

SPHERIX ANNOUNCES RESULTS FROM NEW PRECLINICAL STUDIES SHOWING SPX-106T PRODUCES SIGNIFICANT REDUCTIONS IN CHOLESTEROL, FAT DEPOSITION AND BODY WEIGHT

Results to Be Presented Wednesday, October 26, at AAPS National Meeting in Washington, DC

BETHESDA, MD (October 24, 2011) – Spherix Incorporated (NASDAQ: SPEX) – an innovator in biotechnology for therapy in diabetes, metabolic syndrome and atherosclerosis, and providers of technical and regulatory consulting services to food, supplement, biotechnology and pharmaceutical companies – today announced that SPX-106T (the combination of D-tagatose and SPX-106) reduced dyslipidemia in new studies of apolipoprotein E-deficient mice and Syrian Golden hamsters. This finding corroborates data obtained in LDL receptor-deficient mice (see Spherix press release of September 8, 2011). Additionally, a new study in rats demonstrates that D-tagatose inhibits fructose absorption in the gastrointestinal tract, providing further insight into the mechanism of action of SPX-106T.

“Successful results in additional animal models increases our confidence going into human clinical trials with SPX-106T next spring,” noted Dr. Claire Kruger, CEO of Spherix.

In a poster at the American Association of Pharmaceutical Scientists (AAPS) National Meeting, Spherix summarizes results obtained with SPX-106T in two strains of genetically engineered mice prone to dyslipidemia. SPX-106T significantly reduced VLDL and LDL cholesterol in LDL receptor-deficient mice fed normal chow. In apolipoprotein E-deficient mice fed a Western (high fat/high carbohydrate) diet, SPX-106T significantly reduced serum cholesterol by 30% (-307 mg/dl; $p < 0.05$), prevented body weight gain ($p < 0.05$), and significantly reduced the amount of subcutaneous, retroperitoneal, and epididymal fat (77, 90, 85% reductions, respectively, $p < 0.01$) (see figure below). SPX-106T did not affect the weight of other organs (heart, spleen, etc.). A recent range-finding dose study in hamsters fed the same Western diet and given SPX-106T provided evidence that the combination was effective in reducing serum triglycerides.

“An important new element in our work with SPX-106T is that we are now performing studies designed specifically to test therapy in diet-induced lipidemia, using dosing and timing information derived from the studies completed a few months ago in LDL receptor-deficient mice,” said Dr. Robert Lodder, President of Spherix.

The poster is authored by Dr. Kruger; Dr. Lodder; Dr. Dietrich Conze, Science Consultant; and Dr. A. Wallace Hayes, Principal Advisor. It will be presented at the AAPS National Meeting from 8 a.m. to 12 noon local time on Wednesday, October 26, 2011. The Meeting is being held at the Walter E. Washington Convention Center in Washington, D.C. from October 23 through 27.

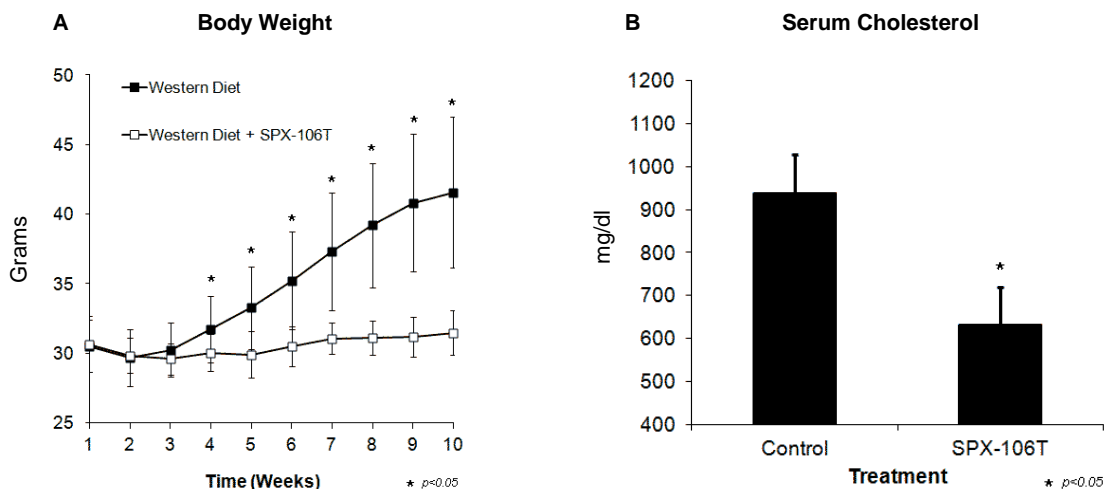


Figure: SPX-106T reduces diet-induced body weight gain and hypercholesterolemia in apolipoprotein E (apo E)-deficient mice. (A) Body weights were quantified over the course of 10 weeks for apo E-deficient mice fed a western diet with or without SPX-106T. (B) Serum cholesterol was quantified in apo E-deficient mice after 10 weeks of consuming a western diet with or without SPX-106T.

Spherix also demonstrates that D-tagatose blocks absorption of fructose through the gut. D-tagatose administered to Sprague-Daley rats in ascending doses was given in combination with ¹⁴C-fructose and blood levels of ¹⁴C-fructose were quantified over 60 minutes. Results showed that D-tagatose significantly decreased the amount of plasma ¹⁴C-fructose up to 30% (p<0.05). The resulting decrease in systemically absorbed fructose is a mechanism by which D-tagatose can effectively reduce diet-induced dyslipidemia.

Together, the results from these new studies provide compelling evidence to support the use of SPX-106T as a therapy for dyslipidemia. Mechanistically, D-tagatose is a “sugar blocker” inhibiting carbohydrate-induced lipid synthesis. SPX-106 is a naturally synthesized peroxisome proliferator-activated receptor (PPAR) agonist. PPARs are nuclear receptors that bind DNA when activated and regulate the expression of genes involved in lipid catabolism and the uptake of oxidized LDLs. Thus, combining the mechanisms of action of D-tagatose and SPX-106, SPX-106T is thought to synergistically treat dyslipidemia by simultaneously blocking carbohydrate conversion to lipids and promoting lipid catabolism (lipid breakdown).

About Spherix

Spherix Incorporated was launched in 1967 as a scientific research company under the name Biospherics Research. The Company now leverages its scientific and technical expertise and experience through its two subsidiaries – Biospherics Incorporated and Spherix Consulting, Inc. Biospherics is dedicated to developing and licensing/marketing proprietary therapeutic products for treatment of diabetes, metabolic syndrome and atherosclerosis. Biospherics is actively seeking a pharmaceutical partner to continue the development of its Phase 3 compound for the treatment of diabetes, D-tagatose, while exploring new drugs and combinations for treatment of high triglycerides, a risk factor for atherosclerosis, myocardial infarction, and stroke. Spherix's Consulting subsidiary provides scientific and strategic support for suppliers, manufacturers, distributors and retailers of conventional foods, biotechnology-derived foods, medical foods, infant formulas, food ingredients, dietary supplements, food contact substances, pharmaceuticals, medical devices, consumer products and industrial chemicals and pesticides. For more information, please visit www.spherix.com.

Forward-Looking Statements

This release contains forward-looking statements which are made pursuant to provisions of Section 21E of the Securities Exchange Act of 1934. Investors are cautioned that such statements in this release, including statements relating to planned clinical study design, regulatory and business strategies, plans and objectives of management and growth opportunities for existing or proposed products, constitute forward-looking statements which involve risks and uncertainties that could cause actual results to differ materially from those anticipated by the forward-looking statements. The risks and uncertainties include, without limitation, risks that product candidates may fail in the clinic or may not be successfully marketed or manufactured, we may lack financial resources to complete development of D-tagatose, the FDA may interpret the results of studies differently than us, competing products may be more successful, demand for new pharmaceutical products may decrease, the biopharmaceutical industry may experience negative market trends, our continuing efforts to develop D-tagatose may be unsuccessful, our common stock could be delisted from the Nasdaq Capital Market, and other risks and challenges detailed in our filings with the U.S. Securities and Exchange Commission. Readers are cautioned not to place undue reliance on any forward-looking statements which speak only as of the date of this release. We undertake no obligation to publicly release the results of any revisions to these forward-looking statements that may be made to reflect events or circumstances that occur after the date of this release or to reflect the occurrence of unanticipated events.

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