Ziopharm Oncology and MD Anderson Cancer Center Announce New R&D Agreement to Expand TCR-T Program

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– Accelerates capability for TCR library expansion of T-cell receptors (TCRs) targeting neoatigens, including in hotspots –

– Enables two new TCR-T clinical trials at MD Anderson leveraging the Sleeping Beauty *non-viral gene transfer platform –*

– New lease for larger facility allows for expansion of R&D footprint on MD Anderson campus –

BOSTON and HOUSTON, Oct. 28, 2019 (GLOBE NEWSWIRE) -- Ziopharm Oncology, Inc. ("Ziopharm" or "the Company") (Nasdaq:ZIOP), and The University of Texas MD Anderson Cancer Center today announced a new research and development agreement relating to Ziopharm's *Sleeping Beauty* immunotherapy program to use non-viral gene transfer to stably express and clinically evaluate neoantigen-specific T-cell receptors (TCRs) in T cells (referred to as TCR-T).

"We are delighted to deepen our relationship with MD Anderson, which provides treatment to a large and diverse population of cancer patients with solid tumors," said Laurence Cooper, M.D., Ph.D., Chief Executive Officer of Ziopharm. "This new agreement is a launch point to expand our TCR library and execute two new clinical trials; a trial for utilizing TCRs from the library targeting hotspot mutations in KRAS, TP53 and EGFR, and a second trial for personalized TCRs targeting patient-specific neoantigens."

"Cell-based immunotherapies have emerged as a powerful new option for treating patients with hematological cancers, but we have not yet had the same success for patients with solid tumors," said Ferran Prat, Ph.D., J.D., senior vice president for Research Administration and Industry Ventures at MD Anderson. "We are pleased to be working with Ziopharm to advance a new generation of cell therapies, and we are hopeful they can one day be effective in treating a broader group of our patients."

Under the terms of the new agreement, Ziopharm commits to fund an additional $20 million for this expanded work in the TCR-T program through 2023, as well as certain milestone payments for clinical development or regulatory approval in the U.S., European Union, Japan and the rest of the world. The funding for this new agreement was included within the budget forecast provided by Ziopharm in its second quarter 2019 financial results news release and webcast commentary.

MD Anderson will receive low, single-digit royalties on net sales in the U.S. and international markets, as well as warrants for Ziopharm common stock which vest upon achievement of clinical milestones. According to institutional guidelines, MD Anderson has implemented an Institutional Conflict of Interest Management and Monitoring Plan to manage this research.

This new agreement expands the relationship between Ziopharm and MD Anderson, established under a 2015 research agreement related to CD19-specific CAR-T. Earlier this month, the Food and Drug Administration cleared an IND application for a phase 1 clinical trial to evaluate CD19-specific CAR-T, manufactured and infused within two days of gene transfer using Ziopharm's rapid personalized manufacture (RPM), as an investigational treatment for patients with relapsed $CD19^+$ leukemias and lymphomas. Ziopharm has approximately $20 million of pre-funded R&D at MD Anderson under the prior agreement, which may now be used under the new agreement, for both the CAR-T or TCR-T initiatives.

In addition to the new research and development agreement, Ziopharm has entered a lease agreement with MD Anderson through which the company accesses additional laboratory and office space within the institution's campus. This new facility will serve as home for Ziopharm's expanded Houston office, under the direction of Eleanor de Groot, Ph.D., EVP, GM Cell Therapy and Drew Deniger, Ph.D., head of Ziopharm's TCR-T cell therapy program.

About MD Anderson
The University of Texas MD Anderson Cancer Center in Houston ranks as one of the world's most respected centers focused on cancer patient care,

research, education and prevention. The institution's sole mission is to end cancer for patients and their families around the world. MD Anderson is one of only 50 comprehensive cancer centers designated by the National Cancer Institute (NCI). MD Anderson is ranked No.1 for cancer care in U.S. News & World Report's "Best Hospitals" survey. It has ranked as one of the nation's top two hospitals for cancer care since the survey began in 1990, and has ranked first 15 times in the last 18 years. MD Anderson receives a cancer center support grant from the NCI of the National Institutes of Health (P30 CA016672).

About Ziopharm Oncology, Inc.
Ziopharm Oncology is an immuno-oncology company focused on developing end-to-end cost-effective solutions using its non-viral *Sleeping Beauty* platform for TCR and CAR T-cell therapies and immune-stimulating gene therapy with Controlled interleukin 12 (IL-12). The *Sleeping Beauty* platform genetically modifies T cells with DNA plasmids to express TCRs to target neoantigens inside and outside hotspots for solid tumors and chimeric antigen receptor (CAR) to target CD19 for blood cancers using the Company's RPM to produce and release CAR-T within two days of gene transfer. The *Sleeping Beauty* platform is being advanced in collaboration with the National Cancer Institute, The University of Texas MD Anderson Cancer Center and Eden BioCell. The Company also is developing its Controlled IL-12 platform, or Ad-RTS-hIL-12 plus veledimex, as monotherapy and in combination with immune checkpoint inhibitors to treat brain cancer, including in collaboration with Regeneron Pharmaceuticals.

Forward-Looking Statements Disclaimer
This press release contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements are statements that are not historical facts, and in some cases can be identified by terms such as "may," "will," "could," "expects," "plans," "anticipates," and "believes." These statements include, but are not limited to, statements regarding the activities and benefits of the collaboration between Ziopharm and MD Anderson, including the Company's expectations regarding future clinical trials, and the progress and timing of the Company's research and development programs. Although Ziopharm's management team believes that the expectations reflected in such forward-looking statements are reasonable, investors are cautioned that forward-looking information and statements are subject to various risks and uncertainties, many of which are difficult to predict and generally beyond the control of Ziopharm, that could cause actual results and developments to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include among other things, changes in the plans or priorities of MD Anderson and Ziopharm, changes in our operating plans that may impact our cash expenditures, the uncertainties inherent in research and development, future clinical data and analysis, including whether any of Ziopharm's product candidates will advance further in the preclinical research or clinical trial process, including maintaining clearance from the U.S. Food and Drug Administration or equivalent foreign regulatory agencies to conduct clinical trials and whether and when, if at all, they will receive final approval from the U.S. FDA or equivalent foreign regulatory agencies and for which indication; the strength and enforceability of Ziopharm's intellectual property rights; competition from other pharmaceutical and biotechnology companies as well as risk factors discussed or identified in the public filings with the Securities and Exchange Commission made by Ziopharm, including those risks and uncertainties listed in Ziopharm's Quarterly Report on Form 10-Q filed by Ziopharm with the Securities and Exchange Commission. We are providing this information as of the date of this press release, and Ziopharm does not undertake any obligation to update or revise the information contained in this press release whether as a result of new information, future events or any other reason.

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