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Kite Doses First Patient in the Phase 2 Trial of Axicabtagene Ciloleucel in Indolent B-Cell Non-Hodgkin Lymphoma (ZUMA-5)

- ZUMA-5 Expands Axi-Cel Clinical Program Targeting B-Cell Malignancies
- Indolent B-Cell NHL (iNHL) Estimated to Comprise Approximately 25 Percent of All 2017 Newly Diagnosed NHL Cases, with Follicular Lymphoma (FL) Being the Most Common Subtype
- First Multi-Center CAR-T Trial for iNHL

SANTA MONICA, Calif.--(BUSINESS WIRE)-- Kite Pharma, Inc., (Nasdaq:KITE), a leading cell therapy company, today announced that patients with relapsed/refractory indolent B-cell non-Hodgkin lymphoma (iNHL) are now being treated in its Phase 2 ZUMA-5 trial with its lead investigational candidate, axicabtagene ciloleucel (axi-cel). This study builds upon early clinical results using the same axi-cel anti-CD19 construct previously published in the March 2012 issue of *Blood*, "B-cell Depletion and Remissions of malignancy along with cytokine-associated toxicity in a clinical trial of anti-CD19 chimeric-antigen-receptor-transduced T cells,"[1] in which patients with relapsed/refractory iNHL experienced a high response rate and durable disease remissions in a clinical trial at the National Cancer Institute (NCI).

"Despite recent advances in the treatment of NHL, iNHL generally remains an incurable disease. As a result, there is a great unmet need in patients with high-risk disease which is why the focus of this study has the opportunity to make a difference," said David Chang, M.D., Ph.D., Executive Vice President of Research and Development and Chief Medical Officer of Kite. "The dosing of the first patient in ZUMA-5 marks an important milestone in our commitment to serving patients. We will continue to explore the potential for axi-cel to treat hematologic malignancies beyond aggressive NHL, the foundation of our CAR-T program."

B-cell iNHL is expected to account for approximately 25 percent of 2017 newly diagnosed NHL cases in the United States (U.S.). Follicular lymphoma is the most common type of iNHL and one of the most common subtypes of NHL. The company estimates that there will be approximately 4,700 patients in 2017 with follicular lymphoma in the U.S. who could potentially benefit from CAR-T therapy.

ZUMA-5 is a single-arm, open-label, multi-center study in patients with iNHL whose disease has relapsed within two years of first line treatment, is refractory to second line or greater therapy or has relapsed at any point after transplant. The study will enroll approximately 50 patients. Additional details about this study can be found on ClinicalTrials.gov, using identifier NCT: 03105336.

About axicabtagene ciloleucel

Kite's lead product candidate, axicabtagene ciloleucel is an investigational therapy in which a patient's T cells are engineered to express a chimeric antigen receptor (CAR) to target the antigen CD19, a protein expressed on the cell surface of B-cell lymphomas and leukemias, and redirect the T cells to kill cancer cells. Axicabtagene ciloleucel is currently under review by the U.S. Food and Drug Administration (FDA) for aggressive non-Hodgkin's lymphoma and was granted Breakthrough Therapy Designation status for diffuse large B-cell lymphoma (DLBCL), transformed follicular lymphoma (TFL), and primary mediastinal B-cell lymphoma (PMBCL).

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. Sign up to follow @KitePharma on Twitter at 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 ability to advance the ZUMA-5 clinical trial and the estimated number of patients with follicular lymphoma in the U.S. who could potentially benefit from CAR-T therapy. 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-Q for the quarter ended March 31, 2017. 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.

[1] Kochenderfer, J. N., et al. "B-Cell Depletion and Remissions of Malignancy along with Cytokine-Associated Toxicity in a Clinical Trial of Anti-CD19 Chimeric-Antigen-Receptor-Transduced T Cells." Blood, vol. 119, no. 12, Mar. 2012, pp. 2709-2720., doi:10.1182/blood-2011-10-384388.

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