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Lixte Biotechnology's PP2A Inhibitor, LB-100, Enhances the Effectiveness of PD1 Immune Blockade in Mouse Models of Glioblastoma Brain Tumors

EAST SETAUKET, NY, April 30, 2020 (GLOBE NEWSWIRE) -- Lixte Biotechnology Holdings, Inc. ([OTCQB: LIXT](#)) noted that investigators at the National Cancer Institute (NCI) and National Institute of Neurological Disorders and Stroke (NINDS) reported that Lixte's lead clinical compound, LB-100, enhanced pharmacological immunotherapy of intracranial brain tumors in immune-competent mice including 25% complete regression and immunity to tumor rechallenge (Journal of Neuro-oncology, on-line April 27, 2020).

Dr. John S. Kovach, CEO of Lixte, one of the authors of the article, said "Glioblastoma tumors (GBMs), the most common and aggressive brain tumors of adults, are generally resistant to treatment. Radiation combined with the chemotherapeutic drug, temozolomide has been the standard therapy for decades with no major advances in overall survival for the majority of patients despite studies of many other regimens. In recent years, a new class of anti-cancer drugs, known as immune checkpoint blockers, particularly those targeting an immune regulatory factor called programmed death protein 1 (PD-1), has been shown to induce long-term regressions of several types of cancer but anti-PD1 treatment of GBM has not been encouraging."

Dr. Kovach continued "The new article reports that the combination of LB-100 plus a PD1 blocker shrank the GBM cancers implanted in the brain, including elimination of tumor and development of immunity to re-challenge with the same tumor in 25% of the animals. These investigators had previously shown that LB-100 enhances the anti-tumor activity of a PD1 blocker in a mouse model of colon cancer but this is the first report that inhibition of PP2A activity improves the efficacy of PD1 blockade in a model of GBM. The mechanism(s) by which LB-100 synergizes with an anti-PD1 agent to cause significant tumor regression is not fully understood but it appears that the anti-cancer activity of the combination of the two agents is mediated by activating the normal immune system to attack the cancer rather than a direct action of LB-100 on the tumor itself. Given that the human safety profiles of several anti-PD1 drugs and LB-100 are well established, Lixte believes the new animal data justify the conduct of a Phase 1b/2 trial of LB-100 plus a PD1 blocker in GBM patients who have relapsed after initial standard therapy."

About Lixte Biotechnology Holdings, Inc.

[Lixte](#) is a biotech company that identifies enzyme targets associated with serious common diseases and then designs novel compounds to attack those targets. Lixte's product pipeline is primarily focused on inhibitors of protein phosphatases, used alone and in combination with cytotoxic agents and/or X-ray and immune checkpoint blockers.

Forward-Looking Statements

This announcement contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, and Section 21E of the Securities Exchange Act of 1934. For example, statements regarding the Company's financial position, business strategy and other plans and objectives for future operations, and assumptions and predictions about future product demand, supply, manufacturing, costs, marketing and pricing factors are all forward-looking statements. These statements are generally accompanied by words such as "intend," "anticipate," "believe," "estimate," "potential(ly)," "continue," "forecast," "predict," "plan," "may," "will," "could," "would," "should," "expect" or the negative of such terms or other comparable terminology. The Company believes that the assumptions and expectations reflected in such forward-looking statements are reasonable, based on information available to it on the date hereof, but the Company cannot provide assurances that these assumptions and expectations will prove to have been correct or that the Company will take any action that the Company may presently be planning. However, these forward-looking statements are inherently subject to known and unknown risks and uncertainties. Actual results or experience may differ materially from those expected or anticipated in the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, regulatory policies, available cash, research results, competition from other similar businesses, and market and general economic factors. This discussion should be read in conjunction with the Company's filings with the United States Securities and Exchange Commission at <http://www.sec.gov/edgar.shtml>.

Additional information on the Company is available at www.lixte.com.

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