

Equity Research

January 5, 2015

Price: \$69.75 (01/5/2015)

Price Target: NA

OUTPERFORM (1)

Eric Schmidt, Ph.D.

646.562.1345
eric.schmidt@cowen.com

Marc Frahm, Ph.D.

646.562.1394
marc.frahm@cowen.com

Jeff Chen, Ph.D.

646.562.1417
jeff.chen@cowen.com

Key Data

Symbol	NASDAQ: KITE
Market Cap (MM)	\$2,918.1

Company Update

Kite Gains Targets, Validation In Deal With Amgen

The Cowen Insight

Kite and Amgen announced a partnership to develop a novel set of CAR T-cells directed at targets supplied by Amgen. Kite will receive \$60MM in upfront payments, milestones, and royalties and the right to develop half of the drug candidates. We believe the deal broadens Kite's pipeline while providing validation for its platform and leading IP position. Kite remains a top pick.

The News: Earlier today Kite announced a collaboration with Amgen that combines Kite's CAR T-cell platform with Amgen's proprietary cancer antigen and antibody sequences. Under the collaboration, Kite will receive \$60MM upfront and funding to cover all pre-clinical development. The companies will work together to develop CAR T-cells specific for multiple targets from a prespecified list. Management did not disclose the identity or number of targets on this list. However, it did disclose that all targets and antibody reagents are coming from Amgen, and that targets have already been divided 50:50 as either "Kite products" or "Amgen products". Kite is contributing its CAR T-cell manufacturing expertise and intellectual property exclusively to these targets. Following the filing of an IND, Kite will be responsible for developing its designated products. Successful development by Kite will trigger milestone payments to Amgen of up to \$525MM along with tiered single-digit royalties for each product. Similarly, products designated as Amgen's will be developed at Amgen's expense. Successful development by Amgen will trigger milestone payments to Kite of up to \$525MM along with tiered royalties beginning in the high single-digits and reaching double-digits for each product. A joint steering committee will facilitate the selection of CAR constructs (e.g. 2nd generation vs. 3rd generation), election of substitute targets in the event of target failures, and coordination of clinical development programs across the partnership.

Our Take: Development of CAR T-cells is limited by the ability to (1) identify tumor specific antigens and (2) isolate antibodies specific to these antigens. Kite's ongoing collaboration with the National Cancer Institute has provided access to several targets including CD19 and others that remain outside the Amgen collaboration. Today's deal allows Kite access to a number of additional targets identified by Amgen's decades of research in oncology, as well as antibody constructs that can facilitate rapid creation of CARs. With Kite deploying its leading CAR T-cell manufacturing process and IP, the collaboration should create far more value than the sum of its parts. Importantly, we think Kite's ability to capture >50% of economics of the transaction recognizes the value Kite brings in terms of its significant IP position (and the Eshhar patent in particular) that others in the CAR space will likely also need to access.

What Is Next For KITE? Kite has submitted its corporate IND for KTE-C19's development in multicenter NHL trials, and expects to initiate a potentially pivotal Phase I/II trial in r/r DLBCL during Q1:15. Additional, potentially pivotal trials in MCL (H1:15), CLL (H2:15), and ALL (H2:15) are also planned. Data from these trials could support an initial approval of KTE-C19 as soon as 2016. Phase I/II data from Kite's first

TCR product, targeting NY-ESO in solid tumors including synovial cell carcinoma, is expected to be presented at ASCO 2015.

Our Thesis on KITE Shares: Kite is a leader in the development of engineered T cells. Pivotal trials for Kite's first CD19 CAR will begin imminently. In addition, partnerships with Amgen and the National Cancer Institute should fuel a broad expansion of Kite's pipeline. Successful developments across any and all programs will further validate the engineered T cell approach and fuel significant share price appreciation.

Valuation Methodology And 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.

Risks To The Price Target

Kite Pharma is unprofitable, has no approved products, and will likely need to raise additional capital from the public markets prior to turning profitable. There is limited clinical trial experience on lead candidate KTE-C19, and eACT's more broadly. Moreover, KTE-C19 faces a number of clinical, regulatory, and commercial hurdles prior to becoming successful, and projecting any future sales for KTE-C19 is inherently difficult.

We make investment recommendations on early stage (pre-commercial) biotechnology companies based upon a 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 it there are any good methodologies for assigning a specific target price to such stocks.

Addendum

Stocks Mentioned In Important Disclosures

Ticker	Company Name
KITE	Kite Pharma

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 Kite Pharma securities.

Kite Pharma has been client(s) of Cowen and Company, LLC in the past 12 months.

Cowen and Company, LLC and/or its affiliates expect to receive, or intend to seek, compensation for investment banking services in the next 3 months from Kite Pharma.

Kite Pharma 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 Kite Pharma.

Cowen and Company, LLC and/or its affiliates managed or co-managed a public offering of Kite Pharma 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, <https://cowenlibrary.bluematrix.com/client/library.jsp>.

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 <https://cowen.bluematrix.com/sellside/Disclosures.action>.

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

© 2014 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 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 Definitions

Distribution of Ratings/Investment Banking Services (IB) as of 12/31/14

Rating	Count	Ratings Distribution	Count	IB Services/Past 12 Months
Buy (a)	461	60.50%	109	23.64%
Hold (b)	288	37.80%	14	4.86%
Sell (c)	13	1.71%	0	0.00%

(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.

Kite Pharma Rating History as of 01/02/2015

powered by: BlueMatrix



Legend for Price Chart:

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

Points Of Contact

Reaching Cowen

Main U.S. Locations

New York

599 Lexington Avenue
New York, NY 10022
646.562.1000
800.221.5616

Atlanta

3399 Peachtree Road NE
Suite 417
Atlanta, GA 30326
866.544.7009

Boston

Two International Place
Boston, MA 02110
617.946.3700
800.343.7068

Chicago

181 West Madison Street
Suite 1925
Chicago, IL 60602
312.577.2240

Cleveland

20006 Detroit Road
Suite 100
Rocky River, OH 44116
440.331.3531

San Francisco

555 California Street, 5th Floor
San Francisco, CA 94104
415.646.7200
800.858.9316

International Locations

**Cowen International
Limited****London**

1 Snowden Street - 11th Floor
London EC2A 2DQ
United Kingdom
44.20.7071.7500

**Cowen and Company (Asia)
Limited****Hong Kong**

Suite 1401 Henley Building
No. 5 Queens Road Central
Central, Hong Kong
852 3752 2333

