# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

#### FORM 8-K

CURRENT REPORT
Pursuant to Section 13 OR 15(d)
of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): July 17, 2018

### CARA THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) 001-36279 (Commission File Number)

75-3175693 (IRS Employer Identification No.)

4 Stamford Plaza 107 Elm Street, 9th Floor Stamford, Connecticut (Address of principal executive offices)

06902 (Zip Code)

Registrant's telephone number, including area code: (203) 406-3700

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2.):				
Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)				
Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)				
Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))				
Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))				

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company  $\ oxtimes$ 

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

#### Item 2.02 Results of Operations and Financial Condition.

On July 17, 2018, Cara Therapeutics, Inc. (the "Company") filed with the Securities and Exchange Commission (the "SEC") a preliminary prospectus supplement pursuant to Rule 424(b) of the Securities Act of 1933, as amended (the "Securities Act"), in which the Company disclosed that, as of June 30, 2018, it had approximately \$132.0 million of cash, cash equivalents and marketable securities.

The information in this Item 2.02 is being furnished and shall not be deemed "filed" for the purposes of Section 18 of the Securities and Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section. The information in this Item 2.02 shall not be incorporated by reference into any registration statement or other document pursuant to the Securities Act, regardless of any general incorporation language.

#### Item 8.01. Other Events.

On July 17, 2018, the Company issued a press release announcing that it had commenced a public offering of its common stock. The press release is filed as Exhibit 99.1 to this Current Report on Form 8-K.

On July 17, 2018, the Company updated its corporate slide presentation that will be used by its representatives in connection with investor meetings and presentations from time to time (the "Corporate Presentation"). The Corporate Presentation is filed as Exhibit 99.2 to this Current Report on Form 8-K. The Corporate Presentation is current as of July 17, 2018, and the Company disclaims any obligation to update the Corporate Presentation in the future except as required by law.

#### Item 9.01. Financial Statements and Exhibits.

Corporate presentation dated July 2018.

#### (d) Exhibits

99.2

Exhibit No.	Description
99.1	Press Release dated July 17, 2018.

#### SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

#### CARA THERAPEUTICS, INC.

By: /s/ Mani Mohindru, Ph.D.

Mani Mohindru, Ph.D. Chief Financial Officer (Principal Financial and Accounting Officer)

Date: July 17, 2018

#### Cara Therapeutics Announces Proposed Offering of Common Stock

STAMFORD, Conn., July 17, 2018 – Cara Therapeutics, Inc. (Nasdaq: CARA), a clinical-stage biopharmaceutical company focused on developing and commercializing new chemical entities designed to alleviate pruritus and pain by selectively targeting kappa opioid receptors, today announced that it has commenced an underwritten public offering of 4,500,000 shares of its common stock. In addition, Cara Therapeutics expects to grant certain of the underwriters a 30-day option to purchase up to 675,000 additional shares of its common stock on the same terms and conditions. The offering is subject to market conditions, and there can be no assurance as to whether or when the offering may be completed, or as to the actual size or terms of the offering. All of the shares in the proposed offering are to be sold by Cara Therapeutics.

Cara Therapeutics intends to use the net proceeds from the underwritten offering to fund its clinical and research development activities, including the completion of its Phase 3 program and submission of a new drug application to the U.S. Food and Drug Administration (FDA) for KORSUVA (CR845/difelikefalin) Injection for the treatment of pruritus associated with chronic kidney disease (CKD) in hemodialysis patients, the advancement of Oral KORSUVA (CR845/difelikefalin) into Phase 2 trials for the treatment of pruritus associated with CKD in Stage III-V patients and chronic liver disease patients, the expansion of its Oral program into certain dermatologic conditions and the exploration of further development of CR845/difelikefalin injection in the post-operative setting after consultation with the FDA, as well as for working capital and other general corporate purposes.

Jefferies and BofA Merrill Lynch are acting as lead joint book-running managers for the offering. Piper Jaffray & Co. and Stifel are also acting as book-runners for the offering. Canaccord Genuity, Needham & Company, H.C. Wainwright & Co. and Janney Montgomery Scott are acting as co-managers for the offering.

The offering is being made only by means of a written prospectus supplement and prospectus forming part of a shelf registration statement previously filed with and declared effective by the Securities and Exchange Commission (SEC). Copies of the preliminary prospectus supplement and accompanying prospectus may be obtained, when available, by contacting Jefferies LLC, Attention: Equity Syndicate Prospectus Department, 520 Madison Avenue, 2nd Floor, New York, NY 10022, by telephone at (877) 821-7388, or by email at prospectus\_department@jefferies.com; BofA Merrill Lynch, NC1-004-03-43, 200 North College Street, 3rd Floor, Charlotte, NC 28255-0001, Attention: Prospectus Department, or by email at dg.prospectus\_requests@baml.com; Piper Jaffray & Co., Attention: Prospectus Department, 800 Nicollet Mall, J12S03, Minneapolis, MN 55402, or by telephone at (800) 747-3924, or by email at prospectus@pjc.com, or from Stifel, Nicolaus & Company, Incorporated, Attention: Syndicate, One Montgomery Street, Suite 3700, San Francisco, CA 94104, or by telephone at (415) 364-2720, or by email at syndprospectus@stifel.com.

This press release shall not constitute an offer to sell or a solicitation of an offer to buy these securities, nor shall there be any sale of these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.

#### **About Cara Therapeutics**

Cara Therapeutics is a clinical-stage biopharmaceutical company focused on developing and commercializing new chemical entities designed to alleviate pruritus and pain by selectively targeting peripheral kappa opioid receptors (KORs). Cara is developing a novel and proprietary class of product candidates, led by KORSUVA<sup>TM</sup> (CR845/difelikefalin), a first-in-class KOR agonist that targets the body's peripheral nervous system, as well as certain immune cells. In Phase 2 trials, KORSUVA injection has demonstrated statistically significant reductions in itch intensity and concomitant improvement in quality of life measures in hemodialysis patients with moderate-to-severe chronic kidney disease-associated pruritus (CKD-aP), and is currently being investigated in Phase 3 trials in hemodialysis patients with CKD-aP. Additionally, in a recently completed Phase 2/3 trial in post-operative patients, I.V. CR845/difelikefalin has demonstrated reduction in moderate-to-severe pain, while also reducing the incidence and intensity of nausea and vomiting throughout the post-operative period.

#### Forward-Looking Statements

This press release contains or may imply "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Because such statements deal with future events and are based on Cara Therapeutics' current expectations, they are subject to various risks and uncertainties and actual results, performance or achievements of Cara Therapeutics could differ materially from those described in or implied by the statements in this press release. For example, forward-looking statements include statements regarding Cara Therapeutics' proposed public offering. These forward-looking statements are subject to other risks and uncertainties discussed in Cara Therapeutics' filings with the SEC; including in the "Risk Factors" section of Cara Therapeutics' Annual Report on Form 10-K for the year ended December 31, 2017, filed with the SEC on March 15, 2018 and subsequent filings with the SEC. Except as otherwise required by law, Cara Therapeutics disclaims any intention or obligation to update or revise any forward-looking statements, which speak only as of the date hereof, whether as a result of new information, future events or circumstances or otherwise.

CORPORATE CONTACT: Derek Chalmers, Ph.D., D.Sc. President & CEO Cara Therapeutics, Inc. 203-406-3700

MEDIA CONTACT: Annie Starr 6 Degrees 973-415-8838 astarr@6degreespr.com

INVESTOR CONTACT: Michael Schaffzin Stern Investor Relations, Inc. 212-362-1200 michael@sternir.com

# Targeting Peripheral Kappa Opioid Receptors For Pruritus and Pain

**July 2018** 



### **Forward Looking Statements**

This presentation contains certain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. In some cases, you can identify forward-looking statements by the words "anticipate," "believe," "continue," "estimate," "expect," "objective," "ongoing," "plan," "propose," "potential," "projected", or "up-coming" and/or the negative of these terms, or other comparable terminology intended to identify statements about the future. Examples of these forward-looking statements in this presentation include, among other things, statements concerning plans, strategies and expectations for the future, including statements regarding the expected timing of our planned clinical trials; the potential results of ongoing and planned clinical trials; future regulatory and development milestones for the product candidates of Cara Therapeutics, Inc. (the "Company"); the size of the potential markets that are potentially addressable for the Company's product candidates, including the postoperative and chronic pain markets, and the pruritus market; the potential commercialization of Korsuva™ in the licensed territories; the potential benefits of license agreements entered by the Company, including the potential milestone and royalty payments payable to the Company.

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 presentation, 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. Factors that may cause actual results to differ materially from any future results expressed or implied by any forward-looking statements include the risks described in the "Risk Factors" section of the Company's Annual Report on Form 10-K for the year ended December 31, 2017, as well as those set forth from time to time in the Company's other SEC filings, available at <a href="http://www.sec.gov">http://www.sec.gov</a>. Any forward-looking statements speak only as of the date of this presentation.

The Company undertakes 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.



### **Developing First-in-Class Kappa Receptor Agonists**

- Novel, first-in-class "kappa" receptor agonist: CR845
  - Designed to function without traditional opioid side effects ("mu" agonist effects)
  - Peripherally acting unique pharmacology; designed to limit CNS liability
  - MOA: designed to be anti-nociceptive<sup>1</sup>/anti-inflammatory & anti-pruritic
     IV and oral formulations for targeted indications
  - COM IP protection through at least 2027
  - Breakthrough Designation for IV CR845 for Chronic Kidney Disease (Hemodialysis)-associated Pruritus, CKD-HD-aP
- Intend to commercialize in US in multiple indications
- Established regional partnerships
  - Vifor/Fresenius VFMCRP (EU and select territories)
  - Maruishi Pharmaceuticals (Japan)
  - Chong Kun Dang Pharma (South Korea)



1. Blocking the detection of pain or injurious stimulus by sensory neurons



# CR845: A Peripherally-Acting Kappa Receptor Agonist

- ▶ Hydrophilic, tetra-peptidic scaffold
- Peripherally restricted
- ▶ High therapeutic index

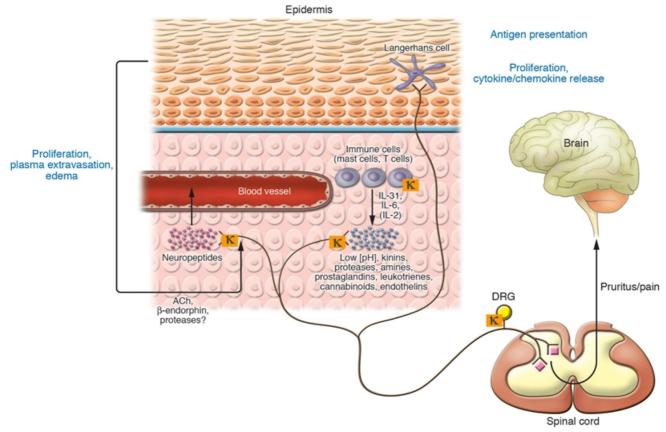
- $\begin{array}{c} & & & & \\ & & & \\$
- ▶ ≥30,000-fold selectivity for  $\kappa$ -receptors compared with  $\mu$  or  $\delta$  receptor

	Human Opioid Receptor Binding (nM)				
Drug	Kappa Mu Delta				
CR845	0.16	>10,000	>10,000		
Morphine	50	1	140		
Fentanyl	85	1	153		





# Pruritus And Pain - Common Pathway

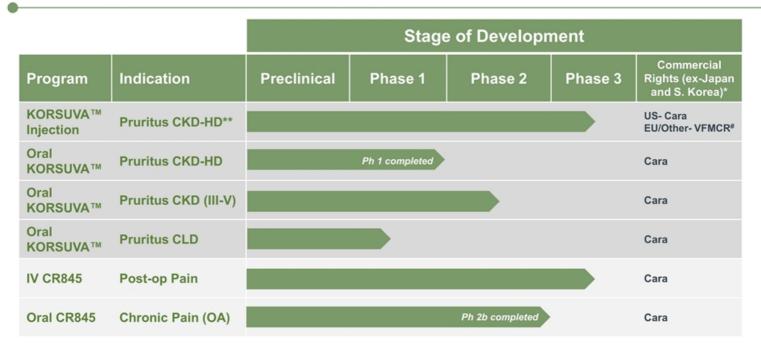


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Source: Paus et al.,J Clin Inv, 2006



# **Development Pipeline – July 2018**



The FDA has conditionally accepted KORSUVA™ as the trade name for CR845 / difelikefalin for pruritic indications. CR845 / difelikefalin is an investigational drug product, and its safety and efficacy have not been fully evaluated by any regulatory authority.

CKD-HD: Chronic Kidney Disease- Hemodialysis; OA: Osteoarthritis; CLD: Chronic Liver Disease





<sup>\*</sup> Commercialization rights to CR845 in all indications - Japan: Maruishi Pharma; South Korea: CKD Pharma

<sup>\*\*</sup> Breakthrough Designation for IV CR845 for Pruritus CKD-HD

<sup>#</sup> VFMCRP and Cara have rights to promote in Fresenius Medical Care dialysis clinics in the US under a profit share agreement

# **KORSUVA™** Injection for Dialysis Patients



- ▶ Proposed Indication: CKD-aP in dialysis patients
- Breakthrough Therapy Designation
- ▶ Commercialization partnership with VFMCRP in EU / other territories
- ▶ Next milestone: expected data in 2019 from US Ph 3 trial





# **CKD-Associated Pruritus (CKD-aP)**







- Serious itching condition directly related to kidney disease
  - ~60% of hemodialysis (HD) patients
- Itching severity associated with worsening Quality of Life (QoL) (social, emotional and physical)
  - Sleep disturbance, depressed mood, increased mortality risk
- Currently, no FDA approved medications and no standard of care
  - Most common on back, abdomen & arms
  - Typically bilateral
  - Excoriations in severe cases



Source: Mettang et al. Kidney Int. (2015)



# Opportunity for KORSUVA™ Injection in CKD-Associated Pruritus in Dialysis Patients: US

- Dialysis / End Stage Renal Disease (ESRD)
  - 456K patients on dialysis in US<sup>1</sup>
  - Approx. 60% of patients with pruritus<sup>2,3</sup>
- Significant patient population and no FDA approved therapies, especially for moderate-to-severe pruritus – large unmet medical need
- ▶ KORSUVA™ granted Breakthrough Therapy Designation
- In July 2018, CMS proposed making all new injectable or IV renal dialysis drugs eligible for reimbursement at ASP for 2 years under expanded Transitional Drug Add-on Payment Adjustment<sup>4</sup>
  - 1, ESRD Patients in 2013 A Global Perspective, Fresenius Medical Care, 2014.
  - Pisoni RL, Wikstrom B, Elder SJ, et al. Pruritus in haemodialysis patients: international results from the Dialysis Outcomes and Practice Patterns Study (DOPPS). Nephrol Dial Transplant. 2006;21:3495-3505.
  - Ramakrishnan et al. Clinical characteristics and outcomes of end-stage renal disease patients with self-reported pruritus symptoms. International Journal of Nephrology and Renovascular Disease. 2014:7 1–12
  - 4. https://s3.amazonaws.com/public-inspection.federalregister.gov/2018-14986.pdf



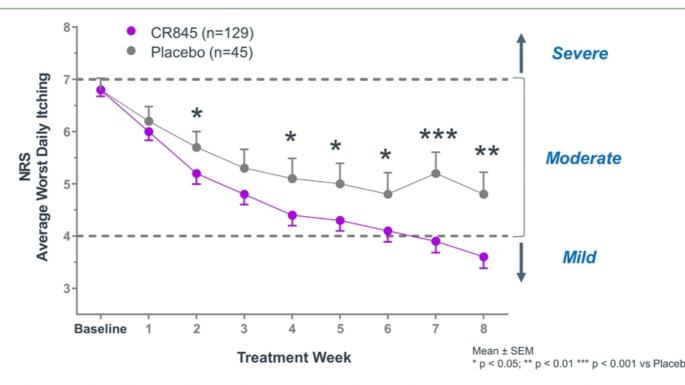
### IV CR845 in CKD-HD: Compelling Ph2 Data

- Randomized, double-blind, placebo-controlled study in hemodialysis patients with moderate-to severe pruritus
- Doses: 0.5, 1.0 and 1.5 mcg/kg
- ▶ 8-week treatment period:
  - Dosing after each dialysis session (3 times per week)
- Multi-center:
  - 174 patients randomized (Placebo: 45 vs. CR845: 129)
- Primary endpoint:
  - Change from Baseline in Worst Itching Intensity (NRS score)
- Secondary / exploratory endpoints:
  - Change in QoL (Skindex-10)
  - 5-D Itch Scale (multidimensional)
  - Sleep disturbance subscale (MOS)
  - Patient Global Impression of Change
  - Patient Global impression of Worst itch Severity





# Significant Reductions in Mean Worst Itching Score (NRS) Over Time



- Reduction of Worst Itch Intensity began on Week 1 and continued to improve through Week 8.
  - Patients on placebo showed initial improvement that plateaued

 $(\Pi)$ 

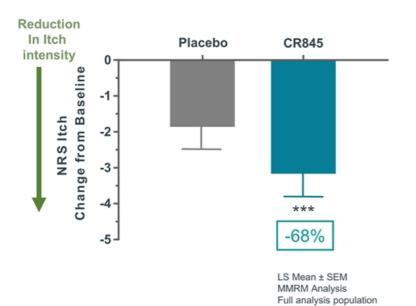
Severity Bands based on Reich et al, Acta Derm Venereol 2012



# Significant & Clinically Meaningful Reduction in Itch Intensity Following 8-Week Treatment with CR845

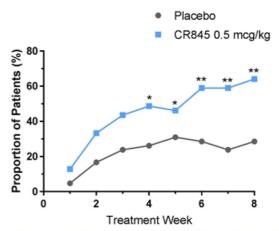
#### Mean Change Worst Itch Intensity

#### Responder Analysis: ≥3-points



Full Analysis Population: all randomized patients who received at least 1 dose of double-blind study drug.

\*\*\*p<0.001 vs Placebo



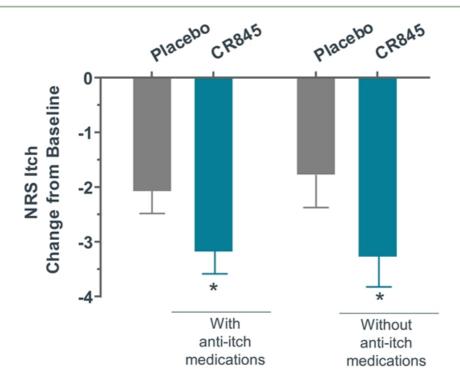
NRS Improvement	Placebo	CR845 0.5 mcg/kg
≥3-points	29%	64% (**)
≥4-points	24%	51% (*)

\*p<0.05, \*\*p<0.01 vs Placebo, Cochran-Mantel-Haenszel test





# Change in NRS Worst Itch Intensity Not Different Based on Prior Use of Anti-Itch Medications

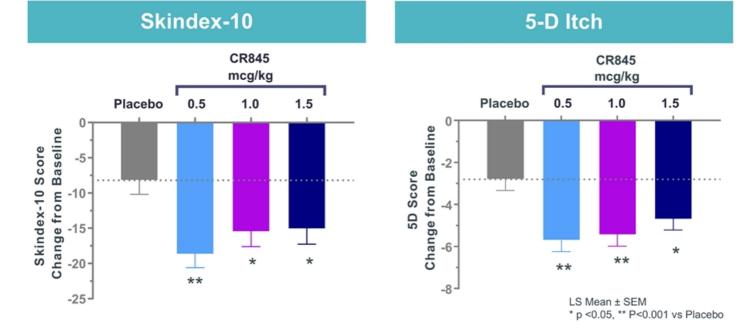


LS Mean ± SEM \* p < 0.05 vs Placebo

- ▶ 42% of all patients reported prior use of anti-itch medication and were stratified prior to randomization
- Anti-itch medications included primarily antihistamines and corticosteroids

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# Significant Improvement in Quality-of-Life Measures Across All Dose Groups



Pearson's Correlations of the Worst Itching Intensity NRS and Skindex-10 with 5-D Itch: r=0.71 and r=0.74, respectively; p<0.0001

The 5-D ltch scale covers 5 domains: duration of itch/day, degree, direction (improvement/worse), disability (sleep, social, housework/errands, work/school), distribution (parts of the body)





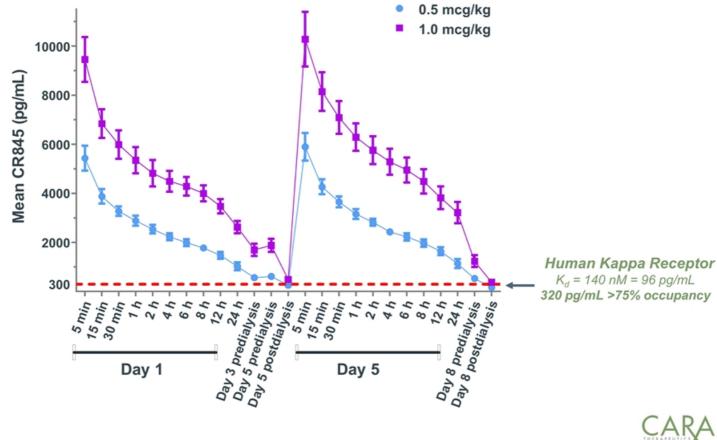
# Safety Summary: Treatment-Emergent Adverse Events (≥ 10% Any Treatment Group)

		CR845	CR845	CR845
Preferred Term	Placebo	0.5 mcg/kg	1.0 mcg/kg	1.5 mcg/kg
	(N=45)	(N=44)	(N=41)	(N=44)
	n (%)	n (%)	n (%)	n (%)
Dizziness	2	6	4	2
	(4.4)	(13.6)	(9.8)	(4.5)
Somnolence	1	2	2	5
	(2.2)	(4.5)	(4.9)	(11.4)
Headache	1 (2.2)	0 (0.0)	5 (12.2)	0 (0.0)
Diarrhoea	0	7	4	5
	(0.0)	(15.9)	(9.8)	(11.4)
Mental status changes	0	0	1	5
	(0.0)	(0.0)	(2.4)	(11.4)
Nausea	1	5	2	4
	(2.2)	(11.4)	(4.9)	(9.1)

No Safety Findings Raised By IDMC



# All Doses of Post-Dialysis (3x/Week) CR845: Maintenance of Receptor-Saturating Plasma Concentrations

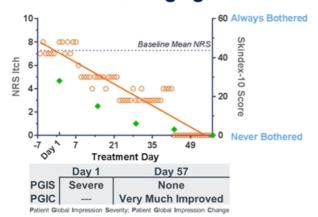


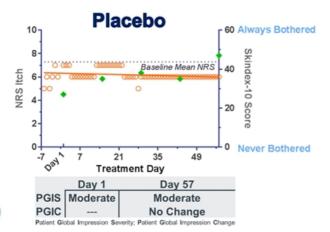
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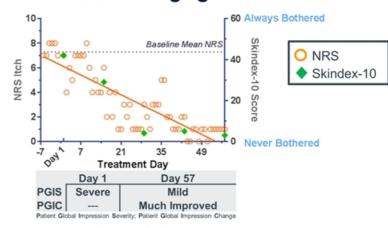
# **Examples of Individual NRS Profiles**

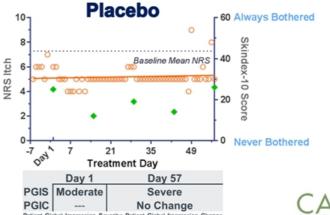
#### CR845: 0.5 ug/kg





#### CR845: 1.0 ug/kg





CARA

# KORSUVA (CR845/ difelikefalin) in CKD-HD: Onogoing Ph3 KALM™-I Trial

- Randomized, Double-Blind, Placebo-Controlled Study in Hemodialysis Patients with Moderate-to Severe Pruritus
- Dose: 0.5 mcg/kg
- ▶ 12-week treatment period (with a 52-week open label extension phase):
  - Dosing after each dialysis session (3 times per week)
- ▶ ~60 US Sites:
  - 350 patients (175/group); may be increased up to 500 patients (250/group)
- Primary endpoint:
  - Change (≥3 point improvement) from Baseline in Worst Itching Intensity (NRS score) - responder analysis
- Secondary:

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- Change in itch related QoL by 5-D Itch Scale (multidimensional)
- Change in QoL (Skindex-10)
- Safety and tolerability
- Change (<u>></u>4 point improvement) from Baseline in Worst Itching Intensity (NRS score)- responder analysis

# IV KORSUVA in CKD-HD: Ongoing Ph3 Open Label Safety Study Update

- Open label, long term extension safety study in hemodialysis patients with moderate-to severe pruritus
- Dose: 0.5 mcg/kg
  - Dosing after each dialysis session (3 times per week)
- ▶ Treatment period: up to 52 weeks and up to 240 subjects
- Study update:
  - >100 patients enrolled
  - >50 patients at 6 months of treatment
  - No unexpected adverse events reported thus far



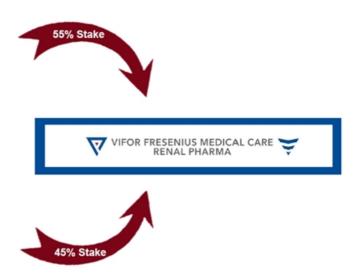


# Vifor Fresenius Medical Care Renal Pharma (VFMCRP)

### VFMCRP: JV - Vifor Pharma Group & Fresenius Medical Care (FMC)

- ▶ Vifor Pharma: Leader in iron deficiency, nephrology & cardio-renal therapies
- ▶ FMC: Global leading provider of services for dialysis patients











### **VFMCRP Partnership Highlights**

- ▶ License: IV CR845/difelikefalin for the prevention, inhibition or treatment of itch associated with pruritus in hemodialysis/peritoneal dialysis patients
- ▶ **Upfront:** \$70 million (\$50 million cash + \$20 million in Cara equity at premium)
- ▶ Regulatory and commercial milestones: up to \$470 million
- Royalty: Tiered double digit royalty based on net sales of IV CR845/ difelikefalin in licensed territory
- ▶ Licensed Territory: Worldwide, excluding US, Japan & South Korea
- VFMCRP & Cara promotion and profit share arrangement in US Fresenius Medical Care clinics
  - Cara to solely promote in all non-Fresenius US dialysis clinics and retain all profits





# Pruritus: Large Opportunity Limited Existing Therapies

#### (CKD-aP)

- Chronic kidney disease-associated pruritus (CDKaP), is chronic itching that occurs in patients with renal disease
- Affects ~40 to 50% of patients with renal failure, associated with comorbidity

#### **Pruritus**



#### Atopic dermatitis (AD)

- Pruritus is a defining symptom of AD
- 20mm AD patients in the US ~50% of the patients seek treatment for pruritus\*
- Current treatments consist of high-dose antihistamines and antidepressants

#### **Psoriasis**

- Common skin condition marked by red, itchy, scaly patches
- 8mm patients in the US ~50% of the patients seek treatment for pruritus\*

**Chronic Liver** 

Disease-aP

Sensation of itch due to any liver disease,

20% to 30% of patients with cholestatic liver disease experience pruritus

# **Oral KORSUVA for CKD-associated Pruritus**



		Stage of Development				
Program	Indication	Preclinical	Phase 1	Phase 2	Phase 3	Approved
Oral CR845	Pruritus CKD (III-V)					

▶ Proposed Indication: CKD-aP in Stage III-V CKD patients

Next milestone: Ph2 Data - 2019

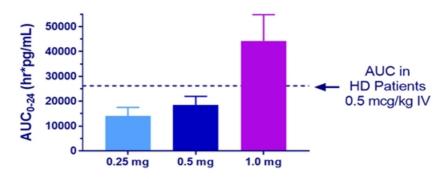




# Oral KORSUVA Exposure Levels Were Similar to I.V. in CKD Patients

- Ph 1 study conducted with KORSUVA tablets in CKD patients with moderate and severe renal impairment (Stage III-V)
  - Doses: 0.25 mg, 0.5 mg & 1 mg tablets; once daily dosing
- ▶ The exposure levels were approximately equivalent to those achieved with 0.5 mcg/kg dose of IV KORSUVA (clinically active dose in HD patients with moderate to severe CKD-aP)

Systemic Exposure in Patients with Moderate CKD With Once Daily Dosing of Oral CR845



Data for oral dosing represent the arithmetic mean  $\pm$  SEM. Mean exposure (AUC) in hemodialysis patients is normalized to an equivalent 24 hour interval.



#### Oral KORSUVA for CKD-aP: Planned Ph 2 Trial

- ▶ Randomized, double-blind, placebo-controlled study in moderate to severe CKD patients (stage III–V) with moderate-to-severe pruritus
- Doses: 0.25 mg, 0.5 mg & 1 mg tablets
- ▶ 12-week treatment period
  - Daily dosing
- ▶ 240 patients (60/ tx group); may be increased to 120/ tx group
  - Unblinded interim analysis at ~50% enrollment and completed 12-week treatment.
- Primary endpoint:
  - Change from baseline to week 12 in weekly average of daily 24-hour Worst Itching Intensity NRS score
- Secondary endpoints:
  - Change in itch related QoL by Skindex-10
  - Change in itch related QoL by 5-D Itch Scale
  - Proportion of patients with ≥3 point improvement from baseline in Worst Itching Intensity NRS score - responder analysis
  - Safety

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### **Oral KORSUVA for CLD-associated Pruritus**



		Stage of Development				
Program	Indication	Preclinical	Phase 1	Phase 2	Phase 3	Approved
Oral CR845	Pruritus CLD					

- ▶ Proposed Indication: Chronic Liver Disease-associated Pruritus
- ▶ Next milestone: planned initiation of Ph 2 trial in 2H18





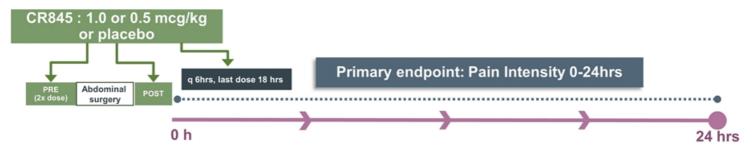
# Post-Op Pain: Significant Unmet Need

- Need for multimodal analgesia (ASA and ERAS)
  - Different MOAs to maximize analgesia
  - Anti-inflammatory benefits vs. mu opioids
- Need to reduce mu opioid usage and side effects
  - Respiratory Depression
  - Nausea / Vomiting
  - Abuse Liability
- Goal to improve patient outcomes, decrease length of hospital stay and reduce overall health care costs





### CR845 CLIN3001: Study Design



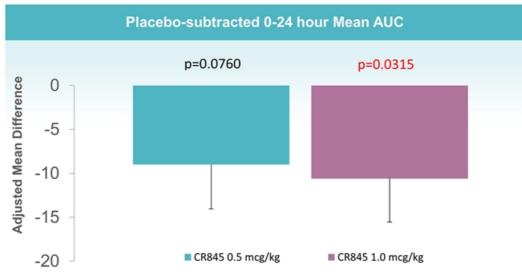
- Multi-center: 22 US hospital sites, 444 patients
- Randomized, double-blind, placebo controlled, adaptive design
- Dose: 0.5 mcg/kg, 1.0 mcg/kg or placebo
- Primary endpoint:
  - Area Under the Curve (AUC) assessment of the pain intensity measured by NRS scale from 0 to 24 hours post surgery - significant reduction in pain with 1.0 mcg/kg dose
- Secondary endpoints:
  - Incidence of vomiting over 24 hours significant reduction with 1.0 mcg/kg dose
  - Post operative nausea & vomiting (PONV) Impact scores significant reductions with both doses
  - Rescue medication used (IV morphine) within 24 hours not significant
  - Patient global assessment of medication at 24 hours not significant
  - Safety

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# 0-24 Hour Pain AUC: Primary Endpoint

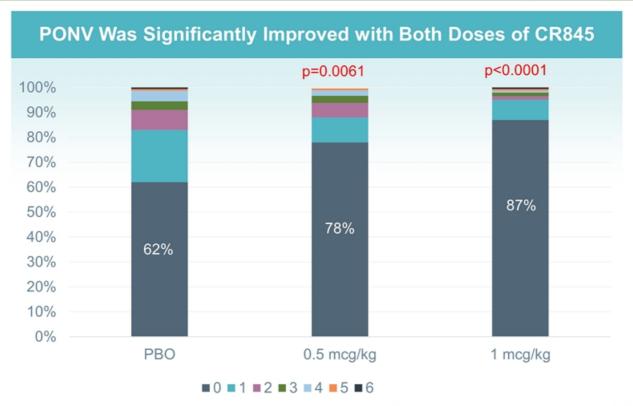
### CR845 (1.0 mcg/kg Dose) Demonstrated Significant Improvement in Pain Relief



Post-Op Interval	0.5 mcg/kg (N=147)	1.0 mcg/kg (N=147)
0-6 hours	p=0.041	p=0.001
0-12 hours	p=0.035	p=0.004
0-18 hours	p=0.072	p=0.013



# **PONV Impact Score at 24 Hours: Secondary Endpoint**

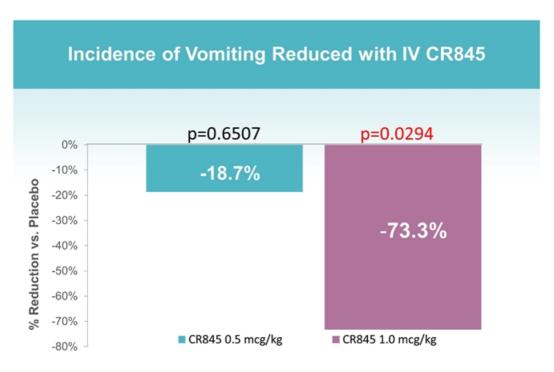


% of subjects who did not use any ondansetron was 70% in the CR845 0.5 mcg/kg (N= 147) and 81% in the CR8451 (N=147) mcg/kg group versus 56% in the placebo (N=146) group

PONV Scores: 0- not at all, and 6-Worst score; Wilcoxon rank sum test stratified by surgery type



# **Incidence of Vomiting Over 24 Hours: Secondary Endpoint**



Mantel-Haenszel test stratified by surgery type based on Vollset et al (1991)





### CR845 CLIN3001: Summary

- Met primary endpoint of AUC 0-24 hours for pain relief at 1.0mcg/kg
  - Significant reductions in AUC (0-6) & AUC (0-12) for both 0.5 mcg/kg & 1.0 mcg/kg
- ▶ Met Secondary Endpoints:
  - Significant reduction in PONV impact scores (0.5 mcg/kg & 1.0 mcg/kg)
  - Significant reduction in incidence of vomiting (1mcg/kg)
- Incidence of adverse events was generally low and similar between placebo and IV CR845 groups
- Next Steps FDA meeting & consultation on development path and trial design



# **Projected Clinical Milestones – 2018/19**

# **Upcoming Cara Events**

Pruritus / KORSUVA™ Injection				
Mid-18 / 3Q18	Phase 3 (Global) CKD-aP Dialysis Trial Initiation			
2019	Data from US & Global Ph 3 trials in CKD-aP (Dialysis)			
Pruritus / Oral KORSUVA™				
2Q18	Phase 2 CKD-aP Non-Dialysis Trial – Recently Initiated			
3Q18	Phase 1 Chronic Liver Disease (CLD) Trial Completion			
2H18	Phase 2 CLD-aP Trial Initiation			
2019	Data from Phase 2 CKD-aP Non-Dialysis Trial			



# Financial Highlights

#### As of March 31, 2018

Cash and marketable securities \$74.5M

▶ Net loss – Q1 2018 (\$16.8M)

▶ Shares outstanding 32.7M

• Stock options ~3.9M

### In May 2018

- ▶ Additional Cash of \$70M (VFMCRP agreement)
- Additional shares (Vifor): 1,174,827



