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Spherix Expands Development Strategy for D-Tagatose Seeks Pharma Partner For Continued Development in Diabetes

Bethesda, MD – June 23, 2010 - Spherix Incorporated (NASDAQ CM: SPEX), an innovator in biotechnology for diabetes therapy, and a provider of technical and regulatory consulting services to food, supplement, biotechnology and pharmaceutical companies, today announced that it will explore triglycerides as a potential therapeutic opportunity for its D-tagatose therapy, pending a review of data from a Phase 3 clinical trial the Company is conducting on the use of D-tagatose as a treatment for Type 2 diabetes. Reduction of triglyceride levels is a secondary endpoint of the Phase 3 trial. Results from the trial are expected later this summer.

In an unblinded Phase 2 trial designed to establish the minimum dose capable of affecting HbA1c, there was a 21% reduction in triglycerides from the patients who received 7.5 g tagatose compared to the patients who received 2.5 g tagatose. The patients had a mean triglyceride level of 180 mg/dl, which falls in the “borderline high” range, according to National Cholesterol Education Project guidelines, and triglycerides were reduced by -38 mg/dl on average. The triglyceride levels of 172 patients have been monitored for 6 months on therapy as part of the trial.

“The triglyceride market is certainly in need of new therapeutic options because current agents have significant deficits,” says John Amatruda, M.D., a drug development executive formerly with Bayer and Merck. “For instance, niacin, an important anti-triglyceride medicine with a proven cardiovascular benefit, may raise blood glucose levels, cause hepatic toxicity, and may be associated with myopathy when taken with statins. Side effects also include nausea and flushing, which can result in patient non-compliance. A new product that shows important triglyceride lowering benefits should be considered for drug development. I look forward to seeing the data from Phase 3 diabetes trial later this summer.”

The \$26 billion global dyslipidemia market in 2009 was comprised of statins and statin combinations (\$22.4 billion), niacin (\$1 billion), fenofibrates (\$2.2 billion), and omega-3 fatty acid (\$0.7 billion in prescription sales only). Current clinical guidelines in treatment of hypertriglyceridemia requires diet and lifestyle modification, single or combination drug therapy, and in extreme cases, plasma apheresis to physically clear lipids from the blood.

“The Company believes that D-tagatose’s potential in the triglyceride market could prove even more attractive than its potential in the diabetes market given the high cost and lengthy process of bringing diabetes drugs to market,” said Dr. Claire L. Kruger, Chief Executive Officer of Spherix.

The cost burden of developing drugs specifically for diabetes has increased significantly within the last few years under evolving and more stringent FDA guidelines. A Spherix-commissioned analysis estimates it would take several additional years of clinical trials and millions of dollars to achieve an NDA filing for tagatose under current guidelines. Spherix has determined that continued development of D-tagatose as a treatment for Type 2 diabetes requires the involvement of a pharma partner with the resources needed to fund the rest of the development and to bring it to market. The results from the Phase 3 trial will be pivotal in these negotiations, and Spherix expects that the Phase 3 data will show a robust proof of concept demonstrating safety and efficacy for D-tagatose for Type 2 diabetes, potentially making it an attractive candidate for further development by a pharma company.

“As we seek a partner to pursue the diabetes development, we will be shifting the focus of our own R&D efforts to triglycerides, provided of course that the results we see support earlier findings,” said Dr. Kruger.

Update On Tagatose Phase 3 Clinical Trial In Type 2 Diabetes

In line with earlier estimates, the Company will announce the results of its Phase 3 clinical trial of tagatose in the treatment of Type 2 diabetes later this summer. The Naturlose (D-tagatose) Efficacy Evaluation Trial (NEET) trial was initiated in 2007 and is a double-blind, placebo-controlled study designed to evaluate the safety and efficacy of D-tagatose as a monotherapy as an adjunct to diet and exercise. The study involves 332 patients in the US and India. The primary endpoint is change in HbA1c, with secondary endpoints including triglyceride, glucose and insulin profiles and changes in body weight.

With the requirement for a separate and much larger safety trial, the safety portion of the current NEET trial is no longer necessary and accordingly was discontinued earlier this month. "We have been reassured by the fact that, to date, there does not appear to be any significant safety concerns in the Phase 3 trial," says Randy Brown, Chief of Clinical Operations. "However, we concluded that this trial is not large enough to meet the FDA's new safety requirements. Therefore, we made a management decision not to continue the Phase 3 trial beyond the 6-month efficacy endpoint. We're pleased that the study is sufficiently powered for efficacy and are eagerly awaiting the efficacy results in a few weeks."

About Triglycerides

Triglycerides are one of the fats found in blood. The body converts any calories that are not immediately used into triglyceride and stores it in fat cells. The calories are either released by the liver and circulate in VLDL or are metabolized by fat and released as fatty acids. Between meals, when the body needs energy, hormones release the stored triglycerides from fat cells as free fatty acids for energy. In contrast, cholesterol, another type of fat found in the bloodstream, is used by the body to build cells and some types of hormones.

Scientists aren't exactly sure of the role that triglyceride plays in heart disease. However, they think it contributes to hardening of the arteries, which contributes to stroke, heart disease and heart attacks. High triglyceride levels are sometimes a symptom of conditions associated with heart disease such as obesity and metabolic syndrome, which is a condition associated with elevated glucose levels as well as too much fat around the waist, high blood pressure, high triglycerides and low HDL cholesterol.

About D-tagatose

D-tagatose is a novel and natural oral agent that prevents the stimulation of insulin secretion, avoids beta cell exhaustion and naturally lowers blood glucose levels. D-tagatose has an established safety profile as an artificial sweetener and has been recognized by the FDA as a GRAS (Generally Recognized As Safe) substance for use in food and beverages since 2001. Spherix has intellectual property protecting D-tagatose, with two U.S. patents and one patent pending.

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. The Spherix Consulting 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, including our current report on Form 8-K filed on October 10, 2007. 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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