Kite Pharma, Inc.

KITE - BUY - KITE at ASCO 2015; If You Only Read One Note Read This THREE

TONY BUTLER, PHD, ANALYST
tony.butler@guggenheimpartners.com
212 823 6540

FLASH NOTE

SECTOR: Biopharmaceuticals

June 1, 2015

At ASCO 2015, Kite Pharma (KITE, BUY, $55.15) presented data from a small cohort of patients illustrating that it may be able to discern functional biomarkers that could be predictive of patient responses to CARs. Autologous CAR-engineered T cell therapy has been shown promising in relapsed/refractory B cell tumors. Kite has evaluated T cell product characteristics and a number of biomarkers in patients treated with anti-CD19 CAR T cells.

In 29 evaluable patients with non-Hodgkin's lymphoma (NHL) or chronic lymphocytic leukemia (CLL), anti-CD19 CAR T cells induced objective responses. The complete response rate was 38% (76% overall response rate). Clearing of CAR-T cells in blood and recovery of normal B cells was frequent in patients with durable clinical responses. This was an outcome we did not expect. Pre-conditioning with cyclophosphamide and fludarabine induced immune homeostatic cytokines (IL-15, IL-7), chemokines (MCP-1), and pro-inflammatory markers including CRP and PLGF. Clinical responders showed *in vivo* expansion of CAR+ T cells to a considerable range of 15-300 CAR+ PBMC/µL within 14 days post-treatment.

Finally, Kite looked at the composition of T cells but not of CAR-T cells post-treatment to determine if manufacturing time in culture of engineered CAR-T cells influenced outcomes.

Conclusion:

- Kite was able to conclude that durable clinical responses could occur without long-lasting CAR-T cells in circulation. This allows for normal B cell recovery.
- The method used for pre-conditioning the patient does affect activation and trafficking of T cells. This can be key in clinical trials.
- A shorter manufacturing process produces CAR T cells with higher CD4+ naïve and central memory T cells. Post infusion CAR-T cells showed a diversified population of differentiating T cell as well as naïve T cells.
- CAR-T cell treatment results in elevation and resolution of circulating cytokines within three weeks after treatment.
- The merit of this functional analysis generates the hypothesis that Kite may be able to prognosticate patients that respond better or best with CAR therapy. Similar analyses are ongoing in the in the 112-patient registrational study.

KITE Anti-CD19 CAR T induced objective responses in pts with r/r NHL and CLL		
Tumor type	**ORR**	**CRR**
Any (n=29)	76%	38%
DLBCL/PMBCL (n=17)	65%	35%
CLL (n=7)	86%	57%
Indolent NHL (n=5)	100%	20%

Source: ASCO 2015 data, Kochenderfer et al, Blood 2012 and JCO 2015 data

See pages 2 - 3 for analyst certification and important disclosures.

ANALYST CERTIFICATION

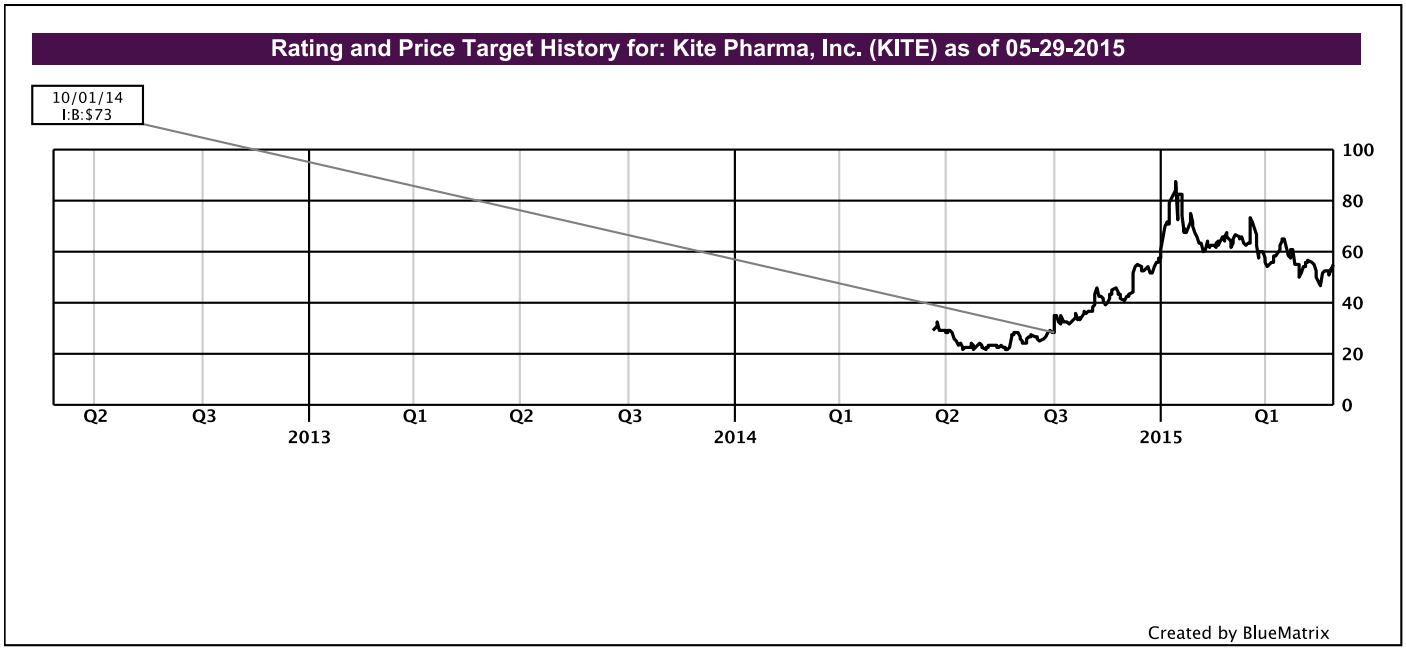
By issuing this research report, each Guggenheim Securities, LLC ("Guggenheim Securities") research analyst whose name appears in this report hereby certifies that (i) all of the views expressed in this report accurately reflect the research analyst's personal views about any and all of the subject securities 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. in the next 3 months.

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



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:

			IB Serv./ Past 12Mos.	
Rating Category	Count	Percent	Count	Percent
Buy	106	45.89%	26	24.53%
Neutral	125	54.11%	4	3.20%
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.

Contact Information

NEW YORK SALES & TRADING DESK
212 292 4700

EQUITY TRADING DESK
212 292 4701

MEDIA INQUIRIES
310 367 6567

EMAIL
general@guggenheimpartners.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, 13th 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 5502

Eric Loyet, Associate
eric.w.loyet@guggenheimpartners.com
212 518 9782

ENERGY: POWER & UTILITIES

Shahriar Pourreza, CFA, Analyst
shahriar.pourreza@guggenheimpartners.com
212 518 5862

FINANCIAL SERVICES: INVESTMENT COMPANIES, COMMUNITY AND REGIONAL BANKS

Taylor Brodarick, Analyst
taylor.brodarick@guggenheimpartners.com
212 293 2820

FINANCIAL 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 1226

FINANCIAL 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: 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 9976

RETAIL & CONSUMER: CONSUMABLES; FOOD & DRUG

John Heinbockel, Analyst
john.heinbockel@guggenheimpartners.com
212 381 4135

Steven Forbes, Analyst
steven.forbes@guggenheimpartners.com
212 381 4188

RETAIL & CONSUMER: RESTAURANTS

Matthew DiFrisco, Analyst
matthew.difrisco@guggenheimpartners.com
212 823 6599

RETAIL & CONSUMER: SOFTLINES

Howard Tubin, Analyst
howard.tubin@guggenheimpartners.com
212 823 6558

TMT: DATA & COMMUNICATION INFRASTRUCTURE

Ryan Hutchinson, Analyst
ryan.hutchinson@guggenheimpartners.com
415 852 6458

Nate Cunningham, Associate
nathaniel.cunningham@guggenheimpartners.com
212 823 6597

TMT: INTERNET

Jake Fuller, Analyst
jake.fuller@guggenheimpartners.com
212 518 9013

Mickey Gallagher, Associate
michael.gallagher@guggenheimpartners.com
212 823 6562

TMT: 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