

**Kite Pharma, Inc.**

KITE - BUY - Expands R&D Collaboration with NCI; Update on Pipeline Expansion into Solid Tumors

**TONY BUTLER, PHD, ANALYST**

tony.butler@guggenheimpartners.com  
212 823 6540

**FLASH NOTE**

SECTOR: Biopharmaceuticals

March 3, 2015

*Yesterday, KITE (BUY, \$64.12) presented at a competitor conference on its CAR-T immunotherapy portfolio as well as providing further detail on the expansion of its NCI collaboration. KITE reiterated its solid IP through 2027 and is moving forward aggressively with clinical trials, with its KTE-C19 product candidate in blood cancers expected in the clinic in 2015.*

**KITE expands R&D collaboration with NCI:** KITE announced that it has amended its Cooperative Research and Development Agreement (CRADA) with the National Cancer Institute (NCI), adding new TCR and CAR product candidates to the collaboration. Quarterly payments to the NCI will jump from \$250,000 to \$750,000. The expansion broadens KITE's strong relationship with the NCI, providing additional product candidates for KITE's pipeline, specifically new solid-tumor-focused CARs as well as TCRs, including colorectal and lung cancer indications. We believe the solid tumor focus with CAR-T is a potential way to differentiate Amgen (AMGN, NEUTRAL, \$159.63) from its existing programs, which mainly focus on liquid tumors.

**HPV TCR bolsters KITE's solid tumor pipeline:** KITE announced further detail on its HPV TCR program, an exclusive, worldwide license with the NIH that offers TCR's directed against HPV-16 E6 and E7 oncoproteins, viral antigens that are constitutively expressed by malignant cells and therefore represent attractive therapeutic targets. The program studies HPV-16 E6 TCR and HPV-16 E7 TCR in head/neck and cervical cancer. Phase 1 and 2 trials (n=61) have been initiated under the KITE/NCI CRADA agreement, with an estimated completion in 1H19.

**KITE's first manufacturing facility will be launched in 2017:** Manufacturing processes remain a bottleneck for the company, as CEO Arie Belldegrun reiterated yesterday, but the company projects it will be ready for FDA inspection of its Santa Monica facility in Q2/Q3 of 2016. Belldegrun mentioned that while commercial manufacturing awaits FDA review, clinical manufacturing does require FDA certification.

**Near-term drivers are KTE-C19 in DLBCL:** Solid tumor biggest unknown upside driver: We believe additional KTE-C19 data in DLBCL and other initial CD19 data in blood tumors (MCL, ALL, CLL) are the biggest near-term potential drivers of KITE. Positive readouts from solid tumors could provide significant upside. Data presented yesterday was positive, but without further initial data it is too soon to value.

**IP structure welcomes multiple players in the TCR space:** When asked to describe the IP around TCR, Belldegrun commented that there is no "umbrella patent" that broadly covers any one indication. Referring to KITE's two TCR programs, NY-ESO-1 for solid tumors and HPV-16 for cervical/head and neck cancer, Belldegrun commented "you either have the gene or you don't," meaning the new targets KITE is accumulating are individual proprietary targets. We believe this will drive more strategic collaboration in the CAR-T landscape as multiple players collaborate on a variety of targets for broad indications.

**We anticipate a broader update on KITE's analyst day on May 5.**

KITE catalyst calendar		
Product	Event	Status/Completion Date
KTE-C19	Initiate Ph 2 trials in DLBCL, PMBCL, TFL, MCL	1H15, est. 2017 completion
EGFRvIII CAR	Initiate Ph 2 trials in ALL, CLL	2H15; est. 2017 completion
	Initiate Ph 2 trials in glioblastoma	est. 2018 completion
NY-ESO-1 TCR	Initiate Ph 2 trials in solid tumors (lung, melanoma, bladder, ovarian, synovial sarcomas)	est. 2017 completion
HPV-16 E6 TCR	Initiate Ph 2 trials in cervical/head and neck cancer	est. 2019 completion
HPV-16 E7 TCR	Initiate Ph 1 trials in cervical/head and neck cancer	est. 2019 completion

*\*Source: Company reports and Guggenheim Securities, LLC estimates*

## ANALYST CERTIFICATION

By issuing this research report, each Guggenheim Securities, LLC ("Guggenheim Securities") research analyst whose name appears in this report hereby certifies that (i) all of the views expressed in this report accurately reflect the research analyst's personal views about any and all of the subject securities or issuers discussed herein and (ii) no part of the research analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analyst.

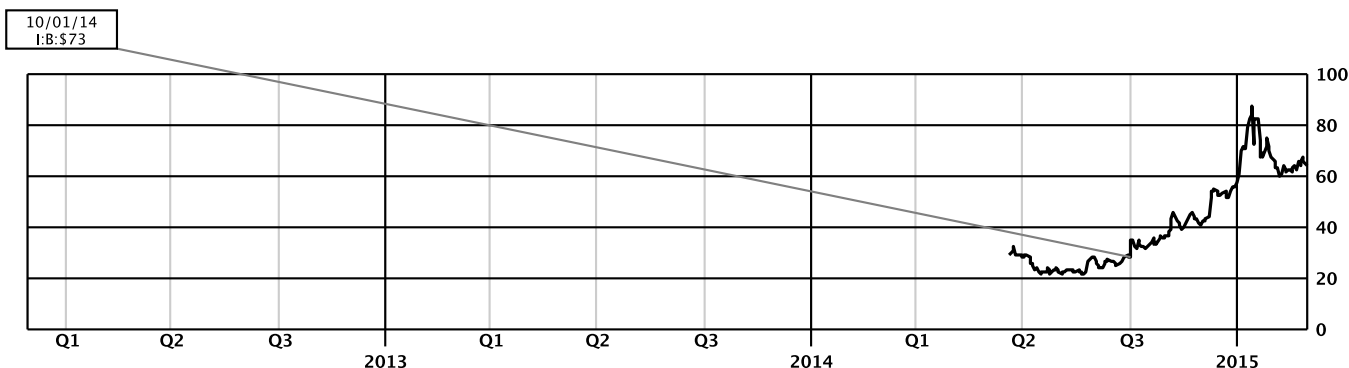
## IMPORTANT DISCLOSURES

The research analyst(s) and research associate(s) have received compensation based upon various factors, including quality of research, investor client feedback, and Guggenheim Securities, LLC's overall revenues, which includes investment banking revenues.

Guggenheim Securities, LLC or its affiliates expect(s) to receive or intend(s) to seek compensation for investment banking services from Kite Pharma, Inc. and Amgen Inc. in the next 3 months.

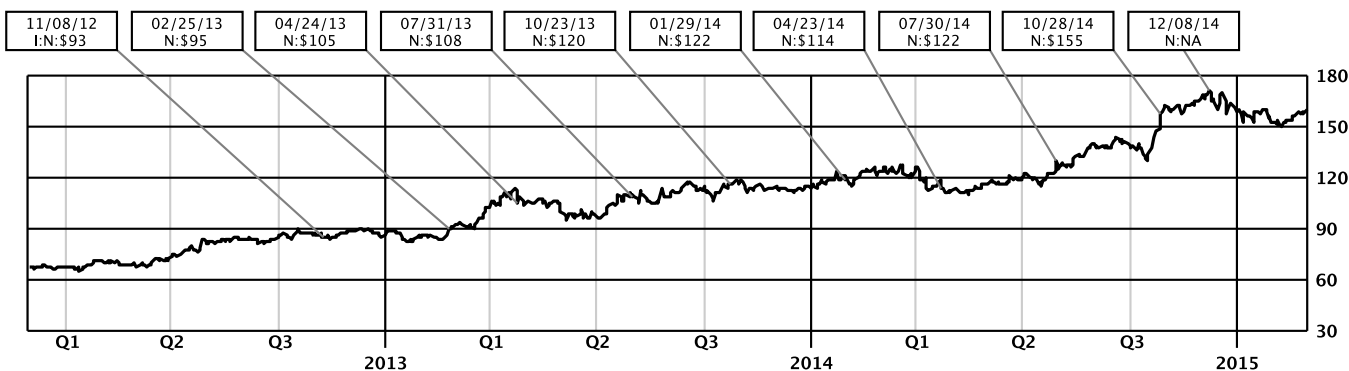
Please refer to this website for company-specific disclosures referenced in this report: [https://guggenheimsecurities.bluematrix.com/sellside/](https://guggenheimsecurities.bluematrix.com/sellside/Disclosures.action) Disclosures.action. Disclosure information is also available from Compliance, 330 Madison Avenue, New York, NY 10017.

Rating and Price Target History for: Kite Pharma, Inc. (KITE) as of 03-02-2015



Created by BlueMatrix

Rating and Price Target History for: Amgen Inc. (AMGN) as of 03-02-2015



Created by BlueMatrix

## RATING DEFINITIONS

**BUY (B)** - Describes stocks that we expect to provide a total return (price appreciation plus yield) of 10% or more within a 12-month period.

**NEUTRAL (N)** - Describes stocks that we expect to provide a total return (price appreciation plus yield) of plus 10% or minus 10% within a 12-month period. No price target is assigned.

**SELL (S)** - Describes stocks that we expect to provide a total negative return (price appreciation plus yield) of 10% or more within a 12-month period.

**NR** - The investment rating and price target have been temporarily suspended. Such suspensions are in compliance with applicable regulations and/or Guggenheim Securities, LLC policies.

**CS** - Coverage Suspended. Guggenheim Securities, LLC has suspended coverage of this company.

**NC** - Not covered. Guggenheim Securities, LLC does not cover this company.

**Restricted** - Describes issuers where, in conjunction with Guggenheim Securities, LLC engagement in certain transactions, company policy or applicable securities regulations prohibit certain types of communications, including investment recommendations.

**Monitor** - Describes stocks whose company fundamentals and financials are being monitored, and for which no financial projections or opinions on the investment merits of the company are provided.

Guggenheim Securities, LLC methodology for assigning ratings may include the following: market capitalization, maturity, growth/value, volatility and expected total return over the next 12 months. The price targets are based on several methodologies, which may include, but are not restricted to, analyses of market risk, growth rate, revenue stream, discounted cash flow (DCF), EBITDA, EPS, cash flow (CF), free cash flow (FCF), EV/EBITDA, P/E, PE/growth, P/CF, P/FCF, premium (discount)/average group EV/EBITDA, premium (discount)/average group P/E, sum of the parts, net asset value, dividend returns, and return on equity (ROE) over the next 12 months.

Prior to 12/8/14, Guggenheim Securities, LLC's BUY, NEUTRAL, and SELL ratings definitions were as follows (no other ratings definitions were changed):

**BUY (B)** - Describes stocks that we expect to provide a total return (price appreciation plus yield) of 15% or more within a 12-month period.

**NEUTRAL (N)** - Describes stocks that we expect to provide a total return (price appreciation plus yield) of plus 15% or minus 15% within a 12-month period.

**SELL (S)** - Describes stocks that we expect to provide a total negative return (price appreciation plus yield) of 15% or more within a 12-month period.

## RATINGS DISTRIBUTIONS FOR GUGGENHEIM SECURITIES:

Rating Category	Count	Percent	IB Serv./ Past 12Mos.	
			Count	Percent
Buy	87	47.03%	24	27.59%
Neutral	98	52.97%	4	4.08%
Sell	0	0.00%	0	0.00%

## OTHER DISCLOSURES

This research is for our clients and prospective clients only. Other than disclosures relating to Guggenheim Securities and its affiliates, this research is based on current public information that we consider reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. We seek to update our research as appropriate, but various regulations may prevent us from doing so. Other than certain industry reports published on a periodic basis, the large majority of reports are published at irregular intervals as appropriate in the research analyst's judgment. Guggenheim Securities conducts a full-service, integrated investment banking and brokerage business, and one or more of its affiliates conduct an investment management business. Guggenheim Securities is a member of SIPC (<http://www.sipc.org>). Our salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to our clients and our employees trading for our own account that reflect opinions that are contrary to the opinions expressed in this research. Guggenheim Securities or certain of its affiliates conducts an investment management business, trades for its own account, and conducts an investment business, and may make investment decisions that are inconsistent with the recommendations or views expressed in this research.

Where this material is being distributed in Europe, the recipients should note that this material has been prepared by Guggenheim Securities, LLC and is distributed in Europe by Guggenheim Securities International Limited, a UK Company registered under Company Number 06624746 with its registered office at 5th Floor, The Peak, 5 Wilton Road, London, SW1V 1AN; and is authorized and regulated by the Financial Conduct Authority (FRN 485435). This material is intended solely for distribution to professional and institutional investors and is not available to retail clients within the meaning of the rules of the Financial Conduct Authority nor in any jurisdiction within which its distribution would be prohibited.

We and our affiliates, officers, directors, and employees, excluding equity and credit analysts, will from time to time have long or short positions in, act as principal in, and buy or sell, the securities or derivatives, if any, referred to in this research. We and our affiliates also may sell to or buy from customers on a principal basis the securities described herein. We and our affiliates also do business with, or that relates to, companies covered in Guggenheim Securities' research, and may have a position in the debt of the company or companies discussed herein.

This research is not an offer to sell or the solicitation of an offer to buy any security. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any advice or recommendation in this

research is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of investments referred to in this research and the income from them may fluctuate. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain investments.

**TACTICAL TRADING IDEA DISCLAIMER**

Guggenheim Securities, LLC produces "Tactical Trade Ideas" that identify short-term, catalyst-driven trading opportunities impacting companies within the Firm's coverage universe. Tactical Trade Ideas may exist on companies in this report and may be contrary to the analyst's published rating.

Copyright © 2015 by Guggenheim Securities, LLC, ("Guggenheim") a FINRA registered broker-dealer. All rights reserved. The contents of this report are based upon information or are obtained from sources that Guggenheim generally considers reliable, but Guggenheim makes no representations or warranties with respect to their accuracy, completeness, timeliness, suitability or otherwise, and assumes no responsibility to update them for subsequent events or knowledge. Guggenheim is not responsible for your use of this information.

## Contact Information

## NEW YORK SALES &amp; TRADING DESK

212 292 4700

## EQUITY TRADING DESK

212 292 4701

## MEDIA INQUIRIES

310 367 6567

## EMAIL

general@guggenheimcm.com

## Locations

## NEW YORK

330 Madison Avenue  
New York, NY 10017

## WASHINGTON, DC

1055 Thomas Jefferson Street, NW  
Suite 450  
Washington, DC 20007

## BOSTON

500 Boylston Street, 13<sup>th</sup> Floor  
Boston, MA 02116

## LOS ANGELES

601 South Figueroa Street  
Suite 4005  
Los Angeles, CA 90017

## DALLAS

1717 McKinney Avenue  
Suite 870  
Dallas, TX 75202

## SAN FRANCISCO

50 California Street  
Suite 1515  
San Francisco, CA 94111

## NASHVILLE

104 Woodmont Blvd  
Suite 203  
Nashville, TN 37205

## RICHMOND

919 East Main Street  
Suite 1605  
Richmond, VA 23219

## Guggenheim Equity Research

ENERGY: EXPLORATION & PRODUCTION,  
OIL SERVICES & EQUIPMENT

## Subash Chandra, CFA, Analyst

subash.chandra@guggenheimpartners.com  
212 918 8771

## Marshall Coltrain, Associate

marshall.coltrain@guggenheimpartners.com  
212 518 9904

## Michael LaMotte, Analyst

michael.lamotte@guggenheimpartners.com  
972 638 5502FINANCIAL SERVICES: INVESTMENT  
COMPANIES, COMMUNITY AND  
REGIONAL BANKS

## Taylor Brodarick, Analyst

taylor.brodarick@guggenheimpartners.com  
615 208 1222FINANCIAL SERVICES: COMMUNITY AND  
REGIONAL BANKS, PAYMENTS & CREDIT  
SERVICES

## David Darst, Analyst

david.darst@guggenheimpartners.com  
615 208 1224

## Ryan Strain, Associate

ryan.strain@guggenheimpartners.com  
615 208 1226FINANCIAL SERVICES: SUPER REGIONAL  
AND UNIVERSAL BANKS & BROKERS,  
PAYMENTS & CREDIT SERVICES

## Eric Wasserstrom, Analyst

eric.wasserstrom@guggenheimpartners.com  
212 823 6571

## Jeff Cantwell, Associate

jeffrey.cantwell@guggenheimpartners.com  
212 823 6543

## HEALTHCARE: BIOPHARMA

## Tony Butler, Analyst

tony.butler@guggenheimpartners.com  
212 823 6540

## HEALTHCARE: BIOTECH

## Bret Holley, Analyst

bret.holley@guggenheimpartners.com  
212 293 2820

## HEALTHCARE: PHARMACEUTICALS

## Louise Chen, Analyst

louise.chen@guggenheimpartners.com  
212 381 4195

## Swati Kumar, Analyst

swati.kumar@guggenheimpartners.com  
212 918 8754

## Brandon Folkes, Associate

brandon.folkes@guggenheimpartners.com  
212 518 9976RETAIL & CONSUMER: CONSUMABLES;  
FOOD & DRUG

## John Heinbockel, Analyst

john.heinbockel@guggenheimpartners.com  
212 381 4135

## Steven Forbes, Associate

steven.forbes@guggenheimpartners.com  
212 381 4188

## RETAIL &amp; CONSUMER: SOFTLINES

## Howard Tubin, Analyst

howard.tubin@guggenheimpartners.com  
212 823 6558TMT: MEDIA & ENTERTAINMENT,  
CABLE & SATELLITE TV

## Michael Morris, Analyst

michael.morris@guggenheimpartners.com  
804 253 8025

## Curry Baker, Associate

curry.baker@guggenheimpartners.com  
804 253 8029