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# Corbus Pharmaceuticals to Present Gene Expression Data from Recent Phase 2 Systemic Sclerosis Study Demonstrating JBT-101 Inhibits Inflammation and Fibrosis Pathways

**Data to be presented at Corbus Pharmaceuticals' upcoming R&D day on March 13th**

NORWOOD, MA -- (Marketwired) -- 03/08/17 -- [Corbus Pharmaceuticals Holdings, Inc.](#) (NASDAQ: CRBP) ("Corbus" or the "Company"), a clinical stage drug development company targeting rare, chronic, serious inflammatory and fibrotic diseases, announced today that Michael L. Whitfield, Ph.D., Professor of Molecular and Systems Biology, Dartmouth Geisel School of Medicine and Scientific Founder of Celdara Medical, LLC, will present data demonstrating JBT-101 treatment of systemic sclerosis patients inhibits gene expression of key regulatory proteins in molecular pathways associated with activating inflammation and fibrosis, while increasing gene expression in pathways associated with lipid metabolism responsible for resolving inflammation. The data were obtained from analyses of skin biopsies taken from systemic sclerosis patients before and after 12 weeks of treatment with [JBT-101 in the Company's recently completed Phase 2 study in diffuse cutaneous systemic sclerosis \("systemic sclerosis"\)](#). The presentation will be on [March 13, 2017, in New York City, at the Research and Development Day hosted by Corbus](#).

Dr. Whitfield and his team have pioneered the field of genome-wide transcriptome analysis in systemic sclerosis. They have previously mapped gene expression networks composed of distinct, but interconnected, components related to the immune system, extracellular matrix deposition, remodeling, and cell proliferation.

Dr. Whitfield will present data showing distinct differences in gene expression profiles between skin biopsy samples from systemic sclerosis patients receiving JBT-101 and those receiving placebo. Specifically, expression of multiple genes in molecular pathways of extracellular matrix organization, collagen metabolism, inflammatory response, response to cytokines, and angiogenesis were decreased after oral treatment with JBT-101, but not placebo. In contrast, expression of gene transcripts associated with bioactive lipid metabolism pathways, including lipid biosynthetic enzymes and fatty acid metabolism enzymes were increased in skin biopsies from subjects receiving JBT-101, but not placebo.

"These data show concurrent reduction of gene expression in both inflammatory and fibrotic pathways with drug treatment in patients with systemic sclerosis that is not evident in the placebo control arm. The changes are occurring in a short timeframe suggesting that if we followed patients for a longer period of time, we may see even more robust responses," said Dr. Whitfield.

"These data confirm and further elucidate the mechanism of action of JBT-101 in systemic sclerosis patients and support the positive clinical benefit that was observed with JBT-101 treatment in the [recently completed Phase 2 study](#). We look forward to advancing JBT-101 into further testing of efficacy and safety in this disease," stated [Barbara White, M.D., Chief Medical Officer of Corbus](#).

Interested parties may access a live video webcast and accompanying slide presentation on the [Events](#) page of the [Investors](#) section of the Company's website at [www.CorusPharma.com](http://www.CorusPharma.com). The webcast will be accessible for 90 days following the event.

### **About Systemic Sclerosis**

Systemic sclerosis is a chronic, systemic autoimmune rheumatic disease with an unclear etiology. Systemic sclerosis affects approximately 90,000 people in the United States and Europe, with disease onset typically in mid-life. About 80 percent of systemic sclerosis patients are women. The disease process in systemic sclerosis includes activation of the immune system, with damage to small blood vessels and fibrosis of the skin on internal organs, including lungs, heart, kidneys, gastrointestinal tract and musculoskeletal system. Chronic disease burden, morbidity and mortality are significant. Cardiopulmonary disease is the major cause of death in systemic sclerosis. Immunosuppressive medications such as oral corticosteroids, methotrexate, cyclophosphamide, and mycophenolate mofetil are used to treat patients with more severe signs and symptoms of disease. Currently, there are no FDA-approved treatments specifically indicated for the treatment of systemic sclerosis, other than pulmonary artery hypertension secondary to connective tissue diseases such as systemic sclerosis.

### **About JBT-101**

JBT-101 is a novel synthetic oral endocannabinoid-mimetic drug that preferentially binds to the cannabinoid receptor type 2 (CB2) expressed on activated immune cells and fibroblasts. CB2 activation triggers endogenous pathways that resolve inflammation and halt fibrosis. Preclinical and Phase 1 studies have shown JBT-101 to have a favorable safety, tolerability and pharmacokinetic profile. It has also demonstrated promising potency in preclinical models of inflammation and fibrosis. JBT-101 is designed to trigger the production of "Specialized Pro-resolving Lipid Mediators" that activate an endogenous cascade responsible for the resolution of inflammation and fibrosis, while reducing production of multiple inflammatory mediators. In effect, JBT-101 triggers endogenous pathways to turn "off" chronic inflammation and fibrotic processes, without causing immunosuppression.

### **About Corbus**

Corbus Pharmaceuticals Holdings, Inc. is a clinical stage pharmaceutical company focused on the development and commercialization of novel therapeutics to treat rare, chronic, and serious inflammatory and fibrotic diseases. The Company's lead product candidate, JBT-101, is a novel synthetic oral endocannabinoid-mimetic drug designed to resolve chronic inflammation, and fibrotic processes. In November 2016, Corbus reported positive topline data results from a Phase 2 study in diffuse cutaneous systemic sclerosis, showing clear

signal of clinical benefit with JBT-101. The Company recently completed a Phase 2 study of JBT-101 for the treatment of cystic fibrosis with topline data expected to be announced before the end of the first quarter of 2017. Additionally, JBT-101 is being evaluated in a Phase 2, 12-month open-label extension study in systemic sclerosis, a Phase 2 study in skin-predominant dermatomyositis, with a 12-month open-label extension study in dermatomyositis and another Phase 2 study in systemic lupus erythematosus planned to commence in the second quarter of 2017.

For more information, please visit [www.CorbusPharma.com](http://www.CorbusPharma.com) and connect with the Company on [Twitter](#), [LinkedIn](#), [Google+](#) and [Facebook](#).

### ***Forward-Looking Statements***

This press release 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 and Private Securities Litigation Reform Act, as amended, including those relating to the Company's product development, clinical trials, clinical and regulatory timelines, market opportunity, competitive position, possible or assumed future results of operations, business strategies, potential growth opportunities and other statement that are predictive in nature. These forward-looking statements are based on current expectations, estimates, forecasts and projections about the industry and markets in which we operate and management's current beliefs and assumptions.

These statements may be identified by the use of forward-looking expressions, including, but not limited to, "expect," "anticipate," "intend," "plan," "believe," "estimate," "potential," "predict," "project," "should," "would" and similar expressions and the negatives of those terms. These statements relate to future events or our financial performance and involve known and unknown risks, uncertainties, and other factors which may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Such factors include those set forth in the Company's filings with the Securities and Exchange Commission. Prospective investors are cautioned not to place undue reliance on such forward-looking statements, which speak only as of the date of this press release. The Company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise.

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