

Biotechnology

KITE - NASDAQ

June 17, 2015

Closing Price 06/17/2015

\$58.97

Rating: Buy
12-Month Target Price: \$87.00
52-Week Range: \$21.00 - \$89.21
Market Cap (M): \$2,545
Shares O/S (M): 43
Float: 74.3%
Avg. Daily Volume (000): 1,306
Dividend: \$0.00
Dividend Yield: 0.00%
Risk Profile: High
Fiscal Year End: December

Total Revenues ('000)

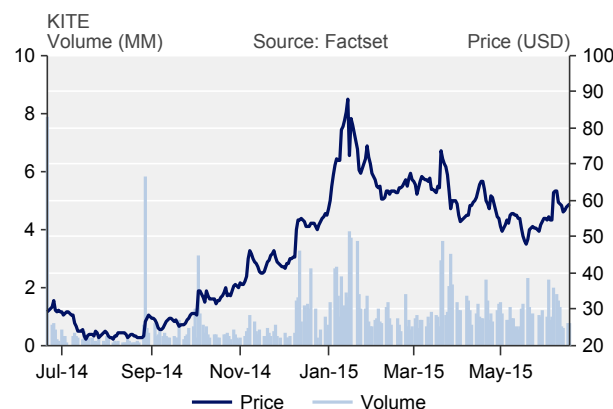
	2015E	2016E	2017E
1Q	2,881A	3,600	63,720
2Q	3,900	3,600	71,561
3Q	4,100	3,900	66,634
4Q	4,119	3,900	74,475
FY	15,000	15,000	276,390

Total Expenses ('000)

	2015E	2016E	2017E
1Q	18,431A	23,903	57,705
2Q	24,200	27,020	64,997
3Q	26,300	24,942	60,286
4Q	29,400	28,060	67,578
FY	98,331	103,925	250,566

GAAP EPS

	2015E	2016E	2017E
1Q	(0.36)A	(0.48)	0.14
2Q	(0.48)	(0.55)	0.15
3Q	(0.52)	(0.49)	0.15
4Q	(0.59)	(0.57)	0.16
FY	(1.95)	(2.09)	0.61



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Kite Pharma, Inc.

Buy

This Kite Could Fly Higher; Initiating Coverage With a Buy Rating and \$87 PT.

Summary

- CAR-T therapy is a paradigm shift in oncology.** When we are dealing with B cell cancers where all other therapies have failed (relapsed/refractory, r/r), proof of concept comes with just a few patients.
- Kite's CD19-targeting CAR has achieved an overall response rate of 76% in r/r B cell cancers.** Patients that would otherwise die within months are alive. More data are coming from multiple trials, including at ASH (American Society of Hematology) 2015 this fall. We could see approval and launch in 2017.
- The market has assumed success in the r/r B cell space, with at least \$500M in peak revenues (Kite's valuation is supported in r/r B cell cancers alone).** Add in the possibility of success in solid tumors (not if, but when), and we see upside to the current valuation.
- Additionally, there is a valuation gap between Kite and its closest competitor, Juno (JUNO-\$51.33-Buy).** Kite's approach to solid tumors is weighted on TCR-based T cell therapy (for now) vs. Juno's on CARs. We believe that investors are undervaluing TCRs, which also represent a legitimate approach to solid tumors.

Details

B cell cancers and KTE-C19. Kite has shown overall response rates of 76% and has data going back five years, more than the competition by far. B cell cancer has multiple subtypes, and the FDA has stated that they would like to see data in homogenous populations (i.e., larger trials in specific subtypes). Four phase II studies in six subtypes of B cell are planned, and they could lead to accelerated approval on positive data. The first trial (n=112) dosed the first patient in 2Q15. The remaining three trials (n=50-100 each) should begin in 2H15. Interim data from the first trial from early patients are expected to be announced in 4Q15, likely at the ASH (American Society of Hematology) Annual Meeting. KTE-C19 could be approved and launch in 2017.

Behind the CARs are TCRs, the other arm of autologous T cell therapies. TCR-based (T cell receptor) therapies warrant as much attention as CARs, but remain under the radar and undervalued. TCRs can target cancer antigens expressed inside the cancer (where CARs cannot) and take advantage of intact T cell signaling domains – no need to make an exotic receptor, like for CARs. TCRs could be successful in solid tumors first. Kite is developing four TCRs with NCI, and the acquisition of T-Cell Factory (TCF) with their tumor-specific antigen identifier platform, TCR-GENERator, could add more.

Big pharma and biotech are partnering, and Kite is flying high. The National Cancer Institute (NCI) and Amgen (AMGN-\$155.65-NR) partnerships bring a wealth of resources, from targets to bucks. Kite and NCI have a cooperative research and development agreement (CRADA), whereby Kite funds CAR- and TCR-candidate development, and can then select the best candidates to advance and potentially commercialize. Multiple phase II and I/IIa NCI-sponsored trials are underway, including trials for four TCRs. Kite also has a partnership with Amgen to develop additional CARs. Amgen-related CARs are expected to enter the clinic in 2016. We expect to see checkpoint inhibitors and gene editing in Kite's future...stay tuned.

Valuation. We believe KTE-C19 could launch in 2017, and we assume a platform value (pipeline, T cell receptors). Additionally, we believe the market undervalues the potential of TCR-based T cell therapy in solid tumors, one of Kite's strengths, relative to CAR-T cell therapy. Thus, we see a valuation gap between Kite and some of the company's competition, which are more focused on CARs. We then apply a moderate discount rate of 15% to our free cash flow to derive a \$87 target.

CORPORATE BACKGROUND



Kite Pharma, Inc.
 2225 Colorado Avenue
 Santa Monica, CA 90404
 Website: www.kitepharma.com

Investment risks:

Development risk: CAR-T therapies have been shown to have serious side effects that may impact clinical trials. Additional safety measures may be required prior to approval.

Regulatory risk: There currently are no approved CAR-T or TCR-based T cell therapies in the U.S. The company's ongoing and planned trials may not meet regulatory requirements for approval.

Financial risk: The company has not achieved commercial profitability and may need to raise additional capital.

Ownership:

Institutional: 80.6%
 Inside: 1.6%

Balance sheet summary:

Cash and restricted cash:
 \$367M

Long-term debt: \$0

Analysts following the company (other than Maxim): 7

Company background. Kite Pharma is a clinical-stage biopharmaceutical company focused on the development and commercialization of novel cancer immunotherapy products designed to harness the power of a patient's own immune system to eradicate cancer cells. Kite Pharma uses their engineered autologous cell therapy (eACT) platform to develop novel T cell-based therapeutics for the treatment of cancers. The eACT platform uses genetic engineering to modify a patient's own T cells to express either chimeric antigen receptors (CARs) or T cell receptors (TCRs). Modified T cells are returned to the patient, where they target and eliminate cancer cells. Kite's lead product, KTE-C19, a CAR-T therapy candidate indicated for CD19+ expressing B cell malignancies and developed at the National Cancer Institute (NCI), is expected to enter up to four phase II pivotal studies targeting up to six subtypes of B cell cancers in 2015 (one is underway as of 2Q15).

Kite has several key partnerships, including NCI, with which it has an ongoing cooperative research and development agreement (CRADA), and Amgen. Pursuant to the CRADA, Kite provides funding for the research and development, including clinical trials, of eACT-based product candidates (CAR and TCR). The advantage of the CRADA is that Kite can identify promising T cell therapy candidates for further clinical testing while minimizing research and development expenses. Currently, Kite is funding a phase II study of a TCR-based therapy, and multiple phase I/IIa studies of both CAR and TCR-based therapies, including four TCR products targeting various solid tumors. In B cell malignancies, CAR-based therapies have shown a 76% objective response rate. Kite also has a partnership with Amgen (\$60M upfront payment) to develop and commercialize Amgen cancer targets using the eACT platform. Trials could initiate later in 2016. Additionally, Kite has a presence in Europe through the acquisition of T-Cell Factory (private), which should add to the TCR candidate pipeline. Kite also has manufacturing in the U.S. and Europe.

Senior management:

Arie Belldegrun, M.D., FACS, Chairman, President, and Chief Executive Officer. In 1996, Dr. Belldegrun founded Agensys, Inc., a biotechnology company, and served as Chairman of the board of directors and as a board member until 2007, when it was acquired by Astellas Pharma Inc. Dr. Belldegrun was also the founding Vice-Chairman of the board of directors and Chairman of the scientific advisory board of Cougar Biotechnology, Inc. from 2003 to 2009, when it was acquired by Johnson & Johnson. He currently serves as Chairman of Arno Therapeutics, Inc., Two River Group, and TheraCoat Ltd., and as a board member of SonaCare Medical, LLC and Teva Pharmaceutical Industries Ltd. Dr. Belldegrun is Professor of urology, holds the Roy and Carol Doumani Chair in Urologic Oncology, and is Director of the UCLA Institute of Urologic Oncology at the David Geffen School of Medicine at UCLA. Prior to joining UCLA, he was at the National Cancer Institute/NIH as a research fellow in surgical oncology and immunotherapy under Dr. Steven A. Rosenberg. Dr. Belldegrun completed his M.D. at the Hebrew University Hadassah Medical School in Jerusalem, his post-graduate studies in immunology at the Weizmann Institute of Science, and his residency in urologic surgery at Harvard Medical School. Dr. Belldegrun has authored several books and more than 400 peer-reviewed publications.

Cynthia M. Butitta, Chief Operating Officer and Chief Financial Officer. Ms. Butitta has more than 20 years of leadership experience in both the biotechnology and high-technology industries. Ms. Butitta was Senior Vice-President and Chief Financial Officer of NextWave Pharmaceuticals, Inc., which was recently acquired by Pfizer in 2012 for \$700 million. Prior to NextWave, Ms. Butitta served as Chief Operating Officer from 2001 to 2010 and Chief Financial Officer from 1998 to 2010 of Telik Inc., an oncology-based biotechnology company. While at Telik, Ms. Butitta was responsible for securing more than \$450 million through an IPO and subsequent follow-on offerings. In addition to raising capital, she also was responsible for SEC reporting, financial controls, investor relations, information technology, manufacturing, quality, project management, and commercial operations. Ms. Butitta also served as Vice President of Finance and Administration, and Chief Financial Officer from 1995 to 1997 for Connetics, Inc., a public biotechnology company. Ms. Butitta received a B.S. degree with honors in business and accounting from Edgewood College in Madison, Wisconsin, and a M.B.A. degree in finance from the University of Wisconsin, Madison.

INVESTMENT SUMMARY

The bull case. The data are compelling. CAR-T has shown proof of concept in no-option (relapsed/refractory, r/r) B cell cancer. CAR-T therapy is a paradigm shift in cancer treatment, and B cells are just the beginning. The market assumes that Kite will be successful in leukemias and lymphomas, potentially reaching the market in 2017. Kite's current valuation assumes (our estimate) \$500M in peak sales for the r/r market alone, which is conservative (it could be more than \$1B), pointing to an undervalued company. Success in solid tumors adds upside to the current valuation – it's a question of when, not if. Big pharma (Amgen) and academia (NCI) are on board, bringing multiple CAR and TCR products to the clinic for solid tumors. Through the NCI collaborative research agreement (CRADA), which keeps costs down, there are least four T cell receptor (TCRs) and one CAR in (or entering) early-stage trials, and more are on the way, including from the Amgen partnership. The acquisition of T-Cell Factory will bring more TCR candidates to the table and gives Kite a presence in Europe. Bulls also believe checkpoints and gene editing will come into the mix soon. Like in r/r B cell cancers, proof of concept in solid tumors comes with N=not a lot. Data are coming.

The bear case. Bears believe that the CAR-T space is a bubble waiting to burst. Bears will admit that CAR-T can be successful in r/r B cell cancer, but believe "that's it." Bears see that Kite is not alone in the r/r B cell cancer space, as there is competition for the same target and indication(s) (i.e., from Juno (JUNO-\$51.33-Buy) and Novartis (NVS-\$101.10-NR)). Bears see the CAR-T race ending here, meaning that CAR-T (and TCRs) may not be successful in solid tumors. A lack of cancer targets, tumor heterogeneity, major safety concerns, and solid tumor resistance to T cells support the bears' argument. Bears see alternatives like vaccination and checkpoint inhibitors being successful in solid tumors first, and they are far less expensive. The COGs debate in CAR-T is also a hot topic. CAR-T requires autologous cells, genetic manipulation, and handling for up to two weeks –translation: a lot of time, and a lot of money or expensive. Bears see this as Dendreon's (acquired) Provenge all over again. The combined bear view is a small, niche indication in r/r B cell cancer with too much competition, high COGs, and alternatives (cheaper and better) for solid tumors.

Our take. We have seen proof of concept for CAR-T in r/r B cell cancer. It's a promising treatment that could be on the market by 2017. The market already assumes success in r/r B cell cancer (with at least \$500M in revenue). As such, we see Kite's current valuation as being supported by the r/r B cell market alone. Kite is likely to pursue post-approval studies in second-line therapy for B cell cancer, potentially opening up the larger B cell cancer market and adding upside. We believe CAR-T in r/r B cell cancers is just the tip of the iceberg in the T cell-based cancer therapy field. As the space moves toward solid tumors, we believe that success is a question of when, not if. However, who will get there first, TCRs or CARs? That is a major dividing question in the competitive field. Kite's pipeline is skewed toward TCRs (indicated for solid tumors). As many scientists believe that TCRs will be successful in solid tumors before CARs, we like the way Kite is positioned to achieve a breakthrough on the solid tumor side. Given the valuation gap between Kite and its closest competitor (Juno), a company with a CAR-heavy pipeline, we believe the market is not valuing TCRs as it does CARs. Combined, we see an undervalued Kite and an opportunity for investors.

Exhibit 1. Kite Pharma upcoming catalysts. DLBCL, diffuse large B cell lymphoma; PMBCL, primary mediastinal B cell lymphoma; TFL, transformed follicular lymphoma; MCL, mantle cell lymphoma; CLL, chronic lymphocytic leukemia; ALL, acute lymphoblastic leukemia.

Product	Geography	Indication	Event	Timeline	Impact
KTE-C19 CR	US	DLBCL, PMBCL, TFL	Initiate phase II study (n=112)	Done	+
EGFRvIII CAR ¹	US	Glioblastoma	Phase I, dose escalation study/interim data at ASCO meeting	Done	++
KTE-C19 CR	US	MCL	Initiate phase II study	2Q15	+
KTE-C19 CR	US	DLBCL, PMBCL, TFL	Phase II interim data, first 6+ DLBCL patients at ASH meeting	4Q15	+
KTE-C19 CR	US	CLL	Initiate phase II study	4Q15	+
KTE-C19 CR	US	ALL	Initiate phase II study	4Q15	+
CAR candidates	US	Multiple cancers	Initiate clinical studies pursuant to the Amgen partnership	4Q16	++
TCR candidates ¹	US	Multiple cancers	Multiple I/II studies using SSX2, NY-ESO-1, MAGE and HPV targeting TCR cells, data	4Q16	++
KTE-C19 CR	US	DLBCL, PMBCL, TFL	Phase II data	2H16	++
KTE-C19 CR	US	MCL	Phase II data	2H16	++
KTE-C19 CR	US	CLL	Phase II data	2H16	++
KTE-C19 CR	US	ALL	Phase II data	2H16	++
KTE-C19 CR	US	B cell malignancies	Submit BLA, accelerated approval with expectation of post-marketing studies	YE-2016	++
KTE-C19 CR	US	B cell malignancies	Approval for salvage therapy in multiple B cell malignancies, launch	mid-2017	+++
CAR candidates	US	Multiple cancers	Approval and launch	2019-20	+++
TCR candidates ¹	US	Multiple cancers	Approval and launch	2019-20	+++

¹ NCI-sponsored, as part of the ongoing CRADA; Cooperative Research and Development Agreement
 Stock Significance Scale: + of moderate importance; ++ higher level; +++ highly
 Source: Maxim Forecasts and Company reports.

Kite Pharma finances. Kite is well capitalized, having raised \$508M since its IPO in June 2014. Currently, as of the end of 1Q15, Kite has \$428M in cash and cash equivalents. The company's operating expenses of \$100M to \$125M per year, including only \$40M projected for R&D in 2015, are lower than the competition, as Kite is leveraging an NCI CRADA. Kite is well funded to support multiple studies, including those for KTE-C19, expected to initiate in 2015. We project that Kite is capitalized through 2017.

COMPANY OVERVIEW

Kite Pharma is a clinical-stage biopharmaceutical company focused on the development and commercialization of novel cancer immunotherapy products designed to harness the power of a patient's own immune system to eradicate cancer cells. Kite uses their proprietary engineered autologous cell therapy, or eACT, which the company believes is a market-redefining approach to the treatment of cancer. eACT involves the genetic engineering of T cells to express either chimeric antigen receptors (CARs) or T cell receptors (TCRs). These modified T cells are designed to recognize and destroy cancer cells. Kite currently funds a phase II clinical trial of a TCR-based therapy and multiple phase I/IIa clinical trials of CAR- and TCR-based therapies that are each being conducted by the company's collaborator, the Surgery Branch of the National Cancer Institute (NCI). In an ongoing clinical trial, patients with relapsed/refractory lymphomas and leukemias treated with CAR-based therapy experienced an objective response rate of 76%.

In 2Q15, Kite initiated a large phase I/II study (n=112) with the company's lead CAR candidate, KTE-C19, in patients with diffuse large B cell lymphoma (DLBCL), primary mediastinal B cell lymphoma (PMBCL), and transformed follicular lymphoma (TFL). Each of these indications is an aggressive form of NHL (non-Hodgkin's lymphoma). Positive data could result in Kite seeking BLA submission as soon as mid- to late 2016 (launch in 2017). In addition, three phase II studies with KTE-C19 for mantle cell lymphoma (MCL), chronic lymphocytic leukemia (CLL), and acute lymphoblastic leukemia (ALL) are expected to initiate in 2015, and each study could enroll more than 50 patients. Positive data in each of these indications could result in Kite seeking approvals.

Kite has a cooperative research and development agreement (CRADA) with the U.S. Department of Health and Human Services as represented by NCI, through which the company is funding the research and development, including clinical trials, of eACT-based product candidates utilizing CARs and TCRs for the treatment of advanced solid and hematological malignancies. The NCI collaboration allows identification of promising CAR- and TCR-based product candidates for clinical testing. Under the CRADA, Kite has an exclusive option to negotiate commercialization licenses from the National Institutes of Health (NIH) to intellectual property relating to CAR- and TCR-based product candidates developed in the course of the CRADA research plan. Kite also has a research collaboration and license agreement with Amgen to develop and commercialize additional CAR-based product candidates. Kite received an upfront payment of \$60M, and is eligible to receive milestones and royalty streams for approved products. The company also has established a presence in Europe with the acquisition of the private biotechnology company, T-Cell Factory. Combined, Kite has become a fully integrated immune oncology company.

Exhibit 2. Kite Pharma pipeline

Product	Indication	Development	Pre-clinical	Phase I	Phase II	Phase III	Marketed
KTE-C19 ¹	B cell malignancies						
KTE-C19	DLBCL, PMBCL, TFL						
KTE-C19	MCL						
KTE-C19	CLL						
KTE-C19	ALL						
EGFRvIII CAR ¹	Glioblastoma						
CAR candidates, Amgen	Hematologic and Solid tumors						
NY-ESO-1 TCR ¹	Various tumors						
HPV-16 E6 TCR ¹	Cervical, Head & Neck Cancers						
HPV-16-E7 TCR ¹	Cervical, Head & Neck Cancers						
MAGE A3/A6 TCR ¹	Various tumors						
MAGE A3 TCR ¹	Various tumors						
SSX2 TCR ¹	Various tumors						

¹ NCI-run, as part of the ongoing CRADA; Cooperative Research and Development Agreement
Source: Company reports and Maxim estimates

CAR- AND TCR-BASED T CELL THERAPY

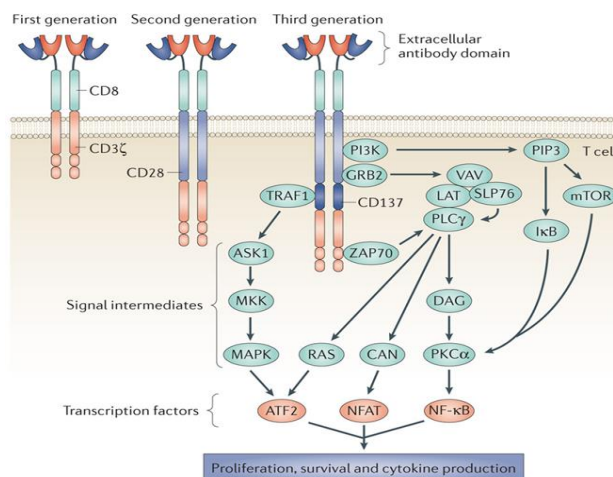
CAR-T therapy. T cells are involved in both sensing and killing infected or abnormal cells (tumor cells). T cells also coordinate the activation of other cells in the immune response and thus make up a critical component of the immune system. T cells are limited in the antigens, or targets, that they recognize by the T cell receptor (TCR). The TCR can only recognize a small peptide (8-15 amino acids) and can only do so in the context of the peptide being presented by the major histocompatibility complex MHC, also known as MHC restriction. Though there are advantages to TCR-based T cell therapies, chimeric antigen receptors, or CARs, are engineered receptors that mitigate MHC restriction by having the ability to bind to whole proteins in their native form or other large molecules. T cells can be removed from the body and modified to express a specific CAR, then reintroduced, a process known as adoptive cell transfer (ACT).

CAR design. In its most basic form, a CAR consists of an antigen-specific single chain variable fragment (scFv) linked to a transmembrane domain. Essentially, the outer portion of the CAR is an antibody that is specific for a target – in the case of CAR-T therapy, a cancer antigen. The advantage of an antibody is that it has very high specificity for its target and is not limited by MHC restriction like a TCR. The antibody head of the CAR is connected to a hinge region that allows it to be flexible in binding its target. The antibody and hinge are connected to a transmembrane domain and an intracellular domain that contains T cell co-stimulatory domains. T cells require stimulatory domains to activate. The very basic T cell co-stimulatory molecule is CD3. First-generation CARs that incorporated only a CD3 domain were not effective. Second-generation CARs have been incorporating other key co-stimulatory domains of CD28, CD137 (4-1BB), and OX40. When the CAR finds its target and binds through the antibody region on the surface, the co-stimulatory domains attached to the intracellular portion of the CAR start the signaling cascade(s) that result in T cell activation, cytokine secretion, and proliferation. Selection of antigen, scFv, hinge size and composition, transmembrane region, and co-stimulatory domain(s) make each CAR unique.

TCR-based therapy. The native T cell plays a critical role in the immune system's defense against cancers. T lymphocytes (T cells) express a TCR, or T cell receptor, on their surface that consists of an alpha and beta chain. Unlike antibodies (B cells) that can recognize antigens in the context of whole, native proteins, TCRs, and thus T cells, require that an antigenic peptide (8-15 amino acids) be presented in the context of an antigen-presenting surface protein, the MHC complex. The antigens recognized by the TCR can include an entire array of potential intracellular proteins, which are processed and delivered to the cell surface as MHC/antigen complexes. There are multiple ways that TCRs can be harnessed for therapeutic purposes, including making soluble TCRs (like antibodies) or genetically engineering TCRs using autologous T cells. The latter is the focus of Kite Pharma using their eACT platform.

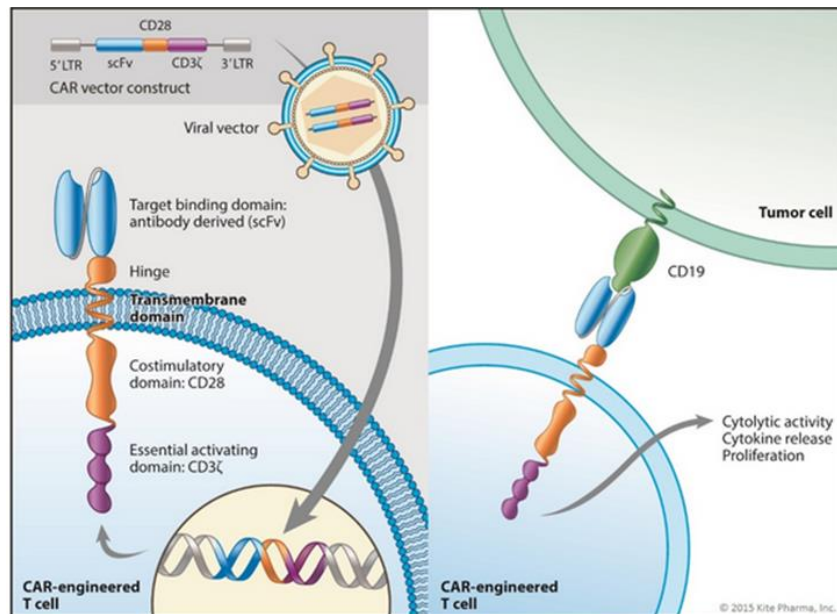
TCR design. Engineering T cells to express on their surface a genetically modified TCR, like with CAR design, requires that T cells be removed from the body and transfected with a viral vector carrying the desired TCR. The TCR-bearing viral vector contains two genes that encode the chains of protein that make up the TCR. The TCR is designed to specifically recognize an antigen in the context of an MHC complex. TCR technology falls into two main categories for cancer immunotherapies: self-antigens and neo-antigens (cancer-specific antigens). A variety of discovery platform technologies, like Kite's TCR-GENERator, are available to discover neo-antigens that increase the speed with which novel-TCR designs can be brought to the clinic. TCRs have advantages over CARs in that they can target intracellular antigens that CARs cannot. This distinction is what many believe will drive TCR-based therapies to be successful in solid tumors before CARs. The basic design of a TCR candidate includes only the TCR; the signaling domains are already present.

Exhibit 3. CAR design is evolving. CAR designs are changing with each generation of CAR incorporating or harnessing more and more complex T cell signaling pathways. Next-gen CARs are seeking to incorporate proliferation and survival signaling, multiple co-stimulatory and activation/repression domains, cytokine expression signaling, and anti-apoptosis signaling, to name a few.



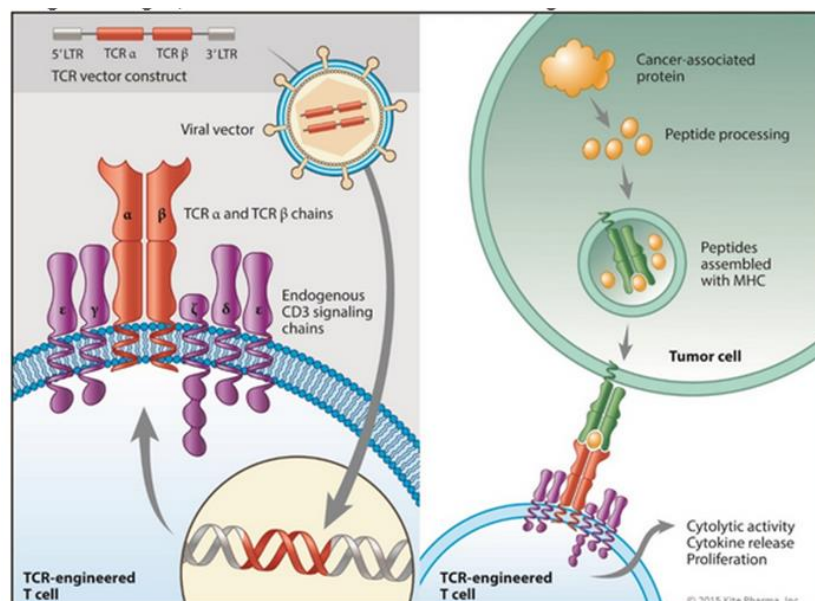
Source: Kershaw, MH, Westwood, JA., and Darcy PK. *Gene-engineered T cells for cancer therapy*. Nature Reviews Cancer. 13, 525-541 (2013).

Exhibit 4. Kite's basic CAR-T design. Kite's CARs are designed to incorporate the CD28 co-stimulatory domain. The CAR construct is delivered using a retroviral vector. The CAR gene construct then integrates into the T cell genome, which is followed by expression and transport to the T cell surface. At the surface, the CAR binds, with high specificity, to a tumor antigen. CARs can bind to native proteins on the tumor cell surface and do not rely on the presentation of peptides via MHC complex as TCRs do. **Below:** In the case of CD19 CARs, the CAR targets CD19 on the surface of B cells, destroying the cell.



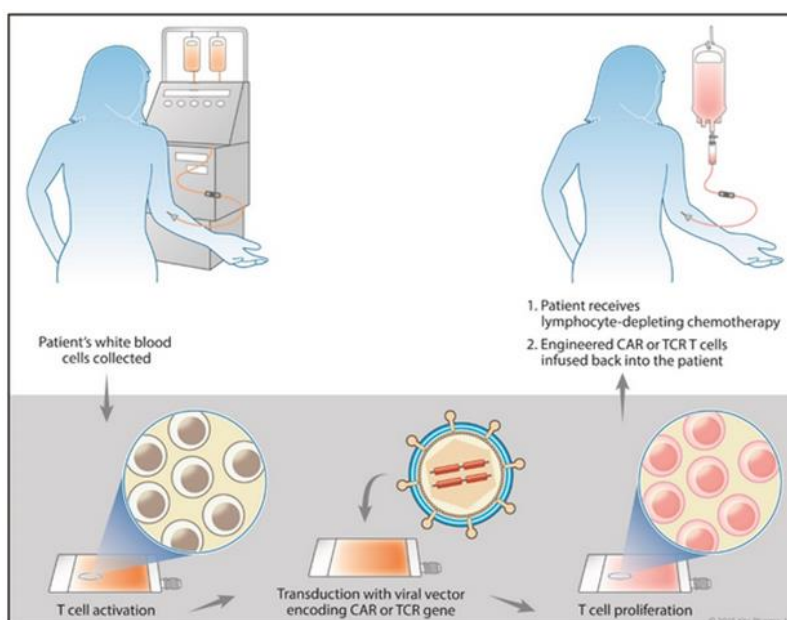
Source: Kite Pharma presentation

Exhibit 5. Kite's basic TCR design. The basic, genetically engineered TCR begins with identification of specific neo-antigens (cancer-specific) that may be intracellular or extracellular. The proper TCR is designed, consisting of an alpha and beta chain. The TCR, though genetically engineered, will associate with the T cells' natural co-stimulatory molecules and signaling pathways. The TCR will then recognize and bind to the cancer antigen presented via MHC by the cancer cell.



Source: Kite Pharma presentation

Exhibit 6. eACT therapy. Kite's eACT therapies (CAR- or TCR-based) involve four steps: (1) the patient's T cells are harvested from the blood; (2) genetically engineering T cells to express cancer-specific receptors; (3) expanding the engineered T cells; and (4) infusion of eACT cells back into the patients.



Source: Kite Pharma presentation

CLINICAL DEVELOPMENT

Kite's lead product, KTE-C19, which is a CAR-based T cell therapy for the treatment of B cell cancers expressing the CD19 antigen, was designed based on an anti-CD19 CAR-T designed by Dr. Stenen A. Rosenberg at NCI. Pursuant to the CRADA agreement with NCI, Kite is funding NCI-run clinical trials of anti-CD19 CAR-T therapy in patients with CD19-positive B cell malignancies. The trial's primary objective is to determine the safety and feasibility of the administration of anti-CD19 CAR-T cell therapy with a conditioning regimen that does not include any stem cell transplantation, or myeloablative, conditioning regimen in patients with B cell malignancies. The trial's secondary objectives are to determine: (1) the *in vivo* survival of the anti-CD19 CAR-transduced T cells; and (2) if the treatment regimen causes regression of B cell malignancies. A total of 32 patients had been treated, including three patients who received two doses of the CAR-T cells. Most patients received at least four lines of prior therapy, and, among the 17 evaluable patients with DLBCL, TFL, or PMBCL, 76% were chemotherapy-refractory, and 24% had relapsed after autologous stem cell transplant.

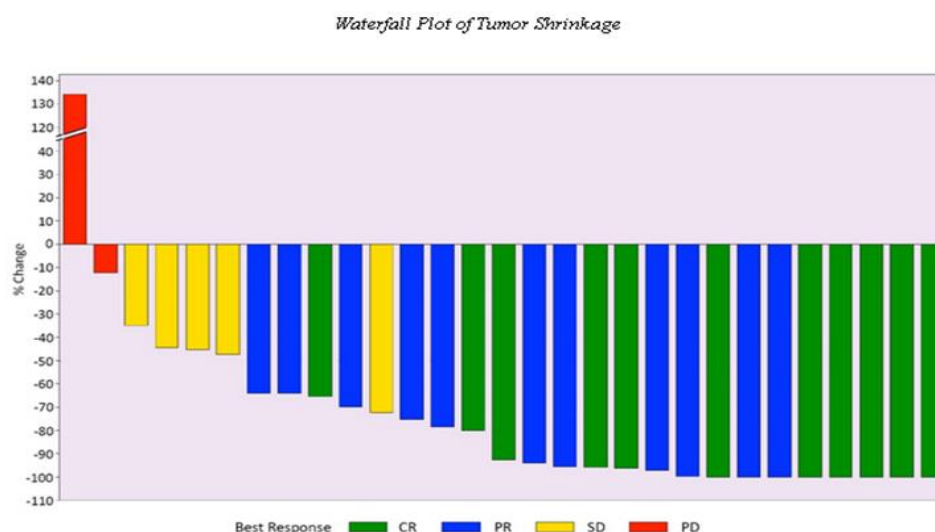
Three groups of patients have been treated. Group 1 consisted of eight patients, including one patient who was retreated, receiving various doses of CAR-T cells following a conditioning regimen consisting of high-dose cyclophosphamide for two days and fludarabine for five days. These patients also received high dose interleukin-2 after the CAR-T cell administration to stimulate cell proliferation. Group 2 consisted of 15 patients, including two patients from Group 1 who were retreated, receiving cyclophosphamide and fludarabine, and no interleukin-2 following the CAR-T cell administration. After these 21 patients were treated, the doses of cyclophosphamide and fludarabine were reduced to improve the tolerability of the regimen for Group 3. Eleven patients have received CAR-T cells using the reduced intensity conditioning regimen in Group 3.

Non-Hodgkin's Lymphoma (NHL). As part of the ongoing NCI-sponsored studies of anti-CD19, CAR (i.e., KTE-C19) was used to treat 32 patients, totaling 35 infusions; a few patients received a second infusion. Of the 29 evaluable patients, the objective response (OR) was 76%. Overall response, or OR, is defined as a patient having either a complete remission (CR) or partial remission (PR). As these are salvage therapy patients, there are no controls for comparison. CR occurs when there is no detectable disease and PR when there is at least 50% regression of disease without new sites of disease emerging. Following the conditioning period and infusion, responses to therapy were observed early, typically by the first follow-up at one month. As of late 2014, 16 of the 29 evaluable patients achieved CR. Interestingly, one patient relapsed, but a second T cell infusion restored remission, showing that repeat dosing may be feasible (this is said with caution, as only one patient was observed). Patients in these studies were heavily pre-treated (four lines of chemotherapy), thus suggesting that KTE-C19 may be efficacious as salvage therapy.

The KTE-C19 phase I/II trial began in 2015 and includes 112 patients with r/r NHL (72 DLBCL, and 40 PMBCL and TFL). Interim data are expected following the enrollment and dosing of 50 patients (DLBCL, cohort 1). Data from several patients may be presented in the fall of 2015 at the ASH (American Society of Hematology) Annual Meeting. Additionally, three phase II studies in MCL, CLL, and ALL (below) are expected to begin in 2015.

Acute lymphoblastic leukemia (ALL). The NCI-sponsored anti-CD19 CAR program also included studies in ALL. In a separate phase I study, administration of anti-CD19 CAR-T cells in pediatric and young adult patients with r/r ALL (n=20) resulted in CR of 70% (r/r salvage therapy, no control group). Sixty percent of patients achieved minimal residual disease (MRD), negative complete response, and 10 subsequently became disease-free following hematopoietic stem cell transplant (HSCT). Significant, acute toxicities, including febrile neutropenia, cytokine release syndrome, chemical laboratory abnormalities, low blood counts, and transient neurological deficits were observed in both NHL and ALL studies.

Exhibit 7. KTE-C19 shrinks tumors in NHL. KTE-C19 achieved frequent and deep tumor responses in the NHL setting. **Below:** CR, complete response; PR, partial response; SD, stable disease; PD, progressive disease.



Source: Kite Pharma presentation

Exhibit 8. KTE-C19 activity across relapsed/refractory B cell cancers. KTE-C19 has been shown to induce significant anti-tumor activity in a broad range of B cell cancers, including the most common type of NHL, DLBCL, CLL, and indolent NHL. Twelve of the 32 patients (29 evaluable) in this study are still in response more than one year later, demonstrating T cell persistence. Three patients in the study had been retreated after progression, and all remain in response 17+ months later, again showing T cell durability and the ability to repeat treatment.

Tumor Type (n evaluable)	Overall Response Rate	Complete Response Rate
Any (29)	76%	38%
DLBCL/PMBCL (17)	65%	35%
CLL (7)	86%	57%
Indolent NHL (5)	100%	25%

Source: Kite Pharma presentation

Exhibit 9. Patients with refractory diffuse large B cell lymphoma, DLBCL benefit from anti-CD 19 CAR-T cells. Two patients (left and right) with refractory DLBCL received anti-CD19 CAR therapy (same construct as KTE-C19). Following six months post-treatment, significant reduction in disease was observed. It should be noted that DLBCL is the closest B cell malignancy to a solid tumor, suggesting that CAR-T therapy could work in other solid tumors as well. As Kite is conducting a study in at least 72 DLBCL patients and has data going back at least five years with NCI, the company may have a lot of insight into how to approach and design CARs and TCRs for solid tumor indications.



Source: Kite Pharma presentation

PIPELINE

Kite Pharma has a deep pipeline that has both CAR and TCR products. Kite has the advantage of leveraging the NCI CRADA to evaluate candidates prior to licensing for further clinical development, which not only gives the company more potential candidates, but keeps R&D costs far lower than the competition. Kite reviews data from ongoing trials at NCI nearly every two weeks and at any time can "opt in" to license a candidate for further development. Currently, at least four TCR candidates and at least one other CAR are being pursued. The CRADA was also recently expanded to include CAR development for renal cell carcinoma and epithelial-based cancers. Additionally, we expect further pipeline expansion for both CAR and TCR candidates pursuant to the Amgen partnership (likely in 2016) and the TCR-GENERator platform acquired with the T-Cell Factory acquisition, respectively.

EGFRvIII CAR. A CAR targeting the surface protein EGFRvIII (epidermal growth factor receptor variant III), overexpressed commonly in glioblastoma, is being developed as part of the NCI CRADA. Kite is funding an ongoing NCI phase I/IIa clinical trial at the NIH. The study is aimed at: (1) evaluating the safety in patients receiving non-myeloablative conditioning (less intense conditioning is associated with reduced mortality/morbidity) and IL2 (IL2 stimulates T cell proliferation and expansion in the patient); and (2) determining the six-month progression-free survival of patients receiving anti-EGFRvIII CAR-T cell therapy and interleukin-2 following a non-myeloablative but lymphoid-depleting preparative regimen. Secondary endpoints include *in vivo* T cell survival and OR via radiography. Data from the phase I portion of the trial are expected 2Q15.

NY-ESO-1 TCR. A TCR-based therapy is being developed pursuant to the NCI CRADA. This TCR targets peptides from the cancer testis antigen, expressed in a variety of tumors. Kite is funding NCI-run studies, including a phase I/II trial in melanoma and synovial sarcoma that has shown 50%-60% response rates. This is some evidence that TCR-based T cell therapies may have success in solid tumors, where, to date, CARs have struggled (limited data). A phase II study is ongoing using a NY-ESO-1 TCR. Data are expected in 2015-2016.

HPV-16 E6 TCR. HPV (human papilloma virus)-driven cancers represent a family of cancers that include cervical, and head and neck. Kite is funding an NCI-run phase I/II study of HPV TCR at the NIH. The study's endpoints include: (1) safety following administration in patients that have undergone less intense non-myeloablative conditioning (lympho-depleting); and (2) OR in patients with metastatic or recurrent HPV-16+ cancers. Secondary endpoints include toxicity and immunologic correlates associated with E6 TCR gene therapy (for HPV cancers). Enrollment is ongoing. Data are expected in 2015-2016.

MAGE A3/A6, A3 TCR. MAGE (melanoma-associated antigen) is a family of genes/proteins that are not normally expressed in adult tissues, except the testis. The MAGE family has been shown to be associated with apoptotic pathways. MAGE is expressed in a variety of tumor types. Kite is funding MAGE TCR development at NCI. Currently, two phase I/IIa studies are being conducted at the NIH. The primary objective of the first study is to determine: (1) safe dosing of autologous T cells transduced with anti-MAGE-A3/A6 (HLA-restricted) in combination with IL-2 (T cell proliferating cytokine); and (2) non-myeloablative, but lympho-depleting conditioning. If OR is observed with metastatic disease and the toxicity profile is positive, the secondary objective is to monitor *in vivo* T cell survival. The second trial is to evaluate the ability of anti-MAGE-A3,

which is HLA-A1-restricted to shrink tumors, as well as assess safety. Both are actively enrolling in the phase I portion of the studies. Data are likely in late 2015 and into 2016.

SSX2 TCR. SSX2 is a protein that belongs to the synovial sarcoma X (SSX) breakpoint proteins. SSX-family proteins function as transcriptional repressors and are also capable of inducing both humoral (B cell) and cellular (T cell) responses in cancer patients. Deactivation of a transcriptional repressor in cancer is an attractive target, as it may “take the brakes off” of an anti-cancer immune response. While still not yet in clinical studies for humans, there is preclinical data from several engineered TCR T cells targeting SSX2 suggest potency and efficacy in animal models. Clinical studies are expected targeting various tumors.

Manufacturing. Kite’s manufacturing process is based on the improvement of manufacturing performed by NCI. KTE-C19 is built as an identical structure to the anti-CD19 CARs used in the NCI studies. Kite has made changes and improvements in manufacturing that are now being employed at NCI. The entire process of generating eACT candidates, from patient blood draw to the reinfusion of genetically modified T cells, is approximately two weeks, a timeline that is relatively standard in the CAR and TCR space. Methods to further reduce time and costs to treatment are always being investigated. Kite works with Progenitor Cell Therapy, LLC (PCT) to manufacture T cells for clinical trials. Additionally, a third-party constructs the retroviral vector(s) necessary for the genetic reprogramming of T cells. As of February 2015, Kite entered into a lease agreement for two commercial manufacturing facilities in California. The two facilities are intended to support both clinical trials and the commercial launch of eACT products. Also, Kite’s acquisition of T-Cell Factory in Europe adds additional manufacturing infrastructure, particularly for TCR candidates.

COMPETITIVE LANDSCAPE

CAR and TCR technologies used to engineer T cells to seek out and destroy cancer cells is not a new concept. In fact, it’s been in development for more than 20 years. Recently, though, the CAR-T and TCR T cell sectors have become a frenzy of scientific activity, corporate partnering, and financing. Kite has raised more than \$500M since the company’s IPO in June 2014 and quickly saw its market cap rise to nearly \$3B. The CAR-T noise level is high and is rising, with multiple companies acquiring CAR-T and TCR assets, and/or whole technology platforms. However, Kite remains above the noise, alongside competitors like Novartis and Juno (and others). Kite, Novartis, and Juno are the key players in the CAR-T race for approval, and each is targeting CD19+ B cell cancer with very similar CAR-T products. However, we should point out that even small differences in design can significantly impact performance. It is likely that each could gain approvals in the next few years and possibly share the space, which is still a multi-billion dollar proposition. What lies beyond CD19 has yet to be realized, though many believe that cracking the solid tumor indications is key to the long-term viability of cell therapies. Kite and other companies in the space (i.e., Novartis, Juno, bluebird bio (BLUE-\$171.07-Buy), and Cellectis (ALCLS-FR-\$31.96-NR), to name a few) have deep pipelines that seek to target non-CD19 B cell cancers, other blood cancers like AML, and a host of solid tumors. Where Kite stands above the rest is likely with the company’s TCR platform. While there are others moving more toward TCR-based candidates, Kite already has four candidates in clinical trials, at least one with early data in solid tumors, and now a TCR platform in Europe to develop more candidates.

Exhibit 10. Select companies focused on CAR-T and TCR-based therapies for cancers. Autologous T cell therapies were born in leading academic institutions and research hospitals. Kite, Juno, and others have aligned themselves with these institutions to develop and commercialize autologous T cell therapies.

Academic Group	Company	Co-stimulatory domain	Vector delivery
University of Pennsylvania (UPENN)	Novartis	4-1BB	Lentiviral
Memorial Sloan Kettering Cancer Center (MSKCC)	Juno	CD28	Retroviral
Fred Hutchinson Cancer Research Center (FHCRC)	Juno	4-1BB	Lentiviral
Seattle Children’s Research Institute	Juno	4-1BB	Lentiviral
National Cancer Institute (NCI)	Kite Pharma	CD28	Retroviral
Baylor Medical Center	bluebird/Celgene	CD28	Retroviral
MD Anderson Cancer Center	ZioPharm/Intrexon	CD28, 4-1BB	Transposon/transposase
Institut Pasteur (France)	Cellectis/Pfizer	4-1BB	Lentiviral
Baylor Medical Center	Bellicum	MyD88 and CD40 (dual)	Retroviral
Dartmouth College	Celyad	None, NK cell receptor	Retroviral

Source: Modified from ‘Not For the Faint Of CAR-T: The CAR-T Therapy Landscape for 2015’. EvaluatePharma. January 2015. www.evaluategroup.com

MODELING ASSUMPTIONS

1. The NHL population in the U.S. is ~70,000.
2. KTE-C19 will be approved and launch for multiple B cell malignancies in 2017.
3. KTE-C19 will be the CAR-T of choice in multiple subtypes of non-Hodgkin's lymphoma, including the largest patient group, those with DLBCL.
4. Initial indications across multiple B cell malignancies will be for salvage therapy. Our model does not value second and frontline treatment options.
5. Our model reflects a market penetration peak of only 25% in 2020, as we believe the r/r B cell cancer space will be shared with competitors like Juno and Novartis.
6. Pricing of autologous T cell therapies will be \$300K.
7. Pricing will decrease over time as pricing pressure from payers increases, competition increases, and the cost of goods decreases with improving technologies.

Exhibit 11. Market model for KTE-C19 in the U.S.

KTE-C19, B cell malignancies, US	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Incidence												
Adult Acute Lymphoblastic Leukemia (ALL)	3,000	3,030	3,060	3,091	3,122	3,153	3,185	3,216	3,249	3,281	3,314	3,347
Pediatric Acute Lymphoblastic Leukemia (ALL)	3,000	3,030	3,060	3,091	3,122	3,153	3,185	3,216	3,249	3,281	3,314	3,347
Chronic Lymphocytic Leukemia (CLL)	14,620	14,766	14,914	15,063	15,214	15,366	15,519	15,675	15,831	15,990	16,150	16,311
Mantle Cell Lymphoma (MCL)	4,200	4,242	4,284	4,327	4,371	4,414	4,458	4,503	4,548	4,593	4,639	4,686
Difuse Large B Cell Lymphoma (DLBCL)	21,240	21,452	21,667	21,884	22,102	22,323	22,547	22,772	23,000	23,230	23,462	23,697
Primary Mediastinal B Cell Lymphoma (PMBCL)	1,650	1,667	1,683	1,700	1,717	1,734	1,752	1,769	1,787	1,805	1,823	1,841
Transformed Follicular Lymphoma (TFL)	5,200	5,252	5,305	5,358	5,411	5,465	5,520	5,575	5,631	5,687	5,744	5,801
Salvage Therapy, relapsed/refractory												
Adult ALL (20%)	600	606	612	618	624	631	637	643	650	656	663	669
Pediatric ALL (20%)	600	606	612	618	624	631	637	643	650	656	663	669
CLL (45%)	6,579	6,645	6,711	6,778	6,846	6,915	6,984	7,054	7,124	7,195	7,267	7,340
MCL (25%)	1,050	1,061	1,071	1,082	1,093	1,104	1,115	1,126	1,137	1,148	1,160	1,171
DLBCL (30%)	6,372	6,436	6,500	6,565	6,631	6,697	6,764	6,832	6,900	6,969	7,039	7,109
PMBCL (25%)	413	417	421	425	429	434	438	442	447	451	456	460
TFL (25%)	1,300	1,313	1,326	1,339	1,353	1,366	1,380	1,394	1,408	1,422	1,436	1,450
Total Salvage therapy, relapsed/refractory	16,914	17,083	17,253	17,426	17,600	17,776	17,954	18,134	18,315	18,498	18,683	18,870
Market penetration				5%	10%	15%	20%	25%	30%	32%	35%	37%
Total patients treated with KTE-C19	871	1,760	2,666	3,591	4,533	5,494	6,539	7,639	8,794	9,999	11,254	12,559
Cost of therapy				\$ 300,000	\$ 294,000	\$ 288,120	\$ 282,358	\$ 276,710	\$ 271,176	\$ 265,753	\$ 260,438	\$ 255,229
Price increase/decrease				-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%
Total revenue (\$000)				\$ 261,390	\$ 517,448	\$ 768,254	\$ 1,013,891	\$ 1,254,436	\$ 1,489,969	\$ 1,573,090	\$ 1,703,017	\$ 1,781,969

Source: Maxim estimates

VALUATION

Kite, Juno, and Novartis have pulled away from the competition in the CD19 B cell cancer indication, yet Kite's valuation (\$2.5B) is less than 50% of Juno's (\$6B). Why the nearly \$4B gap? When we compare factors such as cash position (~\$400M each), big pharma partnerships, acquisitions, and manufacturing, Kite and Juno are quite similar. We do note that Kite's cash burn is less than Juno's due to the CRADA with NCI, but this cannot account for such a large gap in valuation. Others believe that it may be based on Juno having three academic partners versus only one for Kite, giving Juno more potential to bring additional CARs to market, particularly for solid tumors. Again, we do not believe this can explain the difference. We believe the valuation gap can be explained by the market valuing CAR-T cell therapy potential in solid tumors far more than it does TCR-based therapy. Juno's pipeline is heavily weighted with CARs, whereas Kite's is heavily weighted with TCRs for now. Many believe that TCR-based therapy will be successful in solid tumors before CAR-T cell therapy for many reasons, including the ability of TCRs to target tumor antigens from inside the tumor, where CARs cannot. That said, this difference may account for such a large valuation gap between two otherwise similar companies in Kite and Juno, and is where we see upside to owning Kite today.

As Kite's CD19-targeting CAR-T therapy has shown an overall response rate of 76% in patients with relapsed/refractory (r/r) B cell cancers, we believe the therapy will be put on an accelerated approval pathway. We believe KTE-C19 could be successful in the ongoing and upcoming clinical trials in r/r B cell malignancies, which could support a BLA application in 2016. As such, we would then expect Kite's anti-CD19 CAR to launch in 2017 with the expectation that there will be a follow-up study. That said, we believe the market assumes success in this space. We assume a platform value based on key partnerships and acquisitions, increasing the probability of success in non-B cell indications like solid tumors. Additionally, we believe that the TCR-based therapy space, one of Kite's strengths, is undervalued by the market and adds upside. We apply a modest 15% discount rate to our free-cash-flow model to derive an \$87 price target.

Exhibit 12. Free-cash-flow model

Price Target \$	87
Year	2015

DCF Valuation Using FCF (mln):

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
units ('000)	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
EBIT	(42,569)	(82,869)	(88,925)	25,824	156,126	419,983	637,813	901,515	1,181,481	1,304,423	1,485,869	1,645,948
Tax Rate	0%	0%	0%	0%	0%	10%	15%	20%	25%	30%	35%	37%
EBIT(1-t)	(42,569)	(82,869)	(88,925)	25,824	156,126	377,984	542,141	721,212	886,111	913,096	965,815	1,036,947
CapEx	(2,100)	(5,565)	(5,843)	(6,135)	(6,442)	(6,764)	(7,103)	(7,459)	(7,831)	(8,222)	(8,633)	(9,065)
Depreciation	262	870	914	959	1,007	1,057	1,110	1,166	1,224	1,285	1,350	-
Change in NWC	-	-	-	-	-	-	-	-	-	-	-	-
FCF	(44,407)	(87,564)	(93,854)	20,648	150,691	372,277	536,149	714,920	879,504	906,160	958,531	1,027,883
PV of FCF	(51,068)	(87,564)	(81,612)	15,613	99,082	212,851	266,561	309,080	330,638	296,225	272,474	254,077
Discount Rate	15%											
Long Term Growth Rate	1%											
Terminal Cash Flow	7,415,439											
Terminal Value YE2025	1,832,983											
NPV	3,720,407											
NPV-Debt	-											
Shares out (thousands)	42,529	2025E										
NPV Per Share	\$ 87											

Source: Maxim estimates

Kite Pharma, Inc.: Income Statement ('000)																
YE December 31	2014A	1Q15A	2Q15E	3Q15E	4Q15E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Product sales																
KTE-C19 (B cell malignancies, Salvage therapy)								261,390	517,448	768,254	1,013,891	1,254,436	1,489,969	1,573,090	1,703,017	1,781,969
CAR-T platform										125,000	200,000	300,000	350,000	400,000	450,000	500,000
TCR platform										125,000	200,000	350,000	500,000	550,000	600,000	750,000
Contracts																
Licenses																
Collaborative revenue pursuant to Amgen agreement		2,881	3,900	4,100	4,119	15,000	15,000	15,000	15,000							
Total Product Sales	-	2,881	3,900	4,100	4,119	15,000	15,000	276,390	532,448	1,018,254	1,413,891	1,904,436	2,339,969	2,523,090	2,753,017	3,031,969
Expenses																
Cost of Goods Sold								138,195	255,575	468,397	636,251	856,996	1,006,187	1,059,698	1,101,207	1,212,788
								50%	48%	46%	45%	45%	43%	42%	40%	40%
Research and Development	23,089	9,260	15,000	17,000	20,000	61,260	65,000	71,500	78,650	86,515	95,167	99,925	104,921	110,167	115,675	121,459
General and Administrative	13,569	9,171	9,200	9,300	9,400	37,071	38,925	40,871	42,097	43,360	44,661	46,000	47,380	48,802	50,266	51,774
Total expenses	36,658	18,431	24,200	26,300	29,400	98,331	103,925	250,566	376,322	598,272	776,078	1,002,922	1,158,488	1,218,667	1,267,148	1,386,021
Operating Income (Loss)	(36,658)	(15,550)	(20,300)	(22,200)	(25,281)	(83,331)	(88,925)	25,824	156,126	419,983	637,813	901,515	1,181,481	1,304,423	1,485,869	1,645,948
Interest income	371	466				466										
Interest expense	(6,269)	(4)				(4)										
Other income (expense)	(13)															
Total other income	(5,911)	462	-	-	-	462	-	-	-	-	-	-	-	-	-	-
Pretax Income	(42,569)	(15,088)	(20,300)	(22,200)	(25,281)	(82,869)	(88,925)	25,824	156,126	419,983	637,813	901,515	1,181,481	1,304,423	1,485,869	1,645,948
Income Tax Benefit (Provision)	-	-	-	-	-	-	-	-	-	41,998	95,672	180,303	295,370	391,327	520,054	609,001
Tax Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	15%	20%	25%	30%	35%	37%
GAAP Net Income (loss)	(42,569)	(15,088)	(20,300)	(22,200)	(25,281)	(82,869)	(88,925)	25,824	156,126	377,984	542,141	721,212	886,111	913,096	965,815	1,036,947
Non GAAP Net Income (loss)	(27,513)	(8,411)	(11,977)	(14,200)	(16,281)	(50,869)	(55,873)	62,180	196,118	421,975	590,531	774,441	944,663	977,504	1,036,663	1,114,880
Unrealized loss on available-for-sale securities, net																
Series A preferred stock dividend	(1,089)															
GAAP Net loss (attributable to common)	(43,658)	(15,088)	(20,300)	(22,200)	(25,281)	(82,869)	(88,925)	25,824	156,126	377,984	542,141	721,212	886,111	913,096	965,815	1,036,947
Non GAAP Net loss (attributable to common)	(27,513)	(8,411)	(11,977)	(14,200)	(16,281)	(50,869)	(55,873)	62,180	196,118	421,975	590,531	774,441	944,663	977,504	1,036,663	1,114,880
Net Margin (GAAP)								9%	29%	37%	38%	38%	38%	36%	35%	34%
Net Margin (non-GAAP)								22%	37%	41%	42%	41%	40%	39%	38%	37%
Basic EPS	\$ (1.91)	\$ (0.36)	\$ (0.48)	\$ (0.52)	\$ (0.59)	\$ (1.95)	\$ (2.09)	\$ 0.61	\$ 3.67	\$ 8.89	\$ 12.75	\$ 16.96	\$ 20.83	\$ 21.47	\$ 22.71	\$ 24.38
Diluted EPS	\$ (1.91)	\$ (0.36)	\$ (0.48)	\$ (0.52)	\$ (0.59)	\$ (1.95)	\$ (2.09)	\$ 0.61	\$ 3.67	\$ 8.89	\$ 12.75	\$ 16.96	\$ 20.83	\$ 21.47	\$ 22.71	\$ 24.38
Basic EPS (Non-GAAP)	\$ (1.21)	\$ (0.20)	\$ (0.28)	\$ (0.33)	\$ (0.38)	\$ (1.20)	\$ (1.31)	\$ 1.46	\$ 4.61	\$ 9.92	\$ 13.89	\$ 18.21	\$ 22.21	\$ 22.98	\$ 24.38	\$ 26.21
Diluted EPS (Non-GAAP)	\$ (1.21)	\$ (0.20)	\$ (0.28)	\$ (0.33)	\$ (0.38)	\$ (1.20)	\$ (1.31)	\$ 1.46	\$ 4.61	\$ 9.92	\$ 13.89	\$ 18.21	\$ 22.21	\$ 22.98	\$ 24.38	\$ 26.21
Weighted avg. shares, basic (000)	22,822	42,466	42,508	42,551	42,593	42,529	42,529	42,529	42,529	42,529	42,529	42,529	42,529	42,529	42,529	42,529
Weighted avg. shares, diluted (000)	22,822	42,466	42,508	42,551	42,593	42,529	42,529	42,529	42,529	42,529	42,529	42,529	42,529	42,529	42,529	42,529

Source: Maxim estimates and company reports

DISCLOSURES

Kite Pharma, Inc. Rating History as of 06/16/2015

powered by: BlueMatrix



Maxim Group LLC Ratings Distribution

As of: 06/16/15

		% of Coverage Universe with Rating	% of Rating for which Firm Provided Banking Services in the Last 12 months
Buy	Fundamental metrics and/or identifiable catalysts exist such that we expect the stock to outperform its relevant index over the next 12 months.	76%	43%
Hold	Fundamental metrics are currently at, or approaching, industry averages. Therefore, we expect this stock to neither significantly outperform nor underperform its relevant index over the next 12 months.	22%	17%
Sell	Fundamental metrics and/or identifiable catalysts exist such that we expect the stock to underperform its relevant index over the next 12 months.	2%	0%

**See valuation section for company specific relevant indices*

I, Jason McCarthy, Ph.D., attest that the views expressed in this research report accurately reflect my personal views about the subject security and issuer. Furthermore, no part of my compensation was, is, or will be directly or indirectly related to the specific recommendation or views expressed in this research report.

The research analyst(s) primarily responsible for the preparation of this research report have received compensation based upon various factors, including the firm's total revenues, a portion of which is generated by investment banking activities.

Maxim Group makes a market in Kite Pharma, Inc.

KITE: For Kite we use BTK (Biotechnology Index) as the relevant index

Valuation Methods

KITE: We believe KTE-C19 could launch in 2017 for B cell cancers. Our therapeutic models go out to 2020. Additional TCR and CAR candidates add upside. We use a discount rate of 15% for our valuation metrics based on the likelihood of accelerated approval(s) in no-option, salvage cancers. Free Cash Flow, Discounted EPS and Sum-of-the Parts models are equally weighted to derive a price target.

Price Target and Investment Risks

KITE: Kite Pharma faces multiple risks including 1) Developmental risk; Kite's products are currently in the early stages of clinical development and may not be successful. 2) Regulatory risk; Kite's products are subject to the regulation by the FDA and may not produce sufficient data for product approvals. 3) Commercial risk; the company, while building commercial infrastructure now, may not be able to support a commercial product launch. 4) Financial risk; Kite Pharma is not a profitable entity and may need to raise additional capital.

RISK RATINGS

Risk ratings take into account both fundamental criteria and price volatility.

Speculative – Fundamental Criteria: This is a risk rating assigned to early-stage companies with minimal to no revenues, lack of earnings, balance sheet concerns, and/or a short operating history. Accordingly, fundamental risk is expected to be significantly above the industry. **Price Volatility:** Because of the inherent fundamental criteria of the companies falling within this risk category, the price volatility is expected to be significant with the possibility that the investment could eventually be worthless. Speculative stocks may not be suitable for a significant class of individual investors.

High – Fundamental Criteria: This is a risk rating assigned to companies having below-average revenue and earnings visibility, negative cash flow, and low market cap or public float. Accordingly, fundamental risk is expected to be above the industry. **Price Volatility:** The price volatility of companies falling within this category is expected to be above the industry. High-risk stocks may not be suitable for a significant class of individual investors.

Medium – Fundamental Criteria: This is a risk rating assigned to companies that may have average revenue and earnings visibility, positive cash flow, and is fairly liquid. Accordingly, both price volatility and fundamental risk are expected to approximate the industry average.

Low – Fundamental Criteria: This is a risk rating assigned to companies that may have above-average revenue and earnings visibility, positive cash flow, and is fairly liquid. Accordingly, both price volatility and fundamental risk are expected to be below the industry.

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