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## **Kite Presents Promising Preclinical Data from KITE-585, a Fully Human Anti-BCMA CAR T-Cell Product Candidate at the 2017 American Association of Cancer Research (AACR) Annual Meeting**

- | Proprietary Linker and CD28 Costimulatory Domain for Polyfunctional T cell Activation without Tonic Signaling
- | Phase 1 Clinical Study of KITE-585 in Patients with Multiple Myeloma Planned for 2017

SANTA MONICA, Calif.--(BUSINESS WIRE)-- Kite Pharma, Inc. (Nasdaq:[KITE](#)) today announced new data presentations from preclinical studies related to KITE-585, a fully human anti-B cell maturation antigen (BCMA) chimeric antigen receptor (CAR) T-cell product candidate for the treatment of multiple myeloma (MM) at the American Association of Cancer Research (AACR) Annual Meeting in Washington D.C.

In today's oral presentation (Abstract #4979), "Development of KITE-585: A fully human anti-BCMA CAR T-cell therapy for the treatment of multiple myeloma," KITE-585 demonstrated potent in vitro and in vivo activity against MM cell lines. CAR T cells were active in the presence of soluble BCMA and also eradicated established MM tumors in mice. KITE-585 contains a proprietary linker with the CD28 costimulatory domain. This configuration resulted in polyfunctional activation and proliferation of T-cells in the presence of MM cell lines, with no evidence of tonic signaling in the absence of target cells.

In the poster presentation (Abstract #2135), "Selectivity and specificity of engineered T cells expressing KITE-585, a chimeric antigen receptor targeting B-cell maturation antigen (BCMA)," the selectivity of KITE-585's novel single-chain variable fragment (scFv) for BCMA was assessed using Retrogenix™ cell microarray technology. The results demonstrated the specificity of KITE-585 for BCMA expressing target cells.

"These promising preclinical data presented at AACR suggest the potential of KITE-585 to offer a one-time treatment to address the high unmet need in multiple myeloma, an incurable blood cancer," said David Chang, M.D., Ph.D., Executive Vice President, Research and Development, and Chief Medical Officer. "The roadmap developed for the clinical development and manufacturing expertise of axicabtagene ciloleucel will be invaluable as we accelerate KITE-585 into the clinic later this year."

### **About Multiple Myeloma**

Multiple myeloma (MM) is a rare and aggressive cancer. In 2016, there were an estimated 30,330 new cases of MM and 12,650 disease-related deaths in the U.S. alone.<sup>1</sup> Nearly 95,000 people are either living with, or in remission from, MM.<sup>2</sup> Treatment is chronic for most patients, usually with multi-therapy combinations, and most patients will eventually relapse.<sup>3</sup> The median overall survival for high risk disease is 24-36 months.<sup>4</sup>

### **About KITE-585**

KITE-585 is an investigational therapy in which a patient's T cells are engineered to express a chimeric antigen receptor (CAR) to target the B cell maturation antigen (BCMA), a protein expressed on the cell surface of multiple myelomas (MM), and redirect the T cells to kill cancer cells. Kite expects to file an investigational new drug application (IND) for KITE-585 and initiate a Phase 1 clinical trial of KITE-585 in 2017.

### **About Kite**

Kite is a biopharmaceutical company engaged in the development of innovative cancer immunotherapies with a goal of providing rapid, long-term durable response and eliminating the burden of chronic care. The company is focused on chimeric antigen receptor (CAR) and T cell receptor (TCR) engineered cell therapies designed to empower the immune system's ability to recognize and kill tumors. Kite is based in Santa Monica, CA. For more information on Kite, please visit [www.kitepharma.com](http://www.kitepharma.com). Sign up to follow @KitePharma on Twitter at [www.twitter.com/kitepharma](https://www.twitter.com/kitepharma).

### **Cautionary Note on Forward-Looking Statements**

This press release contains forward-looking statements for purposes of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. The press release may, in some cases, use terms such as "predicts," "believes," "potential," "proposed," "continue," "estimates," "anticipates," "expects," "plans," "intends," "may," "could," "might," "will," "should" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Forward-looking statements include statements regarding intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things: the expectations for KITE-585 to offer a one-time treatment to address multiple myeloma, and the timing and ability to file an IND and initiate a clinical trial of KITE-585 in 2017. Various factors may cause differences between Kite's expectations and actual results as discussed in greater detail in Kite's filings with the Securities and Exchange Commission, including without limitation in its Form 10-K for the year ended December 31, 2016. Any forward-looking statements that are made in this press release speak only as of the date of this press release. Kite assumes no obligation to update the forward-looking statements whether as a result of new information, future events or otherwise, after the date of this press release.

<sup>1</sup> National Cancer Institute. SEER Stat Fact Sheets: Myeloma. Available at: <http://seer.cancer.gov/statfacts/html/mulmy.html>.

<sup>2</sup> National Cancer Institute. SEER Stat Fact Sheets: Myeloma. Available at: <http://seer.cancer.gov/statfacts/html/mulmy.html>.

<sup>3</sup> NCCN and Rajkumar, S. Vincent, and Shaji Kumar. "Multiple Myeloma: Diagnosis and Treatment." Mayo Clinic Proceedings 91.1 (2016): 101-19.

<sup>4</sup> Rajkumar, S. V. (2012), Multiple myeloma: 2012 update on diagnosis, risk-stratification, and management. Am. J. Hematol., 87: 78-88. doi:10.1002/ajh.22237.

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