

## Cerecor Inc. (CERC - \$ 3.25)

### 2H16 A defining time period for CERC re-valuation

We recently spent time with senior management of Cerecor and we continue to expect significant value-creating events in 2H16 as the company should be presenting Phase 2 top line data for CERC-301 (an NR2B specific NMDA antagonist) in adjunctive Major Depressive Disorder (MDD) and Phase 1b/2a data in CERC-501 (a selective kappa opioid receptor antagonist) for smoking cessation. Both products target significant multi-billion dollar markets and positive data in either indication would be a significant positive event for CERC given its current diminutive market cap. CERC currently valued basically at cash, with ~\$27M in cash post-their 10/15/15 IPO and with a \$28M market cap. While drug discovery is inherently risky, and there are no guarantees that either compound will demonstrate efficacy in trials, we believe they are worth more than the \$0 valuation investors are giving them at the current market cap. We reiterate our Buy rating and our \$10 price target.

- **CERC-301 for MDD: a more specific NMDA antagonist.** NMDA antagonism is the subject of a variety of investigational programs given the potential of modulating glutamate functioning via the NMDA receptor for a novel MDD target. CERC-301's NR2B specificity ought to help mitigate potential euphoric effects typically seen with NMDA antagonists (data 2H16). The rapid onset of action would be a key differentiation from current standard of care, which can take weeks to take effect. The FDA Fast Track designation for CERC-301 suggests that the FDA sees the promise of this new target, and the \$560M acquisition of Naurex by Allergan last July suggests that larger pharma sees the promise of this new target as well.
- **CERC-501 for addiction: a straightforward CNS pathway.** Within CNS the addiction response clinical trial path is among the most robust, with strong predictability typically seen between animal and human models. This gives confidence that the robust anti-addictive properties of the CERC-501 kappa opioid receptor antagonism seen in animals to date has a good chance of being demonstrated in the ongoing human trials (data 2H16).
- **Reiterating Buy rating \$10 price target.** Our price target is based on a sum-of-the-parts analysis with CERC-301 valued at \$6/share, CERC-501 at \$2.75/share, and a net cash (end 2016) and technology at \$1.25/share.

### Earnings Estimates: (per share)

(Dec)	1Q	2Q	3Q	4Q	FY	P/E
<b>FY-17E</b>	(0.28)	(0.30)	(0.30)	(0.33)	(1.20)	NM
<b>FY-16E</b>	(0.27)	(0.32)	(0.42)	(0.34)	(1.35)	NM
<b>FY-15E</b>	(0.15)A	(0.78)A	(0.47)A	(0.28)	(1.17)	NM
<b>FY-14A</b>	(0.20)	(6.88)	(9.57)	(1.16)	(5.23)	NM

Source: Company data and Laidlaw & Company estimates

### Healthcare/Biotechnology

Ticker:	<b>CERC</b>
Rating:	<b>Buy</b>
Price Target:	<b>\$10.00</b>

### Trading Data:

Last Price (03/04/2016)	\$3.25
52-Week High (10/15/2015)	\$6.65
52-Week Low (12/09/2015)	\$2.67
Market Cap. (MM)	\$28.1
Shares Out. (MM)	8.63

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Last week CERC also held a well-attended R&D event in NYC with senior management and a panel of key opinion leaders in CNS, more specifically in the underlying mechanisms of action of CERC's two lead product candidates, CERC-301 and CERC-501.

- **Central Nervous System (CNS) diseases are a huge underserved market:** The World Health Organization has recently estimated that CNS diseases affect nearly 2 billion people globally making up for ~40% of the world total disease burden. Nonetheless, the continued advancements in understanding of disease biology, target validation as well as clinical trial methodology make one of the **speakers** at the R&D day believe that the tides are finally turning. In the past year, many partners/acquirers are seizing this opportunity in CNS such as AGN's July 2015 acquisition of Naurex for \$560M to acquire Naurex's platform of IV NMDA antagonists for MDD. In the past 50 years there has been very little innovation in discovering novel drug targets beyond serotonin, norepinephrine, and dopamine. In depression and schizophrenia, there has only been 2-3 mechanistically distinct drugs on the market while heart disease has seen a jump from 2 different mechanisms to 15 in the same time period.
- **CERC-301 to fill the void of quick acting safe treatments for refractory MDD patients:** CERC's KOL at the analyst day emphasized the importance of safe and quick acting antidepressants. Ever since IV ketamine (uncompetitive high affinity NMDA R antagonist) showed definitive evidence of rapid antidepressant effects, it has been widely offered even though it is highly abused due to its dissociative anesthetic effect (euphoria). Being administered orally is also a significant advantage for CERC-301 since the already elevated placebo effect in severely depressed patients is heightened by IV administration.
- **CERC-501 has a differentiated activity pathway with true blockbuster potential:** PFE's Chantix for smoking cessation alone has sold ~\$6.5B cumulatively since it was launched in 2006, and Chantix has pretty significant black box warnings about higher signs of depression, suicidal ideation, and aggressiveness. CERC's KOL at the analyst day emphasized that kappa opioid receptor (KOR) antagonists have a differentiated profile from existing drugs due to their ability to reverse the effects of previous stress, have acute anti-stress effects, and prevent the long-term effects of stress. He also noted that in preclinical models, KOR antagonists can reduce indices of addictive behavior associated with all major classes of abused substances (cocaine, nicotine, heroin, methamphetamines, or alcohol), which is encouraging given the known high level of translatability from animal to human models in substance use disorders.

Figure 1: Valuation

Sum-of-the-parts valuation		
Segment	Valuation (000's)	Per share value
CERC-301	\$1,038,176	\$6.00
CERC-501	\$452,216	\$2.75
Technology value	\$200,000	\$1.00
Cash (end of '16E)	\$40,484	\$0.25
<b>Total</b>	<b>\$1,730,875</b>	<b>\$10.00</b>
2016 fully diluted shares out (000)		172,393

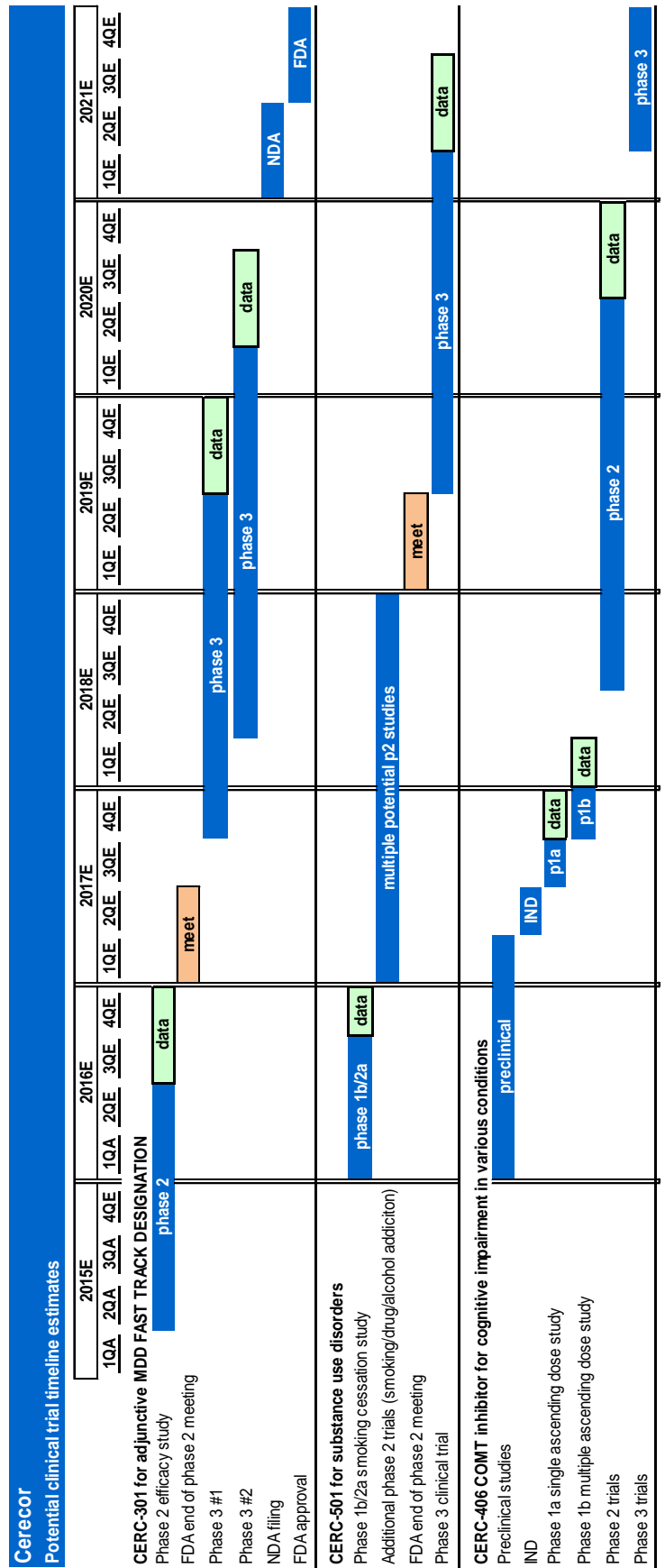
Source: Bloomberg LP.

Figure 2: Upcoming catalysts

Event	Expected Timing
CERC-406 preclinical IND-enabling studies	2016
CERC-301 phase 2 top line data in MDD	2H16
CERC-501 phase 1b/2a top line data smoking cessation	2H16

Source: Bloomberg LP.

Figure 3: Clinical trials timeline



Source: Company reports; Laidlaw & Company estimates.

Figure 4: Quarterly Income Statement

<b>Cerecor</b>										
<b>Quarterly income statement</b>										
(\$000's except per share)	2014A				2014A Year	2015E				2015E Year
	1QA	2QA	3QA	4QA		1QA	2QA	3QA	4QE	
R&D	2,750	2,861	4,371	2,259	12,241	1,723	1,875	1,237	1,250	6,086
SG&A	879	795	1,627	1,574	4,875	761	1,016	722	1,000	3,498
<b>Operating income/(loss)</b>	<b>(3,629)</b>	<b>(3,656)</b>	<b>(5,998)</b>	<b>(3,833)</b>	<b>(17,116)</b>	<b>(2,484)</b>	<b>(2,891)</b>	<b>(1,959)</b>	<b>(2,250)</b>	<b>(9,584)</b>
Interest income/(expense)	0	(795)	(190)	(222)	(1,206)	(218)	(219)	(197)	(175)	(810)
<b>Adj-Net income/(loss)</b>	<b>(3,628)</b>	<b>(4,450)</b>	<b>(6,188)</b>	<b>(4,055)</b>	<b>(18,322)</b>	<b>(2,702)</b>	<b>(3,110)</b>	<b>(2,157)</b>	<b>(2,425)</b>	<b>(10,394)</b>
Change in warrant value		386	348	1,532	2,266	(535)	198	1,465	1,250	2,378
<b>GAAP net income/(loss)</b>	<b>(3,628)</b>	<b>(4,064)</b>	<b>(5,840)</b>	<b>(2,523)</b>	<b>(16,056)</b>	<b>(3,238)</b>	<b>(2,913)</b>	<b>(691)</b>	<b>(1,175)</b>	<b>(8,017)</b>
<b>Adj-EPS ex-non-cash</b>	<b>(\$0.20)</b>	<b>(\$6.88)</b>	<b>(\$9.57)</b>	<b>(\$1.16)</b>	<b>(\$5.23)</b>	<b>(\$0.15)</b>	<b>(\$0.78)</b>	<b>(\$0.47)</b>	<b>(\$0.28)</b>	<b>(\$1.17)</b>
<b>GAAP EPS as reported</b>	<b>(\$0.20)</b>	<b>(\$6.28)</b>	<b>(\$9.03)</b>	<b>(\$0.72)</b>	<b>(\$4.58)</b>	<b>(\$0.18)</b>	<b>(\$0.73)</b>	<b>(\$0.15)</b>	<b>(\$0.14)</b>	<b>(\$0.90)</b>
Shares out (000)	17,800	647	647	3,502	3,502	18,194	4,000	4,630	8,630	8,864
Fully diluted shares (000)	85,287	60,647	42,673	46,002	157,852	204,849	189,000	158,914	169,614	180,594

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

Figure 5: Annual Income Statement

<b>Cerecor</b>						
<b>Annual income statement</b>						
(\$000's except per share)	<b>2014A</b>	<b>2015E</b>	<b>2016E</b>	<b>2017E</b>	<b>2018E</b>	<b>Comments</b>
R&D	12,241	6,086	9,750	12,700	13,000	p2 CERC-301 data 2H16
SG&A	4,875	3,498	3,500	4,250	7,150	p1b/2a CERC-501 data 2H16
<b>Operating income/(loss)</b>	<b>(17,116)</b>	<b>(9,584)</b>	<b>(13,250)</b>	<b>(16,950)</b>	<b>(20,150)</b>	
Interest income/(expense)	(1,206)	(810)	(375)	(75)	0	
<b>Adj-Net income/(loss)</b>	<b>(18,322)</b>	<b>(10,394)</b>	<b>(13,725)</b>	<b>(17,025)</b>	<b>(20,150)</b>	
Change in warrant value	2,266	2,378	0	0	0	
<b>GAAP net income/(loss)</b>	<b>(16,056)</b>	<b>(8,017)</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Adj-EPS ex-non-cash</b>	<b>(\$5.23)</b>	<b>(\$1.17)</b>	<b>(\$1.35)</b>	<b>(\$1.20)</b>	<b>(\$1.25)</b>	
<b>GAAP EPS as reported</b>	<b>(\$4.58)</b>	<b>(\$0.90)</b>				
Shares out (000)	3,502	8,864	10,143	14,168	16,130	
Fully diluted shares (000)	157,852	180,594	172,393	179,168	181,130	

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

## Major risks

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**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.

**Compliance issues, product recalls, and other mandates by regulatory authorities could materially change our expectations.** Regulatory compliance issues, ranging from accounting irregularities to defective manufacturing practices, could materially change our assumptions and earnings outlook. Fireballs could keep coming. Unanticipated product recalls and labeling changes could also have adverse consequences on our earnings assumptions.

**Legal risks could lead to additional liabilities and revenue loss.** In addition to the expenses incurred by patent challenges, product liability and other legal suits could occur and lead to additional liabilities and revenue loss, which could substantially change our financial assumptions.

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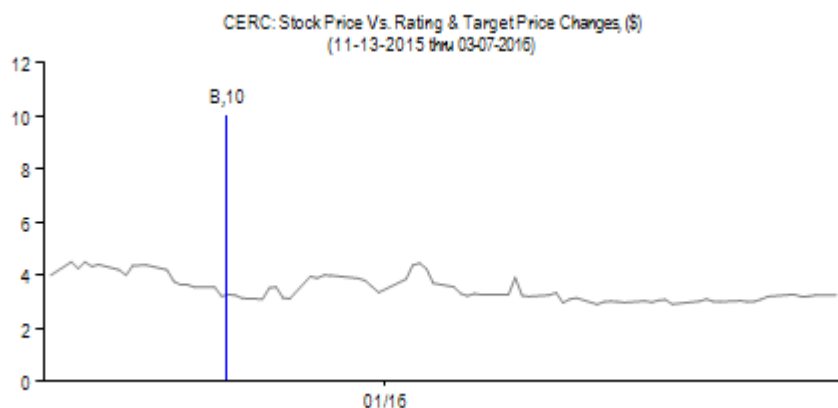
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*Additional information available upon request.*

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#### Rating and Price Target Change History



#### 3 Year Rating Change History

Date	Rating	Closing Price (\$)
12/09/2015	Buy (B)	3.27

#### 3 Year Price Change History

Date	Target Price (\$)	Closing Price, (\$)
12/09/2015	10.00	3.27

Source: Laidlaw & Company

Created by: Blue-Compass.net

Laidlaw & Company Rating System*		% of Companies Under Coverage With This Rating	% of Companies for which Laidlaw & Company has performed services for in the last 12 months	
			Investment Banking	Brokerage
<b>Strong Buy (SB)</b>	Expected to significantly outperform the sector over 12 months.	0.00%	0.00%	0.00%
<b>Buy (B)</b>	Expected to outperform the sector average over 12 months.	65.71%	25.71%	2.86%
<b>Hold (H)</b>	Expected returns to be in line with the sector average over 12 months.	0.00%	0.00%	0.00%
<b>Sell (S)</b>	Returns expected to significantly underperform the sector average over 12 months.	0.00%	0.00%	0.00%

### ADDITIONAL COMPANIES MENTIONED

Allergan plc (AGN – Not Rated)

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