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Opiant Pharmaceuticals, Inc.

(OPNT-NASDAQ)

OPNT: NARCAN® Nasal Spray Helping Fund Promising Pipeline…

Based on our probability adjusted DCF model that takes into account potential future revenues from opioid antagonists, eating disorder treatments, and alcohol use disorder (AUD) treatments, OPNT is valued at $55/share. This model is highly dependent upon the commercial and clinical success of opioid antagonists and clinical success in treating eating disorders and AUD.

Current Price (03/19/18)	$20.65
Valuation	**$55.00**

OUTLOOK

On Mar. 7, 2018, Opiant Pharmaceuticals Inc. (OPNT) announced financial results for the five months ending Dec. 31, 2017 (as a result of changing the company's fiscal year end from Jul. 31 to Dec. 31) and provided a business update. Opiant recorded a total of $11.7 million in royalty and milestone revenue for the five months ending Dec. 31, 2017 from the sale of NARCAN® Nasal Spray by Adapt Pharma. Having fulfilled the terms of the royalty agreement with SWK Holdings Corporation, Opiant will begin receiving 90% of royalty and milestone payments beginning in the first quarter of 2018. The company recently announced positive Phase 1 data for OPNT003, a long-acting opioid antagonist candidate. Using the 505(b)(2) development pathway, Opiant could submit a NDA in 2020.

SUMMARY DATA

52-Week High	**$50.50**
52-Week Low	**$5.35**
One-Year Return (%)	**158.13**
Beta	**-1.61**
Average Daily Volume (sh)	**24,028**
Shares Outstanding (mil)	**3**
Market Capitalization ($mil)	**$52**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**4**
Insider Ownership (%)	**64**
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	**N/A**
P/E using 2018 Estimate	**N/A**
P/E using 2019 Estimate	**N/A**

Risk Level	**High**
Type of Stock	**Small-Growth**
Industry	**Med-Drugs**

ZACKS ESTIMATES

Revenue
(In millions of $)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2017	0.0 A	0.0 A	0.0 A	11.8 A	11.8 A
2018	2.0 E	2.1 E	2.3 E	2.3 E	8.7 E
2019					13.2 E
2020					37.0 E

Earnings per Share

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2017	-$0.30 A	$5.31 A	-$1.55 A	-$0.17 A	$0.66 A
2018	-$0.29 E	-$0.24 E	-$0.23 E	-$0.36 E	-$1.12 E
2019					$0.28 E
2020					$7.77 E

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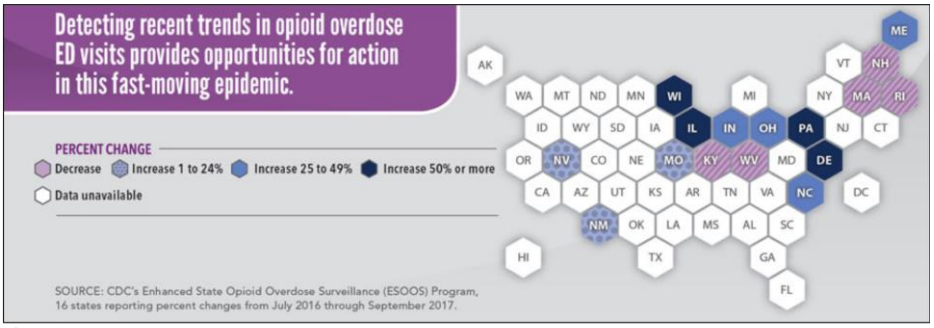
WHAT'S NEW

Business Update

Opioid Crisis Continues to Worsen

A new report from the Centers for Disease Control (CDC) shows that emergency department visits for opioid overdoses rose 30% in the U.S. from July 2016 to September 2017. The report was based on data from emergency departments across the U.S. The following figure shows that none of the reporting areas was immune to the increase in opioid overdoses, with the Midwest U.S. particularly hard hit (average increase 70%).



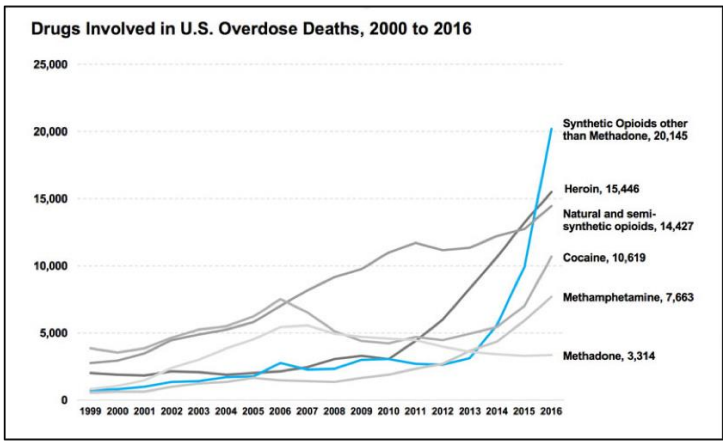
Source: cdc.gov

As part of the solution to the problem, the CDC recommends that the federal government "improve access to…overdose-reversing drugs, such as naloxone" and that health departments "increase naloxone distribution to first responders, family and friends, and other community members in affected areas" (CDC). While not a treatment for opioid dependence, health authorities believe that easy access to naloxone is an essential component of battling the ongoing opioid crisis due to its effectiveness in preventing overdose deaths. Thus, we continue to believe this will translate into increasing sales of NARCAN® Nasal Spray over the next few years.

Opiant to Develop OPNT003, An Improved Opioid Antagonist

On February 12, 2018, Opiant Pharmaceuticals, Inc. (OPNT) announced the development of OPNT003, a long-lasting opioid overdose treatment. OPNT003 is an intranasal formulation of nalmefene, a naltrexone derivative. Based on its favorable pharmacokinetic profile, we believe OPNT003 could become a novel opioid overdose treatment, particularly for overdoses caused by synthetic opioids such as fentanyl and its derivatives.

The following chart shows the number of overdose deaths in the U.S. from certain drugs, with the rapid rise in deaths from synthetic opioids just since 2013 particularly striking. This increase in synthetic opioid deaths has led the National Institutes of Health (NIH) to call for improved opioid antagonists that are capable of counteracting their effects (Volkow *et al.*, 2017).



Source: Centers for Disease Control

Synthetic opioids such as fentanyl and carfentanil are particularly problematic due to their potency (five and 50 times more potent than heroin, respectively) and longer half-lives. For example, heroin has a half-life of approximately 30 minutes while fentanyl's half-life is two to four hours, thus necessitating opioid antagonism for an extended period of time. Naloxone has a half-life of approximately 1-2 hours and typically requires repeated administration during the treatment of someone suffering from an overdose.

Nalmefene is an opioid antagonist with a much longer half-life than naloxone (7-9 hours). It was approved by the FDA in 1995 as an injectable treatment for opioid overdose sold under the brand name Revex®, however Baxter discontinued it in the U.S. in 2008. Opiant has developed an intranasally administered nalmefene formulation using the Intravail® technology, which was developed by Aegis Therapeutics, LLC. It comprises a broad class of chemically synthesizable transmucosal absorption enhancement agents to allow the intranasal (although other routes of administration are available including oral, rectal, ocular, etc.) administration of therapeutics up to 30,000 Daltons molecular weight.

Opiant has successfully completed a Phase 1 study of intranasally administered nalmefene that showed rapid increases in plasma levels with an onset faster than an intramuscular injection along with a long half-life (6.7-7.8 hours). These data formed the basis for a meeting with the FDA regarding the planned development of OPNT003. Based on the guidance received from the FDA, Opiant believes it will be in a position to file an NDA in 2020. In addition, the company has applied for a grant from the NIH to get the compound to an NDA-ready stage, which is likely to get funded given the agency's interest in a longer-acting opioid antagonist.

Opiant owns all commercial rights to OPNT003 and the company's prospects for partnering remain wide open at this point. We believe that if the company were to enter into a commercialization partnership it would be able to command favorable terms given the commercial success of NARCAN® Nasal Spray and the company's strong financial position.

Potential for OPNT003 as a Chemical Warfare Antidote

Given nalmefene's favorable pharmacokinetic profile, it is reasonable to conclude that the U.S. government may be interested in an easily administered form of the drug to be used in the case of a chemical attack using a synthetic opioid. While not traditionally thought of as the basis for a chemical warfare attack, powerful opioids could certainly be utilized to inflict a mass casualty event. The basis for this idea comes from an event in Russia 15 years ago in which an aerosolized synthetic opioid, likely a derivative of fentanyl, was utilized in an attempt to rescue hostages that were being held by Chechen rebels in the Moscow Dubrovka Theatre (Wax *et al*., 2003).

On October 23, 2002, approximately 800 people attending a theatre show were taken hostage by Chechen rebels. The rebels had rigged the theatre with explosives and threatened to blow it up unless their demands were met. On the morning of October 26, 2002, the Russian government pumped an unidentified gas into the theatre approximately 30 minutes before staging a siege. 127 hostages died during the rescue operation, and 650 others required hospitalization. Four days after the siege, the Russian Health Minister announced that a fentanyl derivative was used to neutralize the terrorists, however the true identity of the chemical(s) used during the raid are still unknown due to the Russian governments unwillingness to provide that information. The hospitalized hostages all showed signs of opioid overdose, thus it is reasonable to conclude that if treating physicians had been instructed to administer opioid antagonists early on many more deaths could have been prevented.

While this example is of the use of a synthetic opioid agent to try to neutralize terrorists and rescue hostages, it would certainly not be much of a stretch to consider how a synthetic opioid agent could be used in a chemical warfare attack by terrorists or rogue nations. For this reason, we believe that a powerful opioid antagonist would be of particular interest for the U.S. government to stockpile as an antidote and for which OPNT003 may be particularly well suited.

OPNT001 in Bulimia Nervosa

Last year, Opiant announced the initiation of a Phase 2 clinical trial evaluating OPNT001, nasally-delivered naloxone, in bulimia nervosa (BN). BN is a serious and potentially life-threatening eating disorder characterized by a cycle of binge eating and purging. BN affects approximately 1-2% of the adult population with 80% of those affected being female. Complications of BN include dehydration, heart problems, severe tooth decay and gum disease, anxiety and depression, and increased risk of suicide.

The only pharmacological agent approved to treat BN is fluoxetine (Prozac®). Two multicenter, double blind, placebo controlled randomized clinical trials of fluoxetine found that a 60 mg dose resulted in a statistically

significant reduction in binge eating and vomiting episodes compared to placebo regardless of whether a patient was also suffering from depression, while a 20 mg dose of fluoxetine was only effective in those that did not also have depression (Goldstein *et al*., 1999). While effective, fluoxetine has a number of potential adverse side effects including increased suicidal thoughts, sleep problems, headache, dizziness, and gastrointestinal issues.

The randomized, double blind, placebo controlled Phase 2 clinical trial of OPNT001 is expected to enroll up to 80 patients in the United Kingdom who have been diagnosed with BN. The study will evaluate OPNT001's safety and tolerability as well as its impact on various clinical outcomes, including change in eating behavior. We anticipate enrollment to be completed during the first half of 2018 and results at the end of 2018.

Financial Update

On March 7, 2018, Opiant Pharmaceuticals, Inc. (OPNT) announced financial results for the five months ending Dec. 31, 2017 following the company changing its fiscal year-end from July 31 to December 31. During the five months ending Dec. 31, 2017 the company recorded net revenue of $11.8 million. However, on Feb. 28, 2018, Opiant was notified that Adapt Pharma had entered into a license agreement with a third party related to intellectual property that could help broaden their protections for NARCAN® Nasal Spray. According to the agreement signed between Opiant and Adapt, Opiant must offset 50% of the costs of that agreement with the third party, which totaled $6.25 million.

The $11.8 million of recorded revenue included $11.7 million owed from Adapt related to NARCAN® Nasal Spray royalties and milestones. This amount is 90% of the total amount owed to Opiant/SWK, as Opiant will receive 90% of the royalties and milestones due from the sale of NARCAN® Nasal Spray following SWK having received all $26.25 million it was due from the agreement it signed with Opiant in Dec. 2016. Thus, we estimate the total amount due from by Adapt in 2017 was approximately $39.25 million ($26.25 million paid to SWK plus $13.0 million, of which $11.7 million is 90%). The $6.25 million due from Opiant to help offset Adapt's third party agreement was deducted from the $13.0 million, thus Opiant was paid $6.1 million on March 1, 2018 (90% of $6.75 million left over after deducting $6.25 million from $13.0 million).

General and administrative expenses during the five months ending Dec. 31, 2017 were $5.9 million, compared to $1.9 million for the five months ending Dec. 31, 2016. The increase in G&A expenses was due to $1.1 million in increased stock-based compensation, $1.0 million in severance payments, $1.0 million in increased professional fees and services, and $800 thousand of increased employee salaries. Research and development expenses during the five months ending Dec. 31, 2017 were $2.5 million, compared to $0.7 million for the five months ending Dec. 31, 2016. The increase in R&D expenses was primarily due to increased payments for third party expenses and increased stock-based compensation.

For the five months ending Dec. 31, 2017 the company reported net income of $1.4 million, or $0.66 per share, compared to net income of $11.5 million, or $5.76 per share, for the five months ending Dec. 31, 2016. The decrease in net income was due to a decrease in net revenue coupled with an increase in expenses. The company exited 2017 with $8.1 million in cash and cash equivalents and received approximately $6.1 million in cash on Mar 1, 2018 for the royalties and milestones due from the sale of NARCAN® Nasal Spray in 2017. As of Mar. 6, 2018, Opiant had 2.5 million shares outstanding. When taking into consideration the 3.4 million stock options and 0.4 million warrants the fully diluted share count is 5.8 million.

Conclusion

The opioid crisis in the U.S. continues to get worse. We believe this will result in a steady increase in sales of NARCAN® Nasal Spray as health departments across the country continue to invest in naloxone for first responders and other community members in particularly hard-hit areas. Sales of NARCAN® Nasal Spray exceeded our initial expectations in 2017, and we are currently forecasting for increased sales in the coming years as there does not appear to be an end in sight to the ongoing opioid crisis. We currently estimate for 2018 sales of $125 million, which would result in $8.7 million in royalties to Opiant, although we will have a better estimate of a 2018 run rate following the release of the first quarter of 2018 financials.

OPNT003 is likely to be of particular interest in areas of the country where fentanyl and other synthetic opioids are contributing to opioid overdose deaths. In addition, we believe the stockpiling of OPNT003 as an antidote in the event of a terrorist attack utilizing a synthetic opioid offers considerable potential upside to the story. We currently model for Opiant to sign a commercialization agreement for OPNT003 that is similar to what is in place with Adapt for NARCAN® Nasal Spray, however with better financials given the company's solid financial position. Our current valuation stands at $55 per share.

PROJECTED FINANCIALS

Opiant Pharmaceuticals, Inc.
Income Statement

Opiant Pharmaceuticals, Inc.	Five Months Ending Dec-17	Mar-18 E	Jun-18 E	Sep-18 E	Dec-18 E	2018 E	2019 E	2020 E
NARCAN royalty	$11.7	$2.0	$2.1	$2.3	$2.3	$8.7	$13.2	$37.0
YOY Growth	-	-	-	-	-	-		
OPNT003	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
YOY Growth	-	-	-	-	-	-		
Binge Eating Disorder	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
YOY Growth	-	-	-	-	-	-		
Bulimia Nervosa	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
YOY Growth	-	-	-	-	-	-		
Licensing and Milestones	$0.1	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
YOY Growth	-	-	-	-	-	-		
Total Revenues	**$11.8**	**$2.0**	**$2.1**	**$2.3**	**$2.3**	**$8.7**	**$13.2**	**$37.0**
YOY Growth	-	-	-	-	-	-		
Cost of Sales	$0	$0	$0	$0	$0	$0	$0	$0
Product Gross Margin	-	-	-	-	-	-		
Research & Development	$2.5	$0.9	$0.9	$0.9	$1.1	$3.8	$4.0	$4.2
General & Administrative	$5.9	$1.5	$1.5	$1.7	$1.8	$6.5	$7.5	$8.5
Selling Expenses	$0.4	$0.2	$0.2	$0.2	$0.2	$0.8	$1.0	$1.0
Other Expenses	$1	$0	$0	$0	$0	$0	$0	$0
Operating Income	$1.5	($0.6)	($0.5)	($0.5)	($0.8)	($2.4)	$0.7	$23.3
Operating Margin	-	-	-	-	-	-		
Non-Operating Expenses (Net)	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Pre-Tax Income	$1.5	($0.6)	($0.5)	($0.5)	($0.8)	($2.4)	$0.7	$23.3
Income Taxes Paid	$0	$0	$0	$0	$0	$0	$0	$0
Tax Rate	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
Net Income	**$1.4**	**($0.6)**	**($0.5)**	**($0.5)**	**($0.8)**	**($2.4)**	**$0.7**	**$23.3**
Net Margin	-	-	-	-	-	-		
Reported EPS	**$0.66**	**($0.29)**	**($0.24)**	**($0.23)**	**($0.36)**	**($1.12)**	**$0.28**	**$7.77**
YOY Growth	-	-	-	-	-	-		
Basic Shares Outstanding	2.1	2.1	2.1	2.2	2.2	2.1	2.5	3.0

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

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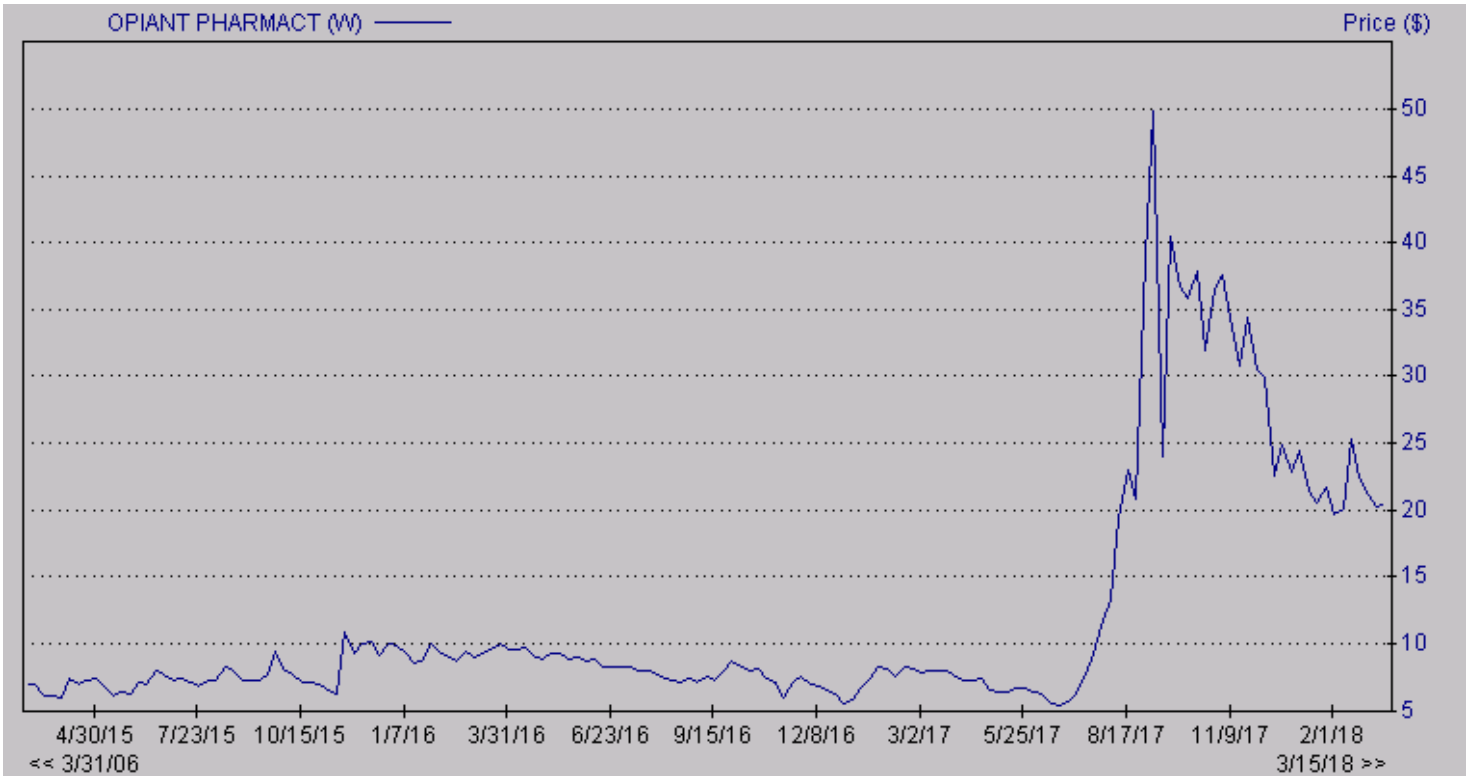
HISTORICAL STOCK PRICE



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