CBL-B inhibitor NX-1607 mediates anti-tumor activity through both T cells and NK cells
Preclinical tumor models support clinical development of NX-1607 as monotherapy or in combination with PD-1 blockade

SAN FRANCISCO, March 10, 2021 (GLOBE NEWSWIRE) -- Nurix Therapeutics, Inc. (Nasdaq: NRIX), a biopharmaceutical company developing targeted protein modulation drugs, today announced presentation of data from its NX-1607 program at the American Association for Cancer Research (AACR) 2021 annual meeting which is being held virtually over two weeks, April 10-15 and May 17-21. NX-1607, an orally bioavailable, small-molecule inhibitor of Casitas B-lineage lymphoma B (CBL-B), demonstrated significant anti-tumor efficacy in animal models of both colorectal cancer and triple negative breast cancer. Importantly, the combination of NX-1607 and an anti-PD-1 antibody substantially increased the median overall survival and the frequency of long-lasting tumor regression in these models compared to either single agent alone. The activity of NX-1607 is shown to be dependent on CD8+ T cells and NK cells.

“The emerging data for our first-in-class CBL-B inhibitor demonstrate the unique potential of NX-1607 as an oral immuno-oncology agent with both T cell and NK cell activity,” said Gwenn M. Hansen, Ph.D., Nurix’s chief scientific officer. “The data that we will present at the AACR meeting support our plans to advance NX-1607, the lead program in our ligase inhibitor portfolio, into a clinical trial in patients with solid tumors in the second half of 2021.”

The E3 ubiquitin ligase CBL-B is expressed in T cells where it functions as an important negative regulator of immune activation. CBL-B attenuates T-cell activation initiated by TCR engagement in part by mediating the requirement for CD28 co-stimulation, thus setting the threshold for T cell activation. CD4+ and CD8+ T cells from mice deficient in Cbl-b have 5 to 10-fold enhanced secretion of IL-2 and IFN-gamma when stimulated ex vivo with anti-CD3. Cbl-b deficient mice also demonstrate enhanced NK cell function.

NX-1607 is an investigational, orally bioavailable, small molecule inhibitor of CBL-B. NX-1607 treatment leads to stimulatory effects on human immune cells at low nanomolar concentrations. NX-1607 induction of IL-2 and IFN-gamma secretion occurs in primary human T cells stimulated with anti-CD3 antibodies, in both the presence and absence of CD28 co-stimulation. In vivo, oral administration of NX-1607 in mice demonstrated significant tumor growth inhibition in two colon carcinoma tumor models, CT26 and MC38, as well as a triple negative breast tumor model, 4T1. The change in tumor microenvironment caused by NX-1607 treatment leads to rapid NK cell infiltration followed by infiltration of activated CD8+ T cells. Depletion of CD8+ T cells or NK cells completely abrogated NX-1607 antitumor activity.

Importantly, the combination of NX-1607 and anti-PD-1 can substantially increase the median overall survival and the frequency of complete tumor rejections in all three tumor models. These studies provide significant insights into the antitumor activity of this novel, small molecule E3 ligase inhibitor and deliver experimental support for clinical development of NX-1607 given as monotherapy or in combination with PD-1 blockade.

About Nurix Therapeutics, Inc.
Nurix Therapeutics is a biopharmaceutical company focused on the discovery, development, and commercialization of small molecule therapies designed to modulate cellular protein levels as a novel treatment approach for cancer and other challenging diseases. Leveraging Nurix’s extensive expertise in E3 ligases together with its proprietary DNA-encoded libraries, Nurix has built DELigase, an integrated discovery platform to identify and advance novel drug candidates targeting E3 ligases, a broad class of enzymes that can modulate proteins within the cell. Nurix’s drug discovery approach is to either harness or inhibit the natural function of E3 ligases within the ubiquitin proteasome system to selectively decrease or increase cellular protein levels. Nurix’s wholly owned pipeline comprises targeted protein degraders of Bruton’s tyrosine kinase, a B-cell signaling protein, and inhibitors of Casitas B-lineage lymphoma proto-oncogene B, an E3 ligase that regulates T cell activation. Nurix is headquartered in San Francisco, California. For more information, please visit http://www.nurix.com.

Forward Looking Statements
Any statements made in this press release relating to future business performance, conditions, plans, prospects, trends, or strategies and other business matters, including statements regarding our plans to develop targeted protein modulation drugs, the timing of initiation of clinical trials and availability of clinical data, and our ability to advance multiple wholly owned drugs into clinical development, are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. In addition, when or if used in this press release, the words “may,” “could,” “should,” “anticipate,” “believe,” “estimate,” “expect,” “intend,” “plan,” “predict” and similar expressions and their variants, as they relate to the Company, may identify forward-looking statements. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on our current beliefs, expectations, and assumptions regarding the future of the Company’s business, future plans and strategies, its development plans, its preclinical results and other future conditions. Although we believe the expectations reflected in such forward-looking statements are reasonable, we can give no assurance that such expectations will prove to be correct. Readers are cautioned that actual results, levels of activity, performance or events and circumstances could differ materially from those expressed or implied in our forward-looking statements due to a variety of factors, including the risks and uncertainties described under the heading “Risk Factors” in our Annual Report on Form 10-K filed with the Securities and Exchange Commission (SEC) on February 16, 2021 and other SEC filings. Accordingly, readers are cautioned not to place undue
reliance on these forward-looking statements. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein.

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