

# **Pro-Pharmaceuticals Expands Patent Coverage to Japan**

# Patent Covers Use of DAVANAT® with Chemotherapy to Increase Effectiveness and Reduce Side Effects of Cancer Treatments

NEWTON, Mass.--(BUSINESS WIRE)--Pro-Pharmaceuticals, Inc. (OTC: PRWP), the leading developer of therapeutics that target Galectin proteins to treat cancer and fibrosis, today announced that the Japan Patent Office has accepted a new patent, No. 2002-574987, "Co-administration of a Polysaccharide with a Chemotherapy for the Treatment of Cancer". The patent protects, among other things, methods for reducing the toxicity of chemotherapies in which a polysaccharide, such as the Company's lead drug DAVANAT®, is co-administered with a chemotherapeutic agent to reduce toxicity of the chemotherapy. This is the seventh patent in Pro-Pharmaceuticals growing patent portfolio that covers its core Galectin-targeting compounds and further reinforces the proprietary nature of DAVANAT®, the Company's lead drug, in major markets around the world.

In 2010, the Japanese pharmaceutical market was the second largest in the world, with a value of \$58.5 billion, according to Visiongain, an independent business information provider.

"We continue to strengthen our intellectual property portfolio beyond the U.S. We expect similar success with additional patent applications pending in Europe, Brazil, and other key markets," said Peter G. Traber, M.D., President and CEO, Pro-Pharmaceuticals. "The new patent covers the administration of a therapeutic agent to cancer patients to enhance efficacy while substantially reducing toxicity and the well-known, undesirable side effects suffered by most chemotherapy patients. The patent also allows claims for the composition of matter for DAVANAT® itself.

"Our technology improves the efficacy and safety profile of chemotherapy by targeting Galectins, which are proteins involved in the progression of cancer. Based on data in our own studies as well as third party studies at major international laboratories, we are confident that our Galectin-targeting compounds will soon play a major role in advancing the treatment of cancer and liver fibrosis," said Anatole Klyosov, Ph.D., D.Sc., Chief Scientist, Pro-Pharmaceuticals.

#### About GM-CT-01 (DAVANAT®)

DAVANAT®, the Company's lead product candidate, is a polysaccharide polymer that targets Galectin proteins that are over expressed by cancer cells and interferes with their activity. Peer-reviewed studies have demonstrated that Galectins affect cell development and play important roles in cancer, including tumor cell survival, invasion, metastasis, and angiogenesis and give the tumor the ability to evade the immune system. To date, DAVANAT® has been administered to approximately 100 cancer patients. Data from a Phase II trial for end-stage colorectal cancer patients showed that DAVANAT® in combination with 5-FU extended median survival by 46% compared with the best standard of care as determined by the patients' physicians. Clinical trial results also showed that patients experienced fewer serious adverse side effects of the chemotherapy.

### About GM and GR Series of Anti-Fibrosis Compounds

The GM and GR series of compounds are first-in-class, novel carbohydrate compounds that significantly reduced collagen expression and reversed fibrosis in animal models. Uncontrolled collagen expression is a pathological process that occurs during the fibrotic process, affecting various organs leading to scar tissue. Chemical toxicity, microbial infection or physical injury cause hepatic, renal and other types of fibrosis. Carbohydrate polymers were developed and screened to inhibit collagen production in in-vivo and in-vitro fibrosis models.

## About Pro-Pharmaceuticals, Inc.

Pro-Pharmaceuticals, OTC: PRWP, the leader in the field of Galectin therapeutics, is engaged in the discovery, development and commercialization of therapeutics that target Galectin proteins for advanced treatment of cancer and fibrosis. Initially, the product pipeline is focused on increasing the efficacy and decreasing the toxicity of chemotherapy drugs and the treatment of liver fibrosis. The Company is headquartered in Newton, Mass. Additional information is available at <a href="http://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Fwww.pro-pharmaceuticals.com&esheet=6695309&lan=en-US&anchor=www.pro-pharmaceuticals.com&index=1&md5=b52d8d4bdd3bcb257a8800d579851d50.</a>

FORWARD LOOKING STATEMENTS: Any statements in this news release about future expectations, plans and prospects for the Company constitute forward-looking statements as defined in the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements, including statements about clinical trials and core operations funding, 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 and not place undue reliance on forward-looking statements.

More information about those risks and uncertainties is contained and discussed in the Company's most recent quarterly or annual report and in the Company's other reports filed with the Securities and Exchange Commission. The forward-looking statements represent the Company's views as of the date of this news release and should not be relied upon to represent the Company's views as of a subsequent date. 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.

DAVANAT is a registered trademark of Pro-Pharmaceuticals.