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# Kite Pharma

Biotechnology

**US Equity Research**
21 May 2015

**BUY**
*unchanged*

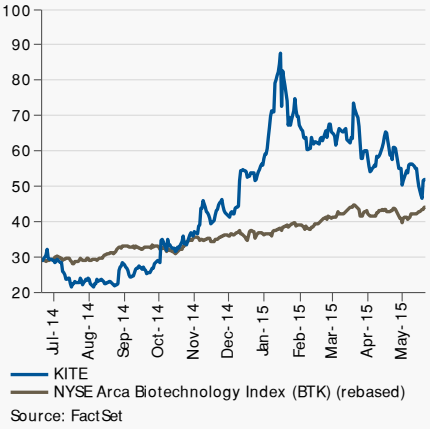
| | |
|---|---|
| **PRICE TARGET** | US$90.00 |
| *unchanged* | |
| Price (21-May) | US$51.99 |
| Ticker | KITE-NASDAQ |

| | |
|---|---|
| 52-Week Range (US$): | 21.00 - 89.21 |
| Avg Daily Vol (M) : | 895.3 |
| Shares Out. (M) : | 38.3 |
| Market Cap (US$M): | 1,993 |

| FYE Dec | 2014A | 2015E | 2016E |
|---|---|---|---|
| Revenue (US$M) | 0.0 | 2,881.0 | 0.0 |
| EPS Adj&Dil (US$) | (1.91) | (0.95) | (1.02) |

| Quarterly Revenue | Q1 | Q2 | Q3 | Q4 |
|---|---|---|---|---|
| 2014A | 0.0 | 0.0 | 0.0 | 0.0 |
| 2015E | 2,881.0 | 0.0 | 0.0 | 0.0 |
| 2016E | - | - | - | - |

| Quarterly EPS Adj&Dil | Q1 | Q2 | Q3 | Q4 |
|---|---|---|---|---|
| 2014A | (0.66) | (2.27) | (0.24) | (0.33) |
| 2015E | (0.20) | (0.25) | (0.25) | (0.25) |
| 2016E | - | - | - | - |



Source: FactSet

Kite Pharma is focused on development of novel cancer immunotherapy using engineered autologous cell therapy (eACT).

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## Company Update

# Treats first patient for pivotal phase 1/2 KTE-C19 CART in NHL; expect BLA filing in 2016

### KTE-C19 trial begins, first patient enrolled, positive

KITE announced treatment of its first non-Hodgkin's lymphoma (NHL) patient for the company's KTE-C19 CART therapy in a phase 1/2 clinical trial, a positive as this is the first company-sponsored study with NCI's CART construct. This trial is a single-arm, open-label, multi-center study enrolling a wide variety of NHL patients (refractory DLBCL, primary mediastinal B-cell lymphoma, and transformed follicular lymphoma), although the majority of these patients will be diffuse large B cell lymphoma (DLBCL). We believe the company is currently on track for data readout during 2016 and potential launch and commercialization by 2017. We anticipate the data to be positive, especially since proof of concept at NCI has already demonstrated a 76% ORR with some patients achieving 44 months of CR. Additionally, the company plans to initiate three more company-sponsored clinical studies with KTE-C19 in ALL, CLL, and MCL, by YE15, which we believe to be additional milestones for the company.

### Proprietary manufacturing optimized to FDA standards

With recent acquisitions of manufacturing facilities in Santa Monica, CA and Amsterdam, we believe the selection, expansion, and generation of anti-CD19 CART cells is streamlined vs. prior NCI's manufacturing process without deviating too much from NCI's strategy. Although the company will use the same CAR construct and viral vector as NCI, KITE has optimized multiple manufacturing processes, such as removing human serum from the process to minimize risk of viral contamination, moving process steps from an open system to a closed system to minimize the risk of other contamination, and standardizing the viral transduction process to help eliminate processing inconsistencies, which was also eventually adopted by the NCI. Additionally, the timeline for apheresis to frozen cells is only 6 days, which allows doctors to rapidly make a decision on preparing the patient for treatment. We believe this is clinically significant for physicians since rapid decision-making is important, especially given the lengthy conditioning regimen and preparation required prior to CART cell administration.

### Continued support for TCR program in solid tumors

We continue to believe the company's TCR programs for solid tumors will be interesting, with KITE currently running six TCR trials in various solid tumors (NY-ESO-1, MAGE, HPV-16, SSX2) with responses already seen by the company. KITE plans on selecting the best candidate to move forward into solid tumors, possibly in early 2016. We are optimistic on NCI / KITE's NY-ESO-1 program, with NCI's NY-ESO-1 TCR already showing an ORR of 53% (32% PR, 21% CR) in melanoma (n=19) and ORR of 67% (60% PR, 7% CR) in synovial sarcoma (n=15). We look forward for updates from the company on its own TCR programs, but believe this platform to be the future for adoptive cell therapy in solid tumors with significant upswing to KITE shares if data remains positive.

**Figure 1: KITE income statement**

| ($000's) [FY - DEC] | 2014A | 1Q15A | 2Q15E | 3Q15E | 4Q15E | 2015E | 2016E | 2017E | 2018E | 2019E | 2020E |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Revenues** | | | | | | | | | | | |
| **CAR T** | | | | | | | | | | | |
| US | - | - | - | - | - | - | - | 263,453 | 795,983 | 1,176,814 | 1,255,539 |
| Ex-US | - | - | - | - | - | - | - | 179,806 | 516,481 | 800,327 | 1,031,009 |
| Ex-US royalty | - | - | - | - | - | - | - | 26,971 | 77,472 | 120,049 | 154,651 |
| **Total revenues** | - | - | - | - | - | - | - | 290,423 | 873,455 | 1,296,863 | 1,410,191 |
| **Income Statement ($000's)** | 2014A | 1Q15A | 2Q15E | 3Q15E | 4Q15E | 2015E | 2016E | 2017E | 2018E | 2019E | 2020E |
| Collaboration revenue | | 2,881 | | | | | | | | | |
| **Total revenues** | - | 2,881 | - | - | - | 2,881 | - | 290,423 | 873,455 | 1,296,863 | 1,410,191 |
| Cost of goods sold | - | | - | - | - | - | - | 52,691 | 159,197 | 235,363 | 251,108 |
| **Gross profit** | - | 2,881 | - | - | - | 2,881 | - | 237,733 | 714,259 | 1,061,500 | 1,159,083 |
| **Operating expenses** | | | | | | | | | | | |
| Research and Development | 23,089 | 9,260 | 9,260 | 9,353 | 9,446 | 37,319 | 38,065 | 47,581 | 59,477 | 74,346 | 92,932 |
| SG&A | 13,569 | 9,171 | 9,263 | 9,355 | 9,449 | 37,238 | 39,100 | 39,491 | 41,070 | 42,713 | 44,422 |
| Depreciation and amortization | 264 | | | | | - | | | | | |
| **Total Operating Expense** | 36,658 | 18,431 | 18,523 | 18,708 | 18,895 | 74,557 | 77,165 | 87,072 | 100,547 | 117,059 | 137,354 |
| **EBITDA** | (36,658) | (15,550) | (18,523) | (18,708) | (18,895) | (71,676) | (77,165) | 150,661 | 613,712 | 944,441 | 1,021,729 |
| **Operating income (EBIT)** | (36,658) | (15,550) | (18,523) | (18,708) | (18,895) | (71,676) | (77,165) | 150,661 | 613,712 | 944,441 | 1,021,729 |
| Non-operating Interest income | 358 | 466 | 1,039 | 987 | 1,009 | 3,501 | 4,070 | 5,284 | 9,763 | 17,522 | 27,184 |
| Other income/interest expense | (6,269) | (4) | | | | | | | | | |
| **Pre-tax income (EBT)** | (42,569) | (15,088) | (17,484) | (17,721) | (17,886) | (68,174) | (73,095) | 155,944 | 623,475 | 961,963 | 1,048,912 |
| Provision for Income Taxes | - | - | - | - | - | - | - | 57,699 | 230,686 | 355,926 | 388,098 |
| **Net Income** | (42,569) | (15,088) | (17,484) | (17,721) | (17,886) | (68,174) | (73,095) | 98,245 | 392,789 | 606,037 | 660,815 |
| Preferred Dividends | 1,089 | | | | | | | | | | |
| **Net Income to Common Shareholders** | (43,658) | | | | | | | | | | |
| Adjustments to Net income | | (8,411) | (10,807) | (11,044) | (11,209) | (41,466) | (46,387) | 124,953 | 419,497 | 632,745 | 687,523 |
| **GAAP EPS** | ($1.91) | (0.36) | ($0.40) | ($0.41) | ($0.39) | ($1.56) | ($1.61) | $1.96 | $6.99 | $9.63 | $9.37 |
| **Adjusted EPS** | | (0.20) | (0.25) | (0.25) | (0.25) | ($0.95) | ($1.02) | $2.49 | $7.46 | $10.05 | $9.75 |
| Diluted Weighted Average Shares | 22,822,204 | 42,466,000 | 43,315,320 | 43,748,473 | 45,328,815 | 43,714,652 | 45,303,231 | 50,188,743 | 56,211,392 | 62,956,759 | 70,511,570 |

Source: Company Reports, Canaccord Genuity estimates

**Figure 2: KITE Valuation**

| Product | Peak Sales/Royalty ($MM) | Year | NPV at launch | Estimated launch | Time to launch | Probability Adjustment | Current Value ($MM) | Value / Share |
|---|---|---|---|---|---|---|---|---|
| **KTE-C19** | | | | | | | | |
| US | | | | | | | | |
| DLBCL US | $691 | 2020 | $3,057 | 10/1/2017 | 2.4 | 70% | $1,680 | $40 |
| CLL US | $83 | 2021 | $337 | 10/1/2018 | 3.4 | 60% | $143 | $3 |
| ALL US | $195 | 2021 | $1,013 | 10/1/2018 | 3.4 | 65% | $467 | $11 |
| FL US | $165 | 2021 | $760 | 10/1/2018 | 3.4 | 60% | $323 | $8 |
| MCL US | $164 | 2021 | $755 | 10/2/2018 | 3.4 | 60% | $321 | $8 |
| **US - total** | **$1,298** | **2020** | **$5,922** | **10/1/2018** | **3.4** | 60% | **$2,519** | **$70** |
| Ex-US | | | | | | | | |
| DLBCL royalty Ex-US | $53 | 2020 | $527 | 6/1/2018 | 3.0 | 70% | $271 | $6 |
| CLL royalty Ex-US | $6 | 2021 | $58 | 6/1/2019 | 4.0 | 60% | $23 | $1 |
| ALL royalty Ex-US | $15 | 2021 | $148 | 6/1/2019 | 4.0 | 65% | $64 | $2 |
| FL royalty Ex-US | $13 | 2021 | $114 | 6/2/2019 | 4.0 | 60% | $45 | $1 |
| MCL royalty Ex-US | $12 | 2021 | $113 | 6/3/2019 | 4.0 | 60% | $45 | $1 |
| **Ex-US - royalty - total** | **$99** | **2020** | **$1,030** | **6/1/2018** | **3.0** | 60% | **$453** | **$11** |
| **Total Product Value** | | | | | | | **$3,388** | **$81** |
| Cash | | | | | | | $400 | $9.5 |
| **Total Equity Value** | | | | | | | **$3,788** | **$90** |
| Shares Outstanding (MM) | | | | | | | 42 | |

| | |
|---|---|
| Risk-Free Rate | 3% |
| Beta | 1.8 |
| Risk Premium | 5% |
| Discount Rate | 11% |

Source: Company Reports, Canaccord Genuity estimates

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**Target Price / Valuation Methodology:**

Kite Pharma - KITE

Our target price is $90, based on a probability adjusted NPV valuation.

**Risks to achieving Target Price / Valuation:**

Kite Pharma - KITE

Although NCI is conducting a phase 1-2a trial of anti-CD19 CAR T-cell therapy, KITE's KTE-C19 trial has not begun. Any delays or significant negative results from NCI's clinical trials could negatively affect Kite's IND application and delay the timing to start their own phase 1-2 clinical trial. KITE is highly dependent on the third parties for R&D and early clinical testing of CAR and TCR product candidates. These collaborations related to the intellectual property licensed from the NIH relating to product candidates targeting the EGFRvIII antigen, the SSX2 antigen and the NY-ESO-1 antigen and from Cabaret for intellectual property relating to KTE-C19. The differences in manufacturing compared to NCI may render the product incomparable, particularly with respect to clinical trials, which could negatively affect our valuation. Although plans for manufacturing and processing is based on current approach undertaken by the NCI, the company cannot ensure that even minor changes in the product process will not result in significantly different T-cells that may not have similar efficacy or toxicity. KTE-C19 could fail in clinical studies, resulting in significant downside to our price target and shares of the stock. Kite faces significant competition from other biotechnology and pharmaceutical companies in the space of immunotherapy, including Novartis, Juno, Bluebird, Cellectis and Adaptimmune, as well as companies developing novel targeted therapies for cancer.

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**Global Stock Ratings (as of 05/21/15)**

| Rating | Coverage Universe | | IB Clients |
|---|---|---|---|
| | # | % | % |
| Buy | 582 | 58.26% | 32.13% |
| Hold | 332 | 33.23% | 16.57% |
| Sell | 40 | 4.00% | 5.00% |
| Speculative Buy | 45 | 4.50% | 55.56% |
| | 999* | 100.0% | |

*Total includes stocks that are Under Review

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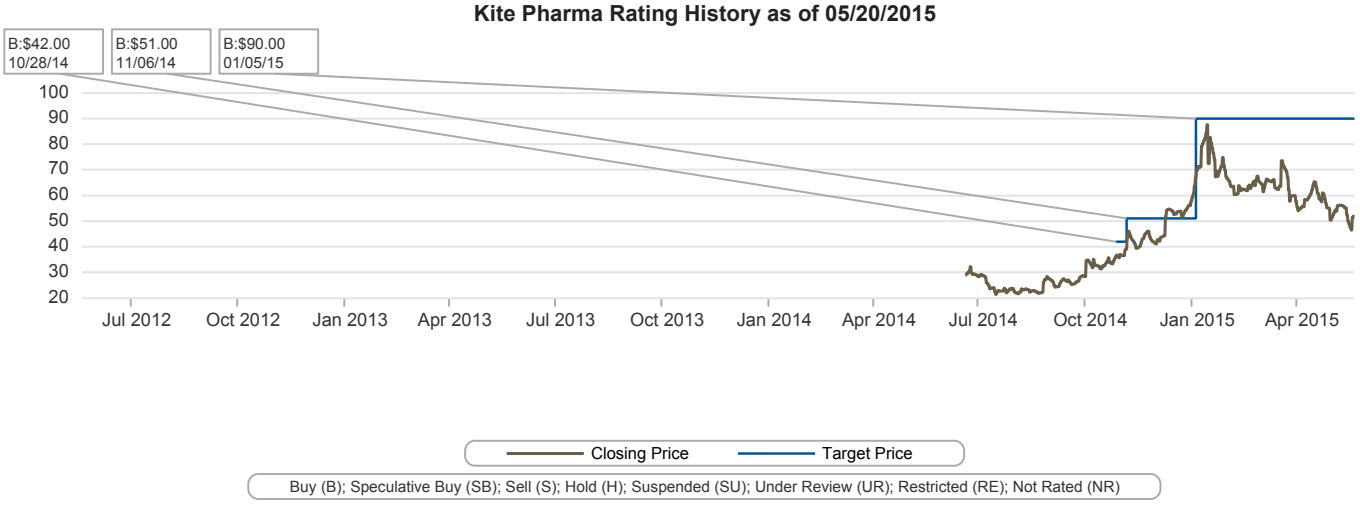


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