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LIXTE Biotechnology Announces Preclinical Results of its Collaboration with the Netherlands Cancer Institute, Revealing Striking Anti-Cancer Activity of LB-100 In Novel Drug Combinations

PASADENA, CA, April 12, 2022 (GLOBE NEWSWIRE) -- LIXTE Biotechnology Holdings, Inc. (Nasdaq: LIXT), a clinical-stage pharmaceutical company focused on developing and commercializing cancer therapies, announces that Professor René Bernards, Netherlands Cancer Institute (NKI), Amsterdam, presented new data from promising drug combinations of LIXTE's lead clinical cancer compound, LB-100, at the Annual Meeting of American Association for Cancer Research (AACR) in New Orleans, LA, on Monday, April 11, 2022.

In brief, LIXTE's first-in-class lead clinical compound and protein phosphatase 2A (PP2A) inhibitor, LB-100, induces further activation of oncogenic signaling in a number of KRAS-mutant cancers, rendering them particularly vulnerable to anti-cancer therapy. Professor Bernards' presentation, entitled "Unconventional Approaches to the Treatment of Cancer", was delivered as part of the events celebrating Professor Bernards' selection as the awardee of the 2022 AACR Princess Takamatsu Memorial Lectureship. The AACR has stated that this award "recognizes an individual scientist whose novel and significant work has had or may have a far-reaching impact on the detection, diagnosis, treatment, or prevention of cancer, and who embodies the dedication of [Princess Takamatsu] to multinational collaborations." AACR is the largest cancer research organization in the world, with more than 50,000 members residing in 129 countries and territories.

Professor Bernards discussed his paradoxical approach to developing more effective cancer therapies. The initial studies, done in collaboration with LIXTE, reveal that the vigorous activation of several oncogenic signaling pathways by LB-100 is associated with marked increases in DNA damage and mitotic stress. CRISPR-based genetic screening and screening of selected investigational compounds both showed that LB-100 is synthetically lethal in combination with inhibitors of the mitotic entry kinase WEE1. Results were confirmed in a group of colorectal cancer cell lines bearing diverse mutations. The mechanisms responsible for these unexpected activities of LB-100 combined with WEE1 kinase inhibitors, were presented.

John S. Kovach MD, Founder and CEO of LIXTE Biotechnology Holdings, Inc., said "we are delighted to be working with Professor Bernards and his team. Professor Bernards' insights and contributions enable us to take full advantage of the unique anti-cancer properties of LB-100. His creativity in developing new anti-cancer drug combinations has already had a significant impact on cancer care. His current observations of unexpected synergy of LB-100 with a variety of standard agents and with investigational compounds with only modest

activity on their own are promising leads to a new approach to cancer chemotherapy."

About LIXTE Biotechnology Holdings, Inc.

LIXTE Biotechnology Holdings, Inc. (Nasdaq: LIXT), is a clinical-stage pharmaceutical company focused on new targets for cancer drug development and developing and commercializing cancer therapies. Major drivers of cancer are defects in the switches that turn the biochemical pathways in cells on or 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 clinical compound and PP2A inhibitor, LB-100, demonstrating that LB-100 is readily tolerated in cancer patients at doses associated with anti-cancer activity. Based on extensive published preclinical data (see www.lixte.com), LB-100 has the potential to significantly improve outcomes for patients undergoing various chemotherapies or immunotherapies. LIXTE's new approach has no known competitors and is covered by a comprehensive patent portfolio. Initial proof-of-concept clinical trials are in progress.

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 www.sec.gov/edgar.shtml

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