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Lixte Biotechnology Announces Collaboration with Netherlands Cancer Institute (Amsterdam) and Oncode Institute (Utrecht) to Identify the Most Promising Drug Combinations for its Lead Clinical Compound, LB-100, for Cancer Treatment

PASADENA, CA, Oct. 13, 2021 (GLOBE NEWSWIRE) -- Lixte Biotechnology Holdings, Inc. (Nasdaq: LIXT) announced entry into a collaboration with theNetherlands Cancer Institute, Amsterdam (NKI) , one of the world's leading comprehensive cancer centers, and Oncode Institute, Utrecht, a major independent cancer research center, to identify the most promising drugs to be combined with LB-100, and potentially LB-100 analogues, to be used to treat a range of cancers, as well as to identify the specific molecular mechanisms underlying the identified combinations.

The pre-clinical studies are directed by Professor René Bernards (NKI), a leader in using genome wide functional genetic techniques to identify effective drug combinations, new drug targets, and mechanisms of resistance to cancer drugs. Using this technology, prof. Bernards' group identified the now FDA-approved combination of BRAF and EGFR inhibitors for a group of colon cancer patients (Nature 483, 100-103, 2012), and more recently reported the identification of a new two drug regimen for liver cancer, which in preliminary Phase 1 clinical trials appears to be more active than standard therapy (Nature 595, 730–734, 2021).

Dr. John S. Kovach, CEO and founder of Lixte, said "We are extremely pleased to have the opportunity to collaborate with Professor Bernards and his excellent group. There are many pre-clinical studies demonstrating the ability of our lead compound, LB-100, an inhibitor of protein phosphatase 2A, to potentiate the activity of different cytotoxic drugs. Its ubiquitous activity and low toxicity have made it challenging to select the most promising clinical targets for this novel compound. A targeted approach to cancer treatment has been a long-standing research goal. Prof. Bernards' approach makes it possible to select among a multitude of compounds those most likely to be effective when combined with a second drug and/or in cancers with a particular molecular abnormality. The possibility of identifying which drug in combination with LB-100 and in which type of tumor is most likely to be beneficial is a very exciting prospect."

Professor Bernards commented, "We are excited to work with Lixte to identify the most powerful drug combinations of LB-100 for cancer therapy. Our unbiased genetic approach to

identify synthetic lethal drug targets of LB-100 has proven its utility in our previous studies."

About Lixte Biotechnology Holdings, Inc.

Lixte Biotechnology Holdings, Inc. (Nasdaq: LIXT) is a clinical-stage pharmaceutical company dedicated to discovering drugs for more effective treatments for many forms of cancer and other serious common diseases. A major driver of cancer is defects in the switches that turn the biochemical pathways in cells on and off. Most cancer research over the past 30 years has focused on the "on" switches because the "off" switches, especially the master "off" switch protein phosphatase (PP2A), were believed to cause intolerable toxicity in patients. Lixte has achieved a breakthrough with its novel, first-in-class lead compound, PP2A inhibitor LB-100, by demonstrating that it is readily tolerated in cancer patients at doses associated with anti-cancer activity. This innovative approach encourages cancer cells, damaged by chemo or other cancer therapies, to continue to replicate before repairing the damage, leading to the more efficient death and elimination of those cells from the body. Lixte has partnered with top medical institutions and leading academic research centers to advance the clinical development of its compounds. The LB-100 compound, of which there are no competitors known to Lixte, is being tested in three clinical cancer treatment studies with others in planning. www.lixte.com

About the Netherlands Cancer Institute, Amsterdam

The Netherlands Cancer Institute, founded in 1913, is among the world's best comprehensive cancer centers, combining world-class fundamental, translational, and clinical research with dedicated patient care. Our initiatives to promote excellent translational research have been recognized by the European Academy of Cancer Sciences, when they designated us 'Comprehensive Cancer Center of Excellence in Translational Research.' www.nki.nl

About the Oncode Institute, Utrecht

Oncode Institute unites more than 900 excellent fundamental cancer researchers in the Netherlands. Our mission is to stimulate innovations in the diagnosis and treatment of cancer. The ultimate goal is to help patients survive, improve the quality of life for those affected and contribute to a more affordable healthcare system. Oncode Institute translates fundamental insights into the biology of cancer into new diagnostics, new drugs and innovative treatments. Oncode's three strategic pillars to improve patient outcomes are Excellent Science, Collaboration and Valorization. Oncode is funded by The Dutch Cancer Society, together with the Ministries of Economic Affairs & Climate, Education Culture & Science and Health, Welfare & Sport, and Health~Holland, with a total amount of €120 million until 2022.

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 sec.gov/edgar.shtml.

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