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# Cerecor Inc

**(CERC-NASDAQ)**

## *CERC: Converting into a Fully Independent Healthcare Company…*

Based on our probability adjusted DCF model that takes into account potential future revenues from CERC-301 and CERC-611 using a 15% discount rate along with a 4x sales valuation for commercial operations, CERC is valued at $5.50/share.

| | |
|---|---|
| Current Price (05/17/18) | $3.73 |
| **Valuation** | **$5.50** |

## OUTLOOK

Cerecor Inc. (CERC) is in the process of converting into a fully independent, pediatric-focused healthcare company. In November 2017, the company announced the acquisition of TRx Pharmaceuticals, along with subsidiary Zylera Pharmaceuticals LLC. TRx's leading commercial medications include Poly-Vi-Flor® and Tri-Vi-Flor®. In February 2018, the company announced the acquisition of the marketed pediatric products of Avadel U.S. Holdings, Inc. along with four stable product formulations using the LiquiTime™ and Micropump® technologies.

The company's strategy involves utilizing the revenue generated from commercial operations to fund the development of new development products, including CERC-301, which will enter a Phase 1 study in neurogenic orthostatic hypotension in 2018.

## SUMMARY DATA

| | |
|---|---|
| **52-Week High** | **$5.66** |
| **52-Week Low** | **$0.48** |
| **One-Year Return (%)** | **487.31** |
| **Beta** | **1.30** |
| **Average Daily Volume (sh)** | **159,620** |
| **Shares Outstanding (mil)** | **31** |
| **Market Capitalization ($mil)** | **$117** |
| **Short Interest Ratio (days)** | **N/A** |
| **Institutional Ownership (%)** | **54** |
| **Insider Ownership (%)** | **80** |
| **Annual Cash Dividend** | **$0.00** |
| **Dividend Yield (%)** | **0.00** |
| **5-Yr. Historical Growth Rates** | |
| **Sales (%)** | **N/A** |
| **Earnings Per Share (%)** | **N/A** |
| **Dividend (%)** | **N/A** |
| **P/E using TTM EPS** | **18.6** |
| **P/E using 2018 Estimate** | **-6.3** |
| **P/E using 2019 Estimate** | **-6.1** |

| | |
|---|---|
| **Risk Level** | **High** |
| **Type of Stock** | **Small-Growth** |
| **Industry** | **Med-Biomed/Gene** |

## ZACKS ESTIMATES

**Revenue**
(in millions of $)

| | Q1 (Mar) | Q2 (Jun) | Q3 (Sep) | Q4 (Dec) | Year (Dec) |
|---|---|---|---|---|---|
| 2017 | 0 A | 0 A | 25 A | 2 A | 28 A |
| 2018 | 4.5 A | 4.5 E | 4.5 E | 4.5 E | 18.0 E |
| 2019 | | | | | 21.0 E |
| 2020 | | | | | 24.0 E |

**Earnings per Share**

| | Q1 (Mar) | Q2 (Jun) | Q3 (Sep) | Q4 (Dec) | Year (Dec) |
|---|---|---|---|---|---|
| 2017 | -$0.19 A | -$0.14 A | -$0.52 A | -$0.11 A | -$0.42 A |
| 2018 | -$0.12 A | -$0.10 E | $0.09 E | -$0.08 E | $0.39 E |
| 2019 | | | | | -$0.17 E |
| 2020 | | | | | -$0.11 E |

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## WHAT'S NEW

**Business Update**

Cerecor, Inc. (CERC) is in the process of transforming from a pure research and development company into a self-sustaining, fully independent pediatric-focused healthcare company. Following disappointing clinical trial results in 2016 and 2017, the company has pivoted to a new strategy through the acquisition of TRx Pharmaceuticals and the pediatric products from Avadel U.S. Holdings, Inc. While details of the company's strategy are still coming together, in 2018 we believe investors should focus on the ability of management to continue growing the commercial side of the business, maintain business development activity, and advance the development pipeline. As the year progresses, we believe the company will provide additional details concerning all of those areas.

*Acquires TRx Pharmaceuticals*

On November 17, 2017, Cerecor Inc. (CERC) announced the acquisition of TRx Pharmaceuticals, LLC, including its subsidiary Zylera Pharmaceuticals LLC, along with its commercial products that incudes Poly-Vi-Flor® (a multivitamin and fluoride chewable tablet) and Tri-Vi-Flor® (a multivitamin and fluoride suspension).

The acquisition signifies Cerecor's move to a pediatric-focused healthcare company and is being undertaken to provide a source of revenue to help fund the company's development pipeline. Almost all emerging biopharmaceutical companies rely on continually approaching the equity markets for additional capital prior to commercialization of any products, however by having a commercial business that is generating revenue, Cerecor will have an additional source of capital from which to fund its development candidates. In addition, the commercial business will allow the company to pursue additional product acquisitions that could facilitate revenue growth.

Cerecor payed $23 million for TRx, of which $18.9 million was cash and $4.1 million was stock. In addition, Cerecor payed $4 million in stock for Zylera. Cerecor recently sold CERC-501 to Janssen Pharmaceuticals for $25 million (with $3.75 million still in a 12-month escrow account), thus providing the necessary capital to complete the acquisition of TRx. The price of common stock used for the acquisitions was calculated based on the volume-weighted average price for the 20 trading days prior to closing the deal, which was $1.075. Thus, Cerecor issued approximately 3.8 million and 3.7 million shares for TRx and Zylera, respectively. TRx shareholders are eligible to receive up to an additional $7 million in contingent payments if certain commercial and regulatory milestones are met.

Zylera is a specialty pharmaceutical company headquartered in North Carolina and was a wholly-owned subsidiary of TRx. The company sells the following prescription and over-the-counter products: Milipred®/Millipred®DP/Millipred® Oral Solution (prednisolone 5 mg), Ulesfia® (head lice treatment), Veripred®20 (prednisolone 20 mg), Poly-Vi-Flor® (a multivitamin and fluoride chewable tablet), and Tri-Vi-Flor® (a multivitamin and fluoride suspension).

*Acquires Avadel's Pediatric Products*

On February 12, 2018, Cerecor announced the acquisition of all rights to Avadel U.S. Holdings, Inc. marketed pediatric products, including Karbinal™ ER, Aciphex® Sprinkle™, Cefaclor for Oral Suspension, and Flexichamber™. In addition, Avadel Ireland is providing Cerecor with four stable product formulations using the LiquiTime™ and Micropump® technology. The acquisition is immediately accretive to revenues and earnings. Cerecor paid a nominal upfront payment and assumed Avadel's $15 million loan with Deerfield CSF, LLC that is due in January 2021.

For the year ending Dec. 31, 2017, Avadel's Pediatric business had revenues of approximately $7.7 million, which was an approximate 21% increase over the sales in 2016 of $6.3 million. Cerecor began shipping Karbinal™ ER to wholesalers in the last week of March and we expect the other Avadel acquired products will begin shipping in the second quarter of 2018.

*Developing CERC-301 for Neurogenic Orthostatic Hypotension*

On April 2, 2018, Cerecor announced that the company will begin development of its lead compound, CERC-301, for the treatment of neurogenic orthostatic hypotension (nOH). Normally, when an individual stands up the autonomic nervous system controls a variety of reflexes that help to maintain normal blood pressure. Failure to do

so can result in pooling of blood in the abdomen and lower extremities, which can lead to lightheadedness, weakness, cognitive impairment, blurred vision, and vertigo (Low *et a*l., 1995).

Orthostatic hypotension (OH) occurs due to an inability to maintain blood pressure upon standing. The technical definition of OH is a sustained reduction in systolic blood pressure of at least 20 mm Hg or diastolic blood pressure of at least 10 mm Hg within three minutes of standing. OH can result from either non-neurogenic or neurogenic causes and be either acute or chronic. Non-neurogenic causes include dehydration, cardiac abnormalities (bradycardia/tachyarrhythmia/myocardial infarction), and prolonged standing.

nOH is caused by decreased release of norepinephrine from sympathetic vasomotor neurons that can result in both inadequate vasoconstriction and heart rate upon standing (Freeman *et al*., 2011). The disorder occurs mostly in those with specific diseases caused by accumulation of alpha-synuclein, including Parkinson's disease (PD), multiple system atrophy (MSA), Lewy body dementia, and pure autonomic failure (PAF). It can also occur in patients with peripheral neuropathies, including diabetic neuropathy, amyloidosis, and Guillan-Barre syndrome.

In contrast to OH, which is relatively common in elderly patients (prevalence of 15% in those aged 65 to 69 to 26% in those aged 85 years or older, Rutan *et al*. 1992), nOH is a rare disorder and is considered an orphan disease, affecting approximately 80,000 individuals with PD, MSA, and PAF in the U.S. (FDA briefing documents for Northera®).

Few studies have examined the prognosis for patients with nOH, however a study of 104 nOH patients over a 14-year period in Italy showed that the condition increased the risk of death three-fold compared to the general population in that area (Maule *et al*., 2012). On a day to day basis, the condition can result in severe morbidity for patients that includes significant drops in blood pressure during the day. This can lead to an interference in normal daily activities, with the increased debilitation potentially leading to a poor quality of life (QOL).

Non-pharmacological therapies for nOH include drinking more water (to help increase blood volume), increase salt in the diet, avoid carbohydrate-heavy meals, elevating the head of the bed, slowly rising when standing, and getting regular exercise. There are currently two therapies approved in the U.S. for the treatment of nOH: midodrine, which was approved in 1996, and droxidopa (Northera®), which was approved in 2014.

- Midodrine (ProAmatine®): This is a peripherally acting $\alpha$-andrenergic agonist. The drug was originally approved based on clinical data showing an effect on the surrogate endpoint of increase in standing blood pressure, which is thought to confer clinical beneft. It is currently available as a generic.

- Droxidopa (Northera®): This is a synthetic amino acid precursor for norepinephrine that is capable of crossing the blood-brain barrier. Droxidopa was originally approved in Japan for the treatment of hypotension and nOH in 1989. Chelsea Therapeutics acquired the rights to droxidopa and following approval of the compound by the FDA the company was acquired by Lundbeck for $658 million. Lundbeck reported 2017 revenues for Northera® of DKK 1,644 (approximately $270 million).

We anticipate the first subject being dosed in a Phase 1 safety study of CERC-301 in the second quarter of 2018.

*New Leadership at Cerecor*

On March 28 2018, Cerecor announced the appointment of Peter Greenleaf as Chief Executive Officer. Mr. Greenleaf has been a member of the Board of Directors since May 2017. Most recently, Mr. Greenleaf was the CEO of Sucampo Pharmaceuticals, which was acquired by Mallinckrodt Pharmaceuticals for $1.2 billion at the end of 2017. Prior to Sucampo, Mr. Greenleaf was CEO of Histogenic Corporation from June 2013 to March 2014, and prior to that he served in various positions of increasing responsibility at MedImmune LLC, a subsidiary of AstraZeneca. His extensive experience in both specialty pharma and biotech should prove valuable as the company moves forward with their new focus as pediatric specialty pharma company and development of medicines for rare and orphan diseases.

On April 9, 2018, Cerecor announced the appointment of Simon Pedder, PhD to the Board of Directors. Dr. Pedder played key roles in the development of both Tocapone, the first FDA approved COMT inhibitor for Parinson's, and Northera®, which is approved for the treatment of nOH. His experience with both these compounds, which are in areas currently focused on by Cerecor, should prove quite valuable.

## Valuation

We value Cerecor using a mixed model approach employing a DCF model for the development pipeline and a 4x sales multiple for the commercial business. We estimate for 2018 revenues of $18 million, thus we value the commercial business at $72 million. For CERC-301, we are tentatively forecasting for peak revenues of $650 million worldwide and for CERC-611 we are forecasting for peak sales of $1.2 billion. We currently give each program a 25% chance of approval and apply a discount rate of 15%. Combined with the company's current cash position and dividing by the number of shares currently outstanding leads to a present value of $5.50 per share. We believe there could be upside to this valuation based on more details regarding the four additional products that will come from the Avadel purchase along with additional information concerning the timelines around CERC-301 and CERC-611 development. We anticipate the company providing this information later in 2018.

## PROJECTED FINANCIALS

| Cerecor, Inc. | 2017 A | Q1 A | Q2 E | Q3 E | Q4 E | 2018 E | 2019 E | 2020 E |
|---|---|---|---|---|---|---|---|---|
| **Commercial Group** | $2.2 | $4.5 | $4.5 | $4.5 | $4.5 | $18.0 | $21.0 | $24.0 |
| **CERC-301** | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 |
| **CERC-611** | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 |
| **CERC-406** | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 |
| **LIcense Revenue** | $25.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 |
| **Grant Revenue** | $0.6 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 |
| **Total Revenues** | **$27.8** | **$4.5** | **$4.5** | **$4.5** | **$4.5** | **$18.0** | **$21.0** | **$24.0** |
| Cost of Sales | $1 | $0.9 | $0.9 | $0.9 | $0.9 | $3.6 | $3.8 | $4.0 |
| *Product Gross Margin* | - | *81%* | *80%* | *80%* | *80%* | *80%* | *82%* | *83%* |
| Research & Development | $4.4 | $1.6 | $1.5 | $1.4 | $1.4 | $5.9 | $6.5 | $7.0 |
| General & Administrative | $7.9 | $2.9 | $2.5 | $2.3 | $2.3 | $10.0 | $10.2 | $10.5 |
| Sales and Marketing | $1 | $1.5 | $1.5 | $1.6 | $1.6 | $6.2 | $6.0 | $6.0 |
| Amortization Expense | $0 | $1.0 | $1.0 | $1.0 | $1.0 | $4.0 | $4.0 | $4.0 |
| Operating Income | $13.9 | ($3.5) | ($2.9) | ($2.7) | ($2.7) | ($11.8) | ($5.5) | ($3.5) |
| *Operating Margin* | *50%* | - | - | - | - | *-66%* | *-26%* | *-15%* |
| Other (expense) income | ($0.1) | ($0.4) | ($0.1) | ($0.1) | ($0.1) | ($0.7) | ($0.4) | ($0.4) |
| Pre-Tax Income | $13.8 | ($3.9) | ($3.0) | ($2.8) | ($2.8) | ($12.5) | ($5.9) | ($3.9) |
| Income Taxes Paid | $2 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |
| **Net Income** | **$11.9** | **($3.9)** | **($3.0)** | **($2.8)** | **($2.8)** | **($12.6)** | **($5.9)** | **($3.9)** |
| **EBITDA** | **-** | **($2.7)** | **($1.8)** | **($1.6)** | **($1.6)** | **($7.8)** | **($2.0)** | **($1.5)** |
| **Adjusted EBITDA** | **-** | **($1.4)** | **($0.5)** | **$0.0** | **$0.0** | **($1.9)** | **$0.0** | **$1.0** |
| *Net Margin* | - | - | - | - | - | | | |
| **Reported EPS** | **$0.64** | **($0.12)** | **($0.10)** | **($0.09)** | **($0.08)** | **($0.39)** | **($0.17)** | **($0.11)** |
| *YOY Growth* | - | - | - | - | - | | | |
| Basic Shares Outstanding | 18.4 | 31.3 | 31.4 | 32.6 | 34.0 | 32.3 | 35.0 | 36.0 |

*Source: Zacks Investment Research, Inc.* *David Bautz, PhD*

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