

## **PRO-PHARMACEUTICALS APPOINTS NOTED PIONEER IN LIVER DISEASES, SCOTT L. FRIEDMAN, M.D., TO SCIENTIFIC ADVISORY BOARD**

*Current Chief of the Division of Liver Diseases at Mount Sinai School of Medicine and President-elect of the American Association for the Study of Liver Diseases*

**Newton, MA (July 10, 2008) Pro-Pharmaceuticals, Inc. (AMEX: PRW)**, a company developing proprietary carbohydrate-based therapeutic compounds to treat serious diseases such as cancer and fibrosis, has named Scott L. Friedman, M.D., to its Scientific Advisory Board.

Dr. Friedman, Fishberg Professor of Medicine and Chief of the Division of Liver Diseases at Mount Sinai School of Medicine in New York, has performed pioneering research into the underlying causes of scarring, or fibrosis, associated with chronic liver disease, by characterizing the key fibrogenic cell type, the hepatic stellate cell. He and his team are also responsible for the discovery of a novel tumor suppressor gene, KLF6 that is inactivated in a number of human cancers, including primary liver cancer.

“There are currently no approved anti-fibrotic treatments for patients with liver disease. The area of anti-fibrotics is generating great interest based on their potential to impact chronic liver disease and I look forward to working with Pro-Pharmaceuticals to help develop their promising compounds,” said Dr. Scott L. Friedman.

“We are delighted to welcome Dr. Friedman to our Scientific Advisory Board, as he brings a wealth of experience in liver disease, notable credentials and shares our commitment to developing a new generation of liver fibrosis treatments.” said David Platt, Ph.D., chief executive officer of Pro-Pharmaceuticals, Inc. “Our fibrosis compounds reduced collagen expression and caused the regression of liver fibrosis in animal models. Collaborating with Dr. Friedman will indeed bring us closer to the development of a new paradigm in treating liver fibrosis.”

In 2006, Pro-Pharmaceuticals entered into a research collaboration with Mount Sinai School of Medicine to evaluate the anti-fibrotic effects of the Company’s novel, carbohydrate compounds. Mount Sinai has one of the world’s largest, most productive and well-respected liver programs.

### **Mount Sinai and Hepatic Fibrosis**

A unique program, under the direction of Dr. Scott Friedman, the Division Director of Liver Diseases and a world authority on liver fibrosis, has been established to facilitate the development of novel diagnostic methods and treatments of liver fibrosis. In partnership with key pharmaceutical companies, Dr. Friedman and his group monitor the development and testing of potential anti-fibrotic compounds in cultured cells, in animal models of hepatic fibrosis, and in clinical trials of patients with chronic liver disease.

All chronic liver diseases can cause fibrosis, or scarring. Fibrosis is the reason patients with liver disease develop liver failure and may need transplantation. Thus, efforts to stop fibrosis may prevent complications of all chronic liver diseases, thereby avoiding the need for transplantation. Currently more than four million people in the U.S. have Hepatitis C Virus, and many will develop severe fibrosis and liver failure over the next two decades.

Mount Sinai is at the forefront of liver fibrosis research. Dr. Friedman has assembled a world-class team who together are exploring the fundamental mechanisms underlying liver fibrosis or scarring. From these basic investigations have begun to emerge major new insights into how this fibrosis can be stopped.

### **Molecular Regulation of Hepatic Fibrosis**

Dr. Friedman's work explores the molecular mechanisms of wound healing and liver fibrosis. He uses a variety of animal and cell culture models to identify key inflammatory mediators and signaling molecules regulating the activation of hepatic stellate cells, the principle fibrogenic cells in the liver. Additionally, he tests anti-fibrotic lead compounds to develop potential new therapies for patients with chronic fibrosing liver diseases.

### **Dr. Scott Friedman, Professor, Medicine/ Liver Diseases**

Dr. Friedman has performed pioneering research into the underlying causes of scarring, or fibrosis associated with chronic liver disease, which affects millions worldwide. Dr. Friedman was the first to isolate and characterize the hepatic stellate cell, which is the key cell type responsible for scar production in liver. This work followed from earlier studies by Drs. Hans Popper and Fenton Schaffner of Mount Sinai who emphasized the stellate cell's potential importance in liver disease. Liver fibrosis has assumed major importance as a potential treatment target for the millions of patients infected with Hepatitis C, and much of this excitement can be traced to Dr. Friedman's contributions. His work has been continuously funded by the NIH since 1985, in addition to grants from the American Heart Association and the American Gastroenterological Association.

Dr. Friedman is a graduate of Mount Sinai School of Medicine, where he served as the President of Alpha Omega Alpha Honor Society and was an awardee of the Arthur Aufses, Sr. Prize in Surgery. Dr. Friedman was a Medical Resident at the Beth Israel Hospital, Harvard Medical School, Boston, then a Gastroenterology Fellow at University of California San Francisco before assuming a faculty position there which he held for ten years. During a sabbatical from UCSF, he was a Fulbright Scholar and Visiting Professor at the Weizmann Institute of Science in Israel, in the laboratory of Dr. Moshe Oren. In 2003, Dr. Friedman was awarded the Hans Popper International Liver Research Prize, recognizing his pioneering work into mechanisms and treatments of hepatic fibrosis.

### **About Pro-Pharmaceuticals Fibrosis Compounds**

Pro-Pharmaceuticals is developing a series of novel carbohydrate compounds that reduced collagen expression and caused the regression of liver fibrosis in animal models. Uncontrolled collagen expression is a pathological process that occurs during the fibrotic process, affecting various organs and leads to scar tissue. Chemical toxicity, microbial infection or physical injury cause hepatic, renal, cardiac and pulmonary fibrosis. Carbohydrate polymers were synthesized and screened to inhibit collagen production in *in-vivo* and *in-vitro* fibrosis models. The Company is collaborating with Mount Sinai School of Medicine in New York to evaluate the anti-fibrotic effects of the Company's carbohydrate compounds on liver fibrosis.

The Company also entered into a research collaboration with The Brigham and Women's Hospital to evaluate the anti-fibrotic effects of the Company's novel, carbohydrate compounds to treat acute and chronic kidney disease. Brigham and Women's Hospital is one of the largest, most respected research hospitals in the country. According to the National Kidney Foundation, approximately 12 million people suffer from kidney fibrosis.

### **About Pro-Pharmaceuticals, Inc. – Advancing Drugs Through Glycoscience®**

Pro-Pharmaceuticals is a clinical stage pharmaceutical company engaged in the discovery, development and commercialization of carbohydrate-based, target therapeutic compounds for advanced treatment of cancer, liver, microbial and inflammatory diseases. The Company's initial focus is the development of carbohydrate polymers to treat cancer patients. DAVANAT®, the Company's lead product candidate, is a polysaccharide polymer that is in Phase II trials for colorectal

and biliary cancer. The Company's technology is also being used to develop new chemical entities to treat liver and kidney fibrosis. The Company is headquartered in Newton, Mass. Additional information is available at [www.pro-pharmaceuticals.com](http://www.pro-pharmaceuticals.com).

**FORWARD LOOKING STATEMENTS:** Any statements in this news release about future expectations, plans and prospects for the Company, including without limitation statements containing the words "believes," "anticipates," "plans," "expects," and similar expressions, constitute forward-looking statements as defined in the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on management's current expectations and are subject to a number of factors and uncertainties, which could cause actual results to differ materially from those described in such statements. We caution investors that actual results or business conditions may differ materially from those projected or suggested in forward-looking statements as a result of various factors including, but not limited to, the following: uncertainties as to the utility and market for our potential products; uncertainties associated with pre-clinical and clinical trials of our product candidates. More information about those risks and uncertainties is contained in the Company's most recent quarterly or annual report and in the Company's other reports filed with the Securities and Exchange Commission. While the Company anticipates that subsequent events may cause the Company's views to change, the Company disclaims any obligation to update such forward-looking statements.

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