Pliant Therapeutics Presentations at the Annual Meeting of the Society for Immunotherapy of Cancer Highlight PLN-101095, A Novel Inhibitor of Integrins αvβ8 and αvβ1

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SOUTH SAN FRANCISCO, Calif., Nov. 06, 2023 (GLOBE NEWSWIRE) -- Pliant Therapeutics, Inc. (Nasdaq: PLRX), a clinical-stage biotechnology company and leader in the discovery and development of novel therapeutics for the treatment of fibrotic diseases, presented three posters highlighting PLN-101095, a novel inhibitor of integrins αvβ8 and αvβ1. These posters were presented as part of the 38th Annual Meeting of the Society for Immunotherapy of Cancer (SITC) held November 1 - 5, 2023.

Trial in Progress: Phase 1a Trial of PLN-101095, an Integrin αvβ8 and αvβ1 Inhibitor, as Monotherapy and in Combination with Pembrolizumab, in Treatment-resistant Patients with Advanced or Metastatic Solid Tumors

Pliant is conducting a first-in-human, open-label, dose-escalation study designed to evaluate the safety, tolerability, and pharmacokinetics of PLN-101095 as monotherapy and in combination with pembrolizumab in adult patients with advanced or metastatic solid tumors and documented disease progression after at least 3 months from the start of treatment with pembrolizumab, and with no other available effective treatment options.

Integrin αvβ1 is Expressed in Multiple Solid Tumor Types and Drives the Adhesion of Cancer Associated Fibroblast to Latent TGF-β

Expression of αvβ1 protein was evaluated across a diverse set of human tumor tissues and cancer-associated fibroblasts (CAF) to investigate its functional role in cancer biology. PLN-101095, a selective small molecule inhibitor of αvβ8 and αvβ1 integrins, was evaluated in combination with anti-mPD-1 on fibrotic markers in the EMT6 tumor model. PLN-101095 was shown to block the binding of cancer-associated fibroblasts (CAF) to the TGF-β latency-associated peptide (LAP) in a dose-dependent manner. EMT6 tumor tissues treated with PLN-101095 and anti-mPD-1 showed a significant reduction in fibrotic markers compared to anti-αvβ8 and anti-mPD-1. PLN-101095 was also shown to effectively reduce the expression of the fibroblast activation marker αSMA in ex vivo-treated human breast tumor tissues.

Selective Targeting of Integrins αVβ8 and αVβ1 within the Dynamic Ecosystem of Pancreatic Cancer to Improve the Overall Anti-tumor Response

PLN-101095, a selective small molecule inhibitor of αvβ8 and αvβ1 integrins, was assessed in preclinical models of pancreatic ductal adenocarcinoma (PDA). PLN-101095 was shown to decrease primary tumor growth, improve chemosensitivity in metastatic PDA with gene expression changes associated with favorable immune response and improved prognosis. Results showed that selective targeting of αvβ8 and αvβ1 with PLN-101095 or αvβ1 signaling with PLN-76104 potently inhibited primary tumor growth, spread and improve chemotherapy response in models of PDA.

These posters are available on the Publications page of the Pliant's website at https://pliantrx.com/publications/.

About Pliant Therapeutics, Inc.

Pliant Therapeutics is a clinical-stage biopharmaceutical company and leader in the discovery and development of novel therapeutics for the treatment of fibrotic diseases. Pliant's lead product candidate, bexotegrast (PLN-74809), is an oral, small molecule, dual selective inhibitor of αvß6 and αvß1 integrins that is in development in the lead indications for the treatment of idiopathic pulmonary fibrosis, or IPF, and primary sclerosing cholangitis, or PSC. Bexotegrast has received Fast Track Designation and Orphan Drug Designation from the U.S. Food and Drug Administration (FDA) in IPF and PSC and Orphan Drug Designation from the European Medicines Agency in IPF and PSC. Pliant has initiated BEACON-IPF, a Phase 2b trial of bexotegrast in IPF. Pliant has also developed PLN-1474, a small molecule, selective inhibitor of αvß1 integrin for the treatment of nonalcoholic steatohepatitis, or NASH with liver fibrosis. Pliant has initiated a Phase 1 study for its third clinical program, PLN-101095, a small molecule, dual-selective inhibitor of αvß8 and αvß1 integrins, that is being developed for the treatment of solid tumors. In addition to clinical-stage programs, Pliant currently has a preclinical program targeting muscular dystrophies. For additional information, please visit: www.PliantRx.com. Follow us on social media X, LinkedIn, Facebook and YouTube.

Forward-Looking Statements

Statements contained in this press release regarding matters that are not historical facts are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "may," "will," "expect," "anticipate," "estimate," "intend," and similar expressions (as well as other words or expressions referencing future events, conditions, or circumstances) are intended to identify forward-looking statements. These statements include those regarding the results of our studies of our development candidates and their potential for further development. Because such statements deal with future events and are based on our current expectations, they are subject to various risks and uncertainties and actual results, performance or achievements of Pliant Therapeutics could differ materially from those described in or implied by the statements in this press release. These forward-looking statements are subject to risks and uncertainties, including those related to the development and commercialization of our product candidates, including any delays in our ongoing or planned preclinical or clinical trials, the impact of current macroeconomic and marketplace conditions, our reliance on third parties for critical aspects of our development operations, the risks inherent in the drug development process, the risks regarding the accuracy of our estimates of expenses and timing of development, our capital requirements and the need for additional financing, including the availability of additional term loans under our loan facility, and our ability to obtain and maintain intellectual property protection for our product candidates. These and additional risks are discussed in the sections titled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Quarterly Report on Form 10-Q for the period ended June 30, 2023 which is available on the

SEC's website at www.sec.gov. Unless otherwise noted, Pliant is providing this information as of the date of this news release and does not undertake any obligation to update any forward-looking statements contained in this document as a result of new information, future events or otherwise.

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