Ziopharm Oncology Announces FDA Fast Track Designation for Ad-RTS-hIL-12 plus Veledimex for the Treatment of Recurrent Glioblastoma

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BOSTON, April 01, 2019 (GLOBE NEWSWIRE) -- Ziopharm Oncology, Inc. (Nasdaq: ZIOP), a clinical stage immuno-oncology company developing next generation cell and gene therapies, today announced that the U.S. Food and Drug Administration (FDA) has granted Fast Track Designation for its Controlled IL-12 program, or Ad-RTS-hIL-12 plus veledimex, for the treatment of recurrent or progressive glioblastoma multiforme (rGBM) in adults.

"Recurrent glioblastoma multiforme is an aggressive and life-threatening cancer of the central nervous system for which there are few treatment options and no cure," said Laurence Cooper, M.D., Ph.D., CEO of Ziopharm. "We are pleased the FDA has granted Fast Track designation and continue to believe this investigational drug has the potential to safely harness the power of interleukin-12, which in turn activates the patient's own immune system to attack this cancer and extend overall survival."

Data previously presented suggest that Ad-RTS-hIL-12 with 20mg veledimex improves the median overall survival (mOS) from 6 to 9 months seen with available therapies to 12.7 months, with further improvement in mOS to 17.8 months in a subset of subjects with reduced cumulative steroid exposure during the active dosing period of veledimex.

The FDA's Fast Track program is designed to facilitate the development and expedite the review of drugs to treat serious conditions and fill an unmet medical need. A drug granted Fast Track Designation may be eligible for several benefits, including more frequent meetings and communications with the FDA and, if relevant criteria are met, the potential for Accelerated Approval, Priority Review or Rolling Review of a Biologics License Application (BLA).

About Ad-RTS-hIL-12 plus veledimex
At the 2018 annual meeting of the Society for Neuro-Oncology, Ziopharm presented data from its Phase 1 dose-escalation trial showing that Controlled IL-12 had a positive survival benefit, with 15 patients who received 20mg veledimex reaching 12.7 months mOS at a mean follow up of 13.1 months. A subset of these patients (n=6) who received low-dose steroids (20mg or less of dexamethasone cumulatively over 15 days while receiving veledimex) had mOS of 17.8 months compared to 6.4 months mOS for patients (n=9) who received more than 20mg of dexamethasone during the same period.

The Company has treated more than 100 patients, including more than 75 patients with rGBM, with Ad-RTS-hIL-12 plus veledimex and administered more than 1,300 doses of veledimex across three types of solid tumors, building a significant safety profile, mechanistic dataset and evidence of anti-tumor effect. Biopsy data demonstrated that Controlled IL-12 turns immunologically "cold" tumors "hot" based on sustained infiltration of killer T cells. This is likely responsible for the preliminary improved survival observed with use of Ad-RTS-hIL-12 plus veledimex as monotherapy in patients with rGBM. Biopsy data also revealed upregulation of immune checkpoints providing a compelling rationale for combining Controlled IL-12 with PD-1 inhibitors.

The Company expects to complete enrollment of a Phase 1 substudy to evaluate Controlled IL-12 in combination with the PD-1 inhibitor OPDIVO® (nivolumab) during the second quarter of this year (Clinicaltrials.gov NCT03636477). In collaboration with Regeneron Pharmaceuticals, Ziopharm expects to commence a Phase 2 trial in combination with Regeneron's PD-1 antibody Libtayo ® (cemiplimab-rwlc) for treating patients with rGBM in the second quarter of this year.

In February, the Company announced that it rapidly completed enrollment and treated 36 additional patients at 20mg veledimex dosing in less than six months in a substudy (Clinicaltrials.gov NCT03679754) to expand a Phase 1 trial evaluating its Controlled IL-12 platform as a monotherapy for the treatment of rGBM. A majority of patients enrolled in the substudy were treated with low-dose steroids. The safety profile in the substudy is consistent with the main, Phase 1, dose-escalation study (Clinicaltrials.gov NCT02026271) in which patients received varied systemic dosing of steroids, with all adverse reactions being manageable and reversible. Altogether, the Company is now monitoring a total of 51 patients with rGBM treated with 20mg veledimex dose and to assess the impact of systemic dosing of steroids. Ziopharm anticipates reporting on preliminary data from this substudy at medical meetings this year.

Learn more about Controlled IL-12 online https://ziopharm.com/controlled-il-12/.

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 T-cell receptors (TCRs) to target specific antigens in solid tumors and chimeric antigen receptors (CARs) to target CD19 in blood cancers with the Company's very rapid T-cell manufacturing process. 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 potential benefits of its Controlled IL-12 program receiving Fast Track Designation to treat rGBM and the progress and timing of the development of Ziopharm's research and development programs, including the timing for the initiation and completion of its clinical trials. 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 regulations, our ability to maintain the Fast Track Designation for our Controlled IL-12 program, 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 receiving 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 annual report on Form 10-K for the year ended December 31, 2018 filed by Ziopharm with the Securities and Exchange Commission. We are providing this information as of the date of this news release, and Ziopharm does not undertake any obligation to update or revise the information contained in this news release whether as a result of new information, future events or any other reason.

Company contact:
Chris Taylor
VP, Corporate Communications and Investor Relations
617-502-1881
ctaylor@ziopharm.com

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