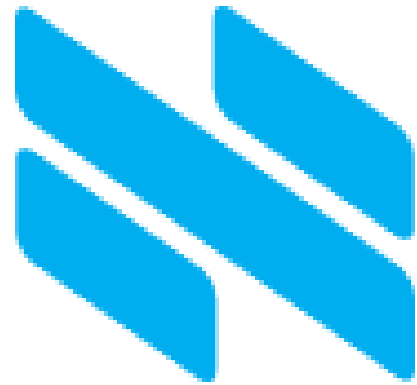


October 5, 2010



Lixte Biotechnology Holdings, Inc. Announces the Approval of a Collaboration with the National Cancer Institute for Clinical Evaluation of its Lead Anti-Cancer Compound, LB-100.

East Setauket, N.Y., Oct. 5 /PRNewswire/ -- **Lixte Biotechnology Holdings** (OTC: LIXT.PK) announced today that the National Cancer Institute Experimental Therapeutics (NExT) Program Senior Advisory Committee (SAC), Division of Cancer Treatment and Diagnosis (DCTD), National Cancer Institute (NCI), National Institutes of Health (NIH), signed a NExT Material Transfer Agreement formalizing a collaboration with Lixte Biotechnology Holdings, Inc. for clinical evaluation of LB-100, one of Lixte's lead anti-cancer compounds.

This collaboration is a milestone-based approach in which NCI will first confirm the anti-cancer activity of LB-100 in an animal model of glioblastoma multiforme, the most common brain tumor of adults, and conduct an initial exploratory toxicology study in an animal model.

At milestone intervals, the SAC will re-evaluate project progress before considering assignment of additional support and resources to this project.

The mission of the NCI NExT Program is to advance clinical practice and bring improved therapies to patients with cancer by supporting the most promising new drug discovery and development projects. NCI partners with successful applicants to facilitate the milestone-driven progression of new anticancer drugs (small molecules, biologics) and imaging agents towards clinical evaluation and registration."

"We are extremely pleased to be accepted into the NExT Program" said Dr. John Kovach, founder and president of Lixte. "The need for more effective cancer therapies is great. At the same time, the drug development process is long and arduous. The advice and practical assistance of the NCI and their collaborators are expected to significantly expedite evaluation of the clinical potential of LB-100. LB-100 was discovered by Lixte and initially evaluated for potential anti-cancer activity against brain tumors under an ongoing Cooperative Research Agreement with the NIH's Surgical Neurology Branch, National

Institute of Neurological Disorders and Stroke (NINDS). The research under the NExT program will focus on the pre-clinical evaluation of LB-100 that is needed for submission of an application to the FDA for approval to assess LB-100 in a Phase I clinical trial".

About Lixte Biotechnology Holdings, Inc:

Lixte Biotechnology Holdings, Inc. is a cancer therapeutics and diagnostics company. Founded as a biomarker-diagnostics company in 2005, Lixte primary focus is discovery of new chemotherapy drugs targeting molecular abnormalities of common human cancers.

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 condensed consolidated financial statements and notes thereto included on Form 10-QSB for the quarter ending June 30, 2009.

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SOURCE Lixte Biotechnology Holdings