



#### **FLASH NOTE**

# **Biotechnology**

October 28, 2013

Edward Nash edward.nash@cowen.com 646.562.1385

Yun Zhong, Ph.D. yun.zhong@cowen.com 646.562.1387

Joon Lee, M.D., Ph.D. joon.lee@cowen.com 646.562.1326

#### Recommendation

Rating:	Outperform
raung.	Outperionn
Price Target:	\$33.00
riice iaiget.	φ <b>33.00</b>

#### Stock Statistics as of 10/25/2013

Price:	\$20.71
52W Range:	\$24.38-\$13.04
Shares Out (MM):	24.9
Market Cap (MM):	\$516.1
Net Debt (MM):	\$2.2
Net Cash Per Share:	\$6.65



# PTC THERAPEUTICS, INC. (NASDAQ:PTCT)

# **GEMS In The Pipeline Shine At Analyst Day**

Last Friday, PTC hosted an analyst day and the discussion focused squarely on the company's technology platform, namely GEMS (Gene Expression Modulation by Small Molecules), and the company's diversified follow-on programs. Management provided a comprehensive overview of the science behind the versatility of GEMS in targeting a wide variety of Orphan indications such as spinal muscular atrophy (SMA), Huntington's disease, and exon-skipping for Duchenne Muscular Dystrophy (DMD). Management presented encouraging early stage data from these programs as well as from the anti-tumor and anti-infective disease programs. We left the analyst day feeling convinced that PTC, with extensive expertise and a well-established technology platform for identification of small molecule compounds in modulating post-transcriptional control, represents an attractive investment opportunity. Based on the multiple near-term catalysts, we remain bullish on PTC shares and reiterate our Outperform rating.

# Guidance on the nmDMD timeline is unchanged

Management reiterated that patient enrollment in the ongoing Phase III clinical trial for nmDMD will be complete by mid-2014 and topline data will be available in mid-2015. Management continues to expect the final EMA decision on the conditional approval for ataluren in nmDMD by year-end 2013. We are optimistic that the ongoing Phase III clinical trial will be successful and will be sufficient to support a full approval in both the U.S. and EU. Therefore, our model does not include an EU conditional approval and we treat the possibility as upside potential for the company. No specific updates regarding the nmCF program.

#### Roche is taking an active lead in the SMA program

PTC announced the selection of a development candidate in August 2013 and toxicology studies and chemical processing are currently underway. With a development team and a clinical team already in place, PTC and Roche are planning a rapid proof-of-concept study "as soon as possible". At the recent 16<sup>th</sup> annual Cowen Therapeutics Conference, surveyed physicians and the audience viewed PTC's SMN2 splicing modifier as the second most promising candidate for SMA, just following ISIS/Biogen's compound, which is already in Phase II clinical development. PTC's small molecules have demonstrated good oral bioavailability, dose dependent increases in SMN protein levels, efficient penetration of blood brain barrier, and phenotypic rescue in SMA model mice. We believe PTC will be one of the major players in the SMA space over time.

#### Alaluren, both a product and a pipeline, will remain the near-term focus

Roughly 11% of monogenic disorders are caused by nonsense mutations and can potentially be addressed by ataluren. PTC is actively engaged in collaborations to evaluate ataluren in animal models of multiple Orphan disorders. Based on factors such as medical need and established clinical endpoints, PTC believes the next indication for ataluren may be chosen in 2014. We believe the strong safety profile that ataluren has demonstrated and the large patient database to date will help expedite future clinical development for add'l indications.

Please see addendum of this report for important disclosures.

MEMBER: FINRA/SIPC www.cowen.com



GEMS<sub>NS</sub>
Nonsense Suppression

GEMS<sub>AS</sub>
Alternative Splicing

GEMS<sub>PTRL</sub>

GEMS<sub>NMD</sub>

GEMS<sub>NRD</sub>

GEMS<sub>NRD</sub>

Nonsense-Mediated Decay

Nucleotide-Repeat Disease

Exhibit 1. GEMS Technology's Strong Versatility

Source: PTC Therapeutics, Inc.

# Anti-tumor and antibacterial programs further diversify PTC's pipeline

PTC is developing PTC596, an oral compound that specifically targets tumor stem cells, and a novel class of bacterial synthesis inhibitors with grant funding from the Wellcome Trust Foundation. PTC presented highly intriguing preclinical data from both programs at the analyst day. PTC596 demonstrated strong *ex vivo* and *in vivo* reductions of tumor stem cells but had no impact on normal stem cells. IND-enabling studies are currently ongoing and glioblastoma will be the lead indication for the program. The novel bacterial synthesis inhibitor class includes both compounds with high specificity and broad spectrum compounds that are active against gram negative strains or MRSA. PTC plans to choose gonorrhea as the first indication based on the simplicity of the clinical trial design and finalization of the development candidate is expected in 1H14.

We believe PTC will continue to focus on Orphan indications with the versatile GEMS technology platform and that ataluren will remain the key value driver for the company. However, the anti-tumor and anti-infective disease programs, both addressing large markets and good candidates for partnerships, provide PTC with additional upside potential.



Exhibit 2. Upcoming Milestones

	Events	Time
nmDMD	Potential conditional approval in the EU	2H13
	Completion of patient enrollment for the confirmatory Phase III clinical trial	Mid-2014
	Top-line data from the confirmatory Phase III clinical trial	Mid-2015
	FDA and MAA filing for full approval	2H15/2016
nmCF	MAA filing for conditional approval in the EU	2H13
	Initiation of confirmatory Phase III clinical trial	1H14
	Potential conditional approval in the EU	2H14
	Completion of patient enrollment for the confirmatory Phase III clinical trial	2H15
	Top-line data from the confirmatory Phase III clinical trial	2H15/2016

Source: Cowen and Company



# Valuation Methodology & Investment Risks

# **Valuation Methodology**

#### Biotechnology:

In calculating our 12-month target price, we employ one or more valuation methodologies, which include a discounted earnings analysis, discounted cash flow analysis, net present value analysis and/or a comparable company analysis. These analyses may or may not require the use of objective measures such as price-to-earnings or price-to-sales multiples as well as subjective measures such as discount rates.

We make investment recommendations on early stage (pre-commercial) biotechnology companies based upon an assessment of their technology, the probability of pipeline success, and the potential market opportunity in the event of success. However, because these companies lack traditional financial metrics, we do not believe there are any good methodologies for assigning a specific target price to such stocks.

#### **Investment Risks**

## Biotechnology:

There are multiple risks that are inherent with an investment in the biotechnology sector. Beyond systemic risk, there is also clinical, regulatory, and commercial risk. Additionally, biotechnology companies require significant amounts of capital in order to develop their clinical programs. The capital-raising environment is always changing and there is risk that necessary capital to complete development may not be readily available.

#### Company Specific Risks

The Phase IIb clinical trial for nmDMD and the Phase III clinical trial for nmCF that PTC completed failed to achieve the pre-specified primary endpoints with statistical significance. There is no guarantee that the ongoing and the planned Phase III clinical trials will meet the primary endpoint even though PTC has modified the trial designs to demonstrate maximum clinical benefit. Additionally, the EMA has raised questions about ataluren's insufficient efficacy and optimal dose and therefore, may reject PTC's application for conditional approval in the EU. As a result, even if the Phase III clinical trials succeed, ataluren will not be able to enter the market for several years. PTC's current balance sheet is strong but we estimate that there will be a need for additional funding to complete the trials for regulatory approval in the U.S.



# Addendum

#### STOCKS MENTIONED IN IMPORTANT DISCLOSURES

Ticker	Company Name
PTCT	PTC Therapeutics, Inc.

#### **Analyst Certification**

Each author of this research report hereby certifies that (i) the views expressed in the research report accurately reflect his or her personal views about any and all of the subject securities or issuers, and (ii) no part of his or her compensation was, is, or will be related, directly or indirectly, to the specific recommendations or views expressed in this report.

## **Important Disclosures**

Cowen and Company, LLC and or its affiliates make a market in the stock of PTC Therapeutics, Inc. securities.

PTC Therapeutics, Inc. has been client(s) of Cowen and Company, LLC in the past 12 months.

PTC Therapeutics, Inc. is or was in the past 12 months a client of Cowen and Company, LLC; during the past 12 months, Cowen and Company, LLC provided IB services.

Cowen and Company, LLC and/or its affiliates received in the past 12 months compensation for investment banking services from PTC Therapeutics, Inc.

Cowen and Company, LLC and/or its affiliates managed or co-managed a public offering of PTC Therapeutics, Inc. within the past twelve months.

Cowen and Company, LLC compensates research analysts for activities and services intended to benefit the firm's investor clients. Individual compensation determinations for research analysts, including the author(s) of this report, are based on a variety of factors, including the overall profitability of the firm and the total revenue derived from all sources, including revenues from investment banking. Cowen and Company, LLC does not compensate research analysts based on specific investment banking transactions.

#### **Disclaimer**

This research is for our clients only. Our research is disseminated primarily electronically and, in some cases, in printed form. Research distributed electronically is available simultaneously to all Cowen and Company, LLC clients. All published research can be obtained on the Firm's client website, <a href="https://cowenlibrary.bluematrix.com/client/library.jsp">https://cowenlibrary.bluematrix.com/client/library.jsp</a>.

Further information on any of the above securities may be obtained from our offices. This report is published solely for information purposes, and is not to be construed as an offer to sell or the solicitation of an offer to buy any security in any state where such an offer or solicitation would be illegal. Other than disclosures relating to Cowen and Company, LLC, the information herein is based on sources we believe to be reliable but is not guaranteed by us and does not purport to be a complete statement or summary of the available data. Any opinions expressed herein are statements of our judgment on this date and are subject to change without notice.

For important disclosures regarding the companies that are the subject of this research report, please contact Compliance Department, Cowen and Company, LLC, 599 Lexington Avenue, 20th Floor, New York, NY 10022. In addition, the same important disclosures, with the exception of the valuation methods and risks, are available on the Firm's disclosure website at <a href="https://cowen.bluematrix.com/sellside/Disclosures.action">https://cowen.bluematrix.com/sellside/Disclosures.action</a>.

**Price Targets:** Cowen and Company, LLC assigns price targets on all covered companies unless noted otherwise. The price target for an issuer's stock represents the value that the analyst reasonably expects the stock to reach over a performance period of twelve months. The price targets in this report should be considered in the context of all prior published Cowen and Company, LLC research reports (including the disclosures in any such report or on the Firm's disclosure website), which may or may not include price targets, as well as developments relating to the issuer, its industry and the financial markets. For price target valuation methodology and risks associated with the achievement of any given price target, please see the analyst's research report publishing such targets.

**Notice to UK Investors:** This publication is produced by Cowen and Company, LLC which is regulated in the United States by FINRA. It is to be communicated only to persons of a kind described in Articles 19 and 49 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005. It must not be further transmitted to any other person without our consent.

#### Copyright, User Agreement and other general information related to this report

© 2013 Cowen and Company, LLC. Member NYSE, FINRA and SIPC. All rights reserved. This research report is prepared for the exclusive use of Cowen clients and may not be reproduced, displayed, modified, distributed, transmitted or disclosed, in whole or in part, or in any form or manner, to others outside your organization without the express prior written consent of Cowen. Cowen research reports are distributed simultaneously to all

# **Cowen and Company, LLC**



clients eligible to receive such research reports. Any unauthorized use or disclosure is prohibited. Receipt and/or review of this research constitutes your agreement not to reproduce, display, modify, distribute, transmit, or disclose to others outside your organization the contents, opinions, conclusion, or information contained in this report (including any investment recommendations, estimates or price targets). All Cowen trademarks displayed in this report are owned by Cowen and may not be used without its prior written consent.

Cowen and Company, LLC. New York (646) 562-1000 Boston (617) 946-3700 San Francisco (415) 646-7200 Chicago (312) 577-2240 Cleveland (440) 331-3531 Atlanta (866) 544-7009 London (affiliate) 44-207-071-7500

#### **COWEN AND COMPANY RATING DEFINITIONS**

#### Cowen and Company Rating System effective May 25, 2013

Outperform (1): The stock is expected to achieve a total positive return of at least 15% over the next 12 months

Market Perform (2): The stock is expected to have a total return that falls between the parameters of an Outperform and Underperform over the next 12 months

Underperform (3): Stock is expected to achieve a total negative return of at least 10% over the next 12 months

Assumption: The expected total return calculation includes anticipated dividend yield

## Cowen and Company Rating System until May 25, 2013

Outperform (1): Stock expected to outperform the S&P 500

Neutral (2): Stock expected to perform in line with the S&P 500

Underperform (3): Stock expected to underperform the S&P 500

Assumptions: Time horizon is 12 months; S&P 500 is flat over forecast period

# Cowen Securities, formerly known as Dahlman Rose & Company, Rating System until May 25, 2013

**Buy** – The fundamentals/valuations of the subject company are improving and the investment return is expected to be 5 to 15 percentage points higher than the general market return

**Sell** – The fundamentals/valuations of the subject company are deteriorating and the investment return is expected to be 5 to 15 percentage points lower than the general market return

**Hold** – The fundamentals/valuations of the subject company are neither improving nor deteriorating and the investment return is expected to be in line with the general market return

# **COWEN AND COMPANY RATING ALLOCATION**

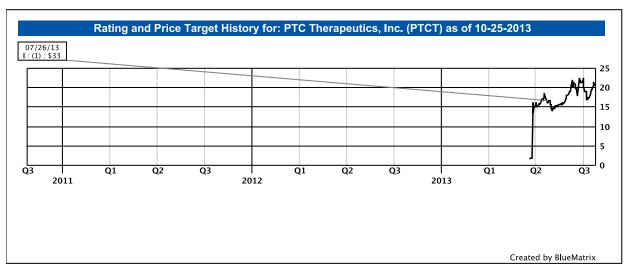
Distribution of Ratings/Investment Banking Services (IB) as of 09/30/13

Rating	Count	Ratings Distribution	Count	IB Services/Past 12 Months
Buy (a)	394	58.72%	54	13.71%
Hold (b)	255	38.00%	5	1.96%
Sell (c)	22	3.28%	1	4.55%

(a) Corresponds to "Outperform" rated stocks as defined in Cowen and Company, LLC's rating definitions. (b) Corresponds to "Market Perform" as defined in Cowen and Company, LLC's ratings definitions. (c) Corresponds to "Underperform" as defined in Cowen and Company, LLC's ratings definitions.

Note: "Buy", "Hold" and "Sell" are not terms that Cowen and Company, LLC uses in its ratings system and should not be construed as investment options. Rather, these ratings terms are used illustratively to comply with FINRA and NYSE regulations.





# **Legend for Price Chart:**

I = Initation | 1 = Outperform | 2 = Market Perform | 3 = Underperform | UR = Price Target Under Review | T = Terminated Coverage | \$xx = Price Target | NA = Not Available