COWEN AND COMPANY

Biotechnology

Kite Pharma

Equity Research

Quick Take: Company Update

March 17, 2015

Price: $63.65 (03/17/2015)
Price Target: NA

OUTPERFORM (1)

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Key Data

Symbol	NASDAQ: KITE
Market Cap (MM)	$2,662.9

Kite Adds An EU Presence And More TCR Technology

The Cowen Insight

Kite acquired T-Cell Factory B.V. for €20MM upfront plus milestone payments. For a modest purchase price Kite has added a novel process for identifying TCR sequences, multiple preclinical product candidates, an EU manufacturing center, EU clinical access, important human capital, and potential tax savings. We view this as an excellent acquisition and reiterate our Outperform rating.

The News: Kite announced the acquisition of T-Cell Factory B.V. (TCF) for €16.2MM in cash, €3.8MM in KITE stock and up to €242.5MM in future clinical, regulatory, and sales-based milestones relating to TCR-based product candidates. TCF was a privately held Dutch company that possessed a high throughput screening technology for the identification of human or mouse T cell receptor (TCR) sequences of interest (TCR-GENErator), a number of preclinical TCR constructs, a staff of preeminent European T cell biologists (including Drs. Ton Schumacher and Dirk Busch), a GMP manufacturing plant in the Netherlands, and relationships with leading European cancer clinics.

Our Take: The process of selecting target antigens and isolating TCRs specific for these targets is the biggest hurdle in creating engineered T cells to address new tumor types. Prior TCR identification methods generally relied upon the isolation of TILs and laborious T cell characterization assays. Today's acquisition gives Kite access to a high throughput methodology for accomplishing this task from not just TILs but also peripheral blood. While TCF possesses no clinical stage TCR products, Kite reports that there are several preclinical projects underway that could enter the clinic in 12-18 months. Complementing Kite's existing program of five TCRs that are already in the clinic. We also note that Kite's recently expanded NCI CRADA includes projects aimed at commercializing personalized neo-antigen specific engineered T cells. A key hurdle to this approach will be the speed at which Kite can isolate TCRs specific for a patient's individual neo-antigens, and TCF's technology appears well-suited to overcoming this hurdle. Perhaps more immediately important to Kite, TCF's senior employees have established relationships with clinical sites in the Netherlands and Germany and TCF's GMP facility in the Netherlands is capable of supplying these sites with clinical trial material. This will come in handy as Kite moves KTE-C19 or other clinical stage product trials beyond U.S borders. Finally, Kite may be able to leverage its EU presence into a lower corporate tax rate as products are commercialized. In total, TCF appears to contain multiple assets that more than justify the modest acquisition price. We view this as an excellent acquisition that strengthens Kite's leadership position in engineered T cells.

Our Thesis: Kite possesses a rapidly expanding pipeline of CAR and TCR-based engineered T cell candidates targeting multiple solid tumor antigens. Kite also possesses seminal IP in the CAR space. Kite is the leader in directing CD19 CARs against DLBCL and among the leaders in targeting CD19 CARs to ALL. We expect

KITE shares to outperform as investor appreciation for Kite's pipeline and IP position grows. KITE remains a top pick.

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.
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Addendum

Stocks Mentioned In Important Disclosures

Ticker	Company Name
KITE	Kite Pharma

Analyst Certification

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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.

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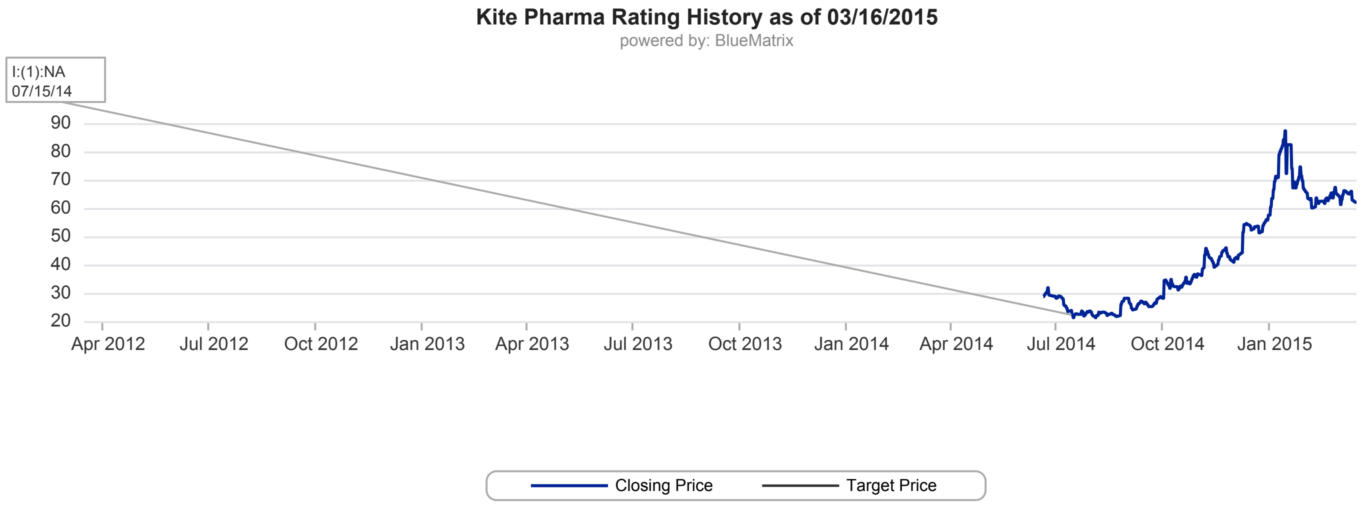

Legend for Price Chart:

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

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