be granted or withheld in Landlord's sole discretion. Notwithstanding the foregoing, Landlord shall provide Tenant top placement on the monument sign for the Building Project and Tenant may, subject to compliance with all applicable laws, codes, ordinances, rules and regulations and subject to Landlord's approval, not to be unreasonably withheld or delayed, (i) place a sign (re Tenant's name) on the South curtain wall of the Building, and (ii) place a sign (re Tenant's name) in the circle in front of Tenant's entrance to

the Building. Landlord reserves the right to install and display signs, advertisements and notices on any part of the exterior or interior of the Building so long as it does not interfere with any approved Tenant signs. Landlord, however, shall not grant any other tenant of the Building the right to place a sign on the South curtain wall of the Building.

ARTICLE 26. Survival

Any liability or obligation of Landlord or Tenant arising during or accruing with respect to the Term shall survive the expiration or earlier termination of this Lease, including, without limitation, obligations and liabilities relating to (i) the adjustments of Additional Rent for Expenses referenced in the Expenses section of this Lease; and (ii) the condition of the Premises or the removal of Tenant's Property. Notwithstanding the foregoing, the indemnity provisions of this Lease shall survive the expiration or earlier termination of this Lease without limitation, but subject to the statute of limitations.

ARTICLE 27. Broker

Tenant represents and warrants that it has not dealt with any real estate broker, finder or other person, with respect to this Lease in any manner, except the Procuring Broker and Tenant's broker, CB Richard Ellis, Inc. Landlord shall pay only any commissions or fees that are payable to the above-named brokers or finders with respect to this Lease pursuant to Landlord's separate agreement with CB Richard Ellis, Inc. Tenant shall indemnify and hold Landlord harmless from any and all damages resulting from claims that may be asserted against Landlord by any other broker, finder or other person (including, without limitation, any substitute or replacement broker claiming to have been engaged by Tenant in the future), claiming to have dealt with Tenant in connection with this Lease or any amendment or extension hereto, or which may result in Tenant leasing other or enlarged space from Landlord. The provisions of this paragraph shall survive the termination of this Lease.

ARTICLE 28. Quiet Enjoyment

Section 28.01 Landlord covenants and agrees that, upon Tenant's paying the Base Rent and any Additional Rent payable under this Lease and performing all of the other provisions of this Lease on its part to be performed, Tenant may peaceably and quietly hold and enjoy the Premises and all related rights under this Lease for the Term without material hindrance or interruption by Landlord or any other person claiming by, through, or under Landlord, subject, nevertheless, to the terms, covenants, and conditions of this Lease and, subject to the provisions of this Lease, all existing or future ground leases, underlying leases, mortgages, or deeds of trust encumbering the Building Project. Tenant agrees that Tenant shall attorn to any landlord under any ground lease affecting the Building Project in the event of the termination or cancellation of such ground lease or to any purchaser upon foreclosure or sale pursuant to any lien. Tenant acknowledges the right of the holder of any first mortgage or other first security interest in all or any part of the Building Project to subordinate its first mortgage or other first security interest either in whole or in part to this Lease. Tenant agrees at any time, and from time to time, upon not less than ten (10) days written notice, to execute, acknowledge and deliver to such holder Tenant's agreement to such subordination in such form as such holder may reasonably require.

Section 28.02 [Intentionally Deleted]

Section 28.03 Notwithstanding the foregoing, Landlord may close the Building Project and preclude access to the Premises in the event, in Landlord's sole, but reasonable judgment, of the threat of an emergency such as a hurricane, civil commotion, war-like operation, invasion, rebellion, hostilities, military or usurped power, sabotage, floods, other natural disaster, or act of God.

ARTICLE 29. End of Term

Section 29.01 Tenant shall surrender the Premises to Landlord at the expiration or sooner termination of this Lease in the same condition the Premises were in on the date hereof, except for (i) Tenant Improvements not required to be removed by Landlord, provided, however, Tenant shall not be required to remove any Tenant Improvements unless such Tenant Improvements are special or unique to Tenant's use of the Premises ("Tenant Specialty Items"); (ii) reasonable wear and tear, and (iii) damage by casualty. Tenant shall surrender all keys for the Premises to Landlord at the expiration or sooner termination of this Lease. In addition, Tenant shall, if requested by Landlord, remove specifically designated computer, telephone and data cabling servicing the Premises. If Tenant shall hold over after the Expiration Date or other termination of this Lease, such holding over shall not be deemed to be a renewal of this Lease but shall be deemed to create a month to month tenancy only and by such holding over Tenant shall continue to be bound by all of the terms and conditions of this Lease, except that during such month to month tenancy Tenant shall pay to Landlord (A) one hundred fifty percent (150%) of the Base Rent payable during the last month of the Term for the first two (2) months of holdover and two hundred percent (200%) of the Base Rent payable during the last month of the Term for the third (3rd) and subsequent months of holdover; and (B) any and all Operating Expenses and other forms of Additional Rent payable under this Lease. Such month-to-month tenancy may be terminated by Landlord or Tenant effective as of the last day of any calendar month by delivery to the other of notice of such termination prior to the first day of such calendar month. Tenant shall indemnify, defend and hold Landlord harmless from and against any claim, damage, loss, liability, judgment, suit, disbursement or expense (including consequential damages and reasonable attorneys' fees and disbursements) (collectively, "Claims") resulting from failure to surrender possession upon the Expiration Date or sooner termination of the Term, including any Claims made by any succeeding tenant, and such obligations shall survive the expiration or sooner termination of this Lease.

Section 29.02 The term "Landlord's Property" shall mean all fixtures, including those items that may be denominated or characterized as Tenant's business or trade fixtures, equipment, improvements, appurtenances, and carpeting, attached to or built into the Premises at the Commencement Date or during the Term, whether or not by or at the expense of Tenant, and any personal property in the Premises on the Commencement Date, unless installed and paid for by Tenant. Alterations, whether temporary or permanent in character, including, but not limited

to, HVAC equipment, wall coverings, carpeting and other floor coverings, blinds and other window treatments, lighting fixtures and bulbs, built-in or attached shelving, built-in furniture, counter tops, cabinetry, bathroom fixtures, sinks, kitchen area improvements, and wall mirrors, made by Landlord or Tenant in or upon the Premises shall be deemed Landlord's Property. All Landlord's Property shall be and remain a part of the Premises at the expiration or sooner termination of the Term (without compensation to Tenant) and shall not be removed or replaced by Tenant without the prior written consent of Landlord except for Tenant Specialty Items; and except for items which Landlord has required be removed as a condition to the approval of the plans for any Alternations.

Section 29.03 The term "Tenant's Property" shall mean all moveable machinery and equipment, including moveable communications equipment and moveable office equipment, which are installed in the Premises by or for the account of Tenant without expense to Landlord and which can be removed without structural damage to the Premises and the Building Project, and all moveable furniture, furnishings, and other articles of moveable personal property owned by Tenant and located in the Premises. Subject to the rights of the Landlord, Tenant's Property may be removed by Tenant at any time during the Term; provided, however, Tenant shall repair or pay the cost of repairing any damage to the Premises or to the Building Project resulting from the initial installation or removal, or both, of Tenant's Property.

Section 29.04 Upon the expiration or sooner termination of the Term, Tenant, at its expense, shall remove from the Premises all of Tenant's Property (except such items as Landlord shall have expressly permitted to remain, which property shall become the property of Landlord) and all Alterations which Landlord designates by notice to Tenant given at any time up to six (6) months prior to the termination of the Lease. Tenant, at Tenant's sole cost and expense, shall also repair any damage to the Premises and the Building Project caused by such removal. Any items of Tenant's Property which shall remain in the Premises after the expiration or sooner termination of the Term, may, at the option of Landlord, be deemed to have been abandoned, and in such case, such items may be retained by Landlord as its property to be disposed of by Landlord, without accountability to Tenant or any other party, in such manner as Landlord shall determine, at Tenant's expense.

ARTICLE 30. Parking

Section 30.01 As long as Tenant is entitled to the possession of the Premises, Tenant shall be entitled to use, on a first-come, first-served, unassigned basis, the Allocated Number of Parking Spaces. Parking Spaces may be used only by principals, employees, contractors, customers, and invitees of Tenant. Notwithstanding the foregoing, Landlord shall reserve ten (10) parking spaces (the "Tenant Reserved Spaces") as shown on **Exhibit G** attached hereto for Tenant's exclusive use for temporary parking of vehicles for Tenant's visitors. Except for the Tenant Reserved Spaces, Tenant shall not have the right to use any specific Parking Spaces.

Section 30.02 Except for the Tenant Reserved Spaces and for particular spaces and areas designated from time to time by Landlord for reserved parking, all parking in the Parking Areas shall be on an unreserved, first-come, first-served basis.

Section 30.03 Landlord shall have the right, but not any obligation, to tow, otherwise remove or boot improperly parked vehicles, blocking ingress or egress lanes, or violating parking rules, at the expense of the offending tenant and/or owner of the vehicle and without liability to Landlord. Tenant agrees to indemnify, defend, and save Landlord harmless from and against any damage or loss, including reasonable attorneys' fees, incurred by Landlord as a result of any such towing or booting of any improperly parked vehicles owned or driven by Tenant's employees, agents, contractors, customers and invitees. Landlord shall be entitled to a fee of Fifty Dollars ($50.00) for each day the boot remains in place.

Section 30.04 Tenant's right to use, and its right to permit its principals, employees, contractors, customers and invitees to use, the Parking Areas are subject to the following conditions: (i) Landlord reserves the right to reduce the number of spaces in the Parking Areas so long as the number of spaces remaining is at least equal to the aggregate of (a) the Allocated Number of Parking Spaces, (b) the number of parking spaces allocated to other tenants of the Building on an unassigned basis, and (c) any reserved spaces not included within clauses (a) and (b) and otherwise in compliance with all applicable governmental requirements, and reserves the right to change the access to the Parking Areas, provided that some manner of reasonable access to the Parking Areas remains after such change; and either of the foregoing shall not entitle Tenant to any claim against Landlord or to any abatement of Rent; (ii) Landlord has no obligation to provide security or a parking lot attendant and Landlord shall have no liability on account of any loss or damage to any vehicle or the contents thereof, or any personal injury, property damage, or other tort liability suffered by Tenant, its principals, employees, agents, contractors, customers and invitees, Tenant agreeing to bear the risk of loss for same; and (iii) if and when so requested by Landlord, Tenant shall furnish Landlord with the license numbers and descriptions of any vehicles of Tenant, its principals, employees, agents, and contractors.

ARTICLE 31. Miscellaneous

Section 31.01 Tenant shall not record this Lease but may, at its sole cost and expense, record a statutory form of memorandum, "short form," or other notice of this Lease containing the minimum information required for record notice purposes of this Lease and its Term, including renewals and rights to additional space. Landlord agrees to execute such memorandum, short form or other notice of this Lease within fifteen (15) days after Tenant's written request provided same is accurate.

Section 31.02 Submission by Landlord of this Lease for execution by Tenant shall not constitute an offer and shall confer no rights nor impose any obligations on either party unless and until both Landlord and Tenant shall have executed this Lease.

Section 31.03 Whenever in this Lease the context allows, the terms "Lease" and "Term," or terms of similar import, shall be deemed to include all renewals, extensions, or modifications of this Lease or the Term; and the word "including" shall be deemed to mean 'including without limitation." The headings of sections or subsections in this Lease are for convenience only and shall not be relevant for purposes of interpretation of the provisions of this Lease. This Lease has been negotiated "at arm's length" by and between Landlord and Tenant, each having the

opportunity to be represented by legal counsel of its choice and to negotiate the form and substance of this Lease, and therefore this Lease shall not be more strictly construed against either party by reason of the fact that one party may have drafted any or all of the provisions of this Lease.

Section 31.04 Whenever in this Lease any printed portion has been stricken out, whether or not any relative provision has been added, this Lease shall be construed as if the material so stricken was never included in this Lease and no inference shall be drawn from the material so stricken out which would be inconsistent in any way with the construction or interpretation which would be appropriate if such material were never contained in this Lease.

Section 31.05 In connection with any suit, action, or other proceeding, including arbitration or bankruptcy, arising out of or in any manner relating to this Lease, the prevailing party shall be entitled to recover reasonable attorneys' fees and disbursements (including disbursements which would not otherwise be taxable as costs in the proceeding). In addition, if Landlord becomes a party to any suit or proceeding affecting the Premises or involving this Lease or Tenant's interest under this Lease, other than a suit between Landlord and Tenant, or if Landlord engages counsel to collect any of the amounts owed under this Lease, or to enforce performance of any of the agreements, conditions, covenants, provisions, or stipulations of this Lease, without commencing litigation, then Landlord's costs, expenses, and reasonable attorneys' fees and disbursements incurred with respect thereto shall be paid to Landlord by Tenant, on demand, as Additional Rent. All references in this Lease to attorneys' fees shall be deemed to include all legal assistants' and paralegals' fees and shall include all fees incurred through all post-judgment and appellate levels and in connection with bankruptcy proceedings.

Section 31.06

(a) Except as otherwise expressly provided in this Lease, all Communications shall be in writing. A Communication shall be deemed to have been delivered and received on the earlier of the day actually received (by whatever means sent) if received before 5:00 p.m. on a Business Day (or, if not received before 5:00 p.m. on a Business Day, on the first Business Day after the day of receipt) or, regardless of whether or not received after the dates hereinafter specified (i) on the date of delivery or refusal of delivery, if by hand delivery;(ii) on the first Business Day after having been delivered to a nationally recognized overnight air courier service (such as Federal Express) before 7:00 p.m.; or (iii) on the third Business Day after having been deposited with the United States Postal Service, Registered or Certified Mail, Return Receipt Requested; in each case addressed to the respective party at the such party's Notice Address, which Notice Address may be changed by notice delivered to the other party in accordance with the terms of this section; provided that if Tenant has vacated the Premises without providing a forwarding address, Communications may be delivered by any manner permitted by law for service of process.

(b) The respective attorneys for each party are authorized to give any Communication pursuant to this Lease on behalf of their respective clients. Any Communication so given by an attorney shall be deemed to have been given by such attorney's client. However,

failure to give a copy of any Communication to the attorney for a party does not affect the validity of the Communication provided that the Communication has been given to or received by the party represented by that attorney. If the addressee, or its attorney, refuses delivery of any Communication or if the Communication is returned to the addressor unopened by the addressee, effective notice shall still be deemed to have been given. If there is more than one (1) party constituting Tenant, any Communication may be given by or to any one thereof, and shall have the same force and effect as if given by or to all thereof.

Section 31.07 This Lease shall bind and inure to the benefit of the heirs, personal representatives, administrators, and, except as otherwise provided in this Lease, the successors or assigns of the parties in this Lease. If there is more than one (1) party constituting Tenant, each such party shall be jointly and severally liable with the other parties constituting Tenant for the performance of all of the obligations of Tenant under this Lease.

Section 31.08 If any provision of any section or subsection of this Lease or the application of such provision to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of that section or subsection and this Lease and the application of such provision to persons or circumstances other than those as to which it is invalid or unenforceable shall not be affected thereby, and the remainder of such section and this Lease shall otherwise remain in full force and effect so long as such invalid or unenforceable provisions do not involve essential and fundamental agreements of the parties such that a court would consider this Lease unenforceable.

Section 31.09 LANDLORD AND TENANT WAIVE TRIAL BY JURY IN ANY ACTION, PROCEEDING, OR COUNTERCLAIM INVOLVING ANY MATTER WHATSOEVER ARISING OUT OF OR IN ANY WAY CONNECTED WITH (i) THIS LEASE; (ii) THE RELATIONSHIP OF LANDLORD AND TENANT; (iii) TENANTS USE OR OCCUPANCY OF THE PREMISES; OR (iv) THE RIGHT TO ANY STATUTORY RELIEF OR REMEDY. TENANT FURTHER WAIVES THE RIGHT TO INTERPOSE ANY PERMISSIVE COUNTERCLAIM OF ANY NATURE IN ANY ACTION OR PROCEEDING COMMENCED BY LANDLORD TO OBTAIN POSSESSION OF THE PREMISES. IF TENANT VIOLATES THIS PROVISION BY FILING A PERMISSIVE COUNTERCLAIM, WITHOUT PREJUDICE TO LANDLORD'S RIGHT TO HAVE SUCH COUNTERCLAIM DISMISSED, THE PARTIES STIPULATE THAT SHOULD THE COURT PERMIT TENANT TO MAINTAIN THE COUNTERCLAIM, THE COUNTERCLAIM SHALL BE SEVERED AND TRIED SEPARATELY FROM THE ACTION FOR POSSESSION. THE WAIVERS SET FORTH IN THIS SECTION ARE MADE KNOWINGLY, INTENTIONALLY, AND VOLUNTARILY BY TENANT. TENANT FURTHER ACKNOWLEDGES THAT IT HAS BEEN REPRESENTED (OR HAS HAD THE OPPORTUNITY TO BE REPRESENTED) IN THE SIGNING OF THIS LEASE AND IN THE MAKING OF THIS WAIVER BY INDEPENDENT COUNSEL, SELECTED OF ITS OWN FREE WILL, AND THAT IT HAS HAD THE OPPORTUNITY TO DISCUSS THESE WAIVERS WITH COUNSEL. THIS PROVISION IS A MATERIAL INDUCEMENT TO LANDLORD IN AGREEING TO ENTER INTO THIS LEASE.

Section 31.10 This Lease shall constitute the entire agreement of the parties with respect to the matters set forth in this Lease. All prior understandings and agreements had between the parties with respect to such matters, including all lease proposals, letters of intent, and similar documents, are merged into this Lease, which alone fully and completely expresses their understanding.

Section 31.11 This Lease may not be amended, modified, altered, or changed in any respect, except by further agreement in writing duly executed by Landlord and Tenant,

Section 31.12 Notwithstanding anything in this Lease to the contrary, if Landlord or Tenant shall be delayed or hindered in, or prevented from the performance of, any act required under this Lease (other than the payment of Rent by Tenant) by reason of strike, lockout, civil commotion, warlike operation, invasion, rebellion, hostilities, military or usurped power, sabotage, government regulations or controls, inability to obtain any material, utility, service, or financing, through hurricanes, floods, other natural disasters, or acts of God, or for any other cause beyond the direct control of the party who is seeking additional time for the performance of such act, then performance of such act shall be excused for the period of the delay and the period for the performance of any such act shall be extended for a reasonable period, in no event to exceed a period equivalent to the period of such delay.

Section 31.13 [Reserved]

Section 31.14

(a) Tenant represents and warrants as follows:

(1) Tenant is duly organized, validly existing, and in good standing under the laws of the state in which it was formed and is duly qualified to transact business in the state of Connecticut.

(2) Tenant has full power to execute, deliver, and perform its obligations under this Lease.

(3) The execution and delivery of this Lease, and the performance by Tenant of its obligations under this Lease, have been duly authorized by all necessary action of Tenant, and do not contravene or conflict with any provisions of Tenant’s Articles of Incorporation or By-laws, if Tenant is a corporation, or Tenant’s Partnership Agreement, if Tenant is a partnership, or any other agreement binding on Tenant.

(4) The individual executing this Lease on behalf of Tenant has full authority to do so.

(5) Tenant’s financial statements previously furnished to Landlord were at the time given true and correct in all material respects and there have been no material changes to the information contained in such financial statements subsequent to the dates thereof.

(b) Landlord represents and warrants as follows:

(1) Landlord is duly organized, validly existing, and in good standing under the laws of the state in which it was formed and is duly qualified to transact business in the state of Connecticut.

(2) Landlord has full power to execute, deliver, and perform its obligations under this Lease.

(3) The execution and delivery of this Lease, and the performance by Landlord of its obligations under this Lease, have been duly authorized by all necessary action of Landlord, and do not contravene or conflict with any provisions of Landlord's Articles of Organization or Operating Agreement, or any other agreement binding on Landlord.

(4) The individual executing this Lease on behalf of Landlord has full authority to do so.

Section 31.15 Tenant shall not, without Landlord's prior written consent, disclose the terms of this Lease to any third party other than Tenant's accountants, attorneys, lenders, and governmental authorities having jurisdiction and when compelled by court order. Tenant may also disclose the terms of this Lease to investors subject to an approved confidentiality agreement.

Section 31.16 Tenant hereby offers to lease from Landlord the Premises under the terms and conditions of this Lease. Landlord shall not be deemed to have made an offer to Tenant by preparing and delivering this Lease to Tenant and no agreement respecting the Premises shall arise or exist between the parties except through the making of this offer by Tenant and the acceptance and execution by Landlord. This offer shall be irrevocable and open for acceptance by Landlord until 5:00 p.m. on the fifth (5th) day after execution and delivery hereof by Tenant to Landlord, and if not accepted by then may be withdrawn by Tenant.

Section 31.17 In all cases hereunder, and in any suit, action or proceeding of any kind between the parties, it shall be presumptive evidence of the fact of the existence of a charge being due, if Landlord shall produce a bill, notice or certificate to the effect that such charge appears of record on the books in Landlord's office or appears as an open charge on the books, records or official bills of municipal authorities, and has not been paid.

Section 31.18 Tenant hereby warrants and represents that within Tenant's knowledge, there are no claims, causes of action or other litigation or preceding pending or, to the best of Tenant's knowledge, threatened in respect to Tenant, except for claims which are fully insured and as to which the insurer has accepted defense without reservation. In the event that any time period provided for in this Lease shall end on a Saturday, Sunday or legal holiday, such time period shall be extended to the next succeeding business day.

Section 31.19 Anything in this Lease to the contrary notwithstanding, Tenant agrees that it shall look solely to the estate and property of Landlord in the Property, subject to the rights of any prior mortgagee, for the collection of any judgment (or other judicial process) requiring the payment of money by Landlord in the event of any default or breach by Landlord, and no other assets of Landlord shall be subject to levy, execution or other procedures for the satisfaction of Tenant's remedies. In no event shall Landlord be liable for any consequential, special, punitive or indirect loss or damage which Tenant may incur or suffer in connection with this Lease or any services to be performed or provided pursuant hereto.

Section 31.20 If any addenda or exhibits are noted below, such addenda are incorporated herein and made a part of this Lease.

(a) Exhibit A – Premises

(b) Exhibit B – Schedule of Base Rent

(c) Exhibit C – Form of Letter of Credit

(d) Exhibit D – Tenant Improvements

(e) Exhibit D-1 – Approved Space Plan

(f) Exhibit D-2 – Rules and Regulations for Design and Construction of Tenant Work

(g) Exhibit E – Commencement Date Agreement

(h) Exhibit F – Suborination, Attornement and Nondisturbance Agreement

(i) Exhibit G – Parking Plan

[Signature page follows]

IN WITNESS WHEREOF, this Lease has been executed on behalf of Landlord and Tenant as of the Date of this Lease.

LANDLORD

SHELTON PARROTT
ASSOCIATES, L.L.C.

By: 

Print Name: Jonathan P. Garrity
Print Title: President & CEO

By: Cambridge Hanover Inc.
By: Cambridge Hanover L.P.

TENANT

CARA THERAPEUTICS, INC.

By: 

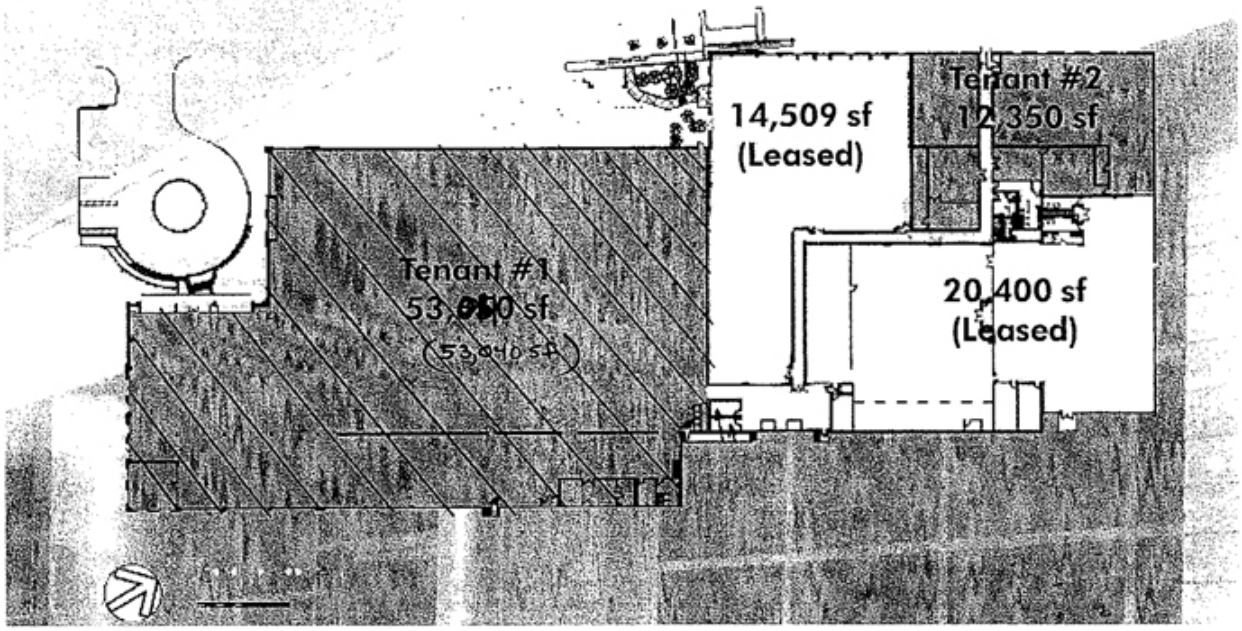
Print Name: DEREK CHALMERS
Print Title: PRESIDENT & CEO

EXHIBIT A

The Premises

A-1

Exhibit A



Premises are cross-hatched

Tenant #1 = Cara Therapeutics, Inc.

EXHIBIT B

Schedule of Base Rent

Lease Year	Premises Base Rent (Per Rentable Square Foot)	Premises Base Rent (Annual)	Base Rent (Monthly)
5/1/07 – 4/30/08*	$ 13.50	$716,040.00	$59,670.00
5/1/08 – 4/30/09	13.91	737,786.40	61,482.20
5/1/09 – 4/30/10	14.33	760,063.20	63,338.60
5/1/10 – 4/30/11	14.76	782,870.40	65,239.20
5/1/11 – 4/30/12	15.20	806,208.00	67,184.00
5/1/12 – 4/30/13	15.66	830,394.24	69,199.52
5/1/13 – 4/30/14	16.13	855,535.20	71,294.60
5/1/14 – 4/30/15	16.61	880,994.40	73,416.20
5/1/15 – 4/30/16	17.11	907,514.40	75,626.20
5/1/16 – 4/30/17	17.62	934,564.80	77,880.40

* Based on the assumption the Rent Commencement Date is May 1, 2007

EXHIBIT C

FORM LETTER OF CREDIT

Irrevocable Letter of Credit No.

, 2006

Shelton Parrott Associates, L.L.C.
c/o Cambridge Hanover, Inc.
65 Locust Avenue
New Canaan, Connecticut 06840

Account Party:	Cara Therapeutics, Inc.
Beneficiary:	Shelton Parrott Associates, L.L.C., its transferees and assigns
Amount:	$2,170,000.00 U.S. Dollars
Expiration Date:	,

Ladies and Gentlemen:

A. We hereby issue this irrevocable letter of credit number (the "Credit") in your favor, payable in one or more draws of any sum or sums not exceeding in the aggregate Two Million One Hundred Seventy Thousand and No/100 Dollars ($2,170,000.00) (except as such amount may be increased or decreased pursuant to the terms of this Credit), by your draft(s) at sight presented at [Address], accompanied by this original Letter of Credit and any amendments thereto, together with Beneficiary's signed certificate stating one (1) of the following:

1. "The undersigned, an authorized representative of Beneficiary, hereby certifies that a default has occurred and remains uncured under that certain Lease dated , 2006, by and between Shelton Parrott Associates, L.L.C., as landlord, and Cara Therapeutics, Inc., as tenant, and Beneficiary is entitled to the amount drawn hereunder in connection with such Event of Default."

OR

2. "The undersigned, an authorized representative of Beneficiary, hereby certifies that Beneficiary has not received, at least thirty (30) days prior to the expiration date of this Letter of Credit, a replacement or extension letter of credit as required under Section 23.07 of that certain Lease dated , 2006, by and between Shelton Parrott Associates, L.L.C., as landlord, and Cara Therapeutics, Inc., as tenant, and Beneficiary is entitled to the amount drawn hereunder in connection therewith."

Drafts presented under this Letter of Credit shall specify the number of this Letter of Credit as set forth above and shall be presented on or before the Expiration Date hereof. We hereby engage with you that drafts drawn under and in compliance with the terms of this Letter of Credit will be duly honored upon presentation to us.

B. This Letter of Credit is transferable and may be transferred one or more times by amending the Letter of Credit in accordance with Schedule 1, without charge other than an administrative processing fee not in excess of Two Hundred Dollars ($200.00) payable by the transferor or transferee of such Letter of Credit. Any such transfer shall be effective upon our receipt of a duly executed Schedule 1 attached hereto and the original Letter of Credit and amendments, if any.

C. Provided no drawing has been made against this Letter of Credit, the stated amount of this Letter of Credit shall automatically be reduced by Two Hundred Ninety-Four Thousand Dollars ($294,000.00) on each anniversary date of the issuance of this Letter of Credit until the stated amount of this Letter of Credit shall be equal to Seven Hundred Thousand Dollars ($700,000.00) whereupon no further reductions in the stated amount of this Letter of Credit shall occur except as a result of drawing hereunder.

D. This Letter of Credit expires initially on , 2007 and shall be automatically renewed for a period of one year but not beyond , 2017, unless thirty (30) days prior to any current expiration date we give written notice to you, by certified mail, return receipt requested, at the address set forth above, of our intent not to renew this Letter of Credit at the expiration of such thirty (30) day period. During such thirty (30) day period, this Letter of Credit shall remain in full force and effect and Beneficiary may draw up to the full amount hereof when accompanied by one of the statements described in Paragraph A of this Letter of Credit.

E. We will accept any and all statements delivered pursuant to this Letter of Credit as conclusive, binding and correct without having to investigate or having to be responsible for the accuracy, truthfulness, correctness or validity thereof, and notwithstanding the claim of any person to the contrary.

F. Each modification to the amount of this Letter of Credit shall be reflected by an amendment issued to the Beneficiary; provided, however, that such amendment shall solely confirm such modified amount and the failure to issue any such amendment shall not negate any modification in the amount of this Letter of Credit effected in accordance with the terms and conditions set forth in this Letter of Credit.

G. This Letter of Credit sets forth in full the terms of our undertaking and such undertaking shall not in any way be modified, amended, amplified or limited by reference to any document, instrument or agreement referred to herein, or by any document, instrument or agreement in which this Letter of Credit is referred to, or to which this Letter of Credit relates, and any such reference shall not be deemed to incorporate herein by reference any such document, instrument or agreement.

H. Except as otherwise expressly stated herein, this Letter of Credit is subject to the Uniform Customs and Practice for Documentary Credits (1993 Revision) International Chamber of Commerce Publication No. 500, and the laws of the District of Columbia, including, without limitation, the Uniform Commercial Code in effect therein.

[BANK]

By: _____
Authorized Officer

SCHEDULE 1 to EXHIBIT C

(This Form is to be Used When a Letter of Credit
Is Transferred in its Entirety)

Date:
Letter of Credit No.

_____
_____
_____

Your Transferable Letter of Credit No. Issued in Favor of the Undersigned or Transferees

Ladies and Gentlemen:

For value received, we hereby irrevocably transfer all of our rights under the Letter of Credit, as heretofore or hereafter amended, extended or increased, to:

_____
_____

Such transferee shall have sole rights as beneficiary under the Letter of Credit. The Letter of Credit hereafter may be amended, extended or increased, without our consent or notice to us and you will give notice hereof directly to the transferee.

We request you to notify the transferee in such form as you deem advisable of this transfer of the Letter of Credit and of the terms and conditions of the Letter of Credit as transferred.

We enclose our check for $ in payment of your transfer commission.

This transfer shall not become effective until you notify the transferee of this transfer.

Very truly yours,

_____
Authorized Signature

Signature Authenticated By:

_____
Bank

_____
Authorized Signature

IRREVOCABLE STANDBY LETTER OF CREDIT NUMBER SM221921W

LETTER OF CREDIT AMOUNT	ISSUE DATE	EXPIRY DATE
USD 2,170,000.00	09/19/06	5/31/08

BENEFICIARY;
Shelton Parrott Associates, L.L.C.
c/o Cambridge Hanover, Inc.
65 Locust Avenue
New Canaan, Connecticut 06840

APPLICANT:
Cara Therapeutics, Inc.
765 Old Saw Mill River Rd.
Tarrytown, NY 10591

Ladies and Gentlemen:

We hereby issue this irrevocable letter of credit number SM221921W (the "Credit") in your favor, payable in one or more draws of any sum or sums not exceeding in the aggregate Two Million One Hundred Seventy Thousand and 00/100 U.S. Dollars ($2,170,000.00) (except as such amount may be increased or decreased pursuant to the terms of this Credit), by your draft(s) at sight presented at 401 Linden Street, Winston Salem, NC 27101 Attn: Standby L/C Unit, accompanied by this original Letter of Credit and any amendments thereto, together with Beneficiary's signed certificate stating one (1) of the following:

1. The undersigned, an authorized representative of Beneficiary, hereby certifies that a default has occurred and remains uncured under that certain Lease dated September 18, 2006, by and between Shelton Parrott Associates, L.L.C., as landlord, and Cara Therapeutics, Inc., as tenant, and Beneficiary is entitled to the amount drawn hereunder in connection with such Event of Default. Therefore we demand payment of USD (insert amount) under letter of credit SM221921W.

OR

2. The undersigned, an authorized representative of Beneficiary, hereby certifies that Beneficiary has not received, at least thirty (30) days prior to the expiration date of this Letter of Credit, a replacement or extension letter of credit as required under Section 23.07 of that certain Lease dated September 18, 2006, by and between Shelton Parrott Associates, L.L.C., as landlord, and Cara Therapeutics, Inc., as tenant, and Beneficiary is entitled to the amount drawn hereunder in connection therewith. Therefore we demand payment of USD (insert amount) under letter of credit SM221921W.

Drafts presented under this Letter of Credit shall specify the number of this Letter of Credit as set forth above and shall be presented on or before the Expiration Date hereof. We hereby engage with you that drafts drawn under and in compliance with the terms of this Letter of Credit will be duly honored upon presentation to us.

This letter of credit is transferable in its entirety. We shall not recognize any transfer of the credit until an executed transfer request is filed with us in the form attached hereto, bearing your bankers certification that the signature thereon is valid, and our customary fee of 1/4 of 1% (minimum fee - $500-maximum fee $1,500.00) is paid. Upon receipt of such, we shall endorse the reverse of this credit and forward to the transferee.

Provided no drawing has been made against this Letter of Credit, the stated amount of this Letter of Credit shall automatically be reduced by Two Hundred Ninety- Four Thousand Dollars ($294,000.00) on each anniversary date of the issuance of this Letter of Credit until the stated amount of this Letter of Credit shall be equal to Seven Hundred Thousand Dollars ($700,000.00) whereupon no further reductions in the stated amount of this Letter of Credit shall occur except as a result of drawing hereunder.

It is a condition of this letter of credit that it shall be deemed automatically extended without written amendment for one year from the present or any future expiry date unless at least sixty (60) days prior to such expiration date, we send the beneficiary notice by registered mail/courier that we elect not to extend this letter of credit beyond the initial expiry date or any extended date thereof. During such sixty (60) day period, this Letter of Credit shall remain in full force and effect and Beneficiary may draw up to the full amount hereof when accompanied by one of the statements described in paragraphs numbered 1 or 2 of this Letter of Credit.

However, this standby letter of credit shall not be extended beyond 05/31/17 which will be considered the final expiration date. Any reference to a final expiration date does not imply that Wachovia Bank, National Association is obligated to extend this credit beyond the initial expiry date or any extended date thereof.

Each modification to the amount of this Letter of Credit shall be reflected by an amendment issued to the Beneficiary.

This Letter of Credit sets forth in full the terms of our undertaking and such undertaking shall not in any way be modified, amended, amplified or limited by reference to any document, instrument or agreement referred to herein, or by any document, instrument or agreement in which this Letter of Credit is referred to, or to which this Letter of Credit relates, and any such reference shall not be deemed to incorporate herein by reference any such document, instrument or agreement.

This is a true copy of the original instrument issued by Wachovia Bank, N.A. on the Date noted. N. Mitchell

Except as otherwise expressly stated herein, this Letter of Credit is subject to the Uniform Customs and Practice for Documentary Credits (1993 Revision) International Chamber of Commerce Publication No. 500, and the laws of the District of Columbia, including, without limitation, the Uniform Commercial Code in effect therein.

Wachovia Bank, National Association

By: _____
Authorized Officer

This is a true copy of the original instrument issued by Wachovia Bank, N.A. on the Date noted. M. Mitchell

Please direct any written correspondence including drawing or inquiries always quoting our reference number to:
Wachovia Bank, National Association
401 Linden Street, 1st Floor Attn: Standby Letters of Credit
Winston-Salem, North Carolina 27101

all phone inquiries regarding this credit should be directed to our standby customer care professionals at: 1-800-776-3862.

SCHEDULE I

This Form is to be Used When a Letter of Credit SM221921W
Is Transferred in its Entirety

Date:
Letter of Credit No. SM221921W

Wachovia Bank, National Association
401 Linden Street
Winston Salem, NC 27101
Attn: Standby L/C Unit

Your Transferable Letter of Credit No. SM221921W Issued September 19, 2006 in Favor of the Undersigned or Transferees

Ladies and Gentlemen:

For value received, we hereby irrevocably transfer all of our rights under the Letter of Credit, as heretofore or hereafter amended, extended or increased, to:

_____

_____

Such transferee shall have sole rights as beneficiary under the Letter of Credit. The Letter of Credit hereafter may be amended, extended or increased, without our consent or notice to us and you will give notice hereof directly to the transferee.

We request you to notify the transferee in such form as you deem advisable of this transfer of the Letter of Credit and of the terms and conditions of the Letter of Credit as transferred.

We hereby enclose the original standby letter of credit identified above, and enclose an official or certified check in the amount of $ representing your transfer fee (1/4 of 1% of the transfer amount; $500.00 minimum, $1,500.00 maximum), or you are authorized to debit our account number maintained with Wachovia Bank, National Association.

This transfer shall not become effective until you notify the transferee of this transfer.

Very truly yours,

_____
Authorized Signature

Signature Authenticated By:

_____
Bank

_____
Authorized Signature

This is a true copy of the original instrument issued by Wachovia Bank, N.A. on the Date noted. N. Mitchell

EXHIBIT D

Tenant Improvements

WORK LETTER. This Exhibit D (the "Exhibit") sets forth the rights and obligations of Landlord and Tenant with respect to space planning, engineering, final workshop drawings, and the construction and installation of any improvements to the Premises ("Tenant Improvements"). This Exhibit contemplates that the performance of this work will proceed in four stages in accordance with the following schedule: (i) preparation of a space plan; (ii) final design and engineering and preparation of final plans and working drawings; (iii) preparation by the Contractor (as hereinafter defined) of an estimate of the additional cost of the initial Tenant Improvements; (iv) submission and approval of plans by appropriate governmental authorities and construction and installation of the Tenant Improvements.

In consideration of the mutual covenants hereinafter contained, Landlord and Tenant do mutually agree to the following:

1. Tenant Allowance. Landlord agrees to provide an allowance of up to $35.00 per square foot of Rentable Area of the ground floor portion of the Premises (i.e. $1,856,400.00 subject to adjustment in the event of a re-measurement) but excluding space leased pursuant to the Right of First Offer or otherwise, to design, engineer, install, supply and otherwise to construct the Tenant Improvements in the Premises that will become a part of the Building (the "Tenant Allowance"). Tenant is fully responsible for the payment of all costs in connection with the Tenant Improvements in excess of the Tenant Allowance which shall be paid on a pro rata basis with the Tenant Allowance. This Tenant Allowance is only available to Tenant for Tenant's use until May 1, 2008 ("Tenant Allowance Use Date"). Any portion of the Tenant Allowance not used by Tenant by the Tenant Allowance Use Date shall automatically terminate and be of no further use to Tenant. In addition to the foregoing, Landlord will provide Tenant an option for up to Ten Dollars ($10.00) per square foot of Rentable Area of the Premises for additional Tenant Improvements that will become part of the Building to be paid for by increasing the Annual Base Rent by the amount necessary to amortize the cost of such additional Tenant Improvements over the Initial Lease Term at the rate of ten percent (10%) per annum. All disbursements of the Tenant Allowance shall be made within ten (10) Business Days of submission by Tenant to Landlord of an AIA Form Requisition duly executed and notarized by Tenant, Contractor, and Architect or Engineer, together with fully executed lien waivers from all subcontractors, and mechanics and materialmen for work done through the date of the preceding requisition, and shall be paid to Tenant or, upon Tenant's request, directly to Tenant's contractor, architect or other consultants or suppliers.

2. Space Plan, Working Drawings, Engineering Drawings and Final Plans. Tenant shall select architects and engineers ("Architect"), familiar with all applicable statutes, laws, codes, ordinances, rules and regulations pertaining to construction in the jurisdiction of the Building and any rules, regulations, instructions and procedures promulgated by Landlord with respect to Tenant design and/or construction in the Building, subject to approval by Landlord if Landlord does not unreasonably withhold its approval. The following Architect, if used by Tenant, is deemed consented to by Landlord: The Phillips Group.

a. Preparation and Approval of Space Plan. Tenant shall submit to the Architect all information, including occupancy requirements for the Premises ("Information"), necessary to enable the Architect to prepare a space plan showing all demising walls, corridors, entrances, exits, doors, interior partitions, and the locations of all offices, conference rooms, laboratories, computer rooms, mini-service kitchens, reception area, and file room ("Space Plan") and the Working Drawings (as defined below). The Architect shall incorporate the items described in Schedule 1, if any, attached hereto into the Space Plan, which Tenant is required to utilize in the construction of the Tenant Improvements.

Tenant shall cause the Architect to submit to Landlord the Space Plan for Landlord's review and approval. Within five (5) Business Days after Landlord receives the Space Plan, Landlord shall either approve or disapprove the Space Plan and return the Space Plan to Tenant. In such event, Landlord shall require, and Tenant shall make the minimum changes necessary in order to correct the problems and shall return the Space Plan to Landlord, which Landlord shall approve or disapprove within three (3) Business Days after Landlord receives the revised Space Plan, This procedure shall be repeated until the Space Plan is finally approved by Landlord and written approval has been delivered to and received by Tenant. The Space Plan may be submitted by Tenant in one or more stages and at one or more times, and the time periods for Landlord's approval shall apply with respect to each such portion submitted.

b. Preparation and Approval of Working Drawings. After the Space Plan is finally approved by Landlord, Tenant shall submit to Landlord drawings prepared by the Architect ("Working Drawings") which shall be compatible with the design, construction and equipment of the Building, comply with all applicable statutes, laws, codes, ordinances, rules and regulations, be capable of logical measurement and construction, contain all such information as may be required for the construction of the Tenant Improvements, and the preparation of the Engineering Drawings (as defined in Subsection c. below), and contain all partition locations, plumbing locations, air conditioning system and duct work, special air conditioning requirements, reflected ceiling plans, office equipment locations, and special security systems. Such Working Drawings must incorporate such items as have been specified by Landlord as required for use in the Building, as set forth in Schedule 1 attached to this Agreement. The Working Drawings may be submitted in one or more stages and at one or more times, and the time periods for Landlord's approval shall apply with respect to each such portion submitted.

Landlord shall approve the Working Drawings, or such portion as has from time to time been submitted, within ten (10) Business Days after receipt of same or designate by notice given within such time period to Tenant the specific changes reasonably required to be made to the Working Drawings in order to correct any problems and shall

return the Working Drawings to Tenant. Tenant shall make the minimum changes necessary in order to correct any such problems and shall return the Working Drawings to Landlord, which Landlord shall approve or disapprove within five (5) Business Days after Landlord receives the revised Working Drawings. This procedure shall be repeated until all of the Working Drawings are finally approved by Landlord and written approval has been delivered to and received by Tenant.

c. Preparation and Approval of Engineering Drawings. After the Working Drawings are finally approved by Landlord, Tenant shall submit to Landlord, for Landlord's review and approval, engineering drawings prepared by an Engineer approved by Landlord, showing complete mechanical, electrical, plumbing, HVAC, telecommunication, and computer cabling plans ("Engineering Drawings"). The Engineering Drawings may be submitted in one or more stages and at one or more times, and the time periods for Landlord's approval shall apply with respect to each such portion submitted.

Landlord shall approve the Engineering Drawings, or such portion as has from time to time been submitted, within ten (10) Business Days after receipt of same or designate by notice given within such time period to Tenant the specific changes reasonably required to be made to the Engineering Drawings in order to correct any problems and shall return the Engineering Drawings to Tenant. Tenant shall make the minimum changes necessary in order to correct any such problems and shall return the Engineering Drawings to Landlord, which Landlord shall approve or disapprove within five (5) Business Days after Landlord receives the revised Engineering Drawings. This procedure shall be repeated until all of the Engineering Drawings are finally approved by Landlord and written approval has been delivered to and received by Tenant.

d. Integration of Working Drawings and Engineering Drawings into Final Plans. After Landlord has approved the Engineering Drawings, Tenant shall cause the Architect to integrate the approved Working Drawings with the approved Engineering Drawings (collectively "Final Plans") and deliver the final Plans to Landlord. Tenant may submit the Final Plans in one or more stages and at one or more times, and the time periods for Landlord's approval shall apply with respect to each such portion submitted.

Landlord shall approve the Final Plans within five (5) Business Days after receipt of same or designate by notice given within such time period to Tenant the specific changes reasonably required to be made to the Final Plans in order to correct any problems and shall return the Final Plans to Tenant. Tenant shall make the minimum changes necessary in order to correct any such problems and shall return the Final Plans to Landlord, which Landlord shall approve or disapprove within three (3) Business Days after Landlord receives the revised Final Plans. This procedure shall be repeated until all of the Final Plans are finally approved by Landlord and written approval has been delivered to and received by Tenant.

e. Landlord agrees that, in each case, it will not unreasonably withhold its approval of the drawings or plans, or of any changes or modifications thereof; provided, however, Landlord shall have sole and absolute discretion to approve or disapprove any improvements that will be visible to the exterior of the Premises, or which may affect the structural integrity of the Building or exceed the capacity of the Building mechanical, electrical or plumbing systems (unless Tenant bears the cost of any required upgrades to such systems). Any approval of the drawings or plans by Landlord shall not constitute approval of any delays caused by Tenant and shall not be deemed a waiver of any rights or remedies that may arise as a result of such delays. At the time Landlord approves any plans it shall specify what improvements shown thereon, if any, will need to be removed as Tenant Specialty Items pursuant to Sections 10.01 and 29.01, and if not so elected, Tenant shall not be required to remove the same at the expiration of the term.

3. Design Construction Schedule. As soon as reasonably possible following execution and delivery hereof, Landlord and Tenant shall jointly prepare a design/construction schedule for Landlord Improvements and Tenant Improvements, which schedule shall be used to implement the scheduling and cooperation obligations of the parties set forth in Section 2.03.

4. Work and Materials at Tenant's Expense. Tenant shall select a licensed general contractor or contractors (the "Contractor") familiar with all applicable statutes, laws, codes, ordinances, rules and regulations pertaining to construction in the jurisdiction of the Building and any rules, regulations, instructions and procedures promulgated by Landlord with respect to Tenant design and/or construction in the Building, subject to approval by Landlord if Landlord does not unreasonably withhold its approval; to construct and install the Tenant Improvements in accordance with the Plans (the "Work") at Tenant's expense (subject to the Tenant Allowance). The following contractors, if used by Tenant, shall be deemed approved by Landlord: AP Construction.

a. All work performed in connection with the construction of the Tenant Improvements shall be performed in a good and workmanlike manner and in accordance with all applicable statutes, laws, codes, ordinances, rules and regulations and in accordance with the final approved Plans.

5. Rent Commencement Date. The Rent Commencement Date shall have the definition set forth in Article 1 of the Lease.

6. Tenant Improvement Expenses in Excess of the Allowance. Tenant agrees to pay all costs and expenses in excess of the Tenant Allowance incurred in connection with the Tenant Improvements. Tenant will pay such excess costs and expenses on a pro rata basis with Landlord's payment of the Tenant Allowance.

EXHIBIT D-1

[Reserved]

EXHIBIT D-2

RULES AND REGULATIONS
FOR DESIGN AND CONSTRUCTION OF TENANT WORK

1. DEFINITIONS

1.1	Property:	One Parrott Drive Shelton, Connecticut
1.2	Property Manager:	Individual designated by Landlord as Landlord's agent for building.
1.3	Consultant:	The Architect as defined in the Lease and any other architectural, engineering, or design consultant engaged by a Tenant in connection with Tenant Work.
1.4	Contractor:	Any Contractor engaged by a Tenant of the Property for the performance of any Tenant Work, and any Subcontractor, employed by any such Contractor.
1.5	Plans:	All Working Drawings, Engineering Drawings and Final Plans and any other architectural, electrical plumbing, HVAC, and mechanical construction drawings and specifications required for the proper construction of the Tenant Work.
1.6	Regular Business	Monday through Friday, 7:00 a.m. through Hours: 6:00 p.m., Saturday, 9:00 a.m. through 1:00 p.m., holidays excluded.
1.7	Tenant:	Any occupant of the Building.
1.8	Tenant Work:	Tenant Improvements as defined in the Lease and any other alterations, improvements, additions, repairs or installations in the Building performed by or on behalf of Tenant.
1.9	Tradesperson:	Any employee (including, without limitation, any mechanic, laborer, or Tradesperson) employed by a Contractor performing Tenant Work.

2. GENERAL

2.1 All Tenant Work shall be performed in accordance with these rules and regulations and the applicable provisions of the Lease.

2.2 The provisions of these rules and regulations shall be incorporated in all agreements governing the performance of all Tenant Work, including, without limitation, any agreements governing services to be rendered by each Contractor and Consultant.

2.3 Except as otherwise provided in these Rules and Regulations, all inquiries, submissions and approvals in connection with any Tenant Work shall be processed through the Property Manager.

3. PLANS

3.1 Review and Approval

Except for the initial Tenant Improvements, which shall be governed by the Work Letter attached to the Lease, prior to commencement of Tenant's Work to the Premises and the Building, Tenant shall deliver the plans and specifications therefor to Landlord for its written approval, which approval shall not be unreasonably withheld. Landlord shall respond to Tenant's request for approval of Tenant's plans and specifications within fifteen (15) Business Days after receipt of the first submission thereof and within five (5) Business Days of any re- submissions thereof; the failure of Landlord to respond within the applicable period shall constitute approval of such plans and specifications. In the event Landlord shall not approve the plans and specifications, Landlord shall notify Tenant in writing of its objections thereto. Landlord and Tenant shall thereafter work cooperatively and in good faith to reach agreement upon mutually acceptable plans and specifications.

3.2 Submission Requirements

a. Except for the initial Tenant Improvements, which shall be governed by the Work Letter attached to the Lease, any Tenant performing Tenant Work shall, at the earliest possible time but at least one week before any Tenant Work is to begin, furnish to the Property Manager two full sets of Plans describing such Tenant Work.

b. The design manifested in the Plans will be reviewed by the Landlord and shall comply with its requirements so as to avoid aesthetic or other conflicts with the design and function of the Property as a whole.

4. PRECONSTRUCTION NOTIFICATION AND APPROVALS

4.1 Approval to Commence Work

a. No Tenant Work shall be undertaken by any Contractor or Tradesperson unless and until all the matters set forth in Section 4.2 below have been received for the applicable portion of the Tenant Work in question and unless Property Manager has approved the matters set forth in Article 4.2 below, such approval will be deemed given unless specific basis for disapproval is given within ten (10) Business Days after receipt of matters set forth in Section 4.2 below.

4.2 No applicable portion of the Tenant Work shall be performed unless, all of the following with respect to such portion of Tenant's Work has been provided to the Property Manager and approved. In the event that Tenant proposes to change any of the following with respect to a portion of Tenant's Work, the Property Manager shall be immediately notified of such change and such change shall be subject to the approval of the Property Manager, such approval to be deemed given unless specifically disapproved within ten (10) Business Days after request is submitted.

a. Schedule for the work, indicating estimated start and completion dates, any phasing and special working hours, and also a list of anticipated shutdowns of Property systems.

b. List of all Contractors and Subcontractors, including addresses, telephone numbers and trades employed of each Contractor and Subcontractor.

c. Names and telephone numbers of the supervisors of the work.

d. Copies of all necessary governmental permits, licenses and approvals.

e. Proof of current insurance, to the limits set out in the attached "Insurance Requirements for Contractors", naming Landlord as an additional insured party.

f. Notice of the involvement of any Contractor in any ongoing or threatened labor dispute.

g. Final lien releases upon completion.

Tenant will be entitled to proceed with Tenant's Work in various phases, and may proceed with one or more portions of Tenant's Work that has been approved even through other portions of Tenant's Work have not been approved.

4.3 Reporting Incidents

All accidents, disturbances, labor disputes or threats thereof, and other noteworthy events pertaining to the Building or the Tenant's property shall be reported immediately to the Property Manager. A written report must follow within twenty-four (24) hours.

5. CONSTRUCTION SCHEDULE

5.1 Coordination

a. All Tenant Work shall be carried out expeditiously and without material disturbance and disruption to the operation of the Building.

b. All schedules for the performance of construction must be coordinated through the Property Manager.

c. If any Tenant Work requires the shutdown of risers and mains for electrical, mechanical, sprinklers and plumbing work, such work shall be supervised by a representative of Landlord. No Tenant Work will be performed in the Building's mechanical or electrical equipment rooms without both Landlord's prior approval and the supervision of a representative of the Landlord.

5.2 Time Restrictions

a. Subject to Section 5.1 of these Rules and Regulations, general construction work will generally be permitted at all times, including during Regular Business Hours.

b. Tenant shall provide the Property Manager with at least twenty-four (24) hours notice before proceeding with Special Work, as hereinafter defined, and such Special Work will be permitted only at times agreed to by the Property Manager during periods outside of Regular Business Hours. "Special Work" shall be defined as the following operations:

1. All utility disruptions, shutoffs and turnovers;

2. Activities involving high levels of noise including demolition, coring, drilling and tramsetting;

3. Activities resulting in excessive dust or odors, including demolition and spray painting.

c. If disruptive, the delivery of construction materials to the Building, their distribution within the Building, and the removal of waste material shall also be confined to periods outside Regular Business Hours, unless otherwise waived by the Property Manager who will not unreasonably refuse to give such waiver.

6. CONTRACTOR PERSONNEL

6.1 Work in Harmony

a. Tenant shall ensure that all Contractors shall abide by the Rules and Regulations herein set forth as amended from time to time by Landlord.

b. No Tenant shall at any time, either directly or indirectly, employ, permit the employment, or continue the employment of any Contractor if such employment or continued employment will or does interfere or cause any labor disharmony, coordination difficulty, delay or conflict with any other Contractors engaged in construction work in or about the Building or the complex in which the Building is located.

c. Should a work stoppage or other action occur anywhere in or about the Building as a result of the presence anywhere in the Building, of a Contractor engaged directly or indirectly by a Tenant, or should such Contractor be deemed by Landlord to have violated any applicable rules or regulations, then Landlord may, without incurring any liability to Tenant or said Contractor, require any such Contractor to vacate the premises demised by such Tenant and the Building, and to cease all further construction work therein.

6.2 Conduct

a. Tenant shall use good faith efforts to ensure the following: all Tradespersons, while in or about the Building, shall perform in a dignified, quiet, courteous, and professional manner at all times; Tradespersons shall wear clothing suitable for their work and shall remain fully attired at all times; and all Contractors will be responsible for their Tradespersons' proper behavior and conduct. Proper conduct shall include refraining from sexual harassment, foul language, and loud radios.

b. The Property Manager reserves the right to remove anyone who, or any Contractor which, is causing a disturbance to any tenant or occupant of the Building or any other person using or servicing the Building; is interfering with the work of others; or is in any other way displaying conduct or performance not compatible with the Landlord's standards.

6.3 Access

a. No Contractor or Tradesperson will be permitted to enter any private or public space in the Building, other than the common areas of the Building necessary to give direct access to the premises of Tenant for which he has been employed, without the prior approval of the Property Manager.

b. Tenant shall give notice to the Property Manager prior to undertaking work in any space outside of the Tenant's premises that would disrupt other tenants or Building operations. This requirement specifically includes ceiling spaces below the premises where any work required must be undertaken at the convenience of the affected Tenant and outside of Regular Business Hours. Tenant shall ensure that Contractors undertaking such work, including work required to reinstate removed items and cleaning, be completed prior to opening of the next business day.

c. Tenant shall require that all furniture, equipment and accessories in areas potentially affected by any Tenant Work be adequately protected by means of drop cloths or other appropriate measures. In addition, Tenant shall require that all Contractors be responsible for maintaining security to the extent required by the Property Manager.

6.4 Safety

a. Tenant shall ensure the following: all Contractors shall police ongoing construction operations and activities at all times, keeping the premises orderly, maintaining cleanliness in and about the premises, and ensuring safety and protection of all areas, including, without limitation, truck docks, lobbies and all other public areas which are used for access to the premises.

b. Tenant shall require all Contractors to appoint a supervisor who shall be responsible for all safety measures, as well as for compliance with all applicable governmental laws, statutes, ordinances, codes, rules and regulations such as, for example, "OSHA" legislation.

c. Any damage caused by Tradespersons or other Contractor employees shall be the responsibility of the Tenant employing the Contractor. Unless Tenant repairs the same, costs for repairing such damage shall be charged directly to such Tenant.

6.5 Parking

a. Parking is not allowed in or near truck docks, in handicapped or fire access lanes, or any private ways in or surrounding the Property. Vehicles so parked will be towed at the expense of the Tenant who has engaged the Contractor for whom the owner of such vehicle is employed.

7. PROPERTY MATERIALS

7.1 Delivery

All deliveries of construction material shall be safely and expeditiously delivered only at the location reasonably determined by the Property Manager.

7.2 Transportation in Property

a. Distribution of materials from delivery point to the work area in the Building shall be accomplished with the least disruption to the operation of the Building as possible.

b. Any damage caused to the Building through the movement of construction materials or otherwise shall be the responsibility of Tenant who has engaged the Contractor involved. Unless Tenant repairs the same, charges for such damage will be submitted by the Landlord directly to the Tenant.

7.3 Storage and Placement

a. All construction materials shall be stored only in the premises where they are to be installed. No storage of materials will be permitted in any public areas, loading docks or corridors leading to the premises.

b. No flammable, toxic, or otherwise hazardous materials may be brought in or about the Property unless: (i) all applicable laws, ordinances, rules and regulations are complied with, and (ii) all necessary permits have been obtained. All necessary precautions shall be taken by the Contractor handling such materials against damage or injury caused by such materials.

c. All materials required for the construction of the premises must substantially conform with the plans and specifications approved by Landlord, and must be installed in the locations shown on Plans approved by the Landlord.

d. All Work shall be subject to reasonable supervision and inspection by Landlord's representative.

e. No substantial alterations to approved plans will be made without prior knowledge and approval of the Property Manager. Such changes shall be documented on the "as-built" drawings required to be delivered to Landlord pursuant to Section 10 of the Rules and Regulations.

f. All protective devices (e.g., temporary enclosures and partitions) and materials, as well as their placement, must be approved by the Property Manager.

g. It is the responsibility of Contractors to ensure that the temporary placement of materials does not impose a hazard to the Building or its occupants, either through overloading, or interference with Building systems, access or in any other manner whatsoever.

h. All existing and/or new openings made through the floor slab for piping, cabling, etc. must be packed solid with fiberglass insulation to make openings smoke tight. All holes in the floor slab at abandoned floor outlets, etc. will be filled with solid concrete.

7.4 Salvage and Waste Removal

a. All rubbish, waste and debris shall be neatly and cleanly removed from the Building by Contractors. The Building's trash dumpster or compactor shall not be used for construction or other debris. For any demolition and debris, each Contractor must make arrangements with the Property Manager for the scheduling and location of an additional dumpster to be supplied at the cost of the Tenant engaging such Contractor. Where, in the opinion of the Property Manager, such arrangements are not practical, such Contractors will make alternative arrangements for removal at the cost of the Tenant engaging such Contractors.

b. Toxic or flammable waste is to be properly removed daily and disposed of in full accordance with all applicable laws, ordinances, rules and regulations.

c. Prior to commencement of Tenant's Work, the Property Manager will specify in writing to Tenant any items from the Premises Property Manager wishes Tenant to deliver to Property Manager at a designated area within the Building (including, without limitation, building standard doors, frames and hardware, light fixtures, ceiling diffusers, ceiling exhaust fans, sprinkler heads, fire horns, ceiling speakers and smoke detectors). Tenant will require the Contractors to deliver any such items to the Property Manager, without cost, to an area designated by the Property Manager which area shall be within the Building. All items not contained in such notice from Property Manager, may be removed from the Building and disposed of by the Contractors.

8. PAYMENT OF CONTRACTORS

Tenant shall promptly pay the cost of all Tenant Work so that Tenant's Premises and the Building shall be free of liens for labor or materials. If any mechanic's lien is filed against the Building or any part thereof which is claimed to be attributed to the Tenant, its agents, employees or Contractors, Tenant shall give immediate notice of such lien to the Landlord and shall promptly discharge the same by payment or filing any necessary bond.

9. CONTRACTORS INSURANCE

Prior to commencing any Tenant Work, and throughout the performance of the Tenant Work, Tenant shall ensure that each Contractor obtains and maintains insurance in accordance with the requirements attached hereunto. Each Contractor shall, prior to making entry into the Property provide Landlord with certificates that such insurance is in full force and effect.

10. SUBMISSIONS UPON COMPLETION

a. Upon completion of any Tenant Work and prior to taking occupancy, Tenant shall submit to Landlord a permanent Certificate of Occupancy and final approval of any other governmental agencies having jurisdiction.

b. Tenant shall submit to Landlord's representative a final marked-up set of Plans showing all items of the Work in full detail. When all Tenant's Work is completed, "as built" drawings will be submitted to Landlord.

11. CONFLICT BETWEEN RULES AND REGULATIONS AND LEASE

In the event of any conflict between the Lease and any rules and regulations, the terms of the Lease shall control.

INSURANCE REQUIREMENTS FOR CONTRACTORS

When Tenant Work is to be done by Contractors in the Property, the Tenant authorizing such work shall be responsible for including in the contract for such work the following insurance and indemnity requirements to the extent that they are applicable. Insurance certificates must be received prior to construction. Landlord shall be named as an additional insured party on all certificates.

INSURANCE

Each Contractor and each Subcontractor shall, until the completion of the Tenant Work in question, procure and maintain at its expense, the following insurance coverage in the following minimum limits:

Workers' Compensation
(including coverage for Occupations Disease)

	Limit of Liability
Workers' Compensation	Statutory Benefits
Employers Liability	$ 500,000

Commercial General Liability
(including contractual liability assumed by the Contractor and the Tenant under the Lease and Completed Operations coverage)

	Limit of Liability
Bodily Injury & Property Damage	$ 2,000,000 combined single limit

Comprehensive Automobile Liability
(including coverage for Hired and Non-owned Automobiles)

	Limit of Liability
Bodily Injury & Property Damage	$1,000,000 per occurrence

EXHIBIT E

Commencement Date Agreement

THIS COMMENCEMENT DATE AGREEMENT (the "CDA") is made and entered into as of this day of , 200 , by and between **SHELTON PARROTT ASSOCIATES, L.L.C.**, a Connecticut limited liability company, having an office c/o Cambridge-Hanover, L.P., 65 Locust Avenue, New Canaan, Connecticut 06840 ("Landlord") and **CARA THERAPEUTICS, INC.**, a corporation, with its principal office at ("Tenant");

W I T N E S S E T H:

WHEREAS, Tenant and Landlord entered into that certain Lease Agreement dated , 2006 (the "Lease"), for an agreed 53,040 Rentable Square Feet in the Building located at One Parrott Drive, Shelton, Connecticut; and

WHEREAS, the parties desire to establish the Commencement Date and Expiration Date as set forth below,

NOW, THEREFORE, in consideration of the mutual and reciprocal promises herein contained, Tenant and Landlord hereby agree that said Lease hereinafter described, and the same is hereby modified in the following particulars:

1. The term of the Lease by and between Landlord and Tenant commenced on (the "Commencement Date"). The initial term of said Lease shall terminate on (the "Expiration Date"). Article 2, entitled "Term", and all references to the Commencement Date and Expiration Date in the Lease are hereby amended.

2. Except as modified and amended by this Commencement Agreement, the Lease shall remain in full force and effect.

IN WITNESS WHEREOF, Landlord and Tenant have caused this Agreement to be duly executed, as of the day and year first above written.

LANDLORD

SHELTON PARROTT
ASSOCIATES, L.L.C.,
a Connecticut limited liability partnership

By: _____
Print Name:
Print Title:

TENANT

CARA THERAPEUTICS, INC.

By: _____
Print Name:
Print Title:

EXHIBIT F

Subordination, Attornment and Nondisturbance Agreement

THIS AGREEMENT is made this day of , 200 , among CARA THERAPEUTICS, INC. ("Tenant"), (together with its subsidiaries, affiliates, successors and assigns, the "Lender"), and SHELTON PARROTT ASSOCIATES, L.L.C. (the "Landlord");

A. By lease agreement dated (the "Lease"), Landlord leased to Tenant premises (the "Premises") located at One Parrott Drive, Shelton, Connecticut (the "Building Project") and more particularly described in Exhibit "A" attached hereto.

B. Lender is the owner and holder of indebtedness secured by a [mortgage/deed of trust] recorded as Instrument Number in the (the "Deed of Trust") which constitutes a lien against the Premises.

C. Tenant has agreed to subordinate the Lease to the Deed of Trust upon the terms and conditions stated in this Agreement.

NOW, THEREFORE, in consideration of their mutual promises, Lender, Landlord and Tenant agree as follows:

1. Subordination. The Lease and all renewals, modifications, consolidations, replacements and extensions of the Lease are subject and subordinate to the Deed of Trust and all renewals, modifications, consolidations, replacements and extensions of the Deed of Trust.

2. Attornment. Tenant agrees to attorn to Lender if Lender acquires title to the Premises by foreclosure or otherwise, or to any third party who acquires title to the Premises at a foreclosure sale under the Deed of Trust and to their respective successors and assigns (such lender or purchaser and its successors and assigns being referred to in this agreement as the "New Landlord" and the date on which New Landlord acquires title to the Premises being referred to herein as the "Attornment Date") in each case under all of the terms, conditions, and covenants of the Lease; provided, however, that:

a. Tenant shall be under no obligation to pay any rent or render any performance to the New Landlord until it has received notice (in the manner provided herein) of its obligation to do so from New Landlord. If and to the extent the Tenant receives such notice from New Landlord:

(1) Landlord agrees that Tenant may rely upon such notice and documentation, and need not obtain other confirmation of New Landlord's right and authority to receive such payments or performance, as the case may be;

(2) Landlord, to the extent that such payment is made, or performance rendered, to the New Landlord, releases and discharges Tenant from liability under the Lease for such payments, or such performance, to the same extent as if they had been made or rendered to Landlord; and

(3) Landlord agrees to look solely to New Landlord for recovery of any such payments, or performance, made by Tenant in favor of New Landlord in the event that Landlord disputes New Landlord's right to receive such payments, or performance, as the case may be.

b. New Landlord shall assume and be bound by all obligations of Landlord under the Lease arising after the Attornment Date (except as otherwise provided herein) and so long as Tenant is not in default under the Lease beyond any applicable cure period, shall recognize and not disturb the leasehold estate of Tenant under all of the terms, covenants and conditions of the Lease for the remaining balance of the Lease term and any renewals or extensions thereof, with the same force and effect as if such New Landlord were the original "Landlord" under the Lease.

c. From and after the Attornment Date, the respective rights and obligations of Tenant and New Landlord will be as provided in the Lease, which is incorporated in this Agreement by reference, except that:

(1) New Landlord will not be liable for nonpayment or nonperformance by any prior landlord of Lease obligations arising prior to the Attornment Date, or for damages resulting from any prior landlord's act or omission which occurred prior to the Attornment Date, except that:

(a) Tenant will be entitled to utilize any rent reduction, offset, credit or holdback rights available to Tenant under the Lease to recover the cost of curing any such default of a prior landlord if Tenant shall have given the Lender written notice of the default, act or omission of the prior landlord giving rise to Tenants' rights and afforded Lender a reasonable opportunity to cure the default (whether or not the Lender elected to cure the default);

(b) New Landlord will be obligated to remedy any non-monetary default by any prior landlord which is of a continuing nature (such as, for example, a failure to repair) that continues unremedied after the Attornment Date.

(2) New Landlord will not be bound by any rent paid in advance by Tenant to any prior landlord for more than the current month and one additional month.

(3) New Landlord will not be liable for any security deposit paid by Tenant to any prior landlord, except to the extent such security deposit has been actually received by or credited to the account of New Landlord.

(4) New Landlord shall not be obligated to construct or finish the construction or to renovate or finish the renovation of the Premises or any Common Areas as described in the Lease, unless it expressly assumes such obligation after it succeeds to the interest of the prior landlord under the Lease; provided, however if Lender fails to assume such obligation to finish

the construction or renovation within sixty (60) days after acquisition of title to the Premises and such failure materially adversely affects Tenant's ability to operate at the Premises, Tenant shall have, as its sole remedy, the right within thirty (30) days thereafter to cancel the Lease by giving new Landlord written notice of such cancellation.

3. Payment of Rent to Lender. If Lender becomes a mortgagee in possession of the Premises or exercises its rights under the loan documents securing its loan to Landlord to have rental payments made directly to Lender without taking possession of the Premises, then Tenant agrees to make all payments of rent directly to Lender upon Lender's written instructions to Tenant. If and to the extent Lender demands and receives any such payments from Tenant:

a. Landlord agrees that Tenant may rely upon such written instructions of Lender and need not obtain other confirmation of Lender's right and authority to receive such payments;

b. Landlord, to the extent of such rental payments, releases and discharges Tenant from liability under the Lease for such payments, to the same extent as if they had been made to Landlord; and

c. Landlord agrees to look solely to Lender for recovery of any such payments made by Tenant in the event Landlord disputes Lender's right to receive such payments.

4. Non-Disturbance. Lender agrees that so long as Tenant is not in default under the Lease beyond any applicable cure period:

a. Tenant's possession of the Premises and its rights and privileges under the Lease will not be diminished or interfered with (except as otherwise modified herein) and its occupancy of the Premises will not be disturbed; and

b. Tenant will not be named as a party to any foreclosure proceedings unless Tenant's joinder is required by law.

5. Modification of Lease. Except as expressly contemplated by the Lease, Tenant agrees that so long as the Premises are subject to the lien of the Deed of Trust, Tenant will not, without the prior written consent of the Lender, enter into any agreement modifying the Lease in any material respect (including without limitation, any decrease in the rent, decrease of the Lease Term or delay in the Commencement Date), and that Lender will not be bound by any such agreement made without its consent.

6. Lender's Right to Cure Landlord Defaults. So long as the Premises are subject to the lien of the Deed of Trust, Tenant will give Lender duplicate notice of any claimed default on the part of Landlord, in the manner provided by the Lease, at the address set forth in this Agreement, and will permit Lender to cure any default by Landlord under the Lease during any period when the Landlord would be entitled to do so, and (i) for fifteen (15) days after such period with respect to any default which can be cured by the payment of money, and (ii) with respect to any other default, for thirty (30) days after such period, and for such reasonable additional time, not to exceed ninety (90) days, as may be required to effect a cure, if Lender, acting diligently, cannot

effect the cure within the first thirty (30) day period, but promptly commences to cure the default and notifies Tenant in writing that it has commenced such cure within such period, and proceeds diligently to effect such cure; provided, however, Tenant shall not be required to give notice to Lender or Landlord or permit any cure period with respect to any emergency repairs necessary to avoid injury to persons or material damage to property which are completed by Tenant in accordance with the terms of the Lease.

7. New Landlord shall have no obligation nor incur any liability with respect to any representations or warranties made by the prior landlord in the Lease or with respect to any conflict between the provisions of the Lease and the provisions of any other lease affecting the Building Project. New Landlord shall not be liable for any indirect or consequential damages and Tenant agrees to look exclusively to New Landlord's equity in the Building Project for the payment or discharge of any obligations imposed upon New Landlord hereunder or under the Lease or for recovery of any judgment obtained against New Landlord. In no event shall New Landlord or any of its officers, directors, shareholders, agents, servants, employees or representatives be personally liable for any such obligations or judgments. In the event of the assignment or transfer of New Landlord's interest in the Premises or the Building Project, all obligations and liabilities of New Landlord under this Agreement and the Lease arising after such assignment or transfer shall terminate and thereafter all such obligations and liabilities shall be the responsibility of the assignee or transferee.

8. Notices. All notices required or permitted by the terms of this Agreement shall be deemed given only when deposited in the United States Registered or Certified Mail, Postage Prepaid, or, with verification of delivery, when received by telegram, cable, telex, commercial courier or any other generally accepted means of business communication, to a party at the address set forth below for each party. A party may change the address to which notices must be sent by giving notice to the other parties in accordance with this Paragraph. The initial notice address for each party is as follows:

If to Lender: _____
_____
_____

If to Tenant: _____
_____
_____

If to Landlord: _____
_____
_____

9. Interpretation and Effect. This Agreement:

a. shall remain in effect at all times during the Lease or any extension or renewal of the Lease, notwithstanding any default or foreclosure under the Deed of Trust;

b. is to be governed, enforced, and construed in accordance with the internal laws of the State of Connecticut;

c. binds the parties and their successors and assigns, notwithstanding any inconsistent provisions of the Deed of Trust, and the covenants contained in this Agreement shall be covenants running with the land and bind all successors in title to the Premises; and

d. may not be modified except by a writing executed by the parties.

10. Recitals. The recitals set forth at the beginning of this Agreement are incorporated herein by this reference as though fully set forth, and this Agreement shall be construed in light thereof.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed as a sealed instrument by their duly authorized officers, all as of the date first stated above.

TENANT

CARA THERAPEUTICS, INC.

By: _____
Print Name:
Print Title:

LENDER:

_____

By: _____
Print Name:
Print Title:

LANDLORD:

SHELTON PARROTT ASSOCIATES, L.L.C.

By: _____
Print Name:
Print Title:

STATE OF
CITY/COUNTY OF , to-wit:

The foregoing instrument was acknowledged before me this day of , 2006, in the City/County of , State of by , of Cara Therapeutics, Inc. on its behalf.

Notary Public

My commission expires:

STATE OF
CITY/COUNTY OF , to-wit:

The foregoing instrument was acknowledged before me this day of , 2006, in the City/County of , State of by , of on its behalf.

Notary Public

My commission expires:

STATE OF
CITY/COUNTY OF , to-wit:

The foregoing instrument was acknowledged before me this day of , 2006, in the City/County of , State of by , of Shelton Parrott Associates, L.L.C. on its behalf.

Notary Public

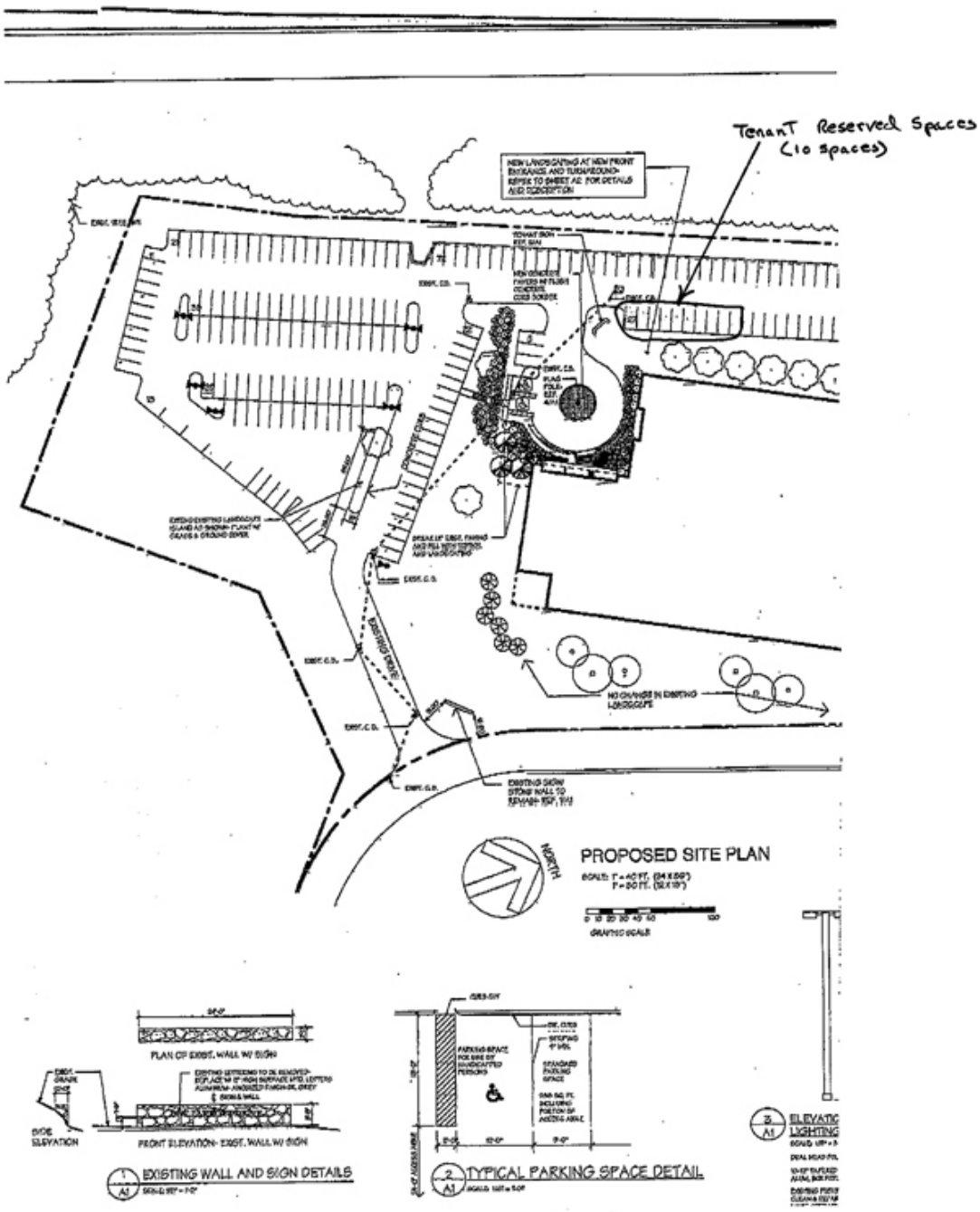
My commission expires:

EXHIBIT G

Parking Plan

(To Be Attached)

EXHIBIT G
Parking Plan



FIRST AMENDMENT TO LEASE

This FIRST AMENDMENT TO LEASE is dated as of September 25, 2006, by and between SHELTON PARROTT ASSOCIATES, L.L.C. (the "Landlord"), and CARA THERAPEUTICS, INC. (the "Tenant").

WITNESSETH:

WHEREAS, by that certain Lease dated as of September 18, 2006, by and between Landlord and Tenant, Landlord leased to Tenant and Tenant leased from Landlord the Premises as more particularly described and defined in the Lease and which is located at One Parrott Drive, Shelton, Connecticut; and

WHEREAS, Section 23.07 of the Lease permits the Tenant to deposit the Security Deposit Amount with Landlord in the form of a Irrevocable Letter of Credit (the "Letter of Credit") in the form attached as Exhibit C to the Lease; and

WHEREAS, Section 23.07 of the Lease and Exhibit C thereto provide that so long as there have been no drawings against the Letter of Credit, there shall be automatic reductions in the stated amount of the Letter of Credit on each anniversary date of the issuance of the Letter of Credit until the stated amount of the Letter of Credit is $700,000; and

WHEREAS, Landlord and Tenant intended and agreed that such annual reductions in the Letter of Credit were to occur annually on March 1 of each year beginning with March 1, 2008; and

WHEREAS, the parties desire to amend the Lease and Exhibit C thereto to conform to the intention and agreement of the parties;

NOW, THEREFORE, for and consideration of the premises, the sum of $10.00 cash in hand paid and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto do hereby agree as follows:

1. Section 23.07 of the Lease is amended by deleting the penultimate sentence thereof and inserting the following provision in lieu thereof:

> "The Letter of Credit will provide that so long as no drawing has been made against the Letter of Credit, the stated amount thereof will be automatically reduced by Two Hundred Ninety-Four Thousand Dollars ($294,000.00) on March 1, 2008, and on March 1 of each year thereafter until the stated amount of the Letter of Credit is equal to Seven Hundred Thousand Dollars ($700,000.00)."

2. Exhibit C to the Lease captioned "Form Letter of Credit" is hereby amended by deleting paragraph C on page C-2 and inserting the following provision in lieu thereof:

> "C. Provided no drawing has been made against this Letter of Credit, the stated amount of this Letter of Credit shall automatically be reduced by Two Hundred Ninety-Four Thousand Dollars ($294,000.00) on March 1, 2008, and each anniversary date thereafter until the stated amount of this Letter of Credit shall be equal to Seven Hundred Thousand Dollars ($700,000.00), whereupon no further reductions in the stated amount of this Letter of Credit shall occur except as a result of a drawing hereunder."

3. Except as amended or modified herein, the Lease shall remain in full force and effect and is hereby ratified and confirmed as amended by this First Amendment to Lease.

4. This First Amendment to Lease may be executed in multiple counterparts, each of which shall constitute an original but all of which taken together shall constitute but one and the same instrument.

5. This First Amendment may be executed by facsimile signatures, which the parties agree are to be treated as original signatures for all purposes.

IN WITNESS WHEREOF, this First Amendment to Lease has been executed on behalf of Landlord and Tenant as of the date first above written.

LANDLORD

SHELTON PARROTT
ASSOCIATES, L.L.C.

By: Cambridge Hanover, L.P.,
Manager

By: Cambridge Hanover, Inc.
General Partner

By: _____
Jonathan P. Garrity
President & CEO

TENANT

CARA THERAPEUTICS, INC.

By: _____
Print Name: DEREK CHALMERS
Print Title: PRESIDENT & CEO

SECOND AMENDMENT TO LEASE

This SECOND AMENDMENT TO LEASE is dated as of February 15, 2007, by and between SHELTON PARROTT ASSOCIATES, L.L.C. (the "Landlord"), and CARA THERAPEUTICS, INC. (the "Tenant").

WITNESSETH:

WHEREAS, by that certain Lease (as amended, the "Lease") dated as of September 18, 2006, by and between Landlord and Tenant, Landlord leased to Tenant and Tenant leased from Landlord the Premises as more particularly described and defined in the Lease and which is located at One Parrott Drive, Shelton, Connecticut; and

WHEREAS, the Lease has been amended by a First Amendment to Lease dated September 25, 2006; and

WHEREAS, Section 12.05 of the Lease requires Landlord to construct certain Landlord Improvements to the Building Project and Landlord and Tenant desire to define and describe the Landlord Improvements with more particularity;

NOW, THEREFORE, for and consideration of the premises, the sum of $10.00 cash in hand paid and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto do hereby agree as follows:

1. The Lease is amended as follows:

(a) By deleting the first sentence of Section 12.05 in its entirety and replacing it with the following:

Landlord covenants and agrees, at Landlord's sole cost and expense (but subject to the payment by Tenant of the amounts specified below), to complete the following improvements (collectively, the "Landlord Improvements" to the Building Project: (i) the Demolition work, (ii) the HVAC Work, (iii) the Roof Work, (iv) the Electrical Upgrade, (iv) the installation of twelve (12) 6' x 6' punch out windows, and (v) the installation of a gas utility line to the Premises with submeter.

(b) By adding, at the end of Section 12.05, the following provisions to the end of Section 12.05:

(1) Demolition. The demolition work (the "Demolition Work") to be included in both Landlord Improvements and Tenant Improvements (See Exhibit A attached hereto) is shown and described on plans (the "Demolition Plans") prepared by The Phillips Group dated December 26, 2006 (sheets AA and D-1.0). The Demolition Work shall exclude, however, the items described as to be performed later by either Landlord or Tenant. Landlord shall enter into a contract for the performance of all of the Demolition Work. Landlord shall be

responsible for the cost of all Demolition Work as shown in the Demolition Plans, provided that Tenant shall contribute $97,000 toward the cost thereof, such contribution may be paid as a debit against the Tenant Allowance. Landlord agrees that it will incorporate changes to the trenching portion of the Demolition Plans as requested by Tenant (currently showing trenching of 1,135 linear feet) provided that Tenant shall be responsible for all incremental costs actually incurred by Landlord (i.e., $91 per linear foot plus contractor's overhead, profit and general conditions and any design costs) as a result of the changes and that any such changes will not result in a material delay in the performance of the Demolition Work. Any incremental costs for which Tenant is responsible pursuant to the preceding sentence shall be added to the debit against the Tenant Allowance described above. Landlord will use commercially reasonable efforts to cause the Demolition Work to be performed as soon as reasonably practical.

(2) HVAC. Landlord shall enter into a contract for the placement of heating, ventilating, and air conditioning equipment (the "HVAC Equipment") at the Premises having a total capacity of 282.5 tons in accordance with the plans (the HVAC Plans") prepared by Landlord's engineer, Eastern Engineering, dated February 16, 2007. The preparation of the HVAC Plans by Landlord's engineer, including the portions relating to the modification of standard units, has been at the direction of Tenant's engineer, Syska Hennessy. Tenant confirms that it is satisfied that the design and specification of the HVAC Equipment as contained in the HVAC Plans is adequate for Tenant's use of the Premises. The HVAC Plans provide for the placement of two (2) twenty seven and one half (27.5) ton standard units, one (1) thirty five (35) ton standard units, two (2) forty (40) ton standard units, two (2) fifty (50) ton standard units and one (1) twelve and one half (12.5) ton Unit RTU-A. Landlord agrees that it will incorporate changes to the scope of the contract for the HVAC Work as requested by Tenant provided that Tenant shall be responsible for all incremental cost increases incurred as a result of the changes and that any such changes will not result in a material delay in the performance of the HVAC work. In addition to the placement of the HVAC Equipment, Landlord, will contract for the installation of natural gas piping for the HVAC Equipment, installation of electrical lines to the HVAC Equipment, the installation of steel supports necessary for the HVAC Equipment, penetrations of the roof for ductwork connects and the roof top design work (all of which, including the installation of the HVAC Equipment, is referred to herein as the "HVAC Work"). Tenant agrees that it will be responsible for thirty-seven and 56/100 percent (37.56%) of the total cost of the HVAC Work (except that Tenant shall reimburse Landlord for 100% of the HVAC Work performed at the request of Tenant not within the scope of the February 16, 2007 version of the HVAC Plans. Tenant's obligation with respect to the cost of the HVAC Work may be paid as a debit against the Tenant Allowance provided that there is a sufficient balance remaining to cover Tenant's obligation. If there is an insufficient balance in the Tenant Allowance to pay the amount of Tenant's obligation, then Tenant shall pay to Landlord its share of the cost of the HVAC Work not covered by the Tenant Allowance within fifteen (15) days after receipt of the invoice. Following

completion of the HVAC Work, Landlord shall send to Tenant an invoice for Tenant's share of the cost of the HVAC Work, together with copies of all invoices which comprise the cost of the HVAC Work and the calculation of Tenant's share.

(3) Roof. Landlord agrees to perform roof work on the Premises (the "Roof Work") in accordance with the specifications prepared by Firestone dated January 17, 2007. The Roof Work will include the issuance of a fifteen (15) year warranty by Firestone (copy attached as Exhibit B). Tenant confirms that performance of the Roof Work by Landlord will satisfy its obligations with respect to the roof.

(4) Electrical. In addition to any electrical work that Landlord is to perform as a part of the HVAC Work, Landlord will cause to be installed new 480 volt 1200 Amp 3 Phase electric service to (but not beyond) a main switch to be located within the main building switchboard in the Premises. Landlord will also cause to be constructed an electrical room in a location mutually acceptable to Landlord and Tenant and will install an electrical submeter for the Premises. All of the foregoing work shall be at Landlord's expense and shall be referred to in this Lease as the "Electrical Upgrade. " Tenant shall be responsible for performing and paying for any additional electrical work in the Premises including, but not limited to, installation of additional electrical panels, feeders or equipment required for distribution within the Premises except to the extent such work is within the definition of the HVAC Work for which Tenant shall pay a proportionate share as provided above.

(c) By deleting the last sentence of Section 2.03 and inserting the following in lieu thereof:

Landlord and Tenant shall reasonably cooperate with each other in scheduling work with the objective that the portion of the Landlord Improvements consisting of the (i) Demolition Work, (ii) the Roof Work, (iii) the portion of the HVAC Work consisting only of the acquisition of the HVAC Equipment the placement thereof in the locations specified in the HVAC Plans, and (iv) the electric service upgrade, all be completed by June 1, 2007 and that the remainder of the Landlord Improvements and all of the Tenant Improvements be completed by August 1, 2007. Landlord shall proceed with all due diligence, consistent with the joint construction schedule agreed upon by Landlord and Tenant, to complete the remainder of the Landlord Improvements following the Commencement Date.

(d) By deleting the definition of "Commencement Date" in Article 1 and replacing it with the following:

"Commencement Date" shall mean the date on which Landlord tenders possession of the Premises to Tenant with the following substantially complete such that only minor items which would not hinder the prosecution of the work comprising the Tenant's Improvements remain to be completed: (i) the Demolition Work, (ii) the

Roof Work, and (iii) the portion of the HVAC Work consisting only of the acquisition and placement of the HVAC Equipment in the locations as specified in the HVAC Plans and (iv) the electric service upgrade. Tenant agrees to accept possession of the Premises on the Commencement Date.

(e) By deleting the definition of "Rent Commencement Date" in Article 1 and replacing it with the following:

"Rent Commencement Date" shall mean the later of (i) the date which is sixty (60) days after the Commencement Date, and (ii) the date Landlord substantially completes the Landlord Improvements, provided that (iii) the Rent Commencement Date shall in no event be earlier than August 1, 2007 and (iv) in the event the Commencement Date, but for the provisions of this clause (iv), is later than June 1, 2007 but Landlord's failure to complete any of Landlord's Improvements which are a precondition to the occurrence of the Commencement Date does not result in any delay in the completion by Tenant of Tenant's Improvements, the Commencement Date shall be deemed to have occurred on June 1, 2007. Notwithstanding the foregoing to the contrary, if Tenant opens for business in the Premises on or after August 1, 2007, and the Rent Commencement Date has not otherwise previously occurred, the Rent Commencement Date shall be deemed to have occurred on the date Tenant opens for business in the Premises.

(f) By deleting the definition of "Term" in Article 1 and replacing it with the following:

"Term" shall mean the period commencing on the Commencement Date and ending ten (10) years after the Rent Commencement Date (the "Initial Term"), as extended or sooner terminated pursuant to the terms of this Lease (See Article 2).

(g) By adding the following definitions in Article 1, in alphabetical order:

"Demolition Work" shall have the definition set forth in Section 12.05.

"Electrical Upgrade" shall have the definition set forth in Section 12.05.

"HVAC Work" shall have the definition set forth in Section 12.05.

"Roof Work" shall have the definition set forth in Section 12.05.

(h) By changing the amount of the "Tenant Allowance" as set forth in Exhibit D, Section 1 of the Lease to equal the sum of (a) up to $35.00 per square foot of Rentable Area of the ground floor portions of the Premises (i.e. $1,856,400 subject to adjustment in the event of a re-measurement) but excluding space leased pursuant to a Right of First Offer and (b) the amount of $271,000.

(i) By adding the following sentence at the end of the first paragraph of Exhibit D of the Lease: “Tenant agrees to install or cause to be installed, as part of the Tenant Improvements, restrooms in the Premises in accordance with the architectural bid set plans prepared by TPG dated January 15, 2007, as amended for removal of two (2) sinks from both women’s and men’s rooms and reduced tiles on the walls.”

2. Landlord and Tenant shall both have access to the Premises from and after the date of this Amendment for purposes of completing the Landlord Improvements and the Tenant Improvements. Both parties shall work together in good faith to coordinate their work and avoid interference with the other’s work. When schedules overlap and cannot be adjusted without incurring material additional costs, Landlord shall have priority rights prior to June 1, 2007 and Tenant shall have priority rights thereafter.

3. Annual increases in Base Rent as set forth in Exhibit B shall occur on anniversaries of the Rent Commencement Date.

4. Except as amended or modified herein, the Lease shall remain in full force and effect and is hereby ratified and confirmed as amended by this Second Amendment to Lease.

5. This Second Amendment to Lease may be executed in multiple counterparts, each of which shall constitute an original but all of which taken together shall constitute but one and the same instrument.

6. This Second Amendment may be executed by facsimile signatures, which the parties agree are to be treated as original signatures for all purposes.

IN WITNESS WHEREOF, this Second Amendment to Lease has been executed on behalf of Landlord and Tenant as of the date first above written.

LANDLORD

SHELTON PARROTT
ASSOCIATES, L.L.C.

By: Cambridge Hanover, L.P.,
Manager

By: Cambridge Hanover, Inc.
General Partner

By: _____
Jonathan P. Garrity
President & CEO

Date: 2/20/07

TENANT

CARA THERAPEUTICS, INC.

By: _____
Print Name: DEREK CHALMERS
Print Title: PRESIDENT

Date: 2/15/07

EXHIBIT A

	Demo Plan Key Notes	Responsibility
1.	Existing CMU partition to be removed. Protect existing columns, roof leaders, structure & bearing walls during demolition.	By Landlord, except lower right corner of plan (mezzanine area) which will be done at a later time by Tenant.
2.	Existing Mezzanine and stair to be removed	To be done at a later time by Tenant.
3.	Existing sprinkler riser to remain	NA
4.	Existing roll down gate to be removed	To be done at a later time with the new doors by Tenant.
5.	Existing storefront system to be removed	By Landlord
6.	Existing exterior transformer and elec. Panel to be removed and relocated	To be done at a later time by Landlord.
7.	Existing roof access door and ladder to be removed	To be done at a later time (removal) by Tenant. To be relocated at a later time by Landlord.
8.	Typical existing electric panels to be removed	By Landlord
9.	Typical existing light fixtures to be removed	By Landlord
10.	Existing plumbing fixtures to be removed	Toilets to be removed and capped by Landlord.
11.	Entire existing finished flooring (VCT, ETC) to be removed	By Landlord
12.	Cut new door opening	To be done at a later date by Tenant
13.	All existing ductwork shall be removed	By Landlord
14.	Typical new masonry openings for new windows	By Landlord
15.	Existing electrical panels to remain	NA
16.	Existing switch gear to remain	NA
17.	Existing column enclosure to be removed	By Landlord
18.	Existing fan, electrical wiring, and louver to be removed	To be done at a later time by Tenant
19.	Existing light fixture and sprinkler heads to remain	NA
20.	Typical trench slab to depth and width as required by new plumbing; includes backfill and concrete but not piping	By Landlord except Tenant to furnish and install all pipe
21.	New masonry wall (bracing)	By Landlord

EXHIBIT B

COPY OF ROOF WARRANTY

(To Be Attached)

RED SHIELD WARRANTY

ROOFING SYSTEM LIMITED WARRANTY

Warranty No: _____ FBPCO # _____ Square Footage: _____

Building Owner: _____

Building Identification: _____

Building Address: _____

SAMPLE

Warranty Period Of: _____ Years, Beginning On: _____

Roofing Contractor: _____

For the warranty period indicated above, Firestone Building Products Company ("Firestone"), a division of BFS Diversified Products, LLC, a Delaware limited liability company, warrants to the Building Owner ("Owner") above that Firestone will, subject to the Terms, Conditions and Limitations set forth below, repair any leak in the Firestone Roofing System ("System").

TERMS, CONDITIONS AND LIMITATIONS

1. The System is limited to mean the Firestone brand membranes, Firestone brand insulation, and other Firestone brand accessories when installed in accordance with Firestone technical specifications.
2. In the event any leak should occur in the System: (a) The Owner must give written notice to Firestone within thirty (30) days of any occurrence of a leak. By so notifying Firestone, the Owner authorizes Firestone or its designee to investigate the cause of the leak. (b) If upon investigation, Firestone determines that the leak is not excluded under the Terms, Conditions and Limitations set forth in this limited warranty, the Owner's sole and exclusive remedy and Firestone's liability will be limited to the repair of the leak. (c) Should the investigation reveal that the leak is excluded under the Terms, Conditions and Limitations, the Owner is responsible for payment of the investigation costs. Failure by Owner to pay for these costs shall render this Red Shield Roof System Limited Warranty ("Limited Warranty") null and void. Firestone will advise the Owner of the type and/or extent of repairs required to be made at the Owner's expense that will permit this Limited Warranty to remain in effect for the unexpired portion of its term. Failure by the Owner to properly make these repairs in a reasonable manner using a Firestone licensed applicator and within a reasonable time shall render this Limited Warranty null and void. (d) Any dispute, controversy or claim between the Owner and Firestone concerning this Limited Warranty shall be settled by mediation. In the event that the Owner and Firestone do not resolve the dispute, controversy or claim in mediation, the Owner and Firestone agree that neither party will commence or prosecute any suit, proceeding, or claim other than in the courts of Hamilton County in the state of Indiana or the United States District Court, Southern District of Indiana, Indianapolis Division. Each party irrevocably consents to the jurisdiction and venue of the above-identified courts.
3. Firestone shall have no obligation under this Limited Warranty unless and until Firestone and the licensed applicator have been paid in full for all materials, supplies, services, warranty costs and other costs which are included in, or incidental to, the System.
4. Firestone shall have no obligation under this Limited Warranty, or any other liability, now or in the future if a leak or damage is caused by: (a) Natural forces, disasters, or acts of God including, but not limited to, winds in excess of 55 MPH, hurricanes, tornadoes, hail, lightning, earthquakes, atomic radiation, insects, or animals; (b) Any act(s), conduct or omission(s) by any person, or act(s) of war, which damages the System or which impairs the System's ability to resist leaks; (c) Failure by the Owner to use reasonable care in maintaining the System, said maintenance to include, but not limited to those items listed on the reverse side of this Limited Warranty titled "Building Envelope Care and Maintenance Guide"; (d) Deterioration or failure of building components, including, but not limited to, the roof substrate, walls, mortar, HVAC units, etc.; (e) Condensation or infiltration of moisture in, through, or around the walls, copings, rooftop hardware or equipment, building structure or underlying or surrounding materials. Firestone specifically excludes any damage to the Firestone insulation or roof system that may come from moisture within the roof deck or existing roof system. (f) Any acid, oil, harmful chemical, chemical or physical reaction and the like which comes in contact with the System, which damages the System, or which impairs the System's ability to resist leaks; (g) Alterations or repairs to the System not approved in writing by Firestone; (h) The architecture, engineering, construction or design of the roof, roofing system, or building. Firestone does not undertake any analysis of the architecture or engineering required to evaluate what type of roof system is appropriate; (i) A change in building use or purpose; (j) Failure to give proper notice as set forth in paragraph 2(a) above.
5. This Limited Warranty shall be transferable subject to Firestone inspection, written approval, and payment of the current transfer fee.
6. During the term of this Limited Warranty, Firestone, its designated representative or employees shall have free access to the roof during regular business hours. In the event that roof access is limited due to security or other restrictions, Owner shall reimburse Firestone for all reasonable costs incurred during inspection and/or repair of the System that are due to delays associated with said restrictions. Owner shall be responsible for the removal and replacement of any overburdens, superstrata or overlays, either permanent or temporary, excluding accepted stone ballast or pavers, as necessary to expose the system for inspection and/or repair.
7. Firestone's failure to enforce any of the terms or conditions stated herein shall not be construed as a waiver of such provision or of any other terms and conditions of this Limited Warranty.
8. This Limited Warranty shall be governed and construed in accordance with the laws of the State of Indiana without regard to conflict of laws.

FIRESTONE DOES NOT WARRANT PRODUCTS INCORPORATED OR UTILIZED IN THIS INSTALLATION WHICH IT HAS NOT FURNISHED. FIRESTONE SPECIFICALLY DISCLAIMS LIABILITY, UNDER ANY THEORY OF LAW, ARISING OUT OF THE INSTALLATION OR PERFORMANCE OF, OR DAMAGES SUSTAINED BY OR CAUSED BY, PRODUCTS NOT FURNISHED BY FIRESTONE. THIS LIMITED WARRANTY SUPERSEDES AND IS IN LIEU OF ALL OTHER WARRANTIES OR GUARANTEES WHETHER WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THIS LIMITED WARRANTY SHALL BE THE OWNER'S SOLE AND EXCLUSIVE REMEDY AGAINST FIRESTONE, AND FIRESTONE SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL, INCIDENTAL OR OTHER DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR DAMAGE TO THE BUILDING OR ITS CONTENTS OR THE ROOF DECK. THIS LIMITED WARRANTY CANNOT BE AMENDED, ALTERED OR MODIFIED IN ANY WAY EXCEPT IN WRITING SIGNED BY AN AUTHORIZED OFFICER OF FIRESTONE. NO OTHER PERSON HAS ANY AUTHORITY TO BIND FIRESTONE WITH ANY REPRESENTATION OR WARRANTY WHETHER ORAL OR WRITTEN.

FIRESTONE BUILDING PRODUCTS COMPANY

By: _____

Authorized Signature: _____ **SAMPLE**

Title: _____

Firestone

BUILDING ENVELOPE CARE AND MAINTENANCE GUIDE
(Recommendations for Buildings with Firestone Red Shield Limited Warranty)

Congratulations on your purchase of a Firestone Roofing System for your building! Your building is a valuable asset and as such should be properly maintained. All building envelope components require periodic attention to perform as designed and to protect your investment.

1. The building envelope, including the roof, should be inspected at least twice yearly (in the Spring and Fall), and after any severe storms. Record maintenance procedures as they occur. Log all access times and parties working on the roof.

2. Although Firestone roofing membranes are designed to accommodate moderate levels of standing water, the weight of standing water, ice or snow on a roof may exceed building structural design loads. As a consequence, good roofing practice suggests that water not be allowed to remain on the roof for more than 48 hours after a rainfall. Roofs should have slope to drain and all drain areas should remain clean. Bag and remove all debris from the roof since such debris can be quickly swept into drains by rain. This will allow for proper water run-off and avoid overloading the roof with standing water.

3. The Firestone Roofing System should not be exposed to acids, solvents, greases, oil, fats, chemicals and the like. If the Firestone Roofing System is subject to contact with any such materials, contact Firestone immediately.

4. The Firestone Roofing System is designed to be a waterproofing component — not a traffic-bearing component — of the building envelope. If there is to be roof traffic for any reason, contact Firestone or your Firestone Licensed Applicator for the Installation of acceptable protective walkways.

5. Although periodic inspection is recommended to assure that building components have not been subjected to unusual forces or conditions, the Firestone Roofing System components do not require maintenance under normal service in order to perform as designed or to keep this Limited Warranty in effect. Surfacings, such as coatings, are sometimes applied to roof membranes for a number of reasons. These surfacings are not covered under the terms of this limited warranty, although they may be covered under a separate agreement.

    a) The application of an approved liquid coating, such as Firestone's Acrylic Coating System for Asphalt or Aluminum Roof Coating to smooth surfaced APP membranes provides additional protection from the environment. If this coating is not applied as part of the Initial roofing installation, it should be applied within the first five years after the roof is installed to help protect the membrane from surface cracking inherent in such asphalt products. In addition, this coating should be maintained as needed to recover any areas of the coating that have blistered, peeled or worn through.

    b) Granular surfaced APP and SBS membranes do not normally require surface maintenance other than periodic inspection for contaminants (See Item 3.) or damage. If areas of granular loss are discovered during inspection, new granules should be broadcast into hot asphalt or emulsion to protect the surface of the membrane. The application of an approved liquid coating, such as Firestone's Acrylic Coating System for Asphalt or Aluminum Roof Coating to granular surfaced APP or SBS membranes does provide additional protection from the environment. If this coating is not applied as part of the initial roofing installation, it can be applied later to help protect the membrane. If installed, this coating should be maintained as needed to recover any areas of the coating that have blistered, peeled or worn through.

    c) Gravel surfaced BUR membranes do not normally require surface maintenance other than periodic inspection for contaminants (See Item 3) or damage. If areas of gravel loss are discovered during Inspection, gravel must be reinstalled into hot asphalt to protect the surface of the membrane. Smooth surface BUR membranes must be kept coated using original coating materials for the life of this warranty.

    d) EPDM and other single-ply roofing membranes do not normally require surface maintenance other than periodic inspection for contaminants (See Item 3.) or damage. Occasionally, approved liquid roof coatings, such as Firestone AcryliTop, are applied to the surface of EPDM membranes in order to provide a lighter surface color. Such coatings do not need to be maintained to assure the performance of the underlying EPDM roof membrane, but some maintenance and re-coating may be necessary in order to maintain a uniform surface appearance.

6. All counterflashing, metal work, drains, skylights, equipment curb and supports, and any other rooftop accessories functioning in conjunction with the Firestone Roofing System must be properly maintained at all times.

7. If any additional equipment is to be installed on your roof (e.g. HVAC units, TV antennas, etc.), contact Firestone, in writing, for approval before proceeding.

8. Should there be an addition to the building, requiring tie-in to the existing Firestone Roofing System, contact Firestone before proceeding to ensure the tie-in is in accordance with Firestone specifications.

9. Should you have a problem:

    a. Check for the obvious: clogged roof drains, loose counterflashings, broken skylights, open grills or vents, broken water pipes.

    b. Note conditions resulting in leakage. Heavy or light rain, wind direction, temperature and time of day that the leak occurs are all-important clues to tracing roof leaks. Note whether the leak stops shortly after each rain or continues to drip until the roof Is dry. If you are prepared with the facts, the diagnosis and repair of the leak can proceed more rapidly.

    c. Contact Firestone Warranty Claims at 1-800-830-5612 immediately…but please don't call until you are reasonably sure that the Firestone Roofing System is the cause of the leak.

Firestone feels that the preceding recommendations will assist you, the building owner, in maintaining your building for many years. Remember, your building is an investment. To maximize your return on this investment, appropriate care is essential.

Firestone
BUILDING PRODUCTS
NOBODY COVERS YOU BETTER.™

310 East 96th St., Indianapolis, IN 46240
1-800-428-4442 — 1-317-575-7000 — Fax 1-317-575-7100
www.firestonebpco.com

01/06 — Item #815 (Replaces 02/04)-01

THIRD AMENDMENT TO LEASE

This THIRD AMENDMENT TO LEASE is dated as of November 30, 2007, by and between SHELTON PARROTT ASSOCIATES, L.L.C. (the "Landlord"), and CARA THERAPEUTICS, INC. (the "Tenant").

WITNESSETH:

WHEREAS, by that certain Lease (as amended, the "Lease") dated as of September 18, 2006, by and between Landlord and Tenant, Landlord leased to Tenant and Tenant leased from Landlord the Premises as more particularly described and defined in the Lease and which is located at One Parrott Drive, Shelton, Connecticut; and

WHEREAS, the Lease has been amended by a First Amendment to Lease dated September 25, 2006 and by Second Amendment to Lease dated February 15, 2007, and the parties have executed a Commencement Date Agreement dated September 4, 2007 pursuant to which the Rent Commencement Date was confirmed by Landlord and Tenant as October 15, 2007; and

WHEREAS, Landlord and Tenant have agreed to replace "Exhibit B" to the Lease for the purpose of correcting certain arithmetic errors therein.

NOW, THEREFORE, for and consideration of the premises, the sum of $10.00 cash in hand paid and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto do hereby agree as follows:

1. The Lease is amended by deleting the document attached to the Lease as "Exhibit B" (Schedule of Base Rent) and replacing it with the document attached to this Third Amendment as "Exhibit B".

2. Except as amended or modified herein, the Lease shall remain in full force and effect and is hereby ratified and confirmed as amended by this Third Amendment to Lease.

3. This Third Amendment to Lease may be executed in multiple counterparts, each of which shall constitute an original but all of which taken together shall constitute but one and the same instrument.

4. This Third Amendment may be executed by facsimile signatures, which the parties agree are to be treated as original signatures for all purposes.

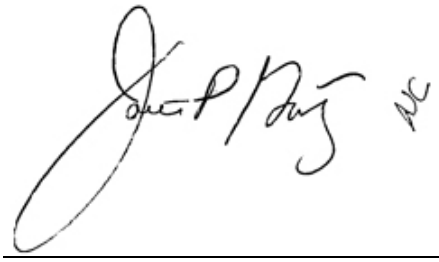
IN WITNESS WHEREOF, this Second Amendment to Lease has been executed on behalf of Landlord and Tenant as of the date first above written.

LANDLORD

SHELTON PARROTT
ASSOCIATES, L.L.C.

By: Cambridge Hanover, L.P.,
Manager

By: Cambridge Hanover, Inc.
General Partner



By: _____
Jonathan P. Garrity
President & CEO

Date: 12/6/07

TENANT

CARA THERAPEUTICS, INC.

By: _____
Print Name: DEREK CHALMERS
Print Title: PRESIDENT

Date: 12/3/07

EXHIBIT B
Schedule of Base Rent

Lease Year	Premises Base Rent (Per Rentable Sq. Ft.)	Premises Base Rent (Annual)	Base Rent (Monthly)
10/15/07 - 10/14/08	13.50	716,040.00	59,670.00
10/15/08 - 10/14/09	13.91	737,521.20	61,460.10
10/15/09 - 10/14/10	14.32	759,646.84	63,303.90
10/15/10 - 10/14/11	14.75	782,436.25	65,203.02
10/15/11 - 10/14/12	15.19	805,909.34	67,159.11
10/15/12 - 10/14/13	15.65	830,086.62	69,173.89
10/15/13 - 10/14/14	16.12	854,989.22	71,249.10
10/15/14 - 10/14/15	16.60	880,638.90	73,386.58
10/15/15 - 10/14/16	17.10	907,058.07	75,588.17
10/15/16 - 10/13/17	17.61	934,269.81	77,855.82

LICENSE AGREEMENT

THIS LICENSE AGREEMENT (this "***Agreement***") is made and entered into effective as of April 4, 2013 (the "***Effective Date***") by and between **MARUISHI PHARMACEUTICAL CO., LTD,** having its place of business at 4-2, Imazu-Naka 2-Chome, Tsurumi-Ku, Osaka, 538-0042 Japan ("***Maruishi***"), and **CARA THERAPEUTICS, INC.**, a Delaware corporation with a principal place of business at One Parrott Drive, Shelton, CT 06484 ("***Cara***"). Cara and Maruishi may be referred to herein individually as a "Party", and collectively as the "Parties."

RECITALS

WHEREAS, Cara owns or controls certain patent rights and know-how relating to a proprietary drug product referred to as CR-845, which may be useful for treating pain and uremic pruritus in humans, and is developing an IV formulation of such product, and intends to develop tablet and injectable formulations of the product, to the extent commercially and scientifically feasible; and

WHEREAS, Maruishi has capabilities in the development, and commercialization of pharmaceutical compounds; and

WHEREAS, Maruishi desires to obtain from Cara, and Cara is willing to grant to Maruishi, the exclusive license to develop, manufacture, and commercialize drug products containing CR-845 in Japan, on the terms and conditions set forth herein; and

WHEREAS, Maruishi desires to obtain from Cara, and Cara is willing to supply to Maruishi, amounts of CR-845 (up to its requirements) in the form of bulk active pharmaceutical ingredient and/or in the form of the Finished Product (it is expected that the Finished Product will include an injectable formulation and an oral tablet formulation, as developed), for use in the development and commercialization in the licensed Territory, on the supply terms and conditions as set forth herein and in a supply agreement to be negotiated by the Parties;

NOW, THEREFORE, based on the premises and the mutual covenants and obligations set forth below, and intending to be bound hereby, the Parties agree as follows:

ARTICLE 1

DEFINITIONS

For purposes of this Agreement, the following capitalized terms shall have the meanings as set forth below when used in this Agreement:

1.1 *"Affiliate"* means, with respect to a Party, an entity that, directly or indirectly, through one or more intermediaries, controls, is controlled by or is under common control with such Party. For purposes of this definition, "control" means (with correlative meanings for the terms "controlled by" and "under common control with") the possession, direct or indirect, of the power to cause the direction of the management and policies of the applicable entity, whether through ownership of fifty percent (50%) or more of the voting securities of such entity, by contract or otherwise. An entity will be an Affiliate for purposes of this Agreement only so long as it satisfies the definition set forth above in this Section.

1.2 *"Applicable Laws"* means all laws, statutes and governmental rules and regulations, guidelines, notification of the Regulatory Authority and Regulatory Approval applicable to any of the activities conducted under this Agreement.

1.3 *"API Supply Price"* means, as to a particular Licensed Product sold by Maruishi (or its Affiliate), actual cost of the CR-845 API in such Licensed Product (based on the Transfer Price charged by Cara for the applicable batch or lot of CR-845 API included in such Licensed Product).

1.4 *"Business Day"* means a day on which banks are generally open for business in Japan.

1.5 *"Cara Indemnitees"* shall have the meaning ascribed to such term in Section 10.2.

1.6 *"CR-845"* means the kappa opioid receptor agonist compound of Cara known as CR-845 having the chemical structure set forth in Exhibit A of this Agreement, [*] of CR845.

1.7 *"CR-845 API"* means CR-845 in bulk active pharmaceutical ingredient form, ready for formulation into final drug product.

1.8 *"Claim"* means any claim, allegation, suit, complaint, action or legal proceeding.

1.9 *"COGs"* has the meaning ascribed to such term in Section 6.4(a).

1.10 *"Commercialize"* or ***"Commercialization"*** means those activities relating to the promotion, marketing, distribution and/or sale of Licensed Products, including Phase IV Trials or equivalent clinical trials conducted following Regulatory Approval to market a pharmaceutical product.

1.11 *"Commercially Reasonable Efforts"* means, with respect to specific tasks or activities conducted under this Agreement, the level of efforts and resources commonly used in the pharmaceutical industry to conduct such tasks or activities with respect to products at a similar stage (to the applicable Licensed Product) in its product life and of similar market potential, based on information and conditions then-prevailing.

1.12 *"Confidential Information"* of a Party means all confidential or proprietary Information received or otherwise obtained by the other Party from such Party or its Affiliates pursuant to this Agreement, *but excluding* any specific Information that:

(a) is now, or hereafter becomes, generally available to the public through no fault of the receiving Party, or its Affiliates, or any entity that obtained such information or materials from the disclosing Party;

(b) the receiving Party or its Affiliates already possesses, as evidenced by its written records, prior to receipt thereof from the disclosing Party;

(c) is obtained without restriction from a Third Party that had the legal right to disclose the same to the receiving Party or its Affiliates; or

(d) has been independently developed by the receiving Party or its Affiliates without the aid, application or use of any Confidential Information of the disclosing Party, as demonstrated by competent written proof.

1.13 *"Control"* means, with respect to any material, item of Information, or intellectual property right, the possession (whether by ownership or license, other than by a license granted pursuant to this Agreement) by a Party or its Affiliate of the ability to grant to the other Party access to use, ownership, a license and/or a sublicense as provided for in this Agreement under such item or right without violating the terms of any agreement or other arrangement with any Third Party as of the time such Party would first be required hereunder to grant the other Party such access, ownership, license, or sublicense (as applicable).

1.14 *"Dollar" or "$"* means a United States dollar.

1.15 *"Drug Product"* means the finished dosage form that contains CR-845 API, generally, but not necessarily, in association with other active or inactive ingredients, and not necessarily labeled or packaged.

1.16 *"Exclusivity Period"* means the period commencing on first commercial sale of Licensed Product in the Territory and ending on the date that is the later of: (a) expiration of all Licensed Patent Rights having composition of matter claims (including those patents and applications set forth in the Exhibit B attached hereto), or (b) expiration of all pharmaceutical or data exclusivity with respect to Licensed Product in the Territory under the applicable pharmaceutical regulations.

1.17 *"FDA"* means the United States Food and Drug Administration, or any successor thereto.

1.18 *"Field of Use"* means use in the treatment of acute pain and/or uremic pruritus, or any additional indication added to the scope of this defined term pursuant to Section 2.8_.

1.19 *"Finished Product"* means a Licensed Product in final form ready for commercial sale, in primary packaging.

1.20 *"Finished Product Manufacturing Cost"* means, with respect to a particular Licensed Product, the actual costs of Maruishi to make Finished Product form of such Licensed Product, but excluding the cost of the CR-845 API in such product and any Royalty Amount.

1.21 "***GAAP***" means United States generally accepted accounting principles.

1.22 *"IND"* means an Investigational New Drug application, as defined in 21 C.F.R. 312 or any successor regulation, or the equivalent application to the Regulatory Authority in the Territory.

1.23 *"Indemnified Party"* shall have the meaning ascribed to it in Section 10.3.

1.24 "Indemnifying Party" shall have the meaning ascribed to it in Section 10.3.

1.25 *"Information"* means any and all data, results, improvements, processes, methods, protocols, formulas, inventions, know-how, trade secrets and any other information, patentable or otherwise, which may include (but is not limited to) scientific, research and development, manufacturing know-how, pre-clinical, clinical, regulatory, manufacturing, safety, marketing, financial and commercial information or data.

1.26 *"Launch Date"* means the date on which a Licensed Product is first sold by Maruishi to a Third Party in the Territory, after Regulatory Approval for the Licensed Product has been granted in such country.

1.27 "License Fee" shall have the meaning ascribed to it in Section 6.1.

1.28 *"Licensed Know-How"* means the Information that (a) is Controlled by Cara or its Affiliate, and (b) relates to Licensed Product and CR-845 API and is reasonably needed for the research, development, manufacture, use, or sale of Licensed Product and research, development, manufacture and use of CR-845 API in the Field of Use in the Territory. For the avoidance of any doubt, "*Licensed Know-How*" includes the foregoing Information as existing on Effective Date and also during the Term of the Agreement.

1.29 *"Licensed Patent Rights"* means:

(a) the patents and patent applications set forth in **Exhibit B,** plus any and all future patents and patent applications in the Territory that are Controlled by Cara and claim CR-845 or Licensed Product or their manufacture or use, including as described in subclauses (c) – (d) below;

(b) any and all patent applications that are continuations or divisionals of the patent applications described in (a) above;

(c) any and all issued and unexpired patents resulting from any of the applications described in (a) or (b) above; and

(d) any and all issued and unexpired reissues, reexaminations, renewals, or term extensions of any of the patents described in (a), (b) or (c) above.

1.30 *"Licensed Product"* means any pharmaceutical preparation containing CR-845 intended for use in the Field of Use, including intravenous, oral, transdermal, subcutaneous or any other suitable pharmaceutical formulation.

1.31 *"Licensed Technology"* means the Licensed Patent Rights and Licensed Know-How.

1.32 *"Losses"* means costs and expenses (including, without limitation, reasonable legal expenses and attorneys' fees), judgments, liabilities, fines, damages, assessments and/or other losses.

1.33 "***Marketing Approval Application***" means the appropriate application or registration submitted to the appropriate Regulatory Authority in the Territory to seek Regulatory Approval.

1.34 *"Maruishi Product Data"* means all data and other results generated in any clinical trials or other studies on a Licensed Product conducted by or on behalf of Maruishi or its Affiliate.

1.35 *"Maruishi Indemnitees"* shall have the meaning ascribed to such term in Section10.1.

1.36 *"Maruishi Know-How"* means any know-how, trade secret, experimental data, formula, experimental procedure, pre-clinical and clinical data and other confidential and/or proprietary information that (a) is Controlled by Maruishi or its Affiliates, and (b) is necessary or useful for the research, development, use, manufacture or sale of CR-845 and/or Licensed Product, including all Information made, generated, identified or discovered by or on behalf of Maruishi (or its Affiliate or Sublicensee) pursuant to work conducted under this Agreement.

1.37 *"Maruishi Patent"* means any patent or patent application that (a) is Controlled by Maruishi or its Affiliates, and (b) claims or covers the research, development, use, manufacture or sale of CR-845 and/or a Licensed Product, including all patent rights covering or claiming inventions made, generated, identified or discovered by or on behalf of Maruishi (or its Affiliate or Sublicensee) pursuant to work conducted under this Agreement.

1.38 *"Maruishi Technology"* means the Maruishi Know-How and the Maruishi Patents (or any part of aspect thereof).

1.39 *"Net Sales"* means, with respect to Licensed Product sold or otherwise disposed of by or for Maruishi and its Affiliates and Sublicensees to customers (such as drug wholesalers, group purchase organization or other organizations playing a similar role, hospitals, a group hospitals, and other institutions whose primary business is providing medical care) in the applicable time period, the amount equal to: (a) the greater of (i) [*], or (ii) [*], less (b) the sum of the following deductions to the extent actually allowed or incurred with respect to such sales or other commercial disposition: (i) [*]; (ii) [*], (iii) [*], (iv) [*], (v) [*], and (vi) [*].

All of the sales, and deductions taken above, shall be determined consistent with J-GAAP (GAAP in Japan).

Any disposal of Licensed Products for, or use of Licensed Products in, clinical or pre-clinical trials without charge, given as free samples, including sample cards, or distributed for indigent programs shall not be included in Net Sales.

Upon any sale or other disposal of any Licensed Product that should be included within Net Sales for any consideration other than an exclusively monetary consideration on bona fide arm's-length terms, then for purposes of calculating the Net Sales under this Agreement, such Licensed Product shall be deemed to be sold exclusively for money [*].

1.40 *"NHI Price"* means, with respect to a Licensed Product sold or otherwise commercialized, the [*] for such product.

1.41 *"Other Licensees"* has the meaning ascribed to such term in Section 3.6.

1.42 *"Phase IV Trial"* means a clinical trial of a pharmaceutical product initiated in a country in an approved indication after receipt of Regulatory Approval for such product in such indication in such country, to delineate additional information about such product's risks, benefits and optimal use.

1.43 *"Regulatory Approval"* means any approvals (including supplements, amendments, pre- and post-approvals and price approvals), licenses, registrations or authorizations of any national, regional, state or local regulatory agency, department, bureau, commission, council or other governmental entity, necessary for the manufacture, marketing, distribution, use or sale of a Licensed Product in the Territory.

1.44 *"Regulatory Authority"* means any regulatory agency, department, bureau, commission, council or other governmental entity involved in granting approvals for the development, manufacturing, marketing, reimbursement and/or pricing of a Licensed Product in the Territory.

1.45 *"Regulatory Documents"* means all regulatory documents and filings, correspondence with Regulatory Authorities, annual reports and amendments thereto related to a Licensed Product.

1.46 "***Royalty Amount"*** means, with respect to a particular Licensed Product sold commercially in the Territory, the actual amount (in Japanese Yen) payable by Maruishi to Cara as royalty on such sale pursuant to Section 6.3.

1.47 "***Royalty Term"*** means, with respect to a particular Licensed Product (on a Licensed Product-by-Licensed Product basis), the period from the Launch Date of the particular Licensed Product in the Territory until the later of: (i) expiration of the last–to-expire Valid Claim covering such Licensed Product, or (ii) expiration of any market exclusivity period granted by a Regulatory Authority with respect to such Licensed Product in the Territory (e.g., "data" exclusivity periods).

1.48 "***Specifications***" means the specifications for CR-845 API approved by FDA, as established by Cara in consultation with Maruishi.

1.49 ***"Sublicensee"*** means an entity to which Maruishi has granted a sublicense as permitted in Section 2.1, with Cara's prior written approval.

1.50 ***"Supply Agreement"*** means the supply agreement entered into by the Parties regarding supply to Maruishi of CR-845 API, as contemplated in Section 5.1.

1.51 *"Tax Authority Acceptance"* means that all necessary documents under the U.S.-Japan Tax Treaty have been filed with, and accepted for filing by, the tax authority in Japan.

1.52 "***Term***" means the term of this Agreement as set forth in Section 12.1.

1.53 ***"Territory"*** means Japan.

1.54 ***"Third Party"*** means any person, company or other business entity other than Cara or Maruishi or an Affiliate of either of them.

1.55 ***"Trademark"*** means any trade name, service mark, logo or trademark (whether or not registered), together with all goodwill associated therewith, and any renewals, extensions or modifications thereto.

1.56 ***"Transfer Price"*** means, as to a particular batch or lot of CR-845 API sold to Maruishi under the Supply Agreement, the price charged by Cara (on a per unit basis) for such CR-845 API.

1.57 "***Valid Claim***" means an unexpired claim of an issued patent within the Licensed Patent Rights that (a) has not been found to be unpatentable, invalid or unenforceable by a court or other authority in the country of the patent, from which decision no appeal is taken or can be taken, and (b) claims or covers CR-845 or Licensed Product.

ARTICLE 2

LICENSES AND RELATED RIGHTS

2.1 License Grant. Subject to the terms and conditions of this Agreement, Cara hereby grants to Maruishi an exclusive (even as to Cara and its Affiliate) license, including the right to grant sublicenses to Sublicensees *provided that* Maruishi obtains Cara's prior written approval of the sublicense grant and the sublicensee (such approval not to be unreasonably withheld), under the Licensed Patent Rights and the Licensed Know-How solely to research, develop, manufacture, have manufacture, use, sell, have sold, offer for sale and import Licensed Products within the Field of Use in the Territory during the Term. For the avoidance of any doubt, the above license includes Maruishi's right to import CR-845 API manufactured and supplied by Cara, pursuant to the Supply Agreement, and to manufacture (formulate) or have manufactured (formulated) the Licensed Product in finished form from thus imported CR-845 API solely for development and commercialization in the Field of Use in the Territory. As provided in the Supply Agreement, the timing of orders and quantities of CR-845 API that Maruishi orders and imports is up to Maruishi's reasonable decision (that is, at least six (6) months prior written notice to Cara). Unless and until Maruishi decides to import CR-845 API, Cara will use reasonable efforts to supply Maruishi with its requirements of the Licensed Product in finished form, pursuant to the supply terms of the Supply Agreement (as discussed in Section 5.1 below). Cara shall use Commercially Reasonable Efforts to obtain Control of the Information relating to Licensed Product generated by Cara licensees and sublicensees so that such Information will be part of the Licensed Know-How.

2.2 Manufacturing License. Subject to the terms and conditions of this Agreement, Cara grants to Maruishi the non-exclusive license, with the right to sublicense *provided that* Maruishi obtains Cara's prior written appro*val of the sub*license grant and the sublicensee (such approval not to be unreasonably withheld), under the applicable Licensed Rights solely to manufacture or have manufactured the CR-845 API, in the Territory or outside the Territory, as needed for Maruishi to manufacture or have manufactured, using this manufactured CR-845 API, its requirements of the Licensed Product for commercialization solely within the Field of Use in the Territory during the Term. Thus manufactured Licensed Product shall be devoted solely for development, use and sale in the Field of Use in the Territory during the Term. The foregoing rights are subject to the terms of Section 5.3 of this Agreement.

2.3 Retained Rights. Notwithstanding the licenses granted to Maruishi pursuant to Sections 2.1 and 2.2, Cara retains all rights under the Licensed Technology: (a) to manufacture CR-845 and CR-845 API; (b) as needed to fulfill its obligations under this Agreement and the Supply Agreement; and (c) to conduct research, development, manufacturing and commercialization activities with respect to all products other than Licensed Products in the Field of Use in the Territory.

2.4 Limitations on License Rights. Maruishi hereby covenants and agrees that it shall not, and its Affiliates and Sublicensees shall not, (a) use or practice the Licensed Technology for any use or purpose other than as expressly permitted in the license granted in Section 2.1 or 2.2, or (b) develop, use, promote, market, offer for sale or sell any product containing CR-845 for any use outside of the Field of Use, or (c) market, promote or sell any Licensed Product outside the Territory, which rights are expressly and exclusively reserved to Cara. It is understood that the license granted to Maruishi under Section 2.1 of this Agreement will be the exclusive rights under Section 34-2 and Section 77 of the Patent Law of Japan (in Japanese, Kari-Sennyou Jitushi Ken and Sennyou Jitushi Ken), but such rights will be subject to all the other terms and provisions of this Agreement. It is understood that the exclusive rights under Section 34-2 and Section 77 of the Patent Law of Japan (in Japanese, Kari-Sennyou Jitushi Ken and Sennyou Jitushi Ken) needs to be registered at the Patent Office of Japan, and the registration fee will be borne by Maruishi, but Cara will render necessary assistance in this regard (i.e., affixing the representative's signature on the necessary documents and allowing Maruishi patent attorney to directly communicate with Cara's designated patent attorney in Japan.)

2.5 Limitations on Cara Territory Activities. To provide protection for the license, Cara agrees that if there is any substance or compound that is not within the scope of CR-845, but that is a kappa opioid receptor agonist and is claimed or covered by a claim in the Licensed Patents (*i.e.*, any and all substances or compounds, the manufacture, sale, etc., of which in the Territory would constitute a violation of the Licensed Patents) (such compound, an "Other Agonist"), Cara would not license such substance and compound to a third party for clinical development, promotion, sale or other commercialization in the Field of Use in the Territory. In addition, Cara agrees that Cara shall not license any ester of CR-845 to a third party for clinical development, promotion, sale or other commercialization in the Field of Use in the Territory. Further, Maruishi understands that currently Cara does not have any backup compounds to the CR-845 drug candidate. However, if, in the future, Cara ceases development of the Licensed Product and commences clinical development of an Other Agonist in the Field of Use (to act as a backup compound), then such Other Agonist being developed by Cara will be automatically included into the scope of the license as an addition to the definition of CR-845.

2.6 Maruishi License Grant. Subject to the terms and conditions of this Agreement, Maruishi hereby grants to Cara a non-exclusive, royalty-free (except as provided in Sections 2.6.1 and 8.1(c)) license (or sublicense, as applicable), with full rights to grant sublicenses through multiple tiers, under the Maruishi Product Data, the Maruishi Know-How, and the Maruishi Patents solely to research, develop, seek regulatory approval of, promote, market, use, offer for sale and sell products containing CR-845 for all purposes outside the Territory. [*].

2.6.1 Maruishi Uremic Pruritus Product Data. Notwithstanding anything herein contained to the contrary, with regard to any and all Information (including pre-clinical and clinical data) that is generated by Maruishi from or in relation to the study regarding uremic pruritus (hereinafter, "Maruishi Uremic Pruritus Product Data"), the following shall apply: Maruishi shall own such Maruishi Uremic Pruritus Product Data and shall disclose all such Information to Cara. Cara (and its licensees and sublicensees) shall have the rights to use such Maruishi Uremic Pruritus Product Data for purposes relating to the uremic pruritus indication (and other uses in the Field of Use) in connection with development and commercialization of Licensed Product outside the Territory. If Cara (or its licensee(s) and/or sublicensee(s) outside the Territory) elects to use such Maruishi Uremic Pruritus Product Data outside the Territory, then such use of the Maruishi Uremic Pruritus Product Data is subject to payment of commercially reasonable consideration for such use of the Maruishi Uremic Pruritus Product Data (reasonable for the value of the actual use made), which consideration shall be as agreed between the Parties made through the good faith, reasonable negotiation between the Parties. Notwithstanding the foregoing, Cara's (including its licensee's and sublicensee's) disclosure and submission of safety data contained in Maruishi Uremic Pruritus Product Data to any Regulatory Authority (such as FDA and EMEA) as required by the Applicable Laws shall not be subject to the payment of any consideration. Such disclosure and submission to the Regulatory Authority shall be in accordance with the second paragraph of Section 3.3.

2.7 Research Studies on Drug. The Parties agree that it may be commercially sensible to explore possible efficacy of Licensed Product for specific uses or indications outside the Field of Use. Because of the importance of maintaining a world-wide, consistent research and development program, Maruishi acknowledges and agrees that it may conduct research on Licensed Product outside the Field of Use solely with Cara's prior written consent. If Maruishi desires to conduct such research or development work, Maruishi must first provide Cara a written request, which shall include a detailed study plan (each, a "Research Plan") that sets forth in detail the research or development activities that Maruishi desires to undertake. Any such request may include the proposal that Maruishi conduct some of such research activities in collaboration with a third party (such as a university or other academic or medical institution). Cara agrees to review any such request and proposed Research Plan reasonably and in good faith, and may make comments to Maruishi on the proposal, including required changes to the proposed Research Plan. Only upon Cara providing its written approval of such research and development studies, including the Research Plan therefor, shall Maruishi have the right to conduct any research or development work on CR-845 or Licensed Product outside the Field of Use, and not before. All discoveries, results, data and information made or obtained by or on behalf of Maruishi shall be deemed Maruishi Technology. Cara would use reasonable efforts to supply the CR-845 drug for use in the approved studies, at cost plus [*]. Any such work that will be conducted by a proposed third party must be conducted pursuant to a Material Transfer Agreement to be entered into among Cara, Maruishi and the relevant third party, incorporating the following points: (a) confidentiality; (b) supply terms for the needed drug; (c) all rights to discoveries, results, data and information made or obtained by the third party belongs to Maruishi and will be deemed Maruishi Technology; and (d) restriction of research or development work to the activities described in the Research Plan.

2.8 Expansion or Change of Field of Use. If Cara conducts research and development on Licensed Product for use in treating other indications (outside of the Field of Use), then Maruishi will be granted an exclusive negotiation period for expanding the license (under Section 2.1) to cover such additional indications in the Territory (to the extent Cara has the right to grant such expansion), such negotiation period to be conducted for up to [*] after Cara gives Maruishi written notice of proof of concept ("PoC") establishment (which notice shall include reasonable detail on the results of such PoC studies). If the Parties agree on the terms for including such additional indication in the scope of this Agreement, then such terms shall be added to the Agreement by written amendment, including amending the definition of Field of Use to include use for treating such indication. If such agreement is not reached by the end of such [*] period, Cara shall not have further obligations to Maruishi regarding such indication. If Maruishi stops, for any reason, the development of Licensed Product for use in Uremic Pruritus, then [*]. The terms and conditions for such [*] shall be agreed upon through good faith negotiation between the Parties (such [*] would in no way affect the treatment of Acute Pain in the Field of Use).

ARTICLE 3

TRANSFER OF INFORMATION; DEVELOPMENT AND REGULATORY MATTERS

3.1 Product Information Transfer.

(a) Licensed Know-How. Promptly after the Effective Date, Cara will provide to Maruishi copies of the Licensed Know-How that is necessary for Maruishi to develop and seek Regulatory Approval of Licensed Product in the Territory, and of any Regulatory Documents applicable for use in the Territory and directly relating to the Field of Use, to the extent then in its possession and Control. The clinical data portion of the Licensed Know-How will be provided to Maruishi in computer-readable, SAS transport format, where practicable and available, and otherwise in printed format. All other portions of the Licensed Know-How will be provided to Maruishi in written form, electronically if reasonably practicable and otherwise in hard copy documents. Data from all clinical trials directly applicable to the Field of Use conducted by or on behalf of Cara or its assignee of this Agreement will also be provided in signed clinical study reports**.** Data relating directly to the Field of Use from any ongoing clinical trials will be provided in written reports, summaries or manuscripts where available. If, during the Term, information is identified that is Controlled by Cara or its Affiliates and was, as of the Effective Date, reasonably necessary for the development or Commercialization of Licensed Products in the Territory in the Field of Use as contemplated in this Agreement, and should be included in the Licensed Know-How provided under this Section 3.1 but was not previously

provided to Maruishi pursuant to this Section 3.1, then Cara will provide such Licensed Know-How to Maruishi promptly after such identification. For clarity, the above Information transfer includes disclosure to Maruishi by Cara of the Licensed Product data and Information obtained by Cara's future licensees (other than Maruishi), and by its current and future contracted manufacturers, to the extent Controlled by Cara. As part of the above Information transfer, Cara will also provide (and/or have Cara's contract manufacturer provide) Maruishi with quality and manufacturing information within the Licensed Know-How (e.g., process, advanced intermediate, non-API, primary container, CMC, material, equipment, and components) to be used by Maruishi solely for obtaining Regulatory Approval of Licensed Product in the Territory, for compliance with Applicable Laws, or for the manufacture of CR-845 and Licensed Product as permitted in this Agreement.

(b) Reserved Rights. Notwithstanding the disclosures in subsection (a) above, it is understood that Cara shall have and retains the full rights to use, review, access, reference and incorporate all Licensed Know-How (including all data and information in Regulatory Documents disclosed to Maruishi) to satisfy its obligations hereunder and to exercise all of its retained rights.

(c) Information Exchange. Upon request of either Party (basically at a reasonable interval not to exceed [*], but when either Party' makes a reasonable request, other Party shall exert it reasonable effort to accommodate such request), the Parties will have a meeting (which may be a video or telephonic conference, at either Party's request) to discuss development plans and progress regarding Licensed Products, including protocols, and to exchange Information regarding the development status and progress outside Territory and in the Territory and to discuss and exchange information on any other matters relating to Licensed Product development that either Party reasonably requests. Such meetings may be held on a field by field basis (*e.g.*, non-clinical, clinical, CMC, manufacturing), so as to make the discussions productive and efficient. In addition, a Party may request that the other Party include in such meeting its contract manufacturer, CRO and other relevant person working on Licensed Product development, to participate in the meeting to the extent important to such requesting Party's development activities, and the other Party will use reasonable efforts to accommodate such request.

3.2 Pharmaceutical Development.

(a) Subject to the terms of this Agreement, Cara shall be responsible for: (a) using Commercially Reasonable Efforts to conduct all non-clinical, clinical, CMC development and other studies that are required in order to obtain or maintain Regulatory Approvals of the Licensed Products in the United States in the Field of Use, reasonably in accordance with the development timeline in the Exhibit C established by Cara, and (b) providing Maruishi with all Information resulting from such development and all the Regulatory Documents submitted to FDA (and to other Regulatory Authority outside the Territory such as EMEA, if applicable), to the extent needed or useful in order to obtain Regulatory Approvals of Licensed Products in the

Territory. Cara shall control all development, regulatory and commercial activities with respect to Licensed Product outside the Territory (including all conduct of development of Licensed Product in countries outside the Territory). In addition, Cara shall use Commercially Reasonable Efforts to conduct formulation development for a suitable (i.e., suitable for obtaining the Regulatory Approval and for the marketing in the Territory) oral tablet for use in Uremic Pruritus and early establishment of PoC in the injectable form (including the study set forth Cara's CR845-CLIN1005 Protocol dated June 14, 2012). Cara agrees to use Commercially Reasonable Efforts to generate the data and information, pursuant to the above trials and studies that it conducts, in such a way as Maruishi may use the data and information in connection with its efforts to obtain the Regulatory Approval in the Territory, as required by the Pharmaceutical Law of Japan and relevant regulations and guidelines (including Japanese Pharmacopoeia, the notifications, by MHLW, ICH Q7 GMP for API, and the PIC/S GMP Guide and its applicable Annexes). To assist in the foregoing, Maruishi agrees to inform Cara of the necessary regulatory requirements for such Information. Pursuant to the disclosures under Section 3.1 above, Cara shall keep Maruishi reasonably informed of the progress and results of Cara's development work on Licensed Product, to the extent needed by Maruishi for its obtaining or maintaining Regulatory Approval in the Territory, and shall disclose that data made from such trials to the extent needed by Maruishi for such Regulatory Approval. Maruishi shall have the rights to use such Licensed Know-How as permitted in Section 2.1 or 2.2. The Parties will confer with each other regarding Cara's formulating a protocol for its development studies hereunder (e.g., Cara's Phase III Studies for "Postop. Hyterectomy") including, without limitation, Cara's oral tablet formulation study, and Cara will reasonably consider any reasonable comments by Maruishi. For clarity, Cara will, subject to this (a) of Section 3.2 of Article3, in any event control all decisions regarding and all conduct of its clinical trials and other development work on Licensed Products except for the development work to be conducted in or for the Territory.

(b) Maruishi shall be responsible for conducting all additional clinical development and other studies in the Territory on Licensed Products that is needed in order to obtain or maintain Regulatory Approvals of Licensed Products in the Territory in the Field of Use, to the extent that such additional clinical trial(s) are needed in order to obtain or maintain such Regulatory Approvals of Licensed Products. In this case, Maruishi shall conduct all such clinical trials and other studies on Licensed Product in accordance with a clinical plan and study protocols as follows: With regard to such clinical studies conducted by Maruishi in or for the Territory, the Parties shall confer each other and jointly prepare the protocols therefor which shall be for the purpose of obtaining the Regulatory Approval in the Territory subject to each Party's obligation to use Commercially Reasonable Efforts with respect to its development obligations hereunder. Maruishi shall keep Cara fully informed of the progress of all such work and trials on Licensed Product conducted by or on behalf of Maruishi, and shall disclose all data, results and other Information generated, made or identified in any such work or trials. Cara has and shall have the full royalty-free rights and license to use (and to license its other licensees to use) all such Information for all purposes (including relating to research, development and/or Commercialization of Licensed Products) outside the Territory. Cara shall keep Maruishi

reasonably informed of the progress of all the work and trials on Licensed Product conducted by or on behalf of Cara and its licensees and sublicensees in the Field of Use, and shall disclose all data, results and other Information generated, made or identified in any such work or trials to the extent reasonably needed for Maruishi's obtaining or maintaining Regulatory Approvals of Licensed Products in the Territory in the Field of Use. Pursuant to Section 2.1 and 2.2, Maruishi has and shall have the license rights to use (and to sublicense its other licensees to use) all such Information for research, development and/or Commercialization of Licensed Products in the Territory in the Field of Use in accordance with this Agreement, to the extent such Information constitutes Licensed Technology. With regard to the information exchange provided for above, Cara will not be required to translate English into Japanese. Maruishi will translate Japanese into English under the following:

(i) The Maruishi Information to be translated from Japanese into English will be limited to the summary of the plan and protocols and the summary of the other pivotal documents which are to be reasonably agreed upon by the Parties.

(ii) The translation expenses for subclause (i) above shall be borne by Maruishi.

(b-2) Further, notwithstanding anything herein contained to the contrary, with regard to the development work to be conducted by or for Maruishi regarding the Licensed Product for use in treating Uremic Pruritus (hereinafter, "Uremic Pruritus Product"), the specific details of how and when to conduct such development work shall be finally determined, after consultation with Cara by Mariushi in its good faith, by Maruishi at its reasonable discretion, but subject to Maruishi using Commercially Reasonable Efforts to progress such development work on a reasonable timeline taking into account the relevant factors such as the appropriateness, from the regulatory and marketing standpoint, of the oral tablet to be provided by Cara and the results of the study set forth Cara's CR845-CLIN1005 Protocol dated June 14, 2012.

(c) It is understood that a fundamental aspect of the Agreement is that Cara intends to advance the developments on the Licensed Product in the United States and certain other countries outside the Territory, will supply to Maruishi the information and data from such development, thus generated or obtained, and that based thereon, Maruishi will advance its development and commercialization of the Licensed Product in the Territory. Thus, in case that Cara suspends or discontinues its development activity, Maruishi may need (but under no circumstances will be obligated to do so) to "succeed" Cara's development activity so that Maruishi may be able to continue its development and commercialization of the Product in the Territory. In such eventuality, Cara will make all necessary arrangement for transfer of any additional Information in its Control (such as raw data and trial protocols) relating to such development as is reasonably needed by Maruishi for it to conduct any such additional development work in the Territory as necessary or useful for obtaining Regulatory Approval in the Territory (with the understanding that Maruishi has no obligation to conduct any such work).

3.3 Communications with Regulatory Authorities. From and after the Effective Date, except as otherwise set forth in this Agreement, Maruishi shall be responsible for all contacts with Regulatory Authorities with respect to Licensed Products in the Territory within the Field of Use. Maruishi shall have the responsibility, subject to the terms of this Agreement, to prepare and submit (a) all regulatory filings with Regulatory Authorities in the Territory as needed to conduct its clinical development of Licensed Products in the Territory in the Field of Use, and (b) all applications to obtain Regulatory Approvals in the Territory. All such regulatory submissions shall be in compliance with all Applicable Laws. Maruishi shall keep Cara fully informed regarding all such regulatory activities, shall provide to Cara copies of all regulatory submissions (including applications for Regulatory Approval) in the Territory and of all responses from Regulatory Authorities, shall provide Cara reasonable advance notice of any meetings or scheduled discussions with Regulatory Authorities in the Territory regarding Licensed Products, and shall update Cara as requested as to all progress and results of all such regulatory filings and meetings. Cara shall have the right to comment on all draft regulatory submissions, and Maruishi shall use reasonable efforts to accommodate all such comments. Maruishi shall use Commercially Reasonable Efforts, including conducting all such activities as needed, to obtain Regulatory Approvals in the Territory as soon as reasonably practicable and feasible. Cara will use reasonable efforts to provide a reasonable level of assistance to Maruishi in its efforts to prepare and to make regulatory submissions leading to Regulatory Approvals in the Territory. Cara shall have the right to use any such regulatory submissions for any of its (or its Affiliates' or other licensees') activities involving Licensed Products outside the Territory except upon termination of this Agreement pursuant to Section12.2 At Maruishi's request, and subject to Cara personnel being available, Cara shall use reasonable efforts to assist and participate in such regulatory discussions, such participation to be paid for by Maruishi at Cara's standard FTE rate for the applicable personnel (and including payment of all of Cara's reasonable external expenses, including travel, per diem and lodging, incurred in performing such requested participation). In addition, Cara shall have the right to attend, at its own initiative and cost, meetings with Regulatory Authorities in the Territory regarding Licensed Product (but Cara shall not actively participate in such meetings except to the extent requested by Maruishi). Maruishi shall disclose and provide to Cara all regulatory and related development Information, including Regulatory Authority communications, protocol submissions, annual reports, and licensing applications in a reasonable timeframe.

Cara shall keep Maruishi fully informed regarding all its regulatory activities regarding Licensed Product outside the Territory, shall provide to Maruishi copies of all regulatory submissions (including applications for Regulatory Approval) outside the Territory and of all responses from Regulatory Authorities, all the foregoing to the extent needed by Maruishi for its seeking Regulatory Approval of Licensed Product in the Territory in the Field of Use. Cara shall use reasonable efforts to provide Maruishi reasonable advance notice of any meetings or scheduled discussions with Regulatory Authorities outside the Territory regarding Licensed Products, and shall update Maruishi as reasonably requested as to all progress and results of all such regulatory filings and meetings. Cara shall use Commercially Reasonable Efforts to obtain

Regulatory Approval of Licensed Product in the United States reasonably consistent with the development plan in Exhibit C. Maruishi shall have the right to use any such regulatory submissions for any of its (or its Affiliates' or other licensees') activities involving Licensed Products in the Territory in the Field of Use except upon termination of this Agreement pursuant to Section12.2. Cara shall use reasonable efforts to disclose and provide to Maruishi in a reasonable timeframe all material regulatory Information, including Regulatory Authority communications, protocol submissions, annual reports, and licensing applications, to the extent needed by Maruishi for its seeking Regulatory Approval of Licensed Product in the Territory in the Field of Use. If any of the above-mentioned regulatory activities are conducted by a Cara licensee or sublicensee, Cara shall exert a reasonable effort to have such licensee and sublicensee provided such information to Cara as above.

3.4 Regulatory Filings. Maruishi shall prepare and file with the appropriate Regulatory Authorities in the Territory, at its sole expense and in its own name, all documents (including all INDs) that are necessary to conduct any needed clinical studies of the Licensed Products, and all applications for Regulatory Approval that are needed to market and sell Licensed Products in the Field of Use in the Territory. If reasonably requested by Maruishi, Cara shall provide reasonable consultation, as necessary with respect to Maruishi's use, in the Territory for regulatory matters as permitted herein, of the Regulatory Documents and the Information generated by Cara outside Territory and provided to Maruishi under this Agreement. Promptly after the submission of each such regulatory filing, Maruishi shall notify Cara that such regulatory filing has been made, and upon Cara's request, Maruishi shall provide Cara with a copy of each such filing at Maruishi's costs and expenses. Cara shall disclose and furnish to Maruishi any and all Information regarding the manufacture of the CR-845 API and the Licensed Product.

3.5 Information Retention. Each Party will preserve in secure files and keep indefinitely any and all data and other Information, including the raw data, generated pursuant to work under this Agreement on Licensed Product. In case that a Party intends to destroy or otherwise dispose of any such data or other Information, the disposing Party will give a sufficient prior notice to the other Party, and if the other Party requests so, the disposing Party will transfer and deliver such data and Information to the other Party, with packaging and shipping costs to be borne by the other Party. Each Party shall notify the other Party the location where such data and Information, including the raw data, is stored and names and addresses of CROs each Party uses to maintain such Information, and any change in such address. Cara understands that PMDA (the Pharmaceuticals and Medical Devices Agency in Japan) may conduct all necessary inspections (including on-site inspection of institutes of Cara, and its CRO's, etc.) of the data and information generated by or for Cara regarding Licensed Product, and Cara will use reasonable efforts to give necessary assistance to Maruishi in this regard, as necessary for Maruishi's regulatory efforts regarding Licensed Product in the Territory.

3.6 Information Exchange with Other Licensees. It is understood that Cara have already entered into prior to the Effective Date and may enter into one or more license agreements with third parties (collectively "**Other Licensees"**) regarding license rights to Licensed Product for sale and use outside the Territory. In order to facilitate coordination of development and regulatory activities on Licensed Products on a worldwide basis, the Parties agree to use reasonable efforts to coordinate their Licensed Product development activities on a worldwide basis. To that end, Cara will use reasonable efforts to make an arrangement so that Maruishi may contact, communicate, have a meeting and enter into an appropriate agreement (e.g., a Quality Agreement) with Cara's future licensees, as well as Cara's current and future contracted manufacturers, to the extent necessary for Maruishi's compliance with Japan Applicable Laws with regards to Maruishi's development efforts on Licensed Products. To the extent necessary for such compliance, Cara will use reasonable efforts to set up an information exchange network among Cara, its licensees, contract manufacturers and Maruishi so that each of such parties will be able to exchange the necessary information needed by each such party. By way of example, with regard to the adverse event information, Cara will set up, maintain and manage a worldwide adverse event reporting system network so that, for example, Cara, its licensee and Maruishi can submit adverse event information to the regulatory authority promptly in accordance with the regulatory requirements in their respective territory. Cara will also provide the DSUR (Development Safety Update Report) and the PBRER (Periodic Benefit-Risk Evaluation Report) so that Maruishi can submit the report to the Regulatory Authority by the due date.

3.7 Event Reporting. Each Party shall be responsible for reporting all Events (as defined below) associated with the development or Commercialization of a Licensed Product in its respective territory (as to Maruishi, the Territory) to the appropriate Regulatory Authorities in its respective territory, in accordance with all Applicable Laws, and shall provide the other Party copies of all such reports promptly after filing with the Regulatory Authorities. Additionally, in the event either Party receives information regarding Events related to the use of a Licensed Product, such Party shall promptly provide the other Party with such information in accordance with the separate Safety Agreement to be entered into by the Parties promptly. For purposes of this Section 3.7, "Event" shall mean any adverse event, adverse drug reaction or medical device report, including, without limitation, malfunctions, product failure, improper or inadequate design, manufacturer labeling or user error reported during the use of the Licensed Product by or on behalf of Maruishi, its Affiliates, and customers (including, without limitation, end users purchasing any Licensed Product or using any Licensed Product purchased from any of the foregoing). Each Party shall notify the other Party immediately of any Information received regarding any threatened or pending action by any public authority that may affect or related to the safety, efficacy, or other labeling claims of any CR-845 product.

3.8 Rights of Reference. Maruishi shall provide Cara in writing letters of reference, granting Cara (and its Affiliates and sublicensees) the right of reference for all purposes relating to development or commercialization of products containing CR-845 outside the Territory, with respect to all filings with Regulatory Authorities made by or on behalf of Maruishi or its Affiliate in the Territory relating to Licensed Product, and to all Regulatory Approvals. Such letters of reference shall expressly permit Cara to transfer such rights to its

Affiliates and licensees and allow such entities the right of reference to all such filings and Regulatory Approvals for anywhere outside the Territory, and such rights of reference shall expressly be binding on any assignee or transferee of Maruishi's rights to such filings and Regulatory Approvals under this Agreement. If the FDA, or any other Regulatory Authority outside the Territory, requires access to certain portions of any such filings, registrations and approvals related to CR-845 and/or Licensed Product for legal or regulatory purposes in connection with Cara's or its Affiliate's or licensee's development and/or commercialization efforts, including without limitation, for filing patent-related submissions, then Maruishi shall cooperate with such Regulatory Authority and make such portions available to the Regulatory Authority and, if legally required for Cara to submit or pursue an application for Regulatory Approval, to Cara (or its Affiliate or sublicensee) solely for such purpose. For all purposes involving the development or commercialization of Licensed Products in the Territory pursuant to the license granted in Section 2.1 and 2.2 during the Term, Maruishi shall have the right of reference during the Term equivalent to Cara's right ascribed in this section 3.8.

3.9 Recall Matters. Maruishi shall observe and conform at all times with all legal requirements in order to maintain an effective system for the recall from the market in the Territory of any Licensed Product used or sold in the Territory. Maruishi will be responsible for conducting, in accordance with all Applicable Laws, all withdrawals or recalls of Licensed Products used or sold in the Territory (except as may be otherwise provided in the Supply Agreement between the Parties), and will provide Cara with reasonable notice under the circumstances of such intended withdrawal or recall in an appropriate time, to the extent practicable, for Cara and Maruishi to discuss such intended action. Maruishi shall be responsible for, and shall hold harmless and indemnify Cara and its Affiliates from and against, any and all Losses resulting from any such recall or withdrawal of the Licensed Product used or sold in the Territory, *except that* Cara shall be responsible for Maruishi's Losses arising from or in connection with a recall or withdrawal that is caused by a manufacturing defect in CR-845 API supplied by Cara to Maruishi under the Supply Agreement resulting from Cara's or its contracted manufacturers' negligence or intentional misconduct, which may include recalls due to a safety issue that fundamentally originated in manufacturing defects in the CR-845 API which is contained in Finished Product.

ARTICLE 4

DILIGENCE

4.1 Diligence. Maruishi shall use good faith Commercially Reasonable Efforts to develop, obtain Regulatory Approvals for and, following Regulatory Approval, Commercialize the Licensed Products in the Territory within the Field of Use during the Term. Cara shall use good faith Commercially Reasonable Efforts to develop and obtain Regulatory Approvals for Licensed Products in the U.S. reasonably in accordance with the development timeline provided

by Cara in Exhibit C of this Agreement during the Term. Such diligence obligations mutually apply to both: (a) IV product form of Licensed Product for use in treating acute pain and uremic pruritus and additional indications; and (b) oral dose forms of Licensed Product for use in treating acute pain conditions and uremic pruritus and additional indications (but subject to Section 3.2(b-2) above). If Cara does not use Commercially Reasonable Efforts to conduct the above development reasonably in accordance with the timeline, and such development timeline is thereby significantly delayed, then it is understood that Maruishi's diligence obligations under the above shall be postponed an equivalent amount of time due to such delay.

4.2 Reports. Within thirty (30) days after the end of each calendar year and the end of the second calendar quarter of each year, Maruishi shall provide to Cara a written semi-annual report concerning its (and its Affiliates' and Sublicensees', if applicable) efforts regarding development and Commercialization of the Licensed Products in the Territory as carried out during the prior six (6) months and as planned for the next six (6) months, which semi-annual report shall include a summary of its pre-clinical and development activities, the status of its clinical trials and the then current schedule for clinical trials and for filing regulatory applications in the Territory, and the status of other approvals necessary to manufacture and market Licensed Products, including pricing and reimbursement approvals from the appropriate Regulatory Authorities in each country. Further, Cara shall provide Maruishi a written semi-annual report concerning its (and its Affiliates' or Sublicensee's, if applicable) efforts regarding development of the Licensed Products in the United States. Each Party shall also provide prompt written notice to the other party of (i) any Regulatory Approval received for any Licensed Product in the Territory or outside Territory and (ii) the Launch Date for each Licensed Product in the Territory or outside Territory. The information contained in such reports and notices shall be deemed to be the disclosing Party's Confidential Information.

ARTICLE 5

MANUFACTURE AND SUPPLY OF API

5.1 Manufacture and Supply of CR-845 API by Cara. The Parties agree that, except as provided below, Cara shall use commercially reasonable efforts to manufacture, or have manufactured, and supply to Maruishi up to its requirements of Licensed Product or (if elected by Maruishi) CR-845 API, in accordance with the terms and conditions of a supply agreement to be entered into by the Parties consistent with the terms of this Article 5. Promptly after the Effective Date, the Parties shall negotiate in good faith and enter into a commercially reasonable supply agreement (the "Supply Agreement") regarding supply to Maruishi of up to its requirements of Licensed Product or (if elected by Maruishi) CR-845 API, for use in clinical trials and, when appropriate, in Commercialization of Licensed Product in the Territory. Such Supply Agreement shall contain the pricing and related supply terms in this Article 5, and all other appropriate terms typical for similar supply agreements covering supply of API, including forecasting, ordering, delivery, warranties and indemnities, which terms shall be commercially

reasonable. The Supply Agreement will govern the quality, specifications, volume, etc. of the Licensed Products to be ordered and supplied, and the other supply terms, including that Maruishi may inspect the contract manufacturer site (including an on-site visit thereto) or make inquiries, as necessary for regulatory compliance in Japan. Cara will give necessary assistance to Maruishi in this regard. Under the Supply Agreement, Cara warrants that any Licensed Product and CR-845 API supplied to Maruishi thereunder shall conform to the applicable Specifications, and shall provide typical, commercially reasonable remedies for Licensed Product and CR-845 API supplied by Cara that fails on delivery to meet the product warranty in such Supply Agreement. The Supply Agreement shall provide commercially reasonable minimum order sizes (on an order and annual volume basis) to assure that Cara has adequate manufacturing volumes to justify maintaining the manufacturing capacity for Maruishi.

5.2 Transfer Prices. Cara shall supply Maruishi with the clinical product for use by Maruishi in developing Licensed Product as provided in this Agreement (that is, the Investigational Drug and Placebo), pursuant to the clinical supply terms of the Supply Agreement. Such supply shall be provided [*]. The Supply Agreement shall provide that Maruishi shall pay Cara a transfer price for all amounts of CR-845 API delivered to Maruishi by Cara for commercial use (the "API Transfer Price"), equal to [*] of the actual fully-burdened cost of manufacturing of such CR-845 API (provided that such API Transfer Price shall not exceed [*] per milligram for commercial batches of at least 10 kg). It is expected that actual supply price will be less than [*] per milligram, and Cara will use Commercially Reasonable Efforts to lower the supply price, to the extent reasonably practicable by, for example, manufacturing process improvements to the extent economically reasonable. The Supply Agreement shall provide that Maruishi shall pay Cara a transfer price for all amounts of Licensed Product (IV CR845) delivered to Maruishi by Cara (the "Product Transfer Price"), equal to [*] of the actual fully-burdened cost of manufacturing of such Licensed Product. Such Transfer Prices shall be invoiced by Cara to Maruishi on delivery. It is understood that the foregoing [*] margin is included to compensate Cara for its commitments to provide for such supply to Maruishi and the risks and potential liability of such commitments.

5.3 Maruishi Manufacturing. At its election Maruishi may undertake to manufacture (or have manufactured on its behalf), subject to the terms of this Agreement and the Supply Agreement, amounts of CR-845 API and/or Licensed Product up to its requirements for sale of Licensed Products in the Field of Use in the Territory. Any such CR-845 API and/or Licensed Product manufactured by or for Maruishi shall be used and sold solely in the Territory for use in the Field of Use. Maruishi will give at least [*] prior notice prior to shifting to ordering CR-845 API and/or to begin manufacturing CR845 API itself. The manufacture or the contract manufacture of the CR-845 API or Licensed Product by (or on behalf of Maruishi) as contemplated above may be performed outside Japan (subject to Cara's approval of the facility, not to be unreasonably withheld), but such manufacture shall be for the sole purpose of Maruishi's manufacture or contract manufacture of the Licensed Product solely for use and sale in the Field of Use in the Territory. Maruishi does not have the right to sell or otherwise transfer thus manufactured CR-845 API or Licensed Product to a third party for any use or purpose other

than as permitted in the license in Section 2.1, and in accordance with Sections 2.5 and 2.8. As it will be in both Party's interests to lower Licensed Product manufacturing costs, the Parties agree to discuss reasonably possible manufacturing arrangements, such as if Maruishi plans in the future (in its sole discretion), to make an investment in its own or a third-party contract manufacturer's API manufacturing facilities, to increase capacity not only to satisfy Maruishi's entire requirement of API but also to supply CR-845 API to Cara and/or its other licensees, pursuant to a future supply agreement between Maruishi and Cara and/or its other licensees, said agreement entered into at the sole discretion of each of said parties. In this relation, it is important to explore the possibility of lowering the production cost of CR-845 API, and one of the ways to effectively achieve the said goal is to improve the manufacturing process of CR-845 API. To the extent appropriate, Maruishi may participate (at its discretion) in such efforts by conducting its own technical development studies or supporting said effort with funding, solely to the extent mutually agreed by the Parties.

5.4 Inspections, Compliance and Maruishi's prior approval. Cara understands that the manufacturers of CR-845 API and the Licensed Product (including the applicable manufacturing method and process, raw materials, intermediate materials, non-active pharmaceutical ingredients, the method of quality assurance and quality control), and their respective facilities, equipment, and record-keeping, and any change thereof, needs to be in compliance with Applicable Laws. Cara shall use diligent efforts to assure such compliance. Cara shall disclose to Maruishi any such changes (except for the non-material ones) that may affect the quality, purity, safety, effectiveness or regulatory status of this Licensed Product (*i.e.*, changes requiring prior-approval by or a notice to the Regulatory Authority) (for example, material manufacturing process changes, test method changes, and specification changes) and such changes shall be reviewed and approved by Maruishi prior to implementation (such approval not to be unreasonably withheld). Cara will notify or have its contracted manufacturers notify Maruishi of any such changes (except for the non-material ones) to utilities, systems and equipment (e.g., WFI systems, autoclaves, etc.) including location of the equipment if different from the location in the regulatory filing supporting the manufacture of the Licensed Product. When a change is known to require or has the likelihood of requiring a regulatory submission, Maruishi will conduct regulatory evaluation and secure the necessary approval and inform Cara of the final approval of the change. The approved change will be secured in the Cara documentation system. All of the details on these matters, Cara will or will have its contracted manufacturers enter into the Quality Agreement with Maruishi in accordance with the Applicable Laws of the Territory. Maruishi shall keep Cara informed of all such Information disclosure obligations to the Japanese Regulatory Authorities regarding the CR-845 manufacturing Information. Further, the PMDA (the Pharmaceuticals and Medical Devices Agency in Japan) may conduct an inspection (including on-site inspection) of the manufacturing site including its facilities, equipment, and record-keeping as relating to Licensed Product manufacturing, and Cara will give reasonable assistance to Maruishi in this regard. Maruishi may also conduct such inspection of the facilities and records used in such Licensed Product manufacturing, to the extent necessary in connection with Maruishi obtaining Regulatory Approval in the Territory, and subject to reasonable limitations on time of inspection and to protect confidentiality, and Cara will give reasonable assistance to Maruishi in this regard.

ARTICLE 6

CONSIDERATION; PAYMENTS; REPORTS

6.1 License Fee. Maruishi shall pay to Cara by wire transfer, within fifteen (15) Business Days after signing of the License Agreement and Tax Authority Acceptance, an upfront license fee in the aggregate amount of Fifteen Million United States Dollars (US$15,000,000). In addition, within twenty one (21) days after signing of the License Agreement Maruishi shall purchase two million one hundred five thousand two hundred sixty-three (2,105,263) shares of preferred equity stock of Cara (such shares sold at $3.80 per share) pursuant to a Stock Purchase Agreement entered into between the Parties as of the Effective Date. Such upfront license fee is and shall be nonrefundable and noncreditable against any milestones or other fees or payments due Cara under this Agreement.

6.2 Milestone Payments.

(a) Development Milestones. Maruishi shall pay to Cara milestone payments in the amounts set forth below for the achievement of the applicable development events with respect to Licensed Product being developed in the Territory for the specified indication:

Acute-Pain (The indication to be pursued first is intended to be Post-Operative Pain ("POP")	**Uremic Pruritus**
US Development:	
Completion of Cara's first US Phase III pivotal trial – [*]	
First NDA submission in U.S. – [*]	
Japan Development:	Japan Development:
Completion of Maruishi's Phase I trial – [*]	First initiation of Maruishi's Phase I trial — [*]
First to occur of: (a) completion of Maruishi's first Phase III trial, or (b) the PMDA officially permits forgoing (omitting) such trial in Japan – [*]	First initiation of Maruishi's Phase III trial – [*]
First grant of Regulatory Approval to Maruishi — [*]	First grant of Regulatory Approval to Maruishi – [*]

* as used in the above schedule:

"Completion" means when the Parties have shared, after completing the Case Report Forms, the statistically analyzed data on all of the efficacy and safety evaluation items provided for in the Protocol as to the applicable trial;

"Initiation" means "First Subject or Patient, First In " (*i.e.*, the day when the investigational drug or the placebo, as the case may be, was administered, for the first time, to the first subject or the first patient in the applicable trial);

"Japan Development" means development of Licensed Product in Japan, including any activities based on or relating to the data and information supplied by Cara to Maruishi under the Agreement

For clarity, activities by Maruishi's Affiliates and Sublicensees that achieve any of the above milestone events shall be deemed to meet the milestone.

In the event that Cara is in material breach of its Information disclosure obligations hereunder at the time a Milestone payments under the above terms is becoming due, then on Maruishi's written request the Parties will meet and discuss in good faith a resolution to the issue, and Cara will use good faith diligent efforts to cure such breach, *provided that* such discussions shall not delay payment of the milestone payment owed by more than 30 days from the original due date.

(b) Sales Milestone. Maruishi shall pay to Cara a milestone payment of one billion Yen upon cumulative Net Sales of Licensed Products in the Territory reaching [*] (*i.e.*, total aggregate Net Sales of Licensed Products from first commercial sale in the Territory) prior to expiration of the Exclusivity Period. Payment of the Sales Milestone will be made in the following two installments:

(i) The first [*] of such milestone payment will be paid by Maruishi to Cara within twenty (20) Business Days after the financial statements for the fiscal year in which cumulative Net Sales reached [*] is approved by Maruishi's shareholders meeting; *provided* that such payment shall be made in any event no later than 120 days after the end of such fiscal year;

(ii) The second [*] of such milestone payment will be paid by Maruishi to Cara on the first Business Day of Maruishi's fiscal year immediately succeeding the Maruishi fiscal year in which the above-mentioned first [*] was paid. (Currently, Maruishi's fiscal year is April 1-March 31 of the next year)

(c) Each such milestone payment under subsection (a) or (b) above shall be paid to Cara within 30 Business Days after meeting the applicable milestone event and Tax Authority Acceptance of any documents that are needed to be filed under the U.S.-Japan Tax Treaty with respect to such milestone payment. For the avoidance of any doubt, all of the milestone payments are one-time payments. By way of example, if there is the second grant of the Regulatory Approval or grant of the Regulatory Approval for the application of a partial change thereof, these would not trigger any additional milestone payment.

(d) The Parties shall use good faith Commercially Reasonable Efforts to achieve, or facilitate and cause the achievement of, the milestone events set forth in Section 6.2(a) above. All such milestone payments shall be nonrefundable and noncreditable against any other fees or payments due Cara under this Agreement. Each Party shall promptly notify the other Party in writing of the achievement of any particular milestone as soon as practicable, and Maruishi shall pay to Cara the applicable milestone payment within thirty (30) days following occurrence of the milestone event.

6.3 Royalties. Maruishi shall pay royalties, for the Net Sales achieved during the Royalty Term, to Cara as a percentage of Net Sales of Licensed Products in the Territory, at the following royalty rates, which depend on the aggregate amount of Net Sales of Licensed Products in the applicable Maruishi fiscal year (the twelve month period starting on April 1 and ending on March 31 of the following year):

Annual Net Sales	Royalty Rate
≤[*]	[*]
>[*] and ≤[*]	[*]
[*]	[*]

The foregoing royalties shall be paid, with respect to sales of a Licensed Product in the Territory by Maruishi and its Affiliates and Sublicensees, until the expiration of the Royalty Term applicable to such Licensed Product.

Example of royalty calculation under the above tiered royalty structure: if Net Sales during a Maruishi fiscal year equals [*], then the total royalties payable by Maruishi based on such Net Sales (pursuant to the payment provisions herein) shall be calculated as follows:

([*])([*] rate) + ([*])([*] rate) + ([*])([*]) = [*]

For clarity, the above rate tiers shall be applied on a cumulative basis during the applicable Maruishi fiscal year, for each quarterly royalty payment owed under Section 6.6.

6.4 Adjustment to Royalty Rates.

(a) During Exclusivity Period. If, during the Exclusivity Period, Maruishi is faced with a material business difficulty regarding its sales of Licensed Products that significantly negatively impacts its overall gross margin, because, by way of example, the NHI Price is substantially lowered or a competing product enters into the market, then the running royalty rates in Section 6.3 will be adjusted by good faith discussion of the Parties so that Maruishi may maintain a reasonable gross profit margin, while Cara continues to receive reasonable compensation. The general mechanism for such an adjustment (to be used by the Parties in discussing the extent of the adjustment) is as follows:

The Parties agree that, in the event that such a material business difficulty occurs, the Parties would seek to agree on an adjustment to the royalty rates in Section 6.3 such that Maruishi's Gross Margin (as calculated below) would be approximately [*].

Gross Margin = [*]

Where:

A: COGs of the Licensed Product sold by Maruishi

B: the running royalty payments made under Section 6.3 for sales of the applicable Licensed Product

C: the then-applicable NHI Price of the Product.

All of "A","B" and "C" above, will be on the same unit basis, that is, all "per one Licensed Product" basis.

As used herein, the "COGs" shall mean the aggregate amount of the following: the actual Supply price at which Maruishi purchases the Licensed Product from Cara (or other supplier, if that is the case); the actual direct manufacturing costs of Maruishi (i.e., actual cost for the materials (such as package, label, insert and carton), the direct labor costs (such as works for inserting the package insert, packaging, labeling, operation, quality check, etc.) and other similar direct costs necessary for the manufacture at Maruishi.

Cara shall have the right to audit the COGs used by Maruishi in the above calculation, if Cara reasonably believes that such COGs figure is inaccurate.

The Parties further agree that any royalty adjustment pursuant to this Section 6.4 shall not in any event reduce the royalty rates in Section 6.3 above to an amount that is less than [*],[*] and [*] for the respective royalty rate tiers in the schedule in Section 6.3, unless otherwise agreed after good faith discussions between the Parties.

(b) After Exclusivity Period. After the expiration of the Exclusivity Period, the running royalty rates in the rate schedule in Section 6.3 will be adjusted in accordance with the following:

In the following column:

"TARR" stands for the "Then Applicable Royalty Rate" which means the running royalty rates as set forth in the rate schedule in Section 6.3, as such rates may have been adjusted pursuant to subsection 6.4(b) above, as of just prior to expiration of the Exclusivity Period;

"Base NHI Price" means the NHI Price (for the applicable Licensed Product) as of just prior to expiration of the Exclusivity Period.

Circumstance	Running Royalty Rate (% of the Net Sales)
When the Exclusivity Period expires	[*] of TARR
When the actual NHI Price becomes less than [*] of the Base NHI Price	[*] of TARR
When the NHI Price becomes less than [*] of the Base NHI Price	[*] of TARR
When the NHI Price becomes less than [*] of the Base NHI Price	[*] of TARR

(c) Other Hardship. In the case that Maruishi grants a sublicense, or uses a co-promoter or a co-marketer, and the economic terms of such business arrangement cause Maruishi actual material hardship, then upon Maruishi's reasonable request, the Parties will engage in a good faith negotiation regarding the possibility of a royalty rate adjustment to address the hardship, while preserving reasonable economic value to Cara.

6.5 Sublicense Fees. In consideration of any sublicense granted to a Sublicensee hereunder, Maruishi shall pay to Cara amounts (each, a "Sublicensee Fee") equal to [*] of any upfront license fees, milestone payments, or other similar license fees paid by such Sublicensee to Maruishi based on such sublicense (but excluding, for clarity, any royalty payments made to Maruishi), but *provided that* Maruishi may credit against such Sublicensee Fees any milestone payments under Section 6.2 actually paid by Maruishi (with any such milestone payment made by Maruishi to Cara under Section 6.2(a) being creditable only once against Sublicensee Fees owed under Section 6.5). An example of the application of such credits is given in Exhibit D of this Agreement.

6.6 Payments; Reports. Payment of all sums due to Cara under this Article 6 shall be made to Cara by wire transfer, or electronic funds transfer (EFT), to the Cara's following bank account (or to such other account as specified by Cara in writing): [*]. Beginning with the calendar quarter in which the Launch Date of the first Licensed Product occurs until the expiration of Maruishi's obligation to pay royalties, royalty payments and reports of the sale of Licensed Products for each calendar quarter will be calculated and delivered to Cara under this Agreement within sixty (60) days of the end of each such calendar quarter, unless otherwise specifically provided herein. Royalty payment obligations shall be paid on a calendar quarterly basis (*i.e.*, the quarters ending on June 30, September 30, December 31 and March 31 of each year), with royalty obligations accruing upon Net Sales in a quarter, and the total amount of royalties owed for sales in a quarter shall be paid within 30 days after the end of each such quarter. Each payment of royalties shall be accompanied by a report of Net Sales of Licensed Products during the prior quarter in sufficient detail to permit confirmation of the accuracy of the royalty payment made, including the number of Licensed Products sold, the gross sales and Net Sales of Licensed Products and deductions taken from gross sales by category as set forth in the definition of Net Sales to arrive at the Net Sales calculation, the royalties payable (in Yen), the method used to calculate the royalty and the exchange rates used. The total royalty due for the sale of Licensed Products during such calendar quarter shall be paid no later than 60 days after the end of the calendar quarter during which the Net Sales were made. Maruishi will keep complete and accurate records pertaining to the sale or other disposition of Licensed Products in sufficient detail to permit Cara to confirm the accuracy of all payments due hereunder. For any FTE costs and other expenses incurred by Cara that are reimbursable under this Agreement, Cara shall invoice Maruishi no more frequently than quarterly for such FTE costs and reimbursable expenses incurred under the terms of this Agreement, and Maruishi shall pay such invoiced amounts within thirty (30) days of receipt of each such invoice.

6.7 Royalty payment. Royalties to be paid under the foregoing Section 6.3 will be paid in Japanese Yen.

6.8 Late Payments. Any amounts owed and not paid by Maruishi when due under this Agreement shall be subject to interest from and including the date payment is due through and including the date upon which Maruishi has made a wire transfer of immediately available funds into an account designated by Cara, at a per annum interest rate equal to [*].

6.9 Taxes. In the event that laws, rules or regulations require Maruishi to withhold Taxes with respect to any payment to be made by Maruishi pursuant to this Agreement, Maruishi will notify Cara of such withholding requirement prior to making the payment to Cara and provide such assistance to Cara, including the provision of such documentation as may be required by a tax authority, as may be reasonably necessary in Cara's efforts to claim an exemption from or reduction of such taxes. Maruishi will, in accordance with such laws, rules or regulations, withhold from the amount due such amount of taxes as are legally required to be withheld, and remit such taxes to the appropriate tax authority. Maruishi shall provide to Cara original copies of all official receipts evidencing such tax obligation together with written evidence of payment within fifteen (15) days following such payment. If taxes are paid to a tax authority, Maruishi shall provide reasonable assistance to Cara to obtain a refund of taxes withheld, or obtain a credit with respect to taxes paid. Each of Maruishi and Cara shall cooperate reasonably and in good faith, and take all needed actions, to prepare and file with the Japan tax authorities all documents as needed to obtain the benefits of the U.S.-Japan Tax Treaty, and to secure acceptance by such authorities of such filings, to avoid any requirement of withholding from the payments by Maruishi hereunder.

6.10 Audit. Maruishi and its Affiliates and Sublicensees shall keep complete and accurate records of the underlying revenue and expense data relating to the calculations of Net Sales, COGS and payments required under this Agreement for three (3) years from the end of the calendar quarter in which the Net Sales were accrued. Cara shall have the right, at its own expense and no more than [*], to have an independent, certified public accountant, selected by Cara and reasonably acceptable to Maruishi, review all such records upon reasonable notice and during regular business hours and under obligations of strict confidence, for the sole purpose of verifying the basis and accuracy of payments required and made under this Agreement within the prior thirty-six (36) month period. No calendar quarter may be audited more than one time. Notwithstanding the foregoing, in the event that Maruishi restates its earnings, and such restatement would impact the royalty due to Cara for any period(s) previously audited, or Maruishi revises a report or makes a further payment for a period for which a report or payment was previously provided or due to Cara under Section 6.6, which report or payment reflects a material change in the amount of royalties due for the prior period and Cara has previously audited such period, then Cara shall have the right to re-audit the affected time period(s) solely with respect to verifying the effect, if any, such restatement or revision has on royalties due with respect to such period(s). Maruishi shall receive a copy of each audit report promptly from Cara. Should the inspection lead to the discovery of a discrepancy to Cara's detriment, Maruishi shall

pay the amount of the discrepancy within thirty (30) days after being notified thereof. Cara shall pay the full cost of the inspection unless the discrepancy is greater than [*], in which case Maruishi shall pay to Cara the actual cost charged by such accountant for such inspection.

6.11 Conversion Adjustment Formula. The up-front and equity investment payments will not be subject to the currency adjustment formula and will be paid in U.S. dollars. With respect to the milestone payments under Section 6.2 (a) (which payments are to be made in U.S. Dollars), the actual amount of the payment to be made by Maruishi may be adjusted in accordance with the following formula, in the case of significant changes in the Yen to Dollar exchange rate:

[*]

Where:

A: The amount actually to be paid by Maruishi in US Dollars

B: The amount to be paid under Section 6.2 (a) , expressed in US Dollars

C: [Base Exchange in Yen] means the average of US dollar/ Yen "Closing Rate" (i.e. "At 17:00 in JST") released by the Bank of Japan for the last five (5) business days of the month immediately preceding the month in which the Parties execute the License Agreement

D: [Revised Exchange in Yen] means the average of US dollar/ Yen "Closing Rate" (i.e. "At 17:00 in JST") released by the Bank of Japan for the last five (5) business days of the month immediately preceding the month in which Maruishi's applicable payment obligation under the License Agreement becomes due and payable.

ARTICLE 7

COMMERCIALIZATION OF LICENSED PRODUCTS

7.1 Territory Commercialization Activities. Maruishi (itself or through an Affiliate, and together with a co-promoter or a co-marketer, if necessary) would be responsible for all sales, marketing, and promotional activities for the Licensed Product(s) in the Territory in the Field of Use and would bear all related expenses. Maruishi shall use Commercially Reasonable Efforts to maximize the sales of the Licensed Product in the Territory. Maruishi shall keep Cara reasonably informed, by written reports every [*], of its promotion and commercialization efforts and the results of such efforts.

7.2 Trademarks. Maruishi shall have the right to select and register the Trademark(s) for use in connection with the promotion and commercialization of Licensed Product in the Territory (the "Product Marks"), *provided that* no such Trademark shall be confusingly similar to or dilutive of any Trademarks owned by Cara or its Affiliate. Maruishi shall own any such Product Mark which is created by Maruishi for the Licensed Product in the Territory, and will directly resister, use, control and maintain the Product Mark(s) in the Territory. If Maruishi reasonably requests, Cara will allow Maruishi to use the trademark used by Cara outside the Territory to market Licensed Products, such use to be on typical and reasonable terms but without any additional consideration. Further, if requested by Maruishi, Cara will make reasonable efforts to obtain similar rights from Cara's other licensee, but does not have the obligation to obtain such rights.

7.3 Retained Rights. Other than the commercial rights granted to Maruishi under Section 2.1 and 7.1, Cara retains all of its rights in its intellectual property, including the right to market and sell Licensed Products outside the Territory for all uses (and to license or engage others to do so).

ARTICLE 8

INTELLECTUAL PROPERTY

8.1 Ownership of Information and IP.

(a) Cara shall remain the owner of and have control over all Licensed Know-How and all Licensed Patents, and including all improvements, modifications or additions thereto made, created, developed or discovered by or on behalf of Cara or its Affiliate pursuant to or relating to this Agreement, which rights are subject only to the license rights granted in Sections 2.1 and 2.2.

(b) Maruishi shall own and control the Maruishi Technology (including Maruishi improvement Patents), subject only to the rights granted to Cara under Section 2.6 or Section 2.6.1 .

(c) If Maruishi makes Maruishi Technology without any use of Licensed Know-How or Licensed Patents, or any Confidential Information of Cara, then such Maruishi Technology shall bear a commercially reasonable royalty (reflecting the actual contribution of such technology in the use made) if such technology is used by Cara pursuant to exercise of the license rights granted to Cara under Section 2.6 or 2.6.1, such royalty to be negotiated reasonably and in good faith by the Parties, if Cara intends to utilize such Maruishi Technology.

8.2 Prosecution and Maintenance.

(a) Cara will have the sole responsibility, using its reasonable efforts and at its discretion, for the filing, prosecution, defense and maintenance of the Licensed Patents before all patent authorities in the Territory (the "Prosecution"), including conducting or defending any interferences or similar proceedings and in obtaining and maintaining any patent extensions, supplementary protection certificates and the like with respect to the Licensed Patents. All costs and expenses in relation to any Prosecution in the Territory shall be borne by Cara. Cara will consult with Maruishi reasonably regarding such Prosecution efforts and shall consider and take into account any reasonable Maruishi comments with regards to such efforts. To that end, Cara will keep Maruishi reasonably informed of the progress with regard to all activities relating to the Prosecution in the Territory, to the extent such progress reasonably relates to the claims in the Licensed Patent Rights that relate to the Field of Use and are licensed to Maruishi under this Agreement. Cara shall use reasonable efforts at its discretion to establish, maintain and defend its patents and patent applications claiming Licensed Products outside the Territory in order to prevent unfavorable impact on the Licensed Patents.

8.3 Infringement by Third Parties.

(a) If either Party becomes aware of any infringement, actual or suspected, or any other unauthorized use of the Licensed Patent rights by Third Party infringers in the Territory within the Field of Use (a "Field Infringement"), it shall promptly give notice to the other Party in writing specifying the particulars of the unauthorized use. Cara, at its sole discretion, shall have the right to take whatever action it deems advisable in connection with the Field Infringement (including seeking an injunction and/or damages). Cara shall notify Maruishi of whatever action is taken, or if none is taken. If Cara decides to take action of any kind against the Field Infringement, Cara shall have sole control of the conduct of any such action, but after the consultation with Maruishi. Cara shall bear the entire cost and expense associated with the conduct of any such action, and any recovery or compensation that may be awarded as a result of such action, including but not limited to any settlement that may be reached, shall belong to Cara. Maruishi, if requested by Cara, shall cooperate fully with Cara, at Cara's expense, in the conduct of any such action. Such cooperation shall not entitle Maruishi to any claim for recovery or compensation in respect thereof, and all such recovery or compensation shall belong solely to Cara, except as provided in the following. In the event Maruishi has any commercial damages and losses directly from Field Infringement by Third Party, Maruishi shall keep Cara informed of them and Cara shall agree to cooperate with Maruishi for a remedy and defense. If required for Maruishi to obtain compensation for any such damages and losses, and/or to obtain an injunction against such Field Infringement, Maruishi shall be entitled to join (or may seek damage or injunction separately from Cara if Cara does not bring the action or if Maruishi cannot join because of the requirement under the Civil Procedures Law in Japan) the action as a plaintiff, at Maruishi's sole expense, to assert its rights, provided that Cara shall in any event control all defense of the Licensed Patents (including defense against any claims of invalidity or unenforceability) and Maruishi shall not assert any positions in such action that are contrary to Cara's enforcement of its Licensed Patents in such action. Maruishi shall not take any actions with respect to any such Field Infringement that materially negatively affects Cara's rights or interests in the Licensed Patent rights. If Maruishi has any material commercial damages and

losses resulting directly from Field Infringement by Third Party, and Cara does not enforce the applicable Licensed Patents against such Field Infringement within [*] of Maruishi providing Cara documentation demonstrating the extent of such Field Infringement and of the harm to Maruishi and written request by Maruishi to take such action, then Maruishi may enforce the applicable Licensed Patents against such Field Infringement (including seeking an injunction and/or damages), provided that Maruishi keeps Cara fully informed of all activities and results of such action, and that Cara shall have the right to control the defense against any defenses or counterclaims asserted in such action that challenge the validity or enforceability of the Licensed Patents. Any settlement between the prosecuting Party and a third party of an action against a Field Infringement, which settlement directly or indirectly relates to and negatively impacts the Licensed Patents in the Territory, needs the other Party's prior consent, such consent not to be unreasonably withheld.

8.4 Defense. Each Party shall promptly notify the other Party upon receiving written notice of any potential infringement, or any Third Party claim or action against Cara or Maruishi or any of their Affiliates for possible infringement, of a Third Party patent right resulting from the development or Commercialization of Licensed Product in the Territory. Subject to the indemnification and defense obligations of the Parties under Article 9, each Party shall be responsible for defending, and shall control the defense of, any such action brought against such Party. The Parties shall confer with each other and cooperate in the defense of any such action in which both Cara and Maruishi are named parties. Neither Party shall enter into any settlement of any action under this Section 8.4 that materially negatively affects the other Party's rights or interests under this Agreement without such other Party's written consent, which consent shall not be unreasonably withheld or delayed.

8.5 Cooperation. Each Party agrees to reasonably cooperate with the other Party in the filing, prosecution, maintenance, defense and enforcement of Licensed Patent Rights, as set forth in this Article 8, including joining an action or proceeding if reasonably requested, signing any necessary legal papers, and providing the other Party with data or other information reasonably requested in support thereof. Each Party shall keep the other Party reasonably informed of the substantive developments with respect to any enforcement or defensive actions under this Article 7 regarding Licensed Patent Rights.

8.6 Marking. All Licensed Products shall be marked with the patent numbers of issued patents within Licensed Patent Rights that cover such Licensed Products, to the extent permitted by law in countries in which such markings have notice value against infringers of patents.

ARTICLE 9

REPRESENTATIONS, WARRANTIES AND COVENANTS

9.1 Representations and Warranties of Cara. As of the Effective Date, Cara hereby represents and warrants to Maruishi as follows:

(a) Corporate Existence and Power. Cara is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware, U.S.A, and has full corporate power and authority and the legal right to own and operate its property and assets and to carry on its business as it is now being conducted.

(b) Authority and Binding Agreement. Cara has the corporate power and authority and the legal right to enter into this Agreement and perform its obligations hereunder. Cara has taken all necessary corporate action on its part required to authorize the execution and delivery of the Agreement and the performance of its obligations hereunder. The Agreement has been duly executed and delivered by Cara and constitutes a legal, valid and binding obligation of Cara that is enforceable against it in accordance with its terms.

(c) No Violation. The execution, delivery and performance of this Agreement by Cara does not result in a material breach of any material agreement or other binding instrument, to which it is a party or by which it may be bound, nor violate any material law or regulation of any court, governmental body or administrative or other agency having jurisdiction over it.

(d) Patent Rights. Cara owns or controls the Licensed Patents, has the right to grant the license under the Licensed Technology granted in Section 2.1 and has not assigned, transferred, conveyed or licensed its right, title and interest in the Licensed Technology, and Cara covenants not to assign, transfer, convey or license its right, title and interest in the Licensed Technology, in each case in the Territory in a manner inconsistent with such license or the other material terms of this Agreement. To the best knowledge of Cara, Cara is not aware of any facts that lead it to believe that the Licensed Patents in Japan are invalid or unenforceable. Cara has no knowledge that any third party is challenging (or overtly intends to challenge) the validity or enforceability of Cara's Licensed Patents in Japan.

(e) Litigation. There is no pending litigation or, to Cara's best knowledge, written threat of litigation that has been received by Cara (and has not been resolved by taking a license or otherwise), which alleges that Cara's activities with respect to CR-845 or the Licensed Products have infringed any of the intellectual property rights of any Third Party.

(f) Disclosed Information. Cara has disclosed (or will disclose under Section 3.1) all of the material information and data (e.g., adverse event, efficacy, submission to the regulatory authority, substantial communication between the regulatory authorities such as FDA and EMEA) in its possession relating to Licensed Product and reasonably needed for development or Commercialization of Licensed Product in the Territory in the Field of Use.

(g) Trials Compliance. To Cara's knowledge, the studies on Licensed Product conducted or to be conducted from now on by or for Cara materially complies and will with all applicable laws, regulations and guidelines such as the cGLP, cGCP and that all of the raw data generated or to be generated are all kept and maintained.

(h) Manufacturing. Cara has secured and will use reasonable efforts to continue to secure a capable, long-term manufacturing source for CR-845 API, said source complying to Cara's best knowledge with all material Japanese applicable laws, regulations and guidelines relating to such manufacturing, such as cGMP.

(i) Disclaimer. EXCEPT AS EXPRESSLY SET FORTH IN THIS SECTION 9.1, ALL INTELLECTUAL PROPERTY RIGHTS, MATERIALS AND INFORMATION PROVIDED TO MARIUSHI UNDER THIS AGREEMENT ARE BEING PROVIDED "AS IS" AND WITHOUT ANY REPRESENTATIONS OR WARRANTIES. EXCEPT AS EXPRESSLY SET FORTH IN THIS SECTION 9.1, CARA MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, OF ANY KIND, INCLUDING AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR USE OR NON-INFRINGEMENT. SPECIFICALLY, CARA DOES NOT WARRANT THE VALIDITY OR ENFORCEABILITY OF THE LICENSED PATENTS, OR TRADEMARKS, AND MAKES NO REPRESENTATIONS WHATSOEVER WITH REGARD TO THE SCOPE OF THE LICENSED PATENTS OR TRADEMARKS, OR THAT THE LICENSED PATENT RIGHTS OR LICENSED KNOW-HOW MAY BE EXPLOITED WITHOUT INFRINGING OTHER PATENTS OR OTHER INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES.

9.2 Representations and Warranties of Maruishi. As of the Effective Date, Maruishi hereby represents and warrants to Cara as follows:

(a) Corporate Existence and Power. Maruishi is a corporation duly organized, validly existing and in good standing under the laws of Japan, and has full corporate power and authority and the legal right to own and operate its property and assets and to carry on its business as it is now being conducted.

(b) Authority and Binding Agreement. Maruishi has the corporate power and authority and the legal right to enter into this Agreement and perform its obligations hereunder. Maruishi has taken all necessary corporate action on its part required to authorize the execution and delivery of the Agreement and the performance of its obligations hereunder. The Agreement has been duly executed and delivered by Maruishi and constitutes a legal, valid and binding obligation of Maruishi that is enforceable against it in accordance with its terms.

(c) No Conflict. The execution, delivery and performance of this Agreement by Maruishi does not conflict with, and would not result in a breach of, any material agreement, instrument or understanding, oral or written, to which it is a party or by which it may be bound, nor violate any material law or regulation of any court, governmental body or administrative or other agency having jurisdiction over it.

(d) Trials Compliance. To its knowledge, all the studies to be conducted by or for Maruishi under this Agreement will comply with all applicable laws, regulations and guidelines in the Territory such as GLP, GCP and that all of the raw data to be generated will all be kept and maintained.

9.3 Additional Covenants.

(a) No Misappropriation or Infringement. Maruishi covenants to Cara that Maruishi shall not knowingly misappropriate or infringe any trade secret, patent or other intellectual property of another party in its activities to develop, manufacture or Commercialize Licensed Products.

(b) No Debarment. Cara understands that there is no debarment system in Japan. Cara covenants to Maruishi that, in the course of conducting its development, supply and testing activities under this Agreement, Cara shall not knowingly use any employee or consultant who is or has been debarred by any Regulatory Authority or, to the best of Cara's knowledge, is or has been the subject of debarment proceedings by any Regulatory Authority.

(c) Compliance with Applicable Law. Maruishi and Cara covenants to comply with all Applicable Laws in performing or conducting its activities under this Agreement.

ARTICLE 10

INDEMNIFICATION

10.1 Indemnification by Cara. Cara hereby agrees to defend, hold harmless and indemnify Maruishi and its Affiliates, and each of their respective officers, directors and employees (collectively, the "***Maruishi Indemnitees***"), from and against any and all Losses arising out of any Third Party Claim against a Maruishi Indemnitee that is based upon or results from: (i) any of Cara's representations and warranties set forth in Section 9.1 of this Agreement being materially untrue when made; (ii) Cara's failure to perform, in any material respect, any covenant or agreement or warranty of Cara set forth in this Agreement; or (iii) Cara's negligence or willful misconduct; except, in each case, to the extent any such Losses result from the negligence or willful misconduct of Maruishi Indemnitees or from the breach of any representation or warranty or covenant or obligation under this Agreement by Maruishi or its Affiliate or Sublicensee.

10.2 Indemnification by Maruishi. Maruishi hereby agrees to defend, hold harmless and indemnify Cara and its Affiliates, and each of their respective officers, directors and employees (collectively, the "***Cara Indemnitees***"), from and against any and all Losses arising out of any Third Party Claim against a Cara Indemnitee that is based upon or results from: (i) any of Maruishi's representations and warranties set forth in Section 9.2 of this Agreement being untrue in any material respect when made; (ii) Maruishi's or its Affiliate's failure to perform, in any material respect, any covenant or agreement or warranty of Maruishi set forth in this Agreement; (iii) the exercise or practice by Maruishi, its Affiliates or Sublicensees of the licenses granted to Maruishi under Sections 2.1 and 2.2; or (iv) the development, manufacture or Commercialization of Licensed Product by or for Maruishi, its Affiliates or Sublicensees; except, in each case, to the extent any such Losses result from the negligence or willful misconduct of Cara Indemnitees or from the breach of any representation or warranty or covenant or obligation under this Agreement by Cara.

10.3 Indemnification Procedures. Each Party (Cara on behalf of Cara Indemnitees, or Maruishi on behalf of Maruishi Indemnitees) will promptly notify the other Party when it becomes aware of a Claim for which indemnification may be sought hereunder. To be eligible to be indemnified for a Claim, a Person seeking indemnification (the "***Indemnified Party***") shall (i) provide the Party required to indemnify such Person (the "***Indemnifying Party***") with prompt written notice of the Claim giving rise to the indemnification obligation under this Article 10, provided that, the failure to provide such prompt notice shall not relieve the Indemnifying Party of any of its obligations under this Article 10 except to the extent the Indemnifying Party is actually prejudiced thereby; (ii) provide the Indemnifying Party with the exclusive ability to defend (with the reasonable cooperation of the Indemnified Party) against the Claim; and (iii) not settle, admit or materially prejudice the Claim, without the Indemnifying Party's prior written consent. The Indemnified Party shall reasonably cooperate with the Indemnifying Party, at the Indemnifying Party's expense, in the defense of any Claim. Notwithstanding the foregoing, the Indemnified Party shall have the right to participate in and have its own counsel participate in any action or proceeding for which the Indemnified Party seeks to be indemnified by the Indemnifying Party. Such participation shall be at the Indemnified Party's expense, unless (i) the Indemnifying Party and the Indemnified Party shall have mutually agreed to the retention of such counsel or (ii) the named parties to any such proceeding (including any impleaded parties) include both the Indemnifying Party and the Indemnified Party and representation of both parties by the same counsel would be inappropriate due to actual or potential differing interests between them. The Indemnifying Party's obligations under Section 10.1 or 10.2, as the case may be, shall not apply to the extent of the Indemnified Party's failure to take reasonable action to mitigate any Losses. The Indemnifying Party shall not settle or compromise, or consent to the entry of any judgment with respect to, any Claim, without the prior written consent of the Indemnified Party, which will not be unreasonably withheld or delayed.

10.4 Insurance. Maruishi shall, at its own expense, procure and maintain during the Term and for a period of five (5) years thereafter, appropriate liability insurance policy/policies, including product liability insurance after Regulatory Approval of Licensed Product in the Territory, consistent with normal business practices of prudent companies similarly situated in the Territory. Such insurance shall not be construed to create a limit of Maruishi's liability with respect to its indemnification obligations under this Article 10. Maruishi shall provide Cara with written evidence of such insurance upon request. Maruishi shall provide Cara with prompt written notice of cancellation, non-renewal or material change in such insurance or self-insurance which could materially adversely affect the rights of Cara hereunder and shall use commercially reasonable efforts to provide such notice at least thirty (30) days prior to any such cancellation, non-renewal or material change. Maruishi's insurance hereunder shall be primary with respect to the obligations for which Maruishi is liable hereunder and Cara's insurance shall be non-contributing with respect to the obligations for which Cara is to be indemnified by Maruishi hereunder.

10.5 Limitation. With respect to the indemnity obligation in Section 10.1 and 10.2 above, it is understood and agreed that the indemnification does not cover or include lost profits or other future economic harm.

ARTICLE 11

CONFIDENTIALITY

11.1 Treatment of Confidential Information. The Parties agree that during the Term, and for a period of [*] after this Agreement expires or terminates, a Party receiving Confidential Information of the other Party shall (i) maintain in confidence such Confidential Information; (ii) not disclose such Confidential Information to any Third Party without prior written consent of the disclosing Party, except as otherwise permitted in this Article 10; and (iii) not use such Confidential Information for any purpose other than the performance of or exercise of its rights under this Agreement.

11.2 Authorized Disclosure.

(a) If, based upon the advice of legal counsel skilled in the subject matter, a Party is required to disclose specific Confidential Information of the other Party to comply with an applicable law, regulation, legal process, or order of a government authority or court of competent jurisdiction, the Party may disclose such Confidential Information only to the entity or person required to receive such disclosure; provided, however, that the Party required to disclose such Confidential Information shall (a) to the extent permitted by such law, regulation, process, order or rules, first have given prompt (but in no event less than five (5) business days) advance notice to such other Party to enable it to seek any available exemptions from or limitations on

such disclosure requirement and shall reasonably cooperate in such efforts by the other Party, (b) furnish only the portion of the Confidential Information which is legally required to be disclosed; (c) use all reasonable efforts to secure confidential protection of such Confidential Information, and (d) continue to perform its obligations of confidentiality and non-use set out in this Article 11.

(b) Each Party may disclose Confidential Information of the other Party to Regulatory Authorities to the extent such disclosure is reasonably necessary in regulatory filings required for the development and/or commercialization of Licensed Products. In addition, each Party may disclose Confidential Information of the other Party (other than Manufacturing Information) to the extent such disclosure is reasonably necessary in the following instances: filing or prosecuting patents as permitted by this Agreement; disclosure to Sublicensees and potential Sublicensees, and to licensees or potential licensees of Cara, and to contractors, employees and consultants, who need to know such information for the development, manufacture and commercialization of Licensed Products, to bankers, lawyers, accountants, agents or other Third Parties in connection with due diligence or similar investigations, and to potential Third Party investors in confidential financing documents; provided that any such Sublicensee, licensee, contractor, employee, consultant, banker, lawyer, accountant, agent or Third Party is bound by obligations of confidentiality and non-use at least as restrictive as those set forth herein. In the case of each disclosure, the Party making such disclosure shall use reasonable efforts to obtain confidential treatment of any such disclosure, and shall not disclose Confidential Information of the other Party other than is reasonably necessary.

11.3 Publicity; Terms of Agreement. The Parties shall treat the existence and material terms of this Agreement as confidential and shall not disclose such information to Third Parties without the prior written consent of the other Party or except as provided in Section 11.2 (treating such information as Confidential Information of both Parties for purposes of Section 11.2). The Parties agree that upon execution of this Agreement or shortly thereafter, either Party may issue a press release, which shall be subject to prior review and approval by the other Party, not to be unreasonably withheld or delayed. Except for such press release or as otherwise required by applicable law or applicable stock exchange requirements, neither Cara nor Maruishi shall issue or cause the publication of any other press release or public announcement with respect to the transactions contemplated by this Agreement without the express prior approval of the other Party, which approval shall not be unreasonably withheld or delayed; provided that, each of Cara and Maruishi may make any public statement in response to questions by the press, analysts, investors or those attending industry conferences or financial analyst calls, or issue press releases, so long as any such public statement or press release is not inconsistent with prior public disclosures or public statements approved by the other Party pursuant to this Section 10.3 and which do not reveal non-public information about the other Party. If, in the reasonable opinion of a Party's legal counsel, a public announcement of the transactions contemplated by the Agreement is required by applicable laws or applicable stock exchange requirements, then, to the extent permissible by law, such Party will provide the other with notice reasonable under the circumstances (but in no event less than ten (10) days prior to disclosure) of such intended

announcement and will consult with the other Party with respect to the nature and scope of the required announcement (which shall be limited to the information reasonably required to be disclosed). In addition to the foregoing, with respect to complying with the disclosure requirements of the Securities and Exchange Commission or other regulatory agencies, in connection with any required filing of this Agreement with such agency, the Parties shall consult with one another concerning which terms of this Agreement shall be requested to be redacted in any public disclosure of the Agreement by the agency, Licensed Products and Field of Use, the exhibits, and any dollar amounts set forth herein. If Maruishi is required to disclose this Agreement or any terms hereof, Maruishi shall give Cara reasonable advance notice of such required disclosure and shall address and accommodate all Cara's reasonable comments regarding the extent of such disclosure.

11.4 Injunctive Relief. Given the nature of the Confidential Information and the competitive damage that would result to a Party upon unauthorized disclosure, use or transfer of its Confidential Information to any Third Party, the Parties agree that monetary damages may not be a sufficient remedy for any breach of this Article 11. In addition to all other remedies, a Party shall be entitled to seek specific performance and injunctive and other equitable relief as a remedy for any breach or threatened breach of this Article 11.

ARTICLE 12

TERM AND TERMINATION

12.1 Term. This Agreement shall come into effect as of the Effective Date and shall remain in effect until such time as the Agreement is terminated pursuant to this Article 12.

12.2 Termination.

(a) Termination for Bankruptcy/Insolvency. A Party may terminate this Agreement on written notice in the event any of the following occurs with respect to the other Party: (a) such Party files a petition in bankruptcy or makes a general assignment for the benefit of creditors or otherwise acknowledges in writing insolvency, or is adjudged bankrupt, and such Party, (i) fails to assume this Agreement in any such bankruptcy proceeding within thirty (30) days after filing or (ii) assumes and assigns this Agreement to a Third Party; (b) such Party goes into or is placed in a process of complete liquidation; (c) a trustee or receiver is appointed for any substantial portion of such Party's business and such trustee or receiver is not discharged within sixty (60) days after appointment; (d) any case or proceeding shall have been commenced or other action taken against such Party in bankruptcy or seeking liquidation, reorganization, dissolution, a winding-up arrangement, composition or readjustment of its debts or any other

relief under any bankruptcy, insolvency, reorganization or similar act or law of any jurisdiction now or hereafter in effect is not dismissed or converted into a voluntary proceeding governed by clause (a) above within sixty (60) days after filing; or (e) there shall have been issued a warrant of attachment, execution, distraint or similar process against any substantial part of the property of such Party and such event shall have continued for a period of sixty (60) days and none of the following has occurred: (i) it is dismissed, (ii) it is bonded in a manner reasonably satisfactory to the other Party, or (iii) it is discharged.

(b) Termination for Default. Upon any material breach by either Party (the "Defaulting Party") of this Agreement, the other Party (the "Non-Defaulting Party") may notify the Defaulting Party in writing of such breach and require that the Defaulting Party cure such breach within thirty (30) days of such notice, for any payment breach, or within ninety (90) days of the Non- Defaulting Party's notice for any other breach. In the event the Defaulting Party shall not have cured the breach by the end of the applicable cure period, the Non- Defaulting Party may terminate this Agreement immediately upon written notice to the Defaulting Party.

(c) Termination by Maruishi at Will. Maruishi may notify Cara in writing that it is terminating this Agreement either in its entirety, or as to either the Acute-Pain indication or the Uremic Pruritus indication, which termination shall be effective immediately upon Cara's receipt of notice of such termination to Cara. If Maruishi terminates the Agreement solely as to one or the other of such indications, then the Agreement shall survive solely as to the use of Licensed Product for the non-terminated indication, and the definition of the term "Field of Use" shall automatically be modified to mean use solely to treat such non-terminated indication, with the terminated indication being struck from such definition.

(d) Termination for Development Issue. If Maruishi discontinues or suspends its development activities as to a particular indication (or indications) in the Field of Use (*i.e.*, no good faith and material activities are being conducted), and if Cara deems that said discontinuation or suspension is not justified or is not commercially reasonable, then on written request by Cara, the Parties will have a face-to-face meeting as soon as practicable, to discuss the situation. At such meeting, Maruishi will accurately and in good faith answer all reasonable questions of Cara regarding the reasons for such discontinuation or suspension, and Maruishi's justification for same. If Cara reasonably requests that Maruishi recommence such activities, and does not recommence and continue using diligent Commercially Reasonable Efforts to conduct such activities (i.e. mutually agreed upon action plan development activities) within four (4) months of such request notice from Cara, then Cara may terminate the Agreement as to all such affected indications on written notice, and Cara may thereafter succeed to and conduct all such development activities on its own behalf (or a license a third party to do so). If such agreement applies to both indications in the Field of Use, then the Agreement is deemed terminated in its entirety.

(e) Other Termination. If Maruishi, its Affiliate or Sublicensee files any lawsuit or reexamination or protest proceeding or the equivalent against Cara or its Affiliates seeking a declaratory judgment or determination that any claim(s) of the Licensed Patent Rights is invalid, unenforceable, of narrower scope or otherwise not patentable, then Cara shall have the right to terminate this Agreement at any time upon written notice to Maruishi.

12.3 Effects of Termination.

(a) Upon termination of this Agreement pursuant to Section 12.2: (i) all licenses and rights granted hereunder to Maruishi shall terminate and revert exclusively to Cara, all sublicenses (if any) granted by Maruishi under the rights or licenses granted to Maruishi under this Agreement shall terminate, unless and except to the extent that Cara agrees in writing such sublicenses shall not terminate upon termination of this Agreement but instead shall become direct licenses with Cara; and (ii) Maruishi (and its Affiliates) shall immediately cease all development and Commercialization of Licensed Products and return to Cara all physical manifestations of the Licensed Technology and Cara Confidential Information (including Manufacturing Information).

(b) Upon such termination of this Agreement pursuant to Section 12.2, Maruishi agrees to promptly transfer to Cara (including making such filings as may be required with Regulatory Authorities and other governmental authorities of the Territory to effect such transfer), at Cara's request, the following with respect only to the Licensed Products: (i) ownership of all Regulatory Documents and Regulatory Approvals applicable to Licensed Products that are Controlled by Maruishi or its Affiliates (including the Regulatory Documents) at such time; (ii) all pre-clinical (including toxicology) and clinical study protocols, data and reports applicable to Licensed Products that are possessed or owned by Maruishi or its Affiliate at such time; and (iii) all Cara-sponsored or investigator-sponsored clinical trial results, and the results of all ongoing clinical trials, and (iv) such other information, data, and documents applicable to Licensed Products that are owned by Maruishi or its Affiliate that are reasonably requested by Cara to permit Cara and its Affiliates to develop, manufacture and commercialize Licensed Products after the termination date, including but not limited to any documents related to the prosecution, maintenance, defense and enforcement of the Licensed Patent Rights.

(c) Effective upon termination of this Agreement by Cara pursuant to Section 12.2, Maruishi will be deemed to have hereby granted to Cara and its Affiliates an irrevocable, royalty-free, fully paid-up, non-exclusive, fully transferable, worldwide, perpetual license, with the right to grant sublicenses, under any intellectual property Controlled by Maruishi as of the effective date of such termination (including patents, copyrights, trademarks, trade secrets and know-how) that incorporates, uses or is derived from Licensed Technology (including all Maruishi Know-How and Maruishi Patents) solely to make, have made, use, sell, offer to sell or import products containing CR845.

(d) Upon any such termination of the Agreement, then at the request of Cara, Maruishi agrees to negotiate with Cara in good faith to sell and transfer to Cara any inventory of Licensed Products. Maruishi further agrees, upon such termination, at the request of Cara, to negotiate in good faith with Cara to assign to Cara any contracts with Third Party manufacturers, suppliers, clinical trial organizations or clinical trial sites related to Licensed Products.

(e) Upon any such termination of the Agreement, the Parties will cooperate in good faith to establish a transition plan to effectuate the transfers contemplated under this Section 12.3 in a manner that preserves continuity of clinical and commercial supply with respect to any Licensed Products that are being developed and/or commercialized as of the effective date of the termination.

12.4 Survival. The following provisions shall survive any expiration or termination of this Agreement**:** Articles 1 (to the extent needed for the other Articles and Sections that survive), 10, 11, and 13, and Sections 2.6, 2.6.1, 3.2(b) (fourth sentence only), 3.3 (eighth sentence only), 3.8, 6.10, 8.1, 12.3, and 12.4. Termination of this Agreement shall not relieve the Parties of any liability which accrued (including any payment obligation that has accrued or become due and payable) (it being understood that, by way of example, Maruishi's obligation to pay the Development Milestones "accrues" when the event that meets the definition of "Completion" and "Initiation" provided for in Section 6.2(a) has occurred) hereunder prior to the effective date of such termination nor preclude either Party from pursuing all rights and remedies it may have hereunder or at law or in equity with respect to any breach or Default of this Agreement nor prejudice either Party's right to obtain performance of any obligation. The remedies provided in this Article 12 are not exclusive of any other remedies a Party may have in law or equity.

12.5 Licensee Bankruptcy Protection. All licenses granted under or pursuant to this Agreement are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code, licenses of rights to "intellectual property" as defined under Section 101(35A) of the U.S. Bankruptcy Code to the extent permitted thereunder. Each of the Parties shall retain and may fully exercise all of its respective rights and elections under the U.S. Bankruptcy Code or any analogous provisions in any other country or jurisdiction. Upon the commencement of a bankruptcy proceeding by or against either Party, the Party that is not a party to such proceeding shall further be entitled to a complete duplicate of (or complete access to, as appropriate) any such intellectual property that is subject to the applicable license, which, if not already in the non-subject Party's possession, shall be promptly delivered to it, unless the Party subject to the proceeding elects to continue, and continues, to perform all of its obligations under this Agreement.

ARTICLE 13

MISCELLANEOUS

13.1 Entire Agreement; Amendment. This Agreement, including the exhibits, constitutes the entire agreement between the Parties (or their Affiliates) related to the subject matter hereof. All prior and contemporaneous negotiations, representations, warranties, agreements, statements, promises and understandings related to the subject matter hereof are superseded by and merged into and extinguished and completely expressed by this Agreement, including the exhibits. No Party shall be bound by or charged with any written or oral agreements, representations, warranties, statements, promises or understandings not specifically set forth in this Agreement, including the exhibits. As of the Effective Date, the Non- Disclosure Agreement dated November 29, 2012 between Cara and Maruishi (the "***Confidentiality Agreement***"), is hereby superseded by this Agreement, provided that all Confidential Information (as defined in the Confidentiality Agreement) disclosed thereunder shall be treated as Confidential Information disclosed under, and subject to the terms of, this Agreement. No subsequent alteration, amendment, change or addition to this Agreement shall be binding upon the Parties unless reduced to writing and signed by an authorized officer of each Party.

13.2 Notices. Any notice required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been sufficiently given for all purposes (i) when delivered, if sent by recognized overnight courier or personally delivered, or (ii) upon confirmation of receipt, if sent by facsimile transmission (provided a duplicate hard copy is promptly delivered by one of the other foregoing means), in each case using the mailing addresses of the Parties as set forth below (or such other mailing address of which a Party is notified pursuant to this Section 13.2):

For Maruishi:	Maruishi Pharmaceutical Co., Ltd 4-2, Imazu-Naka 2-Chome, Tsurumi-Ku Osaka, 538-0042 Japan Tel : 81-6-6964-3150_ Fax : 81-6965-6060 Attn: _Keiichi Inoue, President & Representative Director
With a copy to:	Maruishi Pharmaceutical Co., Ltd Facsimile: 81-6965-6060 Attn: Hideharu Tominaga
For Cara:	Cara Pharmaceuticals, Inc. One Parrott Drive Shelton, CT 06484 Facsimile: 203-567-1510 Attn: Derek Chalmers
With a copy to:	Josef Schoell

13.3 Governing Law; Dispute Resolution. This Agreement shall be governed and construed in accordance with the laws of the State of New York, as applied to agreements executed and performed entirely within the State of New York, without regard to any applicable principles of conflicts of law. In the event any dispute or other issues arises among the Parties, each of the Parties shall exert its best efforts (including, by the face-to face meeting of the respective top management) to resolve such dispute or issue. In the eventuality that such dispute or issue cannot be amicably resolved within 60 days of written notice from a Party, such dispute or issue may be submitted by a Party to the International Chamber of Commerce for binding arbitration in accordance with the commercial arbitration rules of the International Chamber of Commerce as then in effect. Such arbitrations shall be conducted in the English language, and, unless otherwise agreed by the Parties to the dispute, shall be held in Chicago, Illinois. Any arbitration award rendered in any such arbitration proceeding may be entered in and enforced by any court of competent jurisdiction. Such arbitration shall be the sole and exclusive dispute resolution mechanism (other than discussion by the Parties), except that a Party may seek interim or permanent injunctive relief in a court of competent jurisdiction.

13.4 Limitation of Liability. EXCEPT FOR LIABILITY FOR BREACH OF ARTICLE 9 OR FRAUD OR COMPARABLE INTENTIONAL MISCONDUCT, NEITHER PARTY SHALL BE ENTITLED TO RECOVER FROM THE OTHER PARTY ANY INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES IN CONNECTION WITH THIS AGREEMENT OR ANY LICENSE GRANTED HEREUNDER. The limitations set forth in this Section 13.4 shall not apply with respect to either Party's indemnification obligations under Sections 10.1 or 10.2 for Third Party Claims.

13.5 Interpretation. Cara and Maruishi have each participated in negotiations and due diligence and consulted their respective counsel regarding this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the Parties and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any provisions of this Agreement.

13.6 Assignment. Neither Party may assign or transfer this Agreement or any rights or obligations hereunder, by operation of law or otherwise, without the prior written consent of the other Party, except that a Party may make such an assignment or transfer, by operation of law or otherwise, without the other Party's consent to its Affiliate(s) or to an entity that acquires all or substantially all of the business of such Party, whether in a merger, consolidation, reorganization, acquisition, sale or otherwise. This Agreement shall be binding on the successors and permitted assigns of the assigning Party, and the name of a Party appearing herein shall be deemed to include the name(s) of such Party's successors and permitted assigns to the extent necessary to carry out the intent of this Agreement. Any assignment or attempted assignment by either Party in violation of the terms of this Section 13.6 shall be null and void and of no legal effect.

13.7 Performance by Affiliates. Each of Cara and Maruishi acknowledge that obligations under this Agreement may be performed by Affiliates of Cara and Maruishi. Each of Cara and Maruishi guarantee performance of this Agreement by its Affiliates, notwithstanding any assignment to Affiliates in accordance with Section 13.6 of this Agreement.

13.8 Severability. In the event that any one or more of the provisions contained herein, or the application thereof in any circumstances, is held invalid, illegal or unenforceable in any respect for any reason, the Parties shall negotiate in good faith with a view to the substitution therefor of a suitable and equitable provision in order to carry out, so far as may be valid and enforceable, the intent and purpose of such invalid provision; provided, however, that the validity, legality and enforceability of any such provision in every other respect and of the remaining provisions contained herein shall not be in any way impaired thereby, it being intended that all of the rights and privileges of the Parties hereto shall be enforceable to the fullest extent permitted by law.

13.9 Headings. The heading for each article and section in this Agreement has been inserted for convenience of reference only and is not intended to limit or expand on the meaning of the language contained in the particular article or section.

13.10 Further Actions Each Party agrees to execute, acknowledge and deliver such further instruments, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of the Agreement.

13.11 Independent Contractors. The relationship between Maruishi and Cara created by this Agreement is solely that of independent contractors. This Agreement does not create any agency, distributorship, employee-employer, partnership, joint venture or similar business relationship between the Parties. Neither Party is a legal representative of the other Party, and neither Party can assume or create any obligation, representation, warranty or guarantee, express or implied, on behalf of the other Party for any purpose whatsoever. Each Party shall use its own discretion and shall have complete and authoritative control over its employees and the details of performing its obligations under this Agreement.

13.12 Use of Name. No right, express or implied, is granted to Maruishi by this Agreement to use in any manner any Trademark of Cara or its Affiliates. Maruishi shall not use or allow its representatives to use, any name or Trademark of Cara or its Affiliates, or the name of any of their employees, or any derivatives thereof, for purposes of any promotion, publicity or advertising without Cara's prior written consent, which may be withheld at Cara's sole discretion.

13.13 No Waiver. A Party's consent to or waiver, express or implied, of the other Party's breach of its obligations hereunder shall not be deemed to be or construed as a consent to or waiver of any other breach of the same or any other obligations of the other Party. A Party's failure to complain of any act, or failure to act, by the other Party, to declare the other Party in default, to insist upon the strict performance of any obligation or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof, no matter how long such failure continues, shall not constitute a waiver by such Party of its rights hereunder, of any such breach, or of any other obligation or condition. A Party's consent in any one instance shall not limit or waive the necessity to obtain such Party's consent in any future instance and in any event no consent or waiver shall be effective for any purpose hereunder unless such consent or waiver is in writing and signed by the Party granting such consent or waiver.

13.14 Fees and Expenses. Regardless of whether or not the transactions contemplated by this Agreement are consummated, each Party shall bear its own fees and expenses incurred in connection with the negotiation and execution of this Agreement.

13.15 No Set-Off. Neither Party shall have any right to set-off any amount owed to by such Party to the other Party or an Affiliate thereof under this Agreement.

13.16 No Other Rights. The Parties acknowledge and agree that, except as expressly set forth in this Agreement, neither Party grants any rights or licenses to the other Party under this Agreement nor shall either Party have any rights or obligations under this Agreement.

13.17 Parties in Interest. This Agreement shall be binding upon and inure solely to the benefit of each Party hereto and its respective successors and permitted assigns, and nothing in this Agreement, express or implied, is intended to or shall confer upon any other person any right, benefit or remedy of any nature whatsoever under or by reason of this Agreement (with the exception of Maruishi Indemnitees and Cara Indemnitees under Sections 9.1 and 9.2, respectively).

13.18 Rules of Construction. The use in this Agreement of the term "***including***" (or any cognates thereof, such as "***include***" or "***includes***") means "***including*** (or the applicable cognate thereof), without limitation." The words "***herein***," "***hereof***," "***hereunder***," and other words of similar import refer to this Agreement as a whole, including the exhibits, and not to any particular section, subsection, paragraph, subparagraph or clause contained in this Agreement. All references to sections and exhibits mean those sections of this Agreement and the exhibits attached to this Agreement, except where otherwise stated. The words "will" and "shall" are herein used interchangeably and the word "will" shall be construed to have the same meaning and effect as the word "shall".

13.19 Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

13.20 Precedence. In the event of any conflict between this Agreement and any of the exhibits attached hereto, this Agreement shall control.

IN WITNESS WHEREOF, the Parties have executed this Agreement by their duly authorized representatives as of the Effective Date.

CARA THERAPEUTICS, INC.

By: /s/ Derek Chalmers
Name: Derek Chalmers
Title: President & CEO

MARUISHI PHARMACEUTICAL CO., LTD

By: /s/ Keiichi Inoue
Name: Keiichi Inoue
Title: President and Representative Director

CONFIDENTIAL TREATMENT HAS BEEN REQUESTED FOR PORTIONS OF THIS EXHIBIT. THE COPY FILED HEREWITH OMITS THE INFORMATION SUBJECT TO A CONFIDENTIALITY REQUEST. OMISSIONS ARE DESIGNATED [*]. A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION.

EXHIBIT A

COMPOUND CR-845

[*]

[*]

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EXHIBIT B

LICENSED PATENT RIGHTS

Japan Application No. Based on PCT Appln. No.	Title	Priority Appln., Filed
[*]	[*]	[*]
[*]	[*]	[*]

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EXHIBIT C

CR845 DEVELOPMENT TIMELINES

All timeline and studies proposed below are dependent upon a confirmed start date from CROs and upon FDA acceptance.

[*]

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EXHIBIT D

EXAMPLE OF MILESTONE CREDITS TO SUBLICENSE FEES

Assuming that Maruishi enters into a sublicense agreement with a Sublicensee, under which the Sublicensee pays Maruishi an upfront fee of [*], and subsequently pays Maruishi a milestone payment on achieving the milestone of Regulatory Approval of the uremic pruritus indication of [*], and prior to entering into such sublicense agreement Maruishi had paid Cara [*] in milestone payment under Section 6.2(a), then the following Sublicense Fees and credits would apply under Section 6.5:

— with respect to such upfront fee paid by the Sublicensee, Maruishi would owe a Sublicense Fee equal to [*] of [*] (the upfront fee), less a credit of [*] for the milestone payments previously made, for a total Sublicensee Fee of [*].

— with respect to the subsequent milestone payment paid by the Sublicensee, Maruishi would owe a Sublicense Fee equal to [*] of [*] (the milestone payment), less a credit of [*] for the milestone payment made by Maruishi to Cara under Section 6.2(a) for the achievement of such Regulatory Approval, for a total Sublicensee Fee of [*].

For clarity, any such milestone payment made by Maruishi to Cara under Section 6.2(a) would be creditable only once against Sublicensee Fees owed under Section 6.5.

CONFIDENTIAL TREATMENT HAS BEEN REQUESTED FOR PORTIONS OF THIS EXHIBIT. THE COPY FILED HEREWITH OMITS THE INFORMATION SUBJECT TO A CONFIDENTIALITY REQUEST. OMISSIONS ARE DESIGNATED [*]. A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION.

Exhibit 10.8

LICENSE AND API SUPPLY AGREEMENT

THIS LICENSE AND API SUPPLY AGREEMENT (this "***Agreement***") is made and entered into effective as of April 16th, 2012 (the "***Effective Date***") by and between **CHONG KUN DANG PHARMACEUTICALS CORP.**, a corporation organized under the laws of Korea with a principal place of business at 368, 3-ga, Chungjeong-ro, Seodaemun-gu, Seoul 120-756, Korea ("***CKD***"), and **CARA THERAPEUTICS, INC.**, a Delaware corporation with a principal place of business at One Parrott Drive, Shelton, CT 06484 ("***Cara***"). Cara and CKD may be referred to herein individually as a "Party", and collectively as the "Parties."

RECITALS

WHEREAS, Cara owns or controls certain patent rights and know-how relating to a proprietary drug product referred to as CR-845, which may be useful for treating pain and uremic pruritus in humans; and

WHEREAS, CKD has capabilities in the development, manufacture and commercialization of pharmaceutical compounds; and

WHEREAS, CKD desires to obtain from Cara, and Cara is willing to grant to CKD, the exclusive license to develop, manufacture, and commercialize drug products containing CR-845 in South Korea, on the terms and conditions set forth herein; and

WHEREAS, CKD desires to obtain from Cara, and Cara is willing to supply to CKD, amounts of CR-845 (up to its requirements) in the form of bulk active pharmaceutical ingredient, for use in the development and commercialization in the licensed Territory, on the supply terms and conditions as set forth herein and in a supply agreement to be negotiated by the Parties;

NOW, THEREFORE, based on the premises and the mutual covenants and obligations set forth below, and intending to be bound hereby, the Parties agree as follows:

ARTICLE 1

DEFINITIONS

For purposes of this Agreement, the following terms shall have the meanings as set forth below:

1.1 *"Affiliate"* means, with respect to a Party, an entity that, directly or indirectly, through one or more intermediaries, controls, is controlled by or is under common control with such Party. For purposes of this definition, "control" means (with correlative meanings for the

terms “controlled by” and “under common control with”) the possession, direct or indirect, of the power to cause the direction of the management and policies of the applicable entity, whether through ownership of fifty percent (50%) or more of the voting securities of such entity, by contract or otherwise. An entity will be an Affiliate for purposes of this Agreement only so long as it satisfies the definition set forth above in this Section.

1.2 *“Applicable Laws”* means all laws, statutes and governmental rules and regulations applicable to any of the activities conducted under this Agreement.

1.3 *“API Supply Price”* means, as to a particular Licensed Product sold by CKD (or its Affiliate), actual cost of the CR-845 API in such Licensed Product (based on the Transfer Price charged by Cara for the applicable batch or lot of CR-845 API included in such Licensed Product).

1.4 *“Cara Indemnitees”* shall have the meaning ascribed to such term in Section 9.2.

1.5 *“CKD Product Data”* means all data and other results generated in any clinical trials or other studies on a Licensed Product conducted by or on behalf of CKD or its Affiliate.

1.6 *“CKD Indemnitees”* shall have the meaning ascribed to such term in Section 9.1.

1.7 *“CKD Know-How”* means any know-how, trade secret, experimental data, formula, experimental procedure, pre-clinical and clinical data and other confidential and/or proprietary information that (a) is Controlled by CKD or its Affiliates, and (b) is necessary or useful for the research, development, use, manufacture or sale of CR-845 and/or Licensed Product.

1.8 “***CKD Patent***” means any patent or patent application that (a) is Controlled by CKD or its Affiliates, and (b) claims or covers the research, development, use, manufacture or sale of CR-845 and/or a Licensed Product.

1.9 *“CR-845”* means the compound of Cara described in Exhibit A of this Agreement.

1.10 *“CR-845 API”* means CR-845 in bulk active pharmaceutical ingredient form, ready for formulation into final drug product.

1.11 *“Claim”* means any claim, allegation, suit, complaint, action or legal proceeding.

1.12 *“COGS”* means, with respect to a particular Licensed Product, the sum of the following amounts: the API Supply Price, plus the Finished Product Manufacturing Cost, plus the Royalty Amount, in each case as applicable to such Licensed Product.

1.13 *"Commercialize"* or ***"Commercialization"*** means those activities relating to the promotion, marketing, distribution and/or sale of Licensed Products, including Phase IV Trials or equivalent clinical trials conducted following Regulatory Approval to market a pharmaceutical product.

1.14 *"Commercially Reasonable Efforts"* means, with respect to specific tasks or activities conducted under this Agreement, the level of efforts and resources commonly used in the pharmaceutical industry to conduct such tasks or activities with respect to products at a similar stage (to the applicable Licensed Product) in its product life and of similar market potential, based on information and conditions then-prevailing.

1.15 *"Confidential Information"* of a Party means all confidential or proprietary Information received or otherwise obtained by the other Party from such Party or its Affiliates pursuant to this Agreement, *but excluding* any specific Information that:

(a) is now, or hereafter becomes, generally available to the public through no fault of the receiving Party, or its Affiliates, or any entity that obtained such information or materials from the disclosing Party;

(b) the receiving Party or its Affiliates already possesses, as evidenced by its written records, prior to receipt thereof from the disclosing Party;

(c) is obtained without restriction from a Third Party that had the legal right to disclose the same to the receiving Party or its Affiliates; or

(d) has been independently developed by the receiving Party or its Affiliates without the aid, application or use of any Confidential Information of the disclosing Party, as demonstrated by competent written proof.

1.16 *"Control"* means, with respect to any material, item of Information, or intellectual property right, the possession (whether by ownership or license, other than by a license granted pursuant to this Agreement) by a Party or its Affiliate of the ability to grant to the other Party access to use, ownership, a license and/or a sublicense as provided for in this Agreement under such item or right without violating the terms of any agreement or other arrangement with any Third Party as of the time such Party would first be required hereunder to grant the other Party such access, ownership, license, or sublicense (as applicable).

1.17 *"Dollar*" or "**$**" means a United States dollar.

1.18 *"Drug Product"* means the finished dosage form that contains CR-845 API, generally, but not necessarily, in association with other active or inactive ingredients, and not necessarily labeled or packaged.

1.19 *"FDA"* means the United States Food and Drug Administration, or any successor thereto.

1.20 *"Field of Use"* means use in the treatment of pain and/or uremic pruritus and all additional indications with any pharmaceutical formulation.

1.21 *"Finished Product"* means a Licensed Product in final form ready for commercial sale, in primary packaging.

1.22 *"Finished Product Manufacturing Cost"* means, with respect to a particular Licensed Product, the actual costs of CKD to make Finished Product form of such Licensed Product, but excluding the cost of the CR-845 API in such product and any Royalty Amount.

1.23 "***GAAP***" means United States generally accepted accounting principles.

1.24 *"IND"* means an Investigational New Drug application, as defined in 21 C.F.R. 312 or any successor regulation, or the equivalent application to the Regulatory Authority in the Territory.

1.25 *"Indemnified Party"* shall have the meaning ascribed to it in Section 9.3.

1.26 *"Indemnifying Party"* shall have the meaning ascribed to it in Section 9.3.

1.27 *"Information"* means any and all data, results, improvements, processes, methods, protocols, formulas, inventions, know-how, trade secrets and any other information, patentable or otherwise, which may include (but is not limited to) scientific, research and development, manufacturing know-how, pre-clinical, clinical, regulatory, manufacturing, safety, marketing, financial and commercial information or data.

1.28 *"Launch Date"* means the date on which a Licensed Product is first sold by CKD to a Third Party in the Territory, after Regulatory Approval for the Licensed Product has been granted in such country.

1.29 *"License Fee"* shall have the meaning ascribed to it in Section 6.1.

1.30 *"Licensed Know-How"* means the Information that (a) is Controlled by Cara, and (b) is directly related to Licensed Product and CR-845 API and is necessary for the research, development, manufacture, use, or sale of Licensed Product and research, development, manufacture and use of CR-845 API in the Field of Use in the Territory.

1.31 "***Licensed Patent Rights***" means:

(a) the patents and patent applications set forth in part 2 of **Exhibit B**;

(b) any and all patent applications that are continuations or divisionals of the patent applications described in (a) above;

(c) any and all issued and unexpired patents resulting from any of the applications described in (a) or (b) above; and

(d) any and all issued and unexpired reissues, reexaminations, renewals, or extensions of any of the patents described in (a), (b) or (c) above.

1.32 *"Licensed Product"* means any pharmaceutical preparation containing CR-845 intended for use in the Field of Use.

1.33 *"Licensed Technology"* means the Licensed Patent Rights and Licensed Know-How.

1.34 *"Losses"* means costs and expenses (including, without limitation, reasonable legal expenses and attorneys' fees), judgments, liabilities, fines, damages, assessments and/or other losses.

1.35 "***Marketing Approval Application***" means the appropriate application or registration submitted to the appropriate Regulatory Authority in the Territory to seek Regulatory Approval.

1.36 *"Net Sales"* means, with respect units of Licensed Products sold, transferred or used by or for CKD and its Affiliates and Sublicensees in the applicable time period, the amount equal to: (a) the total number of units of Licensed Product, times (b) [*], and minus (c) the following deductions to the extent actually incurred with respect to such sales: (i) [*].

All of the sales, and deductions taken above, shall be determined in accordance with GAAP.

Any disposal of Licensed Products for, or use of Licensed Products in, clinical or pre-clinical trials without charge, given as free samples, including sample cards, or distributed for indigent programs shall not be included in Net Sales.

Upon any sale or other disposal of any Licensed Product that should be included within Net Sales for any consideration other than an exclusively monetary consideration on bona fide arm's-length terms, then for purposes of calculating the Net Sales under this Agreement, such Licensed Product shall be deemed to be sold exclusively for money [*].

1.37 *"NHIP Price"* means, with respect to a Licensed Product sold or otherwise commercialized the greater of: (a) [*]; or (b) [*].

1.38 *"Phase IV Trial"* means a clinical trial of a pharmaceutical product initiated in a country in an approved indication after receipt of Regulatory Approval for such product in such indication in such country, to delineate additional information about such product's risks, benefits and optimal use.

1.39 *"Regulatory Approval"* means any approvals (including supplements, amendments, pre- and post-approvals and price approvals), licenses, registrations or authorizations of any national, regional, state or local regulatory agency, department, bureau, commission, council or other governmental entity, necessary for the manufacture, marketing, distribution, use or sale of a Licensed Product in the Territory.

1.40 *"Regulatory Authority"* means any regulatory agency, department, bureau, commission, council or other governmental entity involved in granting approvals for the development, manufacturing, marketing, reimbursement and/or pricing of a Licensed Product in in the Territory.

1.41 *"Regulatory Documents"* means all regulatory documents and filings, correspondence with Regulatory Authorities, annual reports and amendments thereto related to a Licensed Product.

1.42 "***Royalty Amount"*** means, with respect to a particular Licensed Product sold commercially in the Territory, the actual amount (in Dollars) payable by CKD to Cara as royalty on such sale pursuant to Section 6.3.

1.43 "***Royalty Term"*** means, with respect to a particular Licensed Product (on a Licensed Product-by-Licensed Product basis), the period from the Launch Date of the particular Licensed Product in the Territory until the later of: (i) expiration of the last–to-expire Valid Claim covering such Licensed Product (*provided that* there are no ongoing sales in the Territory of a product which contains an identical compound with CR-845 by Third Party until its expiration in the Territory), or (ii) expiration of any market exclusivity period granted by a Regulatory Authority with respect to such Licensed Product in the Territory (e.g., "data" exclusivity periods).

1.44 "***Specifications***" means the specifications for CR-845 API approved by FDA, as established by Cara in consultation with CKD.

1.45 *"Sublicensee"* means an entity to which CKD has granted a sublicense as permitted in Section 2.1, with Cara's prior written approval.

1.46 *"Supply Agreement"* means the supply agreement entered into by the Parties regarding supply to CKD of CR-845 API, as contemplated in Section 5.1.

1.47 "***Term***" means the term of this Agreement as set forth in Section 11.1.

1.48 *"Territory"* means the Republic of Korea.

1.49 *"Third Party"* means any person, company or other business entity other than Cara or CKD or an Affiliate of either of them.

1.50 *"Third Party Transaction"* shall have the meaning ascribed to it in Section 2.6.

1.51 *"Trademark"* means any trade name, service mark, logo or trademark (whether or not registered), together with all goodwill associated therewith, and any renewals, extensions or modifications thereto.

1.52 *"Transfer Price"* means, as to a particular batch or lot of CR-845 API sold to CKD under the Supply Agreement, the price charged by Cara (on a per unit basis) for such CR-845 API.

1.53 "***Valid Claim***" means an unexpired claim of an issued patent within the Licensed Patent Rights that (a) has not been found to be unpatentable, invalid or unenforceable by a court or other authority in the country of the patent, from which decision no appeal is taken or can be taken, and (b) claims or covers CR-845 or Licensed Product.

ARTICLE 2

LICENSES AND RELATED RIGHTS

2.1 License Grant. Subject to the terms and conditions of this Agreement, Cara hereby grants to CKD an exclusive (even as to Cara) license, including the right to grant sublicenses to Sublicensees *provided that* CKD obtains Cara's prior written approval of the sublicense grant and the sublicensee (such approval not to be unreasonably withheld), under the Licensed Patent Rights and the Licensed Know-How solely to develop, manufacture, use, sell, have sold, offer for sale and import Licensed Products during the Term, and to develop, manufacture and use CR-845 API in the Territory within the Field of Use during the Term.

2.2 Retained Rights. Notwithstanding the licenses granted to CKD pursuant to Section 2.1, Cara retains all rights under the Licensed Technology: (a) to manufacture CR-845 and CR-845 API; (b) as needed to fulfill its obligations under this Agreement and the Supply Agreement; and (c) to conduct research, development, manufacturing and commercialization activities with respect to all products other than Licensed Products in the Field of Use in the Territory.

2.3 Limitations on License Rights. CKD hereby covenants and agrees that it shall not, and its Affiliates shall not, (a) use or practice the Licensed Technology for any use or purpose other than as expressly permitted in the license granted in Section 2.1, or (b) develop, use, promote, market, offer for sale or sell any product containing CR-845 for any use outside of the Field of Use, or (c) market, promote or sell any Licensed Product outside the Territory, which rights are expressly and exclusively reserved to Cara. It is understood and agreed that Cara retains exclusively all rights to the Restricted Manufacturing Information and has no obligation to disclose the same to CKD (except as may otherwise be provided in the Supply Agreement).

2.4 CKD License. Subject to the terms and conditions of this Agreement, CKD hereby grants to Cara a non-exclusive license (or sublicense, as applicable), with full rights to grant sublicenses, under the CKD Product Data, the CKD Know-How, and the CKD Patents solely to research, develop, seek regulatory approval of, promote, market, use, offer for sale and sell products containing CR-845 for all purposes outside the Territory. [*].

2.5 Trademarks. CKD shall have the right to select and register the Trademark(s) for use in connection with the promotion and commercialization of Licensed Product in the Territory (the "Product Marks"), *provided that* no such Trademark shall be confusingly similar to or dilutive of any Trademarks owned by Cara or its Affiliate. CKD shall own any such Product Mark which is created by CKD for the Licensed Product in the Territory, and will directly resister, use, control and maintain the Product Mark(s) in the Territory.

ARTICLE 3

TRANSFER OF INFORMATION; DEVELOPMENT AND REGULATORY MATTERS

3.1 Product Information Transfer.

(a) Licensed Know-How. Promptly after the Effective Date, Cara will provide to CKD copies of the Licensed Know-How necessary for CKD to develop and seek Regulatory Approval of Licensed Product in the Territory, and of any Regulatory Documents applicable for use in the Territory and directly relating to the Field of Use, to the extent then in its possession and Control. The clinical data portion of the Licensed Know-How will be provided to CKD in computer-readable, SAS transport format, where practicable and available, and otherwise in printed format. All other portions of the Licensed Know-How will be provided to CKD in written form, electronically if reasonably practicable and otherwise in hard copy documents. Data from all clinical trials directly applicable to the Field of Use conducted by or on behalf of Cara or its assignee of this Agreement will also be provided in signed clinical study reports**.** Data relating directly to the Field of Use from any ongoing clinical trials will be provided in written reports, summaries or manuscripts where available. If, during the Term, information is identified that is Controlled by Cara or its Affiliates and was as of the Effective Date, is reasonably necessary for the development or Commercialization of Licensed Products in the Territory in the Field of Use as contemplated in this Agreement, and should be included in the Licensed Know-How provided under this Section 3.1 but was not previously provided to CKD pursuant to this Section 3.1, then Cara will provide such Licensed Know-How to CKD promptly after such identification.

(b) Reserved Rights. Notwithstanding the disclosures in subsection (a) above, it is understood that Cara shall have and retains the full rights to use, review, access, reference and incorporate all Licensed Know-How (including all data and information in Regulatory Documents disclosed to CKD) to satisfy its obligations hereunder and to exercise all of its retained rights.

3.2 Clinical Development. Subject to the terms of this Agreement, Cara shall be responsible for: (a) conducting all clinical development and other studies that is needed in order to obtain or maintain Regulatory Approvals of the Licensed Products in the United States reasonably in accordance with the development timeline in the Exhibition C established by Cara, and (b) providing CKD with all the Regulatory Documents submitted to FDA and needed in order to obtain Regulatory Approvals of Licensed Products in the Territory. Cara shall use Commercially Reasonable Efforts to conduct such development and studies. CKD shall be responsible for conducting all additional clinical development and other studies in the Territory on Licensed Products that is needed in order to obtain or maintain Regulatory Approvals of Licensed Products in the Territory, to the extent that such additional clinical trial(s) are needed in order to obtain Regulatory Approval of Licensed Products on the basis of CKD's strategy of development and commercialization in the Territory. In this case, CKD shall conduct all such clinical trials and other studies on Licensed Product strictly in accordance with a clinical plan and study protocols reviewed and approved by Cara. CKD shall keep Cara fully informed of the progress of all such work and trials on Licensed Product conducted by or on behalf of CKD, and shall disclose all data, results and other Information generated, made or identified in any such work or trials. Cara shall have the full rights to use (and to license its other licensees to use) all such Information for all purposes relating to research, development and/or Commercialization of Licensed Products outside the Territory except upon termination of this Agreement pursuant to Section 11.2(c). To facilitate the foregoing, CKD will provide Cara accurate and complete English translations, at CKD's costs and expenses for translation, of a summary of all such plans and protocols, and all Information generated in such work or trials. Pursuant to the disclosures under Section 3.1 above, Cara shall keep CKD reasonably informed of the progress and results of Cara's development work on Licensed Product, to the extent needed by CKD for its obtaining or maintaining Regulatory Approval in the Territory, and shall disclose all data made from such trials to the extent needed by CKD for such Regulatory Approval. CKD shall have the rights to use such Licensed Know-How as permitted in Section 2.1.

3.3 Communications with Regulatory Authorities. From and after the Effective Date, except as otherwise set forth in this Agreement, CKD shall be responsible for all contacts with Regulatory Authorities with respect to Licensed Products in the Territory within the Field of Use. CKD shall have the responsibility, subject to the terms of this Agreement, to prepare and submit (a) all regulatory filings with Regulatory Authorities in the Territory as needed to conduct its clinical development of Licensed Products in the Territory, and (b) all applications to obtain Regulatory Approvals in the Territory. All such regulatory submissions shall be in compliance with all Applicable Laws. CKD shall keep Cara fully informed regarding all such regulatory activities, shall provide to Cara copies of all regulatory submissions (including applications for Regulatory Approval) in the Territory and of all responses from Regulatory Authorities, shall provide Cara reasonable advance notice of any meetings or scheduled discussions with Regulatory Authorities in the Territory regarding Licensed Products, and shall update Cara as

requested as to all progress and results of all such regulatory filings and meetings. Cara shall have the right to comment on all draft regulatory submissions, and CKD shall use reasonable efforts to accommodate all such comments. CKD shall use Commercially Reasonable Efforts, including conducting all such activities as needed, to obtain Regulatory Approvals in the Territory as soon as possible. Cara will use reasonable efforts to provide a reasonable level of assistance to CKD in its efforts to prepare and to make regulatory submissions leading to Regulatory Approvals in the Territory. Cara shall have the right to use any such regulatory submissions for any of its (or its Affiliates' or other licensees') activities involving Licensed Products outside the Territory except upon termination of this Agreement pursuant to Section 11.2(c). At CKD's request, and subject to Cara personnel being available, Cara shall use reasonable efforts to assist and participate in such regulatory discussions, such participation to be paid for by CKD at Cara's standard FTE rate for the applicable personnel (and including payment of all of Cara's reasonable external expenses, including travel, per diem and lodging, incurred in performing such requested participation). In addition, Cara shall have the right to attend, at its own initiative and cost, meetings with Regulatory Authorities in the Territory regarding Licensed Product (but Cara shall not actively participate in such meetings except to the extent requested by CKD). CKD shall disclose and provide to Cara all regulatory and related development information, including but not limited to Regulatory Authority communications, protocol submissions, annual reports, and licensing applications in a reasonable timeframe.

3.4 Regulatory Filings. CKD shall prepare and file with the appropriate Regulatory Authorities in the Territory, at its sole expense and in its own name, all documents (including all INDs) that are necessary to conduct any needed clinical studies of the Licensed Products, and all applications for Regulatory Approval that are needed to market and sell Licensed Products in the Field of Use in the Territory. If reasonably requested by CKD, Cara shall provide reasonable consultation, as necessary with respect to CKD's use, in the Territory for regulatory matters as permitted herein, of the Regulatory Documents and clinical data generated by Cara outside Territory and provided to CKD under this Agreement. Promptly after the submission of each such regulatory filing, CKD shall notify Cara that such regulatory filing has been made, and upon Cara's request, CKD shall provide Cara with a copy of each such filing at CKD's costs and expenses. In conjunction with such filings and at CKD's reasonable request, Cara shall furnish to CKD or, at Cara's sole option, directly to the appropriate Regulatory Authorities, such Information regarding the manufacture of the CR-845 API (such as CMC information) that is (i) already in the possession and Control of Cara or its Affiliate and (ii) is necessary to the IND or to obtain such Regulatory Approval for the Licensed Product. If Cara elects to provide such Information directly to the appropriate Regulatory Authorities rather than to CKD, Cara shall provide the appropriate authorization letters to relevant Regulatory Authority to enable CKD to reference such regulatory filings for purposes of applying for and supporting CKD's IND and applications for Regulatory Approval of Licensed Products.

3.5 Event Reporting. CKD shall be responsible for reporting all Events (as defined below) associated with the development or Commercialization of a Licensed Product in the Territory to the appropriate Regulatory Authorities in the Territory, in accordance with all

Applicable Laws, and shall provide Cara copies of all such reports promptly after filing with the Regulatory Authorities. Additionally, in the event either Party receives information regarding Events related to the use of a Licensed Product, such Party shall promptly provide the other Party with such information in accordance with the a separate Safety Agreement to be entered into by the Parties promptly. For purposes of this Section 3.4, "Event" shall mean any adverse event, adverse drug reaction or medical device report, including, without limitation, malfunctions, product failure, improper or inadequate design, manufacturer labeling or user error reported during the use of the Licensed Product by or on behalf of CKD, its Affiliates, and customers (including, without limitation, end users purchasing any Licensed Product or using any Licensed Product purchased from any of the foregoing). CKD shall notify Cara immediately of any Information received regarding any threatened or pending action by any public authority that may affect or related to the safety, efficacy, or other labeling claims of any CR-845 product.

3.6 Rights of Reference. CKD shall provide Cara in writing letters of reference, granting Cara (and its Affiliates and sublicensees) the right of reference for all purposes relating to development or commercialization of products containing CR-845 outside the Territory except upon termination of this Agreement pursuant to Section 11.2(c), with respect to all filings with Regulatory Authorities made by or on behalf of CKD or its Affiliate in the Territory relating to Licensed Product, and to all Regulatory Approvals. Such letters of reference shall expressly permit Cara to transfer such rights to its Affiliates and licensees and allow such entities the right of reference to all such filings and Regulatory Approvals for anywhere outside the Territory except upon termination of this Agreement pursuant to Section 11.2(c), and such rights of reference shall expressly be binding on any assignee or transferee of CKD's rights to such filings and Regulatory Approvals under this Agreement. If the FDA, or any other Regulatory Authority outside the Territory, requires access to certain portions of any such filings, registrations and approvals related to CR-845 and/or Licensed Product for legal or regulatory purposes in connection with Cara's or its Affiliate's or licensee's development and/or commercialization efforts, including without limitation for making patent-related submissions, then CKD shall cooperate with such Regulatory Authority and make such portions available to the Regulatory Authority and, if legally required for Cara to submit or pursue an application for Regulatory Approval, to Cara (or its Affiliate or sublicensee) solely for such purpose. For all purposes involving the development or commercialization of Licensed Products in the Territory pursuant to the license granted in Section 2.1, CKD shall have the right of reference during the Term equivalent to Cara's right ascribed in this section 3.6.

3.7 Recall Matters. CKD shall observe and conform at all times with all legal requirements in order to maintain an effective system for the recall from the market in the Territory of any Licensed Product used or sold in the Territory. CKD will be responsible for conducting, in accordance with all Applicable Laws, all withdrawals or recalls of Licensed Products used or sold in the Territory (except as may be otherwise provided in the Supply Agreement between the Parties), and will provide Cara with reasonable notice under the circumstances of such intended withdrawal or recall in an appropriate time, to the extent practicable, for Cara and CKD to discuss such intended action. CKD shall be responsible for, and

shall hold harmless and indemnify Cara and its Affiliates from and against, any and all Losses resulting from any such recall or withdrawal of the Licensed Product used or sold in the Territory, *except that* Cara shall be responsible for the costs and expenses of a recall or withdrawal that is directly caused by a manufacturing defect in CR-845 API supplied by Cara to CKD under the Supply Agreement, which may include recalls due to safety issue fundamentally originated in manufacturing defects in the CR-845 API which is contained in Finished Product.

ARTICLE 4

DILIGENCE

4.1 Diligence. CKD shall use good faith Commercially Reasonable Efforts to develop, obtain Regulatory Approvals for and, following Regulatory Approval, Commercialize the Licensed Products in the Territory within the Field of Use during the Term. Cara shall use good faith Commercially Reasonable Efforts to develop and obtain Regulatory Approvals for Licensed Products in the U.S. reasonably in accordance with the development timeline provided by Cara in Exhibition C of this Agreement during the Term. Such diligence obligations mutually apply to both: (a) IV product form of Licensed Product for use in treating acute pain and uremic pruritus and additional indications; and (b) oral dose forms of Licensed Product for use in treating chronic pain conditions and uremic pruritus and additional indications. If Cara fails to use Commercially Reasonable Efforts to conduct the above development reasonably in accordance with the timeline, and such development timeline is thereby delayed, then it is understood that CKD's diligence obligations under the above shall be postponed an equivalent amount of time due to such delay.

4.2 Reports. Within thirty (30) days after the end of each calendar year and the end of the second calendar quarter of each year, CKD shall provide to Cara a written semi-annual report concerning its (and its Affiliates', if applicable) efforts regarding development and Commercialization of the Licensed Products in the Territory as carried out during the prior six (6) months and as planned for the next six (6) months, which semi-annual report shall include a summary of its pre-clinical and development activities, the status of its clinical trials and the then current schedule for clinical trials and for filing regulatory applications in the Territory, and the status of other approvals necessary to manufacture and market Licensed Products, including pricing and reimbursement approvals from the appropriate Regulatory Authorities in each country. Further, Cara shall provide CKD a written semi-annual report concerning its (and its Affiliates' or Sublicensee's, if applicable) efforts regarding development of the Licensed Products in the United States, to the extent such information is reasonably needed by CKD for its clinical development and regulatory activities in the Territory for Licensed Product. Each Party shall also provide prompt written notice to the other party of (i) any Regulatory Approval received for any Licensed Product in the Territory or outside Territory and (ii) the Launch Date for each Licensed Product in the Territory or outside Territory. The information contained in such reports and notices shall be deemed to be the disclosing Party's Confidential Information.

ARTICLE 5

MANUFACTURE AND SUPPLY OF API

5.1 Manufacture and Supply of CR-845 API by Cara. The Parties agree that Cara shall manufacture, or have manufactured, and supply to CKD its requirements of CR-845 API, in accordance with the terms and conditions of a supply agreement to be entered into by the Parties consistent with the terms of this Article 5. Promptly after the Effective Date, the Parties shall negotiate in good faith and enter into a commercially reasonable supply agreement (the "Supply Agreement") regarding supply to CKD of its requirements for CR-845 API, for use in clinical trials and, when appropriate, in Commercialization of Licensed Product in the Territory. Such Supply Agreement shall contain the pricing and related supply terms in this Article 5, and all other appropriate terms typical for similar supply agreements covering supply of API, including forecasting, ordering, delivery, warranties and indemnities, which terms shall be commercially reasonable. In the Supply Agreement, Cara shall warrant that any CR-845 API and Drug Product for clinical trials supplied to CKD under such agreement shall conform to the Specifications, and shall provide typical, commercially reasonable remedies for CR-845 API and Drug Product for clinical trials supplied by Cara that fails on delivery to meet the product warranty in such Supply Agreement.

5.2 API Transfer Price. The Supply Agreement shall provide that CKD shall pay Cara a transfer price for all amounts of CR-845 API delivered to CKD by Cara (the "Transfer Price"). Such Transfer Price shall be an amount invoiced by Cara, but the Transfer Price for any amount of CR-845 API delivered shall not be an amount that exceeds [*] of the Net Sales for Licensed Products sold, all on a per unit of Licensed Product basis. The Royalty Amount will be based on the prior calendar year's Annual Net Sales. The Supply Agreement shall have a pricing reconciliation mechanism to assure that the transfer prices charged by Cara are within the above parameters.

ARTICLE 6

CONSIDERATION; PAYMENTS; REPORTS

6.1 License Fee. CKD shall pay to Cara, within thirty (30) days after the Effective Date, an upfront license fee in the aggregate amount of One Million United States Dollars (US$1,000,000), payable as follows: (a) Five Hundred Thousand United States Dollars (US$500,000) shall be paid in cash by wire transfer of immediately available funds into an

account designated in writing by Cara, and (b) Five Hundred Thousand United States Dollars (US$500,000) shall be paid to Cara in cash by wire transfer of immediately available funds to purchase one hundred seventy-three thousand six hundred eleven (173,611) shares of preferred equity stock of Cara (such shares sold at $2.88 per share) pursuant to a Stock Purchase Agreement entered into between the Parties as of the Effective Date. Such upfront license fee is and shall be nonrefundable and noncreditable against any milestones or other fees or payments due Cara under this Agreement.

6.2 Milestone Payments.

(a) CKD shall pay to milestone payments in the amounts set forth below within 30 days of the achievement of the applicable development events with respect to Licensed Product being developed in the Territory for the specified indication:

Indication:	**Milestone Event**	**Milestone Payment**
For Pain	Completion* of Phase 2 Trial in U.S.	[*]
“	NHIP Listing in Territory	[*]
For Uremic Pruritus	Completion of Phase 1a Oral Trial in U.S.	[*]
“	Completion of Phase 1b Oral Trial in U.S	$250,000
“	Completion of Phase 2 Trial in U.S.	[*]
“	Completion of Phase 3 Trial in U.S.	[*]
“	NHIP Listing in Territory	[*]
Total		$3,750,000

* as used in the above schedule, “Completion” means CKD’s receipt of the complete draft report for the applicable clinical trial from Cara.

(b) The parties shall use good faith Commercially Reasonable Efforts to achieve, or facilitate and cause the achievement of, the milestone events set forth in Section 6.2(a) above. All such milestone payments shall be nonrefundable and noncreditable against any other fees or payments due Cara under this Agreement. Each Party shall promptly notify the other Party in writing of the achievement of any particular milestone as soon as practicable, and CKD shall pay to Cara the applicable milestone payment within thirty (30) days following occurrence of the milestone event.

6.3 Royalties. CKD shall pay royalties to Cara as a percentage of Net Sales of Licensed Products in the Territory, at the following royalty rates, which depend on the aggregate amount of Net Sales of Licensed Products in the applicable calendar year:

Annual Net Sales	Royalty Rate
<$5 million	[*]
$5 million - $20 million	[*]
Above $20 million	[*]

The foregoing royalties shall be paid, with respect to sales of a Licensed Product in the Territory by CKD and its Affiliates and Sublicensees, until the expiration of the Royalty Term applicable to such Licensed Product in such country.

6.4 Sublicense Fees. In consideration of any sublicense granted to a Sublicensee hereunder, CKD shall pay to Cara an amount equal to [*] of any upfront license fees, milestone payments, or other similar license fees paid by such Sublicensee to CKD based on such sublicense (but excluding, for clarity, any royalty payments made to CKD).

6.5 Payments; Reports. Payment of all sums due to Cara under this Article 6 shall be made to Cara by wire transfer, or electronic funds transfer (EFT), in accordance with payment transfer instructions to be provided by Cara. Beginning with the calendar quarter in which the Launch Date of the first Licensed Product occurs until the expiration of CKD's obligation to pay royalties, royalty payments and reports of the sale of Licensed Products for each calendar quarter will be calculated and delivered to Cara under this Agreement within thirty (30) days of the end of each such calendar quarter, unless otherwise specifically provided herein. Each payment of royalties shall be accompanied by a report of Net Sales of Licensed Products in sufficient detail to permit confirmation of the accuracy of the royalty payment made, including the number of Licensed Products sold, the gross sales and Net Sales of Licensed Products and deductions taken from gross sales by category as set forth in the definition of Net Sales to arrive at the Net Sales calculation, the royalties payable (in Dollars), the method used to calculate the royalty and the exchange rates used. The total royalty due for the sale of Licensed Products during such calendar quarter shall be paid at the time such report is made. CKD will keep complete and accurate records pertaining to the sale or other disposition of Licensed Products in sufficient detail to permit Cara to confirm the accuracy of all payments due hereunder. For any FTE costs and other expenses incurred by Cara that are reimbursable under this Agreement, Cara shall invoice CKD no more frequently than quarterly for such FTE costs and reimbursable expenses incurred under the terms of this Agreement, and CKD shall pay such invoiced amounts within thirty (30) days of receipt of each such invoice.

6.6 Exchange Rate. With respect to Net Sales invoiced or expenses incurred in a currency other than Dollars, the Net Sales invoiced or expenses incurred shall be paid in Dollars converted at the Foreign Daily T/T Exchange Rate on a present quotation time published by Korea Exchange Bank on the date immediately prior to the payment date. All payments shall be made in Dollars.

6.7 Late Payments. Any amounts owed and not paid by CKD when due under this Agreement shall be subject to interest from and including the date payment is due through and including the date upon which CKD has made a wire transfer of immediately available funds into an account designated by Cara, at a per annum interest rate equal to [*].

6.8 Taxes. In the event that laws, rules or regulations require CKD to withhold Taxes with respect to any payment to be made by CKD pursuant to this Agreement, CKD will notify Cara of such withholding requirement prior to making the payment to Cara and provide such assistance to Cara, including the provision of such documentation as may be required by a tax authority, as may be reasonably necessary in Cara's efforts to claim an exemption from or reduction of such taxes. CKD will, in accordance with such laws, rules or regulations, withhold taxes from the amount due, and remit such taxes to the appropriate tax authority. CKD shall provide to Cara original copies of all official receipts evidencing such tax obligation together with written evidence of payment within fifteen (15) days following such payment. If taxes are paid to a tax authority, CKD shall provide reasonable assistance to Cara to obtain a refund of taxes withheld, or obtain a credit with respect to taxes paid.

6.9 Audit. CKD and its Affiliates and Sublicensees shall keep complete and accurate records of the underlying revenue and expense data relating to the calculations of Net Sales, COGS and payments required under this Agreement for three (3) years from the end of the calendar quarter in which the Net Sales were accrued. Cara shall have the right, at its own expense and no more than [*], to have an independent, certified public accountant, selected by Cara and reasonably acceptable to CKD, review all such records upon reasonable notice and during regular business hours and under obligations of strict confidence, for the sole purpose of verifying the basis and accuracy of payments required and made under this Agreement within the prior thirty-six (36) month period. No calendar quarter may be audited more than one time. Notwithstanding the foregoing, in the event that CKD restates its earnings, and such restatement would impact the royalty due to Cara for any period(s) previously audited, or CKD revises a report or makes a further payment for a period for which a report or payment was previously provided or due to Cara under Section 5.5, which report or payment reflects a material change in the amount of royalties due for the prior period and Cara has previously audited such period, then Cara shall have the right to re-audit the affected time period(s) solely with respect to verifying the effect, if any, such restatement or revision has on royalties due with respect to such period(s). CKD shall receive a copy of each audit report promptly from Cara. Should the inspection lead to the discovery of a discrepancy to Cara's detriment, CKD shall pay the amount of the discrepancy within thirty (30) days after being notified thereof. Cara shall pay the full cost of the inspection unless the discrepancy is greater than [*], in which case CKD shall pay to Cara the actual cost charged by such accountant for such inspection.

ARTICLE 7

INTELLECTUAL PROPERTY

7.1 Prosecution and Maintenance.

(a) Except as otherwise provided below, Cara (or its licensor, as applicable) will have the sole responsibility, using its reasonable efforts and at its discretion, for the filing, prosecution, defense and maintenance of the Licensed Patent Rights before all patent authorities in the Territory (the "Prosecution"), including conducting or defending any interferences or similar proceedings and in obtaining and maintaining any patent extensions, supplementary protection certificates and the like with respect to the Licensed Patent Rights (the "Patent Prosecution"). All costs and expenses in relation to any Prosecution in the Territory shall be borne by Cara except the costs and expenses for maintenance after registration borne by CKD. Cara will consult with CKD reasonably regarding such Prosecution efforts and shall consider and take into account any reasonable CKD comments with regards to such efforts. To that end, Cara will keep CKD reasonably informed of the progress with regard to all activities relating to the Prosecution in the Territory, to the extent such progress reasonably relates to the claims in the Licensed Patent Rights that related to the Field of Use and are licensed to CKD under this Agreement. Cara shall provide to CKD copies of all material patent documents relating to the Prosecution efforts relating directly to the Field of Use, a reasonable time in advance of any proposed filing or required response, and CKD will have the right to comment on any such filing or response.

7.2 Infringement by Third Parties.

(a) If CKD becomes aware of any infringement, actual or suspected, or any other unauthorized use of the Licensed Patent rights by Third Party infringers in the Territory within the Field of Use (a "Field Infringement"), it shall promptly give notice to Cara in writing specifying the particulars of the unauthorized use. Cara, at its sole discretion, shall have the right to take whatever action it deems advisable in connection with the Field Infringement. Cara shall notify CKD of whatever action is taken, or if none is taken. If Cara decides to take action of any kind against the Field Infringement, Cara shall have sole control of the conduct of any such action. Cara shall bear the entire cost and expense associated with the conduct of any such action, and any recovery or compensation that may be awarded as a result of such action, including but not limited to any settlement that may be reached, shall belong to Cara. CKD, if requested by Cara, shall cooperate fully with Cara, at Cara's expense, in the conduct of any such action. Such cooperation shall not entitle CKD to any claim for recovery or compensation in respect thereof, and all such recovery or compensation shall belong solely to Cara. In the event CKD has any commercial damages and losses directly from Field Infringement by Third Party, CKD shall keep Cara informed of them and Cara shall agree to cooperate with CKD for a remedy and defense. CKD shall not take any actions with respect to any such Field Infringement that materially negatively affects Cara's rights or interests in the Licensed Patent rights.

7.3 Defense. Each Party shall promptly notify the other Party upon receiving written notice of any potential infringement, or any Third Party claim or action against Cara or CKD or any of their Affiliates for possible infringement, of a Third Party patent right resulting from the development or Commercialization of Licensed Product in the Territory. Subject to the indemnification and defense obligations of the Parties under Article 9, each Party shall be responsible for defending, and shall control the defense of, any such action brought against such Party. The Parties shall confer with each other and cooperate in the defense of any such action in which both Cara and CKD are named parties. Neither Party shall enter into any settlement of any action under this Section 7.3 that materially negatively affects the other Party's rights or interests under this Agreement without such other Party's written consent, which consent shall not be unreasonably withheld or delayed. Notwithstanding the foregoing, nothing in this Section 7.3 shall obligate either Party to defend against any action referenced in this Section 7.3.

7.4 Cooperation. Each Party agrees to reasonably cooperate with the other Party in the filing, prosecution, maintenance, defense and enforcement of Licensed Patent Rights, as set forth in this Article 7, including joining an action or proceeding if reasonably requested, signing any necessary legal papers, and providing the other Party with data or other information reasonably requested in support thereof. Each Party shall keep the other Party reasonably informed of the substantive developments with respect to any enforcement or defensive actions under this Article 7 regarding Licensed Patent Rights.

7.5 Marking. All Licensed Products shall be marked with the patent numbers of issued patents within Licensed Patent Rights that cover such Licensed Products, to the extent permitted by law in countries in which such markings have notice value against infringers of patents.

ARTICLE 8

REPRESENTATIONS, WARRANTIES AND COVENANTS

8.1 Representations and Warranties of Cara. As of the Effective Date, Cara hereby represents and warrants to CKD as follows:

(a) Corporate Existence and Power. Cara is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware, and has full corporate power and authority and the legal right to own and operate its property and assets and to carry on its business as it is now being conducted.

(b) Authority and Binding Agreement. Cara has the corporate power and authority and the legal right to enter into this Agreement and perform its obligations hereunder. Cara has taken all necessary corporate action on its part required to authorize the execution and delivery of the Agreement and the performance of its obligations hereunder. The Agreement has been duly executed and delivered by Cara and constitutes a legal, valid and binding obligation of Cara that is enforceable against it in accordance with its terms.

(c) No Conflict. The execution, delivery and performance of this Agreement by Cara does not conflict with, and would not result in a breach of, any material agreement or other binding instrument, to which it is a party or by which it may be bound, nor violate any material law or regulation of any court, governmental body or administrative or other agency having jurisdiction over it.

(d) Patent Rights. Cara has the right to grant the licenses under the Licensed Technology granted hereunder and has not assigned, transferred, conveyed or licensed its right, title and interest in the Licensed Technology in a manner inconsistent with the terms of this Agreement. There is no pending litigation or, to Cara's knowledge, written threat of litigation that has been received by Cara (and has not been resolved by taking a license or otherwise), which alleges that Cara's activities with respect to the Licensed Technology have infringed or misappropriated any of the intellectual property rights of any Third Party.

(e) Disclaimer. EXCEPT AS EXPRESSLY SET FORTH IN THIS SECTION 8.1, ALL INTELLECTUAL PROPERTY RIGHTS, MATERIALS AND INFORMATION PROVIDED TO CKD UNDER THIS AGREEMENT ARE BEING PROVIDED "AS IS" AND WITHOUT ANY REPRESENTATIONS OR WARRANTIES. EXCEPT AS EXPRESSLY SET FORTH IN THIS SECTION 8.1, CARA MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, OF ANY KIND, INCLUDING AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR USE OR NON-INFRINGEMENT. SPECIFICALLY, CARA DOES NOT WARRANT THE VALIDITY OR ENFORCEABILITY OF THE LICENSED PATENT RIGHTS, OR LICENSED TRADEMARKS, AND MAKES NO REPRESENTATIONS WHATSOEVER WITH REGARD TO THE SCOPE OF THE LICENSED PATENT RIGHTS OR LICENSED TRADEMARKS, OR THAT THE LICENSED PATENT RIGHTS OR LICENSED KNOW-HOW MAY BE EXPLOITED WITHOUT INFRINGING OTHER PATENTS OR OTHER INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES.

8.2 Representations and Warranties of CKD. As of the Effective Date, CKD hereby represents and warrants to Cara as follows:

(a) Corporate Existence and Power. CKD is a corporation duly organized, validly existing and in good standing under the laws of The Republic of Korea, and has full corporate power and authority and the legal right to own and operate its property and assets and to carry on its business as it is now being conducted.

(b) Authority and Binding Agreement. CKD has the corporate power and authority and the legal right to enter into this Agreement and perform its obligations hereunder. CKD has taken all necessary corporate action on its part required to authorize the execution and delivery of the Agreement and the performance of its obligations hereunder. The Agreement has been duly executed and delivered by CKD and constitutes a legal, valid and binding obligation of CKD that is enforceable against it in accordance with its terms.

(c) No Conflict. The execution, delivery and performance of this Agreement by CKD does not conflict with, and would not result in a breach of, any material agreement, instrument or understanding, oral or written, to which it is a party or by which it may be bound, nor violate any material law or regulation of any court, governmental body or administrative or other agency having jurisdiction over it.

8.3 Additional Covenants.

(a) No Misappropriation or Infringement. CKD covenants to Cara that CKD shall not knowingly misappropriate or infringe any trade secret, patent or other intellectual property of another party in its activities to develop, manufacture or Commercialize Licensed Products.

(b) No Debarment. CKD covenants to Cara that, in the course of the development and Commercialization of Licensed Products during the Term, CKD shall not knowingly use any employee or consultant who is or has been debarred by any Regulatory Authority or, to the best of CKD's knowledge, is or has been the subject of debarment proceedings by any Regulatory Authority. Cara covenants to CKD that, in the course of the supply and testing activities under Sections 3.3 and 3.4, Cara shall not knowingly use any employee or consultant who is or has been debarred by any Regulatory Authority or, to the best of Cara's knowledge, is or has been the subject of debarment proceedings by any Regulatory Authority.

(c) Compliance with Applicable Law. CKD covenants to comply with all Applicable Laws in performing or conducting its activities under this Agreement.

ARTICLE 9

INDEMNIFICATION

9.1 Indemnification by Cara. Cara hereby agrees to defend, hold harmless and indemnify CKD and its Affiliates, and each of their respective officers, directors and employees (collectively, the "***CKD Indemnitees***"), from and against any and all Losses arising out of any Third Party Claim against a CKD Indemnitee that is based upon or results from: (i) any of Cara's representations and warranties set forth in Section 8.1 of this Agreement being untrue in any material respect when made; (ii) Cara's failure to perform, in any material respect, any covenant or agreement or warranty of Cara set forth in this Agreement; or (iii) any Third Party Claim involving any legal action, including application for an injunction by a court, against CKD alleging that the CR-845 compound in Finished Product sold by CKD in the Territory infringes

upon any issued patent right of the Third Party (and subject to Section 9.5); or (iv) Cara's negligence or willful misconduct; except, in each case, to the extent any such Losses result from the negligence or willful misconduct of CKD Indemnitees or from the breach of any representation or warranty or covenant or obligation under this Agreement by CKD or its Affiliate or Sublicensee.

9.2 Indemnification by CKD. CKD hereby agrees to defend, hold harmless and indemnify Cara and its Affiliates, and each of their respective officers, directors and employees (collectively, the "***Cara Indemnitees***"), from and against any and all Losses arising out of any Third Party Claim against a Cara Indemnitee that is based upon or results from: (i) any of CKD's representations and warranties set forth in Section 8.2 of this Agreement being untrue in any material respect when made; (ii) CKD's or its Affiliate's failure to perform, in any material respect, any covenant or agreement or warranty of CKD set forth in this Agreement; (iii) the exercise or practice by CKD, its Affiliates or Sublicensees of the licenses granted to CKD under Sections 2.1 and 2.2; or (iv) the development, manufacture or Commercialization of Licensed Product by or for CKD, its Affiliates or Sublicensees; except, in each case, to the extent any such Losses result from the negligence or willful misconduct of Cara Indemnitees or from the breach of any representation or warranty or covenant or obligation under this Agreement by Cara.

9.3 Indemnification Procedures. Each Party (Cara on behalf of Cara Indemnitees, or CKD on behalf of CKD Indemnitees) will promptly notify the other Party when it becomes aware of a Claim for which indemnification may be sought hereunder. To be eligible to be indemnified for a Claim, a Person seeking indemnification (the "***Indemnified Party***") shall (i) provide the Party required to indemnify such Person (the "***Indemnifying Party***") with prompt written notice of the Claim giving rise to the indemnification obligation under this Article 9, provided that, the failure to provide such prompt notice shall not relieve the Indemnifying Party of any of its obligations under this Article 9 except to the extent the Indemnifying Party is actually prejudiced thereby; (ii) provide the Indemnifying Party with the exclusive ability to defend (with the reasonable cooperation of the Indemnified Party) against the Claim; and (iii) not settle, admit or materially prejudice the Claim, without the Indemnifying Party's prior written consent. The Indemnified Party shall reasonably cooperate with the Indemnifying Party, at the Indemnifying Party's expense, in the defense of any Claim. Notwithstanding the foregoing, the Indemnified Party shall have the right to participate in and have its own counsel participate in any action or proceeding for which the Indemnified Party seeks to be indemnified by the Indemnifying Party. Such participation shall be at the Indemnified Party's expense, unless (i) the Indemnifying Party and the Indemnified Party shall have mutually agreed to the retention of such counsel or (ii) the named parties to any such proceeding (including any impleaded parties) include both the Indemnifying Party and the Indemnified Party and representation of both parties by the same counsel would be inappropriate due to actual or potential differing interests between them. The Indemnifying Party's obligations under Section 9.1 or 9.2, as the case may be, shall not apply to the extent of the Indemnified Party's failure to take reasonable action to mitigate any Losses. The Indemnifying Party shall not settle or compromise, or consent to the entry of any judgment with respect to, any Claim, without the prior written consent of the Indemnified Party, which will not be unreasonably withheld or delayed.

9.4 Insurance. CKD shall, at its own expense, procure and maintain during the Term and for a period of five (5) years thereafter, insurance policy/policies, including product liability insurance, adequate to cover its obligations hereunder and which are consistent with normal business practices of prudent companies similarly situated in the Territory. Such insurance shall not be construed to create a limit of CKD's liability with respect to its indemnification obligations under this Article 9. CKD shall provide Cara with written evidence of such insurance upon request. CKD shall provide Cara with prompt written notice of cancellation, non-renewal or material change in such insurance or self-insurance which could materially adversely affect the rights of Cara hereunder and shall use commercially reasonable efforts to provide such notice at least thirty (30) days prior to any such cancellation, non-renewal or material change. CKD's insurance hereunder shall be primary with respect to the obligations for which CKD is liable hereunder and Cara's insurance shall be non-contributing with respect to the obligations for which Cara is to be indemnified by CKD hereunder. Cara's insurance hereunder shall be primary with respect to the obligations for which Cara is liable hereunder and CKD's insurance shall be non-contributing with respect to the obligations for which CKD is to be indemnified by Cara hereunder.

9.5 Patent Matters. With respect to the indemnity obligation in Section 9.1(iii) above, it is understood and agreed that: (a) the indemnification does not cover or include lost profits or other future economic harm; and (b) in the event that there exists an issued patent in the Territory owned by a Third Party the claims CR-845 (which patent Cara does not believe will ever exist), then Cara would have the right to terminate the Agreement if the Parties cannot avoid infringement of such patent by sale of Finished Product, such as by obtaining a license on reasonable terms under such patents.

ARTICLE 10

CONFIDENTIALITY

10.1 Treatment of Confidential Information. The Parties agree that during the Term, and for a period of [*] after this Agreement expires or terminates, a Party receiving Confidential Information of the other Party shall (i) maintain in confidence such Confidential Information; (ii) not disclose such Confidential Information to any Third Party without prior written consent of the disclosing Party, except as otherwise permitted in this Article 10; and (iii) not use such Confidential Information for any purpose other than the performance of or exercise of its rights under this Agreement.

CONFIDENTIAL TREATMENT HAS BEEN REQUESTED FOR PORTIONS OF THIS EXHIBIT. THE COPY FILED HEREWITH OMITS THE INFORMATION SUBJECT TO A CONFIDENTIALITY REQUEST. OMISSIONS ARE DESIGNATED [*]. A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION.

10.2 Authorized Disclosure.

(a) If, based upon the advice of legal counsel skilled in the subject matter, a Party is required to disclose specific Confidential Information of the other Party to comply with an applicable law, regulation, legal process, or order of a government authority or court of competent jurisdiction, the Party may disclose such Confidential Information only to the entity or person required to receive such disclosure; provided, however, that the Party required to disclose such Confidential Information shall (a) to the extent permitted by such law, regulation, process, order or rules, first have given prompt (but in no event less than five (5) business days) advance notice to such other Party to enable it to seek any available exemptions from or limitations on such disclosure requirement and shall reasonably cooperate in such efforts by the other Party, (b) furnish only the portion of the Confidential Information which is legally required to be disclosed; (c) use all reasonable efforts to secure confidential protection of such Confidential Information, and (d) continue to perform its obligations of confidentiality and non-use set out in this Article 10.

(b) Each Party may disclose Confidential Information of the other Party to Regulatory Authorities to the extent such disclosure is reasonably necessary in regulatory filings required for the development and/or commercialization of Licensed Products. In addition, each Party may disclose Confidential Information of the other Party (other than Manufacturing Information) to the extent such disclosure is reasonably necessary in the following instances: filing or prosecuting patents as permitted by this Agreement; disclosure to Sublicensees and potential Sublicensees, and to licensees or potential licensees of Cara, and to contractors, employees and consultants, who need to know such information for the development, manufacture and commercialization of Licensed Products, to bankers, lawyers, accountants, agents or other Third Parties in connection with due diligence or similar investigations, and to potential Third Party investors in confidential financing documents; provided that any such Sublicensee, licensee, contractor, employee, consultant, banker, lawyer, accountant, agent or Third Party is bound by obligations of confidentiality and non-use at least as restrictive as those set forth herein. In the case of each disclosure, the Party making such disclosure shall use reasonable efforts to obtain confidential treatment of any such disclosure, and shall not disclose Confidential Information of the other Party other than is reasonably necessary.

10.3 Publicity; Terms of Agreement. The Parties shall treat the existence and material terms of this Agreement as confidential and shall not disclose such information to Third Parties without the prior written consent of the other Party or except as provided in Section 10.2 (treating such information as Confidential Information of both Parties for purposes of Section 10.2). The Parties agree that upon execution of this Agreement or shortly thereafter, either Party may issue a press release, which shall be subject to prior review and approval by the other Party, not to be unreasonably withheld or delayed. Except for such press release or as otherwise required by applicable law or applicable stock exchange requirements, neither Cara nor CKD shall issue or cause the publication of any other press release or public announcement with respect to the transactions contemplated by this Agreement without the express prior approval of the other Party, which approval shall not be unreasonably withheld or delayed; provided that, each of Cara and CKD may make any public statement in response to questions by the press,

analysts, investors or those attending industry conferences or financial analyst calls, or issue press releases, so long as any such public statement or press release is not inconsistent with prior public disclosures or public statements approved by the other Party pursuant to this Section 10.3 and which do not reveal non-public information about the other Party. If, in the reasonable opinion of a Party's legal counsel, a public announcement of the transactions contemplated by the Agreement is required by applicable laws or applicable stock exchange requirements, then, to the extent permissible by law, such Party will provide the other with notice reasonable under the circumstances (but in no event less than ten (10) days prior to disclosure) of such intended announcement and will consult with the other Party with respect to the nature and scope of the required announcement (which shall be limited to the information reasonably required to be disclosed). In addition to the foregoing, with respect to complying with the disclosure requirements of the Securities and Exchange Commission or other regulatory agencies, in connection with any required filing of this Agreement with such agency, the Parties shall consult with one another concerning which terms of this Agreement shall be requested to be redacted in any public disclosure of the Agreement by the agency, Licensed Products and Field of Use, the exhibits, and any dollar amounts set forth herein. If CKD is required to disclose this Agreement or any terms hereof, CKD shall give Cara reasonable advance notice of such required disclosure and shall address and accommodate all Cara's reasonable comments regarding the extent of such disclosure.

10.4 Injunctive Relief. Given the nature of the Confidential Information and the competitive damage that would result to a Party upon unauthorized disclosure, use or transfer of its Confidential Information to any Third Party, the Parties agree that monetary damages may not be a sufficient remedy for any breach of this Article 10. In addition to all other remedies, a Party shall be entitled to seek specific performance and injunctive and other equitable relief as a remedy for any breach or threatened breach of this Article 10.

ARTICLE 11

TERM AND TERMINATION

11.1 Term. This Agreement shall expire upon the expiration of the last Royalty Term for any Licensed Product with respect to which CKD has a license under this Agreement, unless earlier terminated pursuant to this Article 11. Upon expiration of the Royalty Term with respect to a Licensed Product without renewal and payment in full of all amounts owed to Cara hereunder with respect to such Licensed Product, the license granted in Section 2.1 for such Licensed Product in the Territory shall become non-exclusive, fully paid up and irrevocable, and shall survive any expiration (but not early termination) of this Agreement, provided that CKD shall retain all its rights under its Regulatory Approval and the Product Mark in the Territory.

11.2 Termination.

(a) Termination for Bankruptcy/Insolvency. A Party may terminate this Agreement on written notice in the event any of the following occurs with respect to the other Party: (a) such Party files a petition in bankruptcy or makes a general assignment for the benefit of creditors or otherwise acknowledges in writing insolvency, or is adjudged bankrupt, and such Party, (i) fails to assume this Agreement in any such bankruptcy proceeding within thirty (30) days after filing or (ii) assumes and assigns this Agreement to a Third Party; (b) such Party goes into or is placed in a process of complete liquidation; (c) a trustee or receiver is appointed for any substantial portion of such Party's business and such trustee or receiver is not discharged within sixty (60) days after appointment; (d) any case or proceeding shall have been commenced or other action taken against such Party in bankruptcy or seeking liquidation, reorganization, dissolution, a winding-up arrangement, composition or readjustment of its debts or any other relief under any bankruptcy, insolvency, reorganization or similar act or law of any jurisdiction now or hereafter in effect is not dismissed or converted into a voluntary proceeding governed by clause (a) above within sixty (60) days after filing; or (e) there shall have been issued a warrant of attachment, execution, distraint or similar process against any substantial part of the property of such Party and such event shall have continued for a period of sixty (60) days and none of the following has occurred: (i) it is dismissed, (ii) it is bonded in a manner reasonably satisfactory to the other Party, or (iii) it is discharged.

(b) Termination for CKD Default. Upon any material breach by CKD of this Agreement, Cara may notify CKD in writing of such breach and require that CKD cure such breach within thirty (30) days of such notice, for any payment breach, or within ninety (90) days of Cara's notice for any other breach. In the event CKD shall not have cured the breach by the end of the applicable cure period, Cara may terminate this Agreement immediately upon written notice to CKD.

(c) Termination for Cara Default. Upon any material breach by Cara under this Agreement, CKD may notify Cara in writing of such breach and require that Cara cure such breach within ninety (90) days of CKD's notice. In the event Cara shall not have cured the breach by the end of the cure period, CKD may terminate this Agreement immediately upon written notice to Cara.

(d) Other Termination. If CKD, its Affiliate or Sublicensee files any lawsuit or reexamination or protest proceeding or the equivalent against Cara or its Affiliates seeking a declaratory judgment or determination that any claim(s) of the Licensed Patent Rights is invalid, unenforceable, of narrower scope or otherwise not patentable, then Cara shall have the right to terminate this Agreement at any time upon written notice to CKD. In the event the Licensed Patent Right is invalid, unenforceable, of narrower scope or otherwise not patentable without CKD's legal action against the Licensed Patent Rights in the Territory during the Term or the Third Party commercializes any product which contains any compound with an identical structure of CR-845 in Exhibit A without Infringement against the Licensed Patent in the Territory during the Term, CKD shall have the right to terminate this Agreement at any time upon written notice to Cara.

11.3 Effects of Termination.

(a) Upon termination of this Agreement pursuant to Section 11.2: (i) all licenses and rights granted hereunder to CKD shall terminate and revert exclusively to Cara, all sublicenses (if any) granted by CKD under the rights or licenses granted to CKD under this Agreement shall terminate, unless and except to the extent that Cara agrees in writing such sublicenses shall not terminate upon termination of this Agreement but instead shall become direct licenses with Cara; and (ii) CKD (and its Affiliates) shall immediately cease all development and Commercialization of Licensed Products and return to Cara all physical manifestations of the Licensed Technology and Cara Confidential Information (including Manufacturing Information). Upon termination of this Agreement by CKD pursuant to Section 11.2(c) due to uncured material breach by Cara, all licenses and rights granted to Cara pursuant Section 2.4 shall terminate and revert exclusively to CKD, and Cara shall immediately return to CKD, all Confidential Information of CKD, including the CKD Patents, the CKD Know-How, and CKD Product data.

(b) Upon such termination of this Agreement by Cara pursuant to Section 11.2(a), 11.2(b) or 11.2(d), CKD agrees to promptly transfer to Cara (including making such filings as may be required with Regulatory Authorities and other governmental authorities of the Territory to effect such transfer), at Cara's request, the following with respect only to the Licensed Products: (i) ownership of all Regulatory Documents and Regulatory Approvals applicable to Licensed Products that are Controlled by CKD or its Affiliates (including the Regulatory Documents) at such time; (ii) all pre-clinical (including toxicology) and clinical study protocols, data and reports applicable to Licensed Products that are possessed or owned by CKD or its Affiliate at such time; and (iii) all Cara-sponsored or investigator-sponsored clinical trial results, and the results of all ongoing clinical trials, and (iv) such other information, data, and documents applicable to Licensed Products that are owned by CKD or its Affiliate that are reasonably requested by Cara to permit Cara and its Affiliates to develop, manufacture and commercialize Licensed Products after the termination date, including but not limited to any documents related to the prosecution, maintenance, defense and enforcement of the Licensed Patent Rights.

(c) Effective upon termination of this Agreement by Cara pursuant to Section 11.2(a), 11.2(b) or 11.2(d), CKD will be deemed to have hereby granted to Cara and its Affiliates an irrevocable, royalty-free, fully paid-up, non-exclusive, fully transferable, worldwide, perpetual license, with the right to grant sublicenses, under any intellectual property Controlled by CKD as of the effective date of such termination (including patents, copyrights, trademarks, trade secrets and know-how) that incorporates, uses or is derived from Licensed Technology (including all CKD Know-How and CKD Patents) solely to make, have made, use, sell, offer to sell or import products containing CR845.

(d) Upon any such termination of the Agreement, then at the request of Cara, CKD agrees to negotiate with Cara in good faith to sell and transfer to Cara any inventory of Licensed Products. CKD further agrees, upon such termination, at the request of Cara, to negotiate in good faith with Cara to assign to Cara any contracts with Third Party manufacturers, suppliers, clinical trial organizations or clinical trial sites related to Licensed Products.

(e) Upon any such termination of the Agreement, the Parties will cooperate in good faith to establish a transition plan to effectuate the transfers contemplated under this Section 11.3 in a manner that preserves continuity of clinical and commercial supply with respect to any Licensed Products that are being developed and/or commercialized as of the effective date of the termination.

11.4 Survival. The following provisions shall survive any expiration or termination of this Agreement**:** Articles 1 (to the extent needed for the other Articles and Sections that survive), 6, 10, and 12, and Sections 2.4 (except as otherwise provided in Section 11.2(a)), 3.2 (solely the 6th sentence), 3.3 (solely the 8th sentence), 3.6 (other than the last sentence), 8.1(e), 11.3, and 11.4. Termination of this Agreement shall not relieve the Parties of any liability which accrued hereunder prior to the effective date of such termination nor preclude either Party from pursuing all rights and remedies it may have hereunder or at law or in equity with respect to any breach or Default of this Agreement nor prejudice either Party's right to obtain performance of any obligation. The remedies provided in this Article 11 are not exclusive of any other remedies a Party may have in law or equity.

ARTICLE 12

MISCELLANEOUS

12.1 Entire Agreement; Amendment. This Agreement, including the exhibits, constitutes the entire agreement between the Parties (or their Affiliates) related to the subject matter hereof. All prior and contemporaneous negotiations, representations, warranties, agreements, statements, promises and understandings related to the subject matter hereof are superseded by and merged into and extinguished and completely expressed by this Agreement, including the exhibits. No Party shall be bound by or charged with any written or oral agreements, representations, warranties, statements, promises or understandings not specifically set forth in this Agreement, including the exhibits. As of the Effective Date, the Mutual Non- Disclosure Agreement dated August 18th, 2010 between Cara and CKD (the "***Confidentiality Agreement***"), is hereby superseded by this Agreement, provided that all Confidential Information (as defined in the Confidentiality Agreement) disclosed thereunder shall be treated as Confidential Information disclosed under, and subject to the terms of, this Agreement. No subsequent alteration, amendment, change or addition to this Agreement shall be binding upon the Parties unless reduced to writing and signed by an authorized officer of each Party.

12.2 Notices. Any notice required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been sufficiently given for all purposes (i) when delivered, if sent by recognized overnight courier or personally delivered, or (ii) upon confirmation of receipt, if sent by facsimile transmission (provided a duplicate hard copy is promptly delivered by one of the other foregoing means), in each case using the mailing addresses of the Parties as set forth below (or such other mailing address of which a Party is notified pursuant to this Section 11.2):

For CKD: Chong Kun Dang Pharmaceuticals Corp.
368, 3-ga
Chungjeong-ro, Seodaemun-gu,
Seoul 120-756, Korea
Tel : 02-2194-0447
Fax : 02-2194-0449
Attn: Junghwan Kim

With a copy to:

Facsimile: 02-2194-0449
Attn: Younha Lee

For Cara: Cara Pharmaceuticals, Inc.
One Parrott Drive
Shelton, CT 06484
Facsimile: 203-567-1510
Attn: Derek Chalmers

With a copy to: Josef Schoell

12.3 Governing Law; Dispute Resolution. This Agreement shall be governed and construed in accordance with the laws of the State of Connecticut, as applied to agreements executed and performed entirely within the State of Connecticut, without regard to any applicable principles of conflicts of law. In the event any dispute arises among the parties, or any of them, which cannot be amicably resolved, such dispute shall be submitted to the International Chamber of Commerce for binding arbitration in accordance with the commercial arbitration rules of the International Chamber of Commerce as then in effect. The arbitration shall be conducted in the English language, and, unless otherwise agreed by the parties to the dispute, shall be held in Vancouver, B.C., Canada. Any arbitration award rendered in any such arbitration proceeding may be entered in and enforced by any court of competent jurisdiction.

12.4 Limitation of Liability. EXCEPT FOR LIABILITY FOR BREACH OF OBLIGATIONS UNDER ARTICLE 9 OR FRAUD OR COMPARABLE INTENTIONAL MISCONDUCT, NEITHER PARTY SHALL BE ENTITLED TO RECOVER FROM THE OTHER PARTY ANY INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES IN CONNECTION WITH THIS AGREEMENT OR ANY LICENSE GRANTED HEREUNDER. The limitations set forth in this Section 12.4 shall not apply with respect to either Party's indemnification obligations under Sections 9.1 or 9.2 for Third Party Claims.

12.5 Interpretation. Cara and CKD have each participated in negotiations and due diligence and consulted their respective counsel regarding this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the Parties and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any provisions of this Agreement.

12.6 Assignment. Neither Party may assign or transfer this Agreement or any rights or obligations hereunder, by operation of law or otherwise, without the prior written consent of the other Party, except that a Party may make such an assignment or transfer, by operation of law or otherwise, without the other Party's consent to its Affiliate(s) or to an entity that acquires all or substantially all of the business of such Party, whether in a merger, consolidation, reorganization, acquisition, sale or otherwise. Notwithstanding the foregoing, Cara shall have the right to assign its rights to payment pursuant to Article 6 without CKD's consent. This Agreement shall be binding on the successors and permitted assigns of the assigning Party, and the name of a Party appearing herein shall be deemed to include the name(s) of such Party's successors and permitted assigns to the extent necessary to carry out the intent of this Agreement. Any assignment or attempted assignment by either Party in violation of the terms of this Section 12.6 shall be null and void and of no legal effect.

12.7 Performance by Affiliates. Each of Cara and CKD acknowledge that obligations under this Agreement may be performed by Affiliates of Cara and CKD. Each of Cara and CKD guarantee performance of this Agreement by its Affiliates, notwithstanding any assignment to Affiliates in accordance with Section 12.6 of this Agreement.

12.8 Severability. In the event that any one or more of the provisions contained herein, or the application thereof in any circumstances, is held invalid, illegal or unenforceable in any respect for any reason, the Parties shall negotiate in good faith with a view to the substitution therefor of a suitable and equitable provision in order to carry out, so far as may be valid and enforceable, the intent and purpose of such invalid provision; provided, however, that the validity, legality and enforceability of any such provision in every other respect and of the remaining provisions contained herein shall not be in any way impaired thereby, it being intended that all of the rights and privileges of the Parties hereto shall be enforceable to the fullest extent permitted by law.

12.9 Headings. The heading for each article and section in this Agreement has been inserted for convenience of reference only and is not intended to limit or expand on the meaning of the language contained in the particular article or section.

12.10 Further Actions Each Party agrees to execute, acknowledge and deliver such further instruments, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of the Agreement.

12.11 Independent Contractors. The relationship between CKD and Cara created by this Agreement is solely that of independent contractors. This Agreement does not create any agency, distributorship, employee-employer, partnership, joint venture or similar business relationship between the Parties. Neither Party is a legal representative of the other Party, and neither Party can assume or create any obligation, representation, warranty or guarantee, express or implied, on behalf of the other Party for any purpose whatsoever. Each Party shall use its own discretion and shall have complete and authoritative control over its employees and the details of performing its obligations under this Agreement.

12.12 Use of Name. No right, express or implied, is granted to CKD by this Agreement to use in any manner any Trademark of Cara or its Affiliates. CKD shall not use or allow its representatives to use, any name or Trademark of Cara or its Affiliates, or the name of any of their employees, or any derivatives thereof, for purposes of any promotion, publicity or advertising without Cara's prior written consent, which may be withheld at Cara's sole discretion.

12.13 No Waiver. A Party's consent to or waiver, express or implied, of the other Party's breach of its obligations hereunder shall not be deemed to be or construed as a consent to or waiver of any other breach of the same or any other obligations of the other Party. A Party's failure to complain of any act, or failure to act, by the other Party, to declare the other Party in default, to insist upon the strict performance of any obligation or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof, no matter how long such failure continues, shall not constitute a waiver by such Party of its rights hereunder, of any such breach, or of any other obligation or condition. A Party's consent in any one instance shall not limit or waive the necessity to obtain such Party's consent in any future instance and in any event no consent or waiver shall be effective for any purpose hereunder unless such consent or waiver is in writing and signed by the Party granting such consent or waiver.

12.14 Fees and Expenses. Regardless of whether or not the transactions contemplated by this Agreement are consummated, each Party shall bear its own fees and expenses incurred in connection with the negotiation and execution of this Agreement.

12.15 No Set-Off. Neither Party shall have any right to set-off any amount owed to such first Party by the other Party or an Affiliate thereof under this Agreement, another agreement or otherwise from any amount owed by such first Party to the other Party hereunder, without the prior written consent of the other Party.

12.16 No Other Rights. The Parties acknowledge and agree that, except as expressly set forth in this Agreement, neither Party grants any rights or licenses to the other Party under this Agreement nor shall either Party have any rights or obligations under this Agreement.

12.17 Parties in Interest. This Agreement shall be binding upon and inure solely to the benefit of each Party hereto and its respective successors and permitted assigns, and nothing in this Agreement, express or implied, is intended to or shall confer upon any other person any right, benefit or remedy of any nature whatsoever under or by reason of this Agreement (with the exception of CKD Indemnitees and Cara Indemnitees under Sections 9.1 and 9.2, respectively).

12.18 Rules of Construction. The use in this Agreement of the term "***including***" (or any cognates thereof, such as "***include***" or "***includes***") means "***including*** (or the applicable cognate thereof), without limitation." The words "***herein***," "***hereof***," "***hereunder***," and other words of similar import refer to this Agreement as a whole, including the exhibits, and not to any particular section, subsection, paragraph, subparagraph or clause contained in this Agreement. All references to sections and exhibits mean those sections of this Agreement and the exhibits attached to this Agreement, except where otherwise stated.

12.19 Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

12.20 Precedence. In the event of any conflict between this Agreement and any of the exhibits attached hereto, this Agreement shall control.

IN WITNESS WHEREOF, the Parties have executed this Agreement by their duly authorized representatives as of the Effective Date.

CARA THERAPEUTICS, INC.	**CHONG KUN DANG PHARMACEUTICALS CORP.**
By: /s/ Derek Chalmers	By: /s/ Kyung Ju Lee
Name: Derek Chalmers	Name: Kyung Ju Lee
Title: President & CEO	Title: President & CEO

CONFIDENTIAL TREATMENT HAS BEEN REQUESTED FOR PORTIONS OF THIS EXHIBIT. THE COPY FILED HEREWITH OMITS THE INFORMATION SUBJECT TO A CONFIDENTIALITY REQUEST. OMISSIONS ARE DESIGNATED [*]. A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION.

EXHIBIT A

COMPOUND CR-845

[*]

[*]

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EXHIBIT B

LICENSED PATENT RIGHTS

Korean Application No. Based on PCT Appln. No.	Title	Priority Appln., Filed
[*]	[*]	[*]
[*]		[*]
[*]	[*]	[*]
[*]		[*]
		[*]
		[*]
		[*]
		[*]
		[*]

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EXHIBIT C

CR845 DEVELOPMENT TIMELINES

CR845 – Intravenous

[*]

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Exhibit 10.9

AMENDMENT TO
LICENSE AND API SUPPLY AGREEMENT

THIS AMENDMENT TO LICENSE AND API SUPPLY AGREEMENT (the "***Amendment***") is made and entered into effective as of May 1, 2012, by and between **CHONG KUN DANG PHARMACEUTICALS CORP.**, a corporation organized under the laws of Korea with a principal place of business at 368, 3-ga, Chungjeong-ro, Seodaemun-gu, Seoul 120-756, Korea ("***CKD***"), and **CARA THERAPEUTICS, INC.**, a Delaware corporation with a principal place of business at One Parrott Drive, Shelton, CT 06484 ("***Cara***"). Cara and CKD may be referred to herein individually as a "Party", and collectively as the "Parties".

RECITALS

WHEREAS, Cara and CKD are parties to that certain License and API Supply Agreement dated as of April 16, 2012 (the "Agreement"), pursuant to which Cara licensed to CKD exclusive rights in South Korea to a proprietary drug product of Cara referred to as CR-845;

WHEREAS, Cara and CKD desire to amend the Agreement to clarify certain payment obligations of CKD under the Agreement;

NOW, THEREFORE, in consideration of the foregoing recitals and for other consideration, the adequacy and sufficiency of which is hereby acknowledged the Parties agree as follows:

1. DEFINED TERMS. All capitalized terms used in this Amendment but not defined herein shall have the meanings ascribed to them in the Agreement.

2. AMENDMENT OF SECTION 6.1 OF AGREEMENT. Section 6.1 of the Agreement is hereby amended to read in its entirety as follows:

"6.1 **License Fee and Equity Investment.** CKD shall pay to Cara, within thirty (30) days after the Effective Date, an upfront license fee in the amount of Five Hundred Thousand United States Dollars (US$500,000) to be paid in cash by wire transfer of immediately available funds into an account designated in writing by Cara. In addition, CKD shall make an equity investment in Cara in the amount of Five Hundred Thousand United States Dollars (US$500,000), paid to Cara in cash by wire transfer of immediately available funds no later than thirty (30) days after the Effective Date, to purchase one hundred seventy-three thousand six hundred eleven (173,611) shares of preferred equity stock of Cara (such shares sold at $2.88 per share) pursuant to a Stock Purchase Agreement entered into between the Parties as of the Effective Date. Such upfront license fee and equity investment payments are nonrefundable and noncreditable against any milestones or other fees or payments due Cara under this Agreement."

3. INTEGRATION. This Amendment is made a part of and integrated into the Agreement and amends Section 6.1 thereof. Except as so amended, the Agreement remains in full force and effect and continues in accordance with its terms.

4. COUNTERPARTS. This Amendment may be executed in counterparts, each of which shall be deemed an original but all of which together will constitute one and the same instrument.

[THIS SPACE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the Parties hereto have executed this **AMENDMENT** as of the date set forth in the first paragraph hereof.

CHONG KUN DANG PHARMACEUTICALS CORP.

By: /s/ Kyung Ju Lee
Name: Kyung Ju Lee
Title: President & CEO

CARA THERAPEUTICS, INC.

By: /s/ Derek Chalmers
Name: Derek Chalmers
Title: President & CEO

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” and to the use of our report dated October 4, 2013, in the Registration Statement (Form S-1 No. 333-00000) and related Prospectus of Cara Therapeutics, Inc. for the registration of shares of its common stock.

/s/ Ernst & Young LLP

Boston, MA

November 8, 2013