

Cara Therapeutics (CARA - \$14.94)

Strong Pruritus Data in the Past, Many more Catalysts to Come

CARA reported their 1Q17 last night after the close highlighting their strong Phase 2b data of IV CR845 for moderate to severe pruritus in dialysis patients (UP) and their subsequent capital raise of \$86.5M net. As a reminder, on 2/28/17, CARA's Phase 2b (n=174) IV CR845 demonstrated efficacy in reduction (NRS) and improvement in quality of life (Skindex-10) at 8 weeks with p=0.0019 and p=0.0007, respectively. CARA still expects to meet with the FDA in 3Q17 and due to the lasting effect and clean safety profile of the trial, we believe only one Phase 3 study may be required prior to filing. We are also encouraged by the impressive safety quantitative results measuring respiratory functions recently announced by CARA as IV CR845 did not significantly differ from placebo across three quantitative measures of respiratory drive. We see these results as attesting to the unique mechanism of action of CR845 (targeting peripheral kappa opioid receptors) and view the lack of alteration at 5.0ug/kg (5X projected therapeutic dose) as a real positive. We note no timeline slippage as CARA reaffirmed that they expect data read-out of their Phase 3 IV CR845 for post-operative pain, oral CR845 for hip/knee osteoarthritis (OA) and PK Phase1 data in their oral CR845 for pruritus this quarter. With many catalysts in the near-term, we are reiterating our Buy rating, and \$35 price target.

- **Strong IV CR845 for UP and respiratory quantitative data, 2017 is off to a strong start.** With IV CR845 convincingly hitting both primary (NRS) (p=0.0019) and secondary (Skindex-10) (p=0.0007) endpoints in the Phase 2b for UP as well as showing a lasting and safe effect, we like CARA's chances of using this Phase 2b as a first of two Phase 3s (FDA meeting in 3Q17).
- **One down, much more late stage data points this quarter.** As CARA is still not an earnings, but rather a development, story we are encouraged to see no timeline slippage and expect data read-outs this quarter for their p3 IV CR845 for post-operative pain, p2b oral CR845 for hip/knee OA pain as well as Phase 1 oral CR845, which we believe has "blockbuster potential" as CARA plans to expand to different indications down the road.
- **Reiterate Buy rating, \$35 price target.** We value CARA on a sum-of-the-parts: IV CR845 for pruritus: \$14/share, IV/oral post-op pain: \$12/share, oral pruritus: \$7/share, and cash (end'17) and tech: \$2/share.

Earnings Estimates: (per share)

(Dec)	1Q	2Q	3Q	4Q	FY	P/E
FY-18E	NA	NA	NA	NA	(1.97)	NA
FY-17E	(0.81)A	(0.60)	(0.42)	(0.36)	(2.14)	NA
FY-16A	(0.39)	(0.48)	(0.42)	(0.81)	(2.10)	NA
FY-15A	(0.21)	(0.25)	(0.23)	(0.35)	(1.05)	NA

Source: Company data and Laidlaw & Company estimates

Healthcare/Biotechnology

Ticker:	CARA
Rating:	Buy
Price Target:	\$35

Trading Data:

Last Price (05/04/2017)	\$14.94
52-Week High (03/19/2017)	\$20.90
52-Week Low (06/27/2016)	\$4.35
Market Cap. (MM)	\$474.3
Shares Out. (MM)	31.75

Analyst

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Figure 1: Variance analysis

CARA Therapeutics					
Quarterly variance analysis					
(000's except per share)	1Q16A	1Q17A	1Q17E	Variance	% Y/Y
License & milestones	\$0	\$530	\$0	\$530	NA
Collaborative revenues	7	313	750	(437)	4371%
Total Revenue	\$7	\$911	\$750	\$161	12914%
SG&A Expense	2,447	2,400	2,000	400	-2%
R&D Expense	8,546	20,836	20,000	836	144%
Operating Income	(10,986)	(22,325)	(21,250)	(1,075)	103%
Int inc (exp), net	149	90	25	65	-40%
Other (exp) gain, net	0	0	0	0	NA
Pretax Income	(10,837)	(22,235)	(21,225)	(1,010)	105%
Income Tax exp (benefit)	(145)	(31)	0	(31)	-79%
Net income (loss)	(10,692)	(22,204)	(21,225)	(979)	108%
Weighted avg. shares (000)	27,260	27,300	32,408	(5,108)	0%
Fully diluted shares (000)	29,474	29,300	34,408	(5,108)	-1%
Adj EPS ex-1x	(\$0.39)	(\$0.81)	(\$0.65)	(\$0.16)	107%

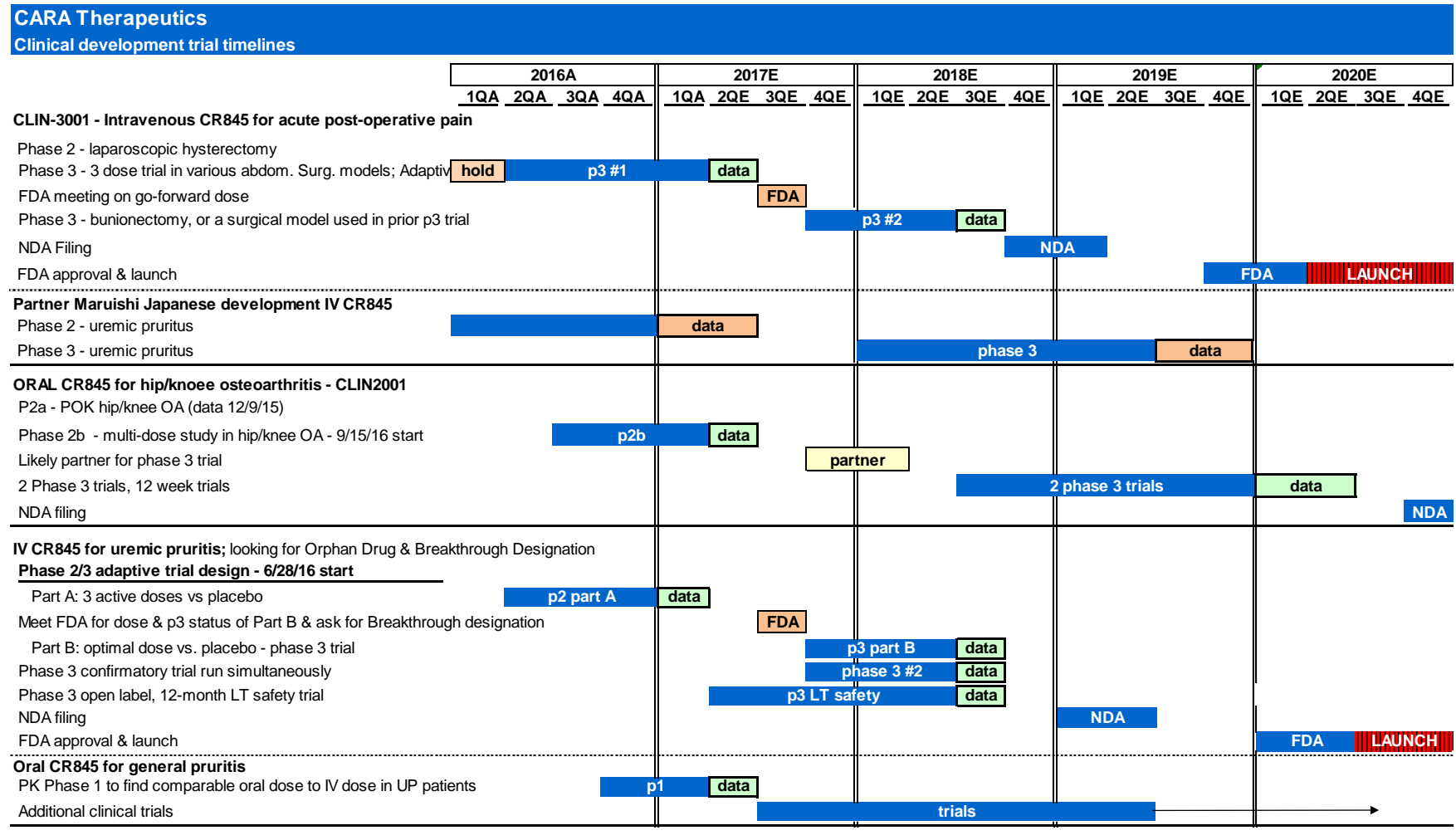
Source: Company reports; Laidlaw & Company estimates

Figure 2: Valuation

Sum-of-the-parts value: CARA		
Segment	Valuation (000's)	Per share value
CR845 - IV uremic pruritus	\$475,666	\$14
CR845 - IV post-op pain	\$310,093	\$9
CR845 - oral general pruritus	\$235,930	\$7
CR845 - oral OA pain	\$100,094	\$3
Cash (end '17) & tech value	\$54,084	\$2
SUM	\$1,175,867	\$35
Shares out '17E (000)		33,588

Source: Laidlaw Estimates

Figure 3: Clinical trials timeline



Source: Company reports; Laidlaw & Company estimates.

Figure 4: Quarterly Income Statement

CARA Therapeutics										
Quarterly income statement										
(\$000 except per share)	2016A				2016A Year	2017E				2017E Year
	1QA	2QA	3QA	4QA		1QA	2QE	3QE	4QE	
Revenues										
License & milestones					\$0	\$530				
Collaborative revenues	\$7	\$79			86	\$313	\$750	\$750	\$750	2,563
Total Revenue	\$7	\$79	\$0	\$0	\$86	\$911	\$750	\$750	\$750	\$3,161
Expenses:										
Cost of Revenue (COGS)	-	-	-	-	-	-	-	-	-	-
Gross Margin	7	79	-	-	86	911	750	750	750	3,161
Research and development	8,546	10,760	9,671	20,277	49,254	20,836	18,000	12,000	9,750	60,586
General and administrative	2,447	2,645	2,102	2,038	9,232	2,400	2,250	2,750	3,000	10,400
Total operating expenses	10,993	13,405	11,773	22,315	58,486	23,236	20,250	14,750	12,750	70,986
Income (loss) from Operations	(10,986)	(13,326)	(11,773)	(22,315)	(58,400)	(22,325)	(19,500)	(14,000)	(12,000)	(67,825)
Interest income (expense), net	149	172	176	155	652	90	25	25	25	165
Other (exp) gain, net										
Income (loss) before taxes	(10,837)	(13,154)	(11,597)	(22,160)	(57,748)	(22,235)	(19,475)	(13,975)	(11,975)	(67,660)
Income tax exp (benefit)	(145)	(79)	(55)	(189)	(468)	(31)				
Net income (Loss)	(10,692)	(13,075)	(11,542)	(21,971)	(57,280)	(22,204)	(19,475)	(13,975)	(11,975)	(67,629)
Net income to common										
Earning per Share (EPS)	(\$0.39)	(\$0.48)	(\$0.42)	(\$0.81)	(\$2.10)	(\$0.81)	(\$0.60)	(\$0.42)	(\$0.36)	(\$2.14)
Adj EPS ex-1x & non-cash			(\$0.42)		(\$2.10)					
Weighted avg. shares (000)	27,260	27,283	27,283	27,291	27,279	27,300	32,417	33,017	33,617	31,588
Fully diluted shares (000)	29,474	29,540	29,582	30,712	29,827	29,300	34,417	35,017	35,617	33,588

Source: Bloomberg LP; Company reports; Laidlaw & Company estimates.

Figure 5: Annual Income Statement

CARA Therapeutics						
Annual income statement						
(\$000 except per share)	2016A	2017E	2018E	2019E	2020E	Comments
Revenues						
CR845 - IV post-op pain					\$56,760	Interim data 2Q17
CR845 - IV Uremic pruritus			-	-	17,938	p2 data 1Q17
CR845 - oral hip/knee OA pain			-	-	-	p2b data 2Q17
License & milestones	\$0	-	-	-	-	Maruishi milestones here
Collaborative revenues	86	\$2,563	\$3,000	\$3,000	3,000	
Total Revenue	\$86	\$3,161	\$3,000	\$3,000	\$77,698	
Expenses:						
Cost of Revenue (COGS)	-	-	-	-	8,514	
Gross Margin	86	3,161	3,000	3,000	69,184	
R&D	49,254	60,586	60,500	58,250	50,500	
SG&A	9,232	10,400	10,750	11,000	30,000	50 reps in 2020
Total op exp	58,486	70,986	71,250	69,250	80,500	
Inc/(loss) from Ops	(58,400)	(67,825)	(68,250)	(66,250)	(11,316)	
Int income (exp), net	652	165	100	100	100	
Other expenses, net	-	-	-	-	-	
Inc/(loss) before taxes	(57,748)	(67,660)	(68,150)	(66,150)	(11,216)	
Income tax exp (benefit)	(468)	-	-	-	-	sig. tax loss carryforwards
Net income (Loss)	(\$57,280)	(\$67,629)	(\$68,150)	(\$66,150)	(\$11,216)	
Net income to common						
Earning per Share	(\$2.10)	(\$2.14)	(\$1.97)	(\$1.78)	(\$0.29)	
Adj EPS ex-1x & non-cash	(\$2.10)					
Weighted avg. shares (000)	27,279	31,588	34,588	37,088	38,588	
Fully diluted shares (000)	29,827	33,588	37,088	39,838	41,338	

Source: Bloomberg LP; Company reports; Laidlaw & Company estimates.

Major Risks

Exogenous events could impact our outlook. We believe pharmaceutical companies have the least control over competitive, political, and regulatory risks. Although we have incorporated competitive assumptions into our forecasts, there may be other risks beyond the scope of our analysis. Changes in the drug reimbursement system, as well as any political or regulatory amendments, may significantly influence the earnings power of these companies.

Actual clinical results and the FDA's conclusions may deviate from expectations. Many of our assumptions are based on a review of incomplete clinical trial data available in the public domain. Often our conclusions are drawn from early stage data, which may not be reflected by pivotal studies. Furthermore, the FDA's conclusions may not coincide with our own, materially changing our revenue and earnings assumptions.

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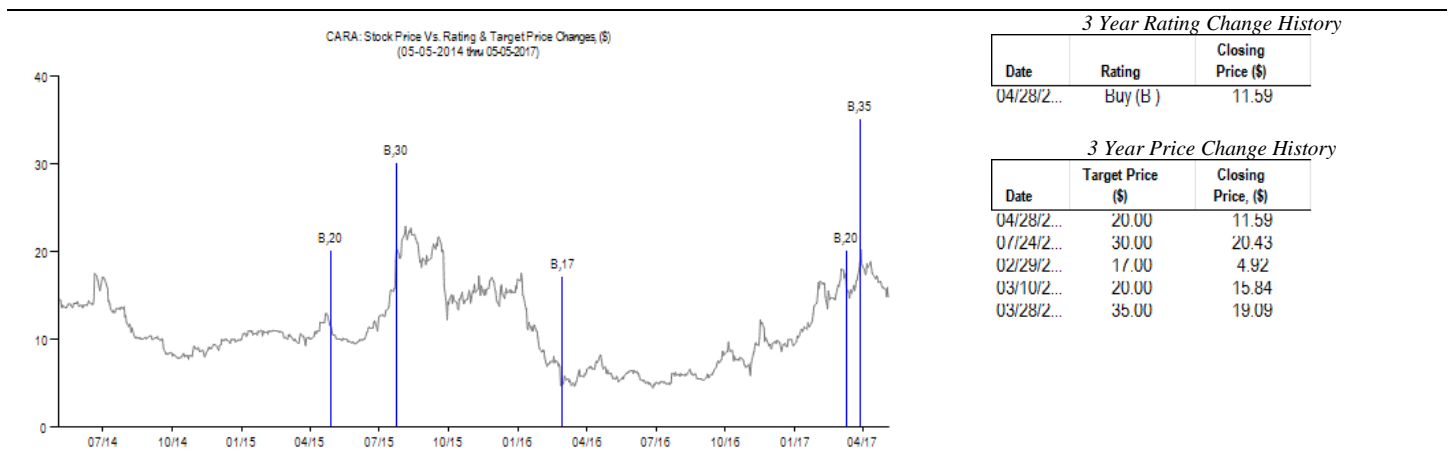
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			Investment Banking	Brokerage
Strong Buy (SB)	Expected to significantly outperform the sector over 12 months.	2.27%	2.27%	0.00%
Buy (B)	Expected to outperform the sector average over 12 months.	61.36%	29.55%	2.27%
Hold (H)	Expected returns to be in line with the sector average over 12 months.	0.00%	0.00%	0.00%
Sell (S)	Returns expected to significantly underperform the sector average over 12 months.	2.27%	0.00%	0.00%

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