Zacks Small-Cap Research

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Corbus Pharmaceuticals, Inc. (CRBP - NASDAQ)

CRBP: Warrant Exercise To Provide Sufficient Cash Through 2016…

Current Recommendation	**Buy**
Prior Recommendation	N/A
Date of Last Change	01/06/2015
Current Price (07/28/15)	$2.05
Target Price	**$6.25**

UPDATE

On July 27, 2015, Corbus Pharmaceuticals (CRBP:NASDAQ) announced a call notice for the redemption of certain outstanding warrants. The warrants had been issued between April 2014 and May 2014 in connection with the company's private placement.

Importantly, exercising the warrants does two things: 1) it strengthens the balance sheet and provides sufficient capital to fund the company through the end of 2016, and 2) it cleans up the company's capital structure.

On the clinical side, the dermatomyositis clinical trial has initiated and the first patient has been dosed while the cystic fibrosis and scleroderma trials are expected to initiate and dose the first patient during 3Q15.

SUMMARY DATA

52-Week High	**$4.15**
52-Week Low	**$0.05**
One-Year Return (%)	**N/A**
Beta	**N/A**
Average Daily Volume (sh)	**50,530**
Shares Outstanding (mil)	**26**
Market Capitalization ($mil)	**$53**
Short Interest Ratio (days)	**0.31**
Institutional Ownership (%)	**0**
Insider Ownership (%)	**13**
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 2015 Estimate	**N/A**
P/E using 2016 Estimate	**N/A**

Risk Level	**Above Average**
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)
2014	0 A	0 A	0 A	0 A	0 A
2015	0 A	0 E	0 E	0 E	0 E
2016					0 E
2017					0 E

Earnings per Share

(EPS is operating earnings before non-recurring items)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2014	-$0.02 A	-$0.02 A	-$0.03 A	-$0.05 A	-$0.13 A
2015	-$0.06 A	-$0.06 E	-$0.08 E	-$0.10 E	-$0.30 E
2016					-$0.31 E
2017					-$0.35 E

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WHAT'S NEW

Call Notice for Exercise of Warrants

On July 27, 2015, Corbus announced a call notice for the redemption of certain outstanding warrants. These warrants were issued in April and May 2014 in conjunction with the company's private placement and have an exercise price of $1.00 per share. As a reminder, the warrants were callable if the stock traded at $2.50 or above for 20 consecutive trading days, which occurred during March 2015. Since December 2014, the company had raised approximately $5.1 million from the exercise of these warrants, and we estimate that the remainder of the warrants will bring in an additional $6.2 million. All told, the company has now raised a total of approximately $22 million to fund the clinical development of Resunab™.

The exercise of these warrants was an important step for the company, as it: 1) increases the company's cash position such that we estimate there is now sufficient capital to fund the company through the end of 2016, and 2) it cleans up the company's capital structure. Having both of these issues resolved should make the stock more attractive to institutional investors and help in aligning the company's current stock price with its fair value.

Dermatomyositis Trial Gets Underway

On July 13, 2015, Corbus announced the dosing of the first patient in a Phase 2 clinical trial of Resunab™ for the treatment of dermatomyositis, which is an uncommon, inflammatory muscle disease that is accompanied by skin rashes and affects up to approximately 25,000 individuals in the U.S. The disease shares many characteristics with automimmune disorders. Small blood vessels in muscle tissue are particularly affected by infiltration of inflammatory cells that leads to the eventual degeneration of the muscle fibers. The pathology can involve serious pulmonary, cardiovascular, and gastrointestinal involvement, has a significant burden of illness, and impairs daily functioning and quality-of-life. There are currently no FDA-approved therapies specific for dermatomyositis, and physicians commonly treat manifestations of the disease with immunosuppressive therapies that have significant toxicities.

The Phase 2 clinical trial of Resunab™ for the treatment of skin-predominant dermatomyositis is being funded by a grant from the National Institutes of Health (NIH) to the University of Pennsylvania School of Medicine and is being led by Dr. Victoria Werth, a Professor of Medicine at the University of Pennsylvania School of Medicine and Chief, Dermatology, Philadelphia V.A. Hospital (NCT02466243).

The primary outcomes of the study are the safety and tolerability of Resunab™ along with the change in Cutaneous Dermatomyositis Disease Area and Severity Index (CDASI) from baseline. The CDASI, which was developed by Dr. Werth and colleagues, is a clinician-scored single page instrument that separately measures activity and damage in the skin of dermatomyositis patients and is used both in clinical practice and for clinical/therapeutic studies (Klein *et al*., 2008). The modified CDASI (version 2) is the one in current use (Yassaee *et al*., 2010). The modified CDASI has 3 activity measures (erythema, scale, and erosion/ulceration) and 2 damage measures (poikiloderma and calcinosis) that are assessed over 15 body areas. In addition, Gottron's papules (raised purple patches) on the hands are evaluated both for activity and damage. Lastly, the activity of periungual (area around the fingernails and toenails) changes and alopecia is assessed.

The study plans to enroll 22 adults whose skin disease is refractory to standard-of-care. These adults will receive 20 mg Resunab™ or placebo once a day for 28 days, then twice a day for the next 56 days, for a total treatment duration of 84 days, with 28 days follow-up. We anticipate results from the study in the first half of 2017.

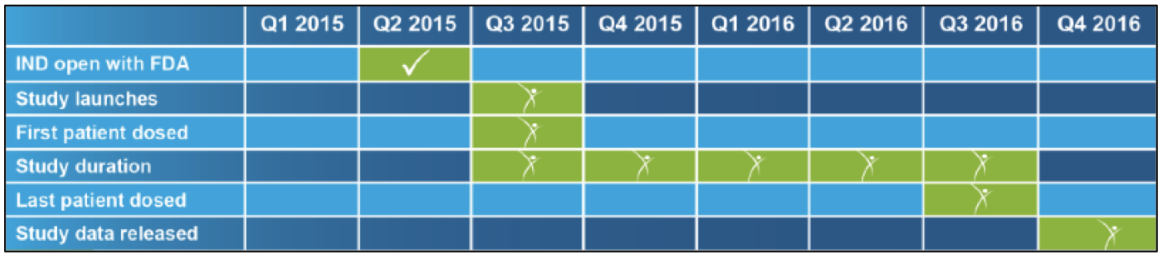
Cystic Fibrosis and Scleroderma Trials to Get Underway in 3Q15

Corbus is planning to initiate the Phase 2 trials of Resunab™ for the treatment of scleroderma and cystic fibrosis (CF) during the third quarter of 2015.

The CF clinical trial will be a randomized, double blind, placebo-controlled study at 20 sites in the U.S. and EU (NCT02465450). As a reminder, Corbus recently announced that Cystic Fibrosis Foundation Therpeutics, Inc. (CFFT), the non-profit drug discovery and development affiliate of the Cystic Fibrosis Foundation, has awarded the company a $5 million development award to support the Phase 2 clinical trial of Resunab™ in CF. The primary endpoints of the study are safety and tolerability, with a target enrollment of 70 adults with CF. Secondary endpoints

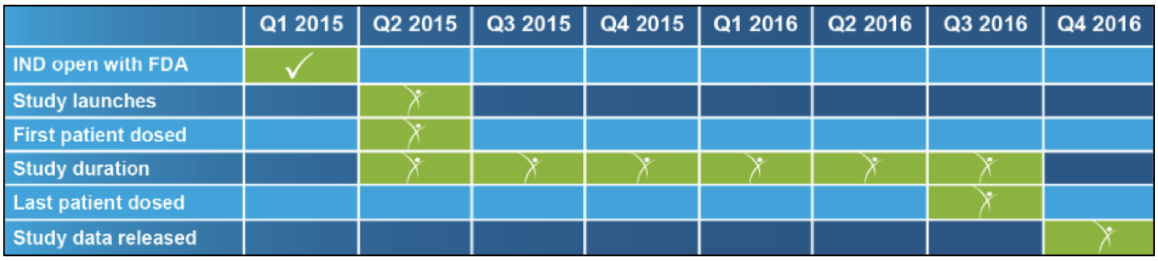
will include pharmacokinetic (PK) and efficacy analysis such as FEV1, Lung Clearance Index (LCI), and CFQ-R Respiratory Domain. Exploratory endpoints will include metabolipidomic profile for MOA and biomarkers of disease activity in the blood and sputum.

The company is planning to study four doses in the Phase 2 study. Initially, patients will be dosed with 1 mg Resunab™, 5 mg Resunab™, or placebo once per day for the first 28 days. Patients will then be switched to 20 mg Resunab™ or placebo once or twice per day up to Day 84 with the final analyses taking place on Day 85. The reason for the low dose during the first month is for safety purposes, as this will be a first in CF patients trial for Resunab™. The 20 mg dose for the last two months of the study was chosen to examine the upper end of the dose-response curve. Thus, the response data generated from treating patients once a day with 1 mg to twice a day with 20 mg will help guide dose selection for future clinical trials. A timeline for the study is given below.



Source: Corbus Pharmaceuticals

The scleroderma clinical trial is a randomized, double blind, placebo-controlled study at 8-10 sites in the U.S. (NCT02465437). The primary endpoints of the study are safety and tolerability, and the change in Combined Response Index in diffuse cutaneous Systemic Sclerosis (CRISS). Secondary endpoints include metabolipidomic profile, biomarkers of disease activity, and quality of life scores. Target enrollment is 36 adults with scleroderma. The company is planning to study three doses in the Phase 2 study: 5 mg/day, 20 mg/day, and 40 mg/day broken up between two 20 mg doses. Treatment duration will be three months with a one-month follow-up analysis. We estimate the study will take approximately 18 months from initiation to data release. Below is a quick representation of the expected timeline for the Phase 2 Resunab™ scleroderma study.



Source: Corbus Pharmaceuticals

Conclusion

Current anti-inflammatory medications have a number of serious side effects with no therapies that are known to reverse the inflammatory response; they only attempt to halt it. Thus, there is a serious unmet medical need for safer and more efficacious anti-inflammatory medications. The preclinical data for Resunab™ is intriguing, and points to a potential safe and novel therapeutic for a number of inflammatory conditions.

When taking into account the exercise of the 11.3 million warrants, Corbus currently has a market cap of approximately $75 million. This valuation is surprisingly low, both in terms of the potential for Resunab™ as well as on a comparable basis. For example, Vertex Pharmaceuticals and Parion Sciences recently announced a collaboration deal that included $80 million up front and the potential for up to $1.2 billion in milestone payments as well as royalties for a set of compounds that maintain normal mucus viscosity in the lungs, with one of those compounds currently in a Phase 2 clinical trial in CF patients (NCT02343445). What is so remarkable about Corbus' current valuation is that the pipeline is valued at less than the up-front payment that Parion received from Vertex! This signifies that Corbus' value is not accurately reflected by the company's current stock price and represents a great buying opportunity for investors.

In terms of Corbus' valuation, if Resunab™ is shown to be effective in CF and/or scleroderma it could easily have peak U.S. sales of over $1 billion. In fact, we model for peak sales in CF and scleroderma of over $4 billion –

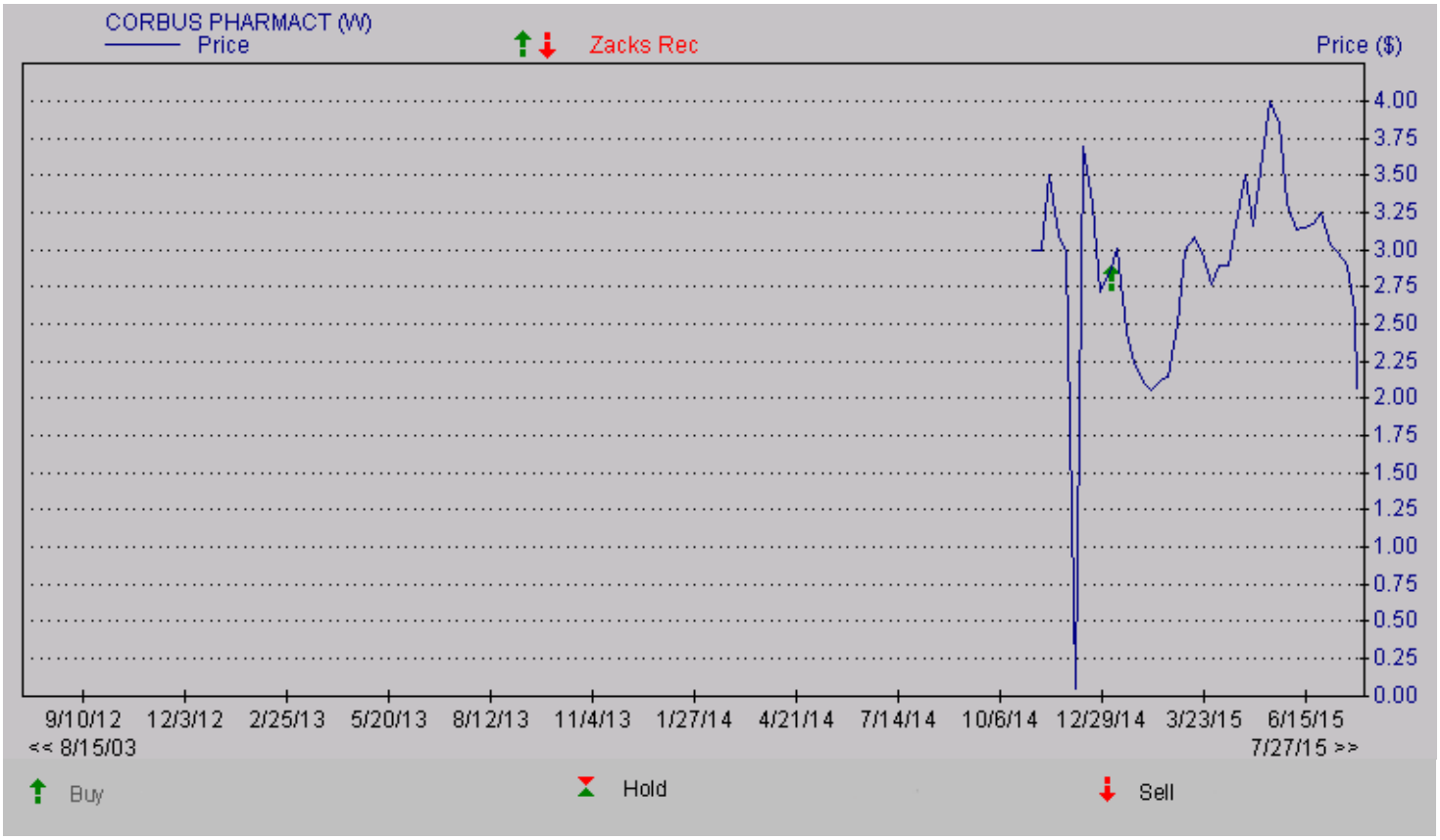
admittedly a large number, but investors need to understand that both the size of the market and the potential for very aggressive pricing allows for the arrival at large numbers rather quickly. For example, Vertex Pharma's Kalydeco® posted sales of $200 million in the first twelve months after launch and the drug only targets the 4% of CF patients with the G551D mutation. If effective, Resunab™ would target the entire CF population with no limitations based on patient-specific mutations. Using a probability-adjusted discounted cash flow model, we believe the shares are worth $6.25. While an investment in Corbus is high-risk, it offers a substantial potential return.

Corbus Pharmaceuticals, Inc.
Income Statement

Corbus Pharmaceuticals, Inc.	2014 A	Q1 A	Q2 E	Q3 E	Q4 E	2015 E	2016 E
Resunab Scleroderma	$0	$0	$0	$0	$0	$0	$0
Resunab Cystic Fibrosis	$0	$0	$0	$0	$0	$0	$0
YOY Growth	-	-	-	-	-	-	-
Total Revenues	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
YOY Growth	-	-	-	-	-	-	-
Cost of Sales	$0	$0	$0	$0	$0	$0	$0
Product Gross Margin	-	-	-	-	-	-	-
General & Administration	$1.39	$0.81	$0.80	$0.85	$0.90	$3.36	$4.25
Research & Development	$1.26	$0.72	$0.75	$1.25	$2.00	$4.72	$7.50
Other Operating Expenses	$0	$0	$0	$0	$0	$0	$0
Operating Income	($2.65)	($1.54)	($1.55)	($2.10)	($2.90)	($8.09)	($11.75)
Operating Margin	-	-	-	-	-	-	-
Non-Operating Expenses (Net)	$0.11	($0.00)	($0.10)	($0.15)	($0.20)	($0.45)	($0.50)
Pre-Tax Income	($2.54)	($1.54)	($1.65)	($2.25)	($3.10)	($8.54)	($12.25)
Income Taxes Paid	$0	$0	$0	$0	$0	$0	$0
Tax Rate	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
Net Income	($2.54)	($1.54)	($1.65)	($2.25)	($3.10)	($8.54)	($12.25)
Net Margin	-	-	-	-	-	-	-
Reported EPS	**($0.13)**	**($0.06)**	**($0.06)**	**($0.08)**	**($0.10)**	**($0.30)**	**($0.31)**
YOY Growth	-	-	-	-	-	-	-
Basic Shares Outstanding	20.16	25.87	28.00	29.00	30.00	28.22	40.00

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

HISTORICAL ZACKS RECOMMENDATIONS



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