



Pliant Therapeutics Presents Preclinical Data Highlighting a Novel Approach for the Treatment of Muscular Dystrophies

June 22, 2022

- IND submission of a novel $\alpha_7\beta_1$ integrin activating allosteric antibody anticipated by year end 2022

SOUTH SAN FRANCISCO, Calif., June 22, 2022 (GLOBE NEWSWIRE) -- Pliant Therapeutics, Inc. (Nasdaq: PLRX) presented new preclinical data highlighting the potential of PLN-101325, an $\alpha_7\beta_1$ integrin activating antibody for the treatment of muscular dystrophies, including Duchenne Muscular Dystrophy (DMD). These data were presented at the New Directions in Biology and Disease of Skeletal Muscle Conference being held June 20-23, 2022 in Fort Lauderdale, Florida.

The presentation "Increased Laminin Binding Through Integrin Activation Protects Dystrophic Muscle" was presented by Scott Turner, Ph.D., Senior Vice President, Head of Research at Pliant Therapeutics. It highlighted *in vitro* and *in vivo* data demonstrating improved cell morphology, tissue organization and muscle function in human cells and D2-MDX mice after treatment with PLN-101325. Importantly, results showed significant improvements in diaphragm muscle strength and respiratory function.

"Our novel approach of employing an allosteric activating antibody to increase laminin adhesion of muscle cells, could reduce the ongoing muscle injury and potentially enhance regeneration in muscular dystrophy patients," said Dr. Turner. "The increased diaphragm strength and function seen in D2-MDX mice treated with PLN-101325 highlight the potential of this novel therapy to treat a leading cause of death in muscular dystrophy patients."

Progressive loss of muscle mass and strength, including respiratory muscle strength, has been observed in muscular dystrophy, contributing to death from respiratory insufficiency. The $\alpha_7\beta_1$ integrin is a laminin receptor located on the muscle cell surface that is upregulated in muscular dystrophy patients, serving as a compensatory muscle stabilization mechanism. Activating the $\alpha_7\beta_1$ integrin may help stabilize the muscle membrane, increase muscle strength, and decrease muscle damage. Because $\alpha_7\beta_1$ can compensate for the loss of the dystroglycan complex, this mechanism has the potential to be combined with existing therapies, as well as those currently in development.

A copy of this presentation can be found on the Publications page under the Posters & Presentations section of the Pliant website at www.PliantRx.com.

Pliant expects to file an Investigational New Drug (IND) application on this program by the end of 2022, with an anticipated entry into the clinic in early 2023.

About Pliant Therapeutics, Inc.

Pliant Therapeutics is a clinical stage biopharmaceutical company focused on discovering and developing novel therapies for the treatment of fibrosis. Pliant's lead product candidate, PLN-74809, is an oral small molecule dual selective inhibitor of $\alpha_v\beta_6$ and $\alpha_v\beta_1$ integrins that is in development in the lead indications for the treatment of idiopathic pulmonary fibrosis, or IPF, and primary sclerosing cholangitis, or PSC. PLN-74809 has received Fast Track Designation and Orphan Drug Designation from the U.S. Food and Drug Administration (FDA) in IPF and Orphan Drug Designation from the FDA and European Medicines Agency in PSC. Pliant is currently conducting Phase 2a trials of PLN-74809 in the lead indications of IPF and PSC. Pliant has also developed PLN-1474, a small molecule selective inhibitor of $\alpha_v\beta_1$ for the treatment of nonalcoholic steatohepatitis, or NASH with liver fibrosis, which Pliant has transferred to Novartis pursuant to our development partnership. In addition to clinical stage programs, Pliant currently has two preclinical programs targeting oncology and muscular dystrophies. For additional information about Pliant Therapeutics, visit www.pliantrx.com and follow us on [Twitter](#), [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 our planned development activities, our plans to file an IND for the PLN-101325 program by year-end 2022 and potential clinical effects of PLN-101325. 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 regulatory submissions, approvals, preclinical or clinical trials, the impact of the ongoing COVID-19 pandemic on our business, operations, clinical supply and plans, 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, 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 Annual Report on Form 10-K filed for the year ended December 31, 2021 with the SEC on March 1, 2022, as updated by our Quarterly Report on Form 10-Q filed for the quarter ended March 31, 2022 with the SEC on May 9, 2022, each 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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