



NEWS RELEASE

FOR IMMEDIATE RELEASE:

PROTEA BIOSCIENCES AND MAYOLY-SPINDLER ANNOUNCE HUMAN CLINICAL TRIAL FOR NEW BIOPHARMACEUTICAL

Morgantown, West Virginia, June 22 2010 – Protea Biosciences, a leading developer of new technology for pharmaceutical research, announced today that the company, in partnership with Mayoly-Spindler, a European pharmaceutical company, has commenced a Phase I/IIA human clinical trial for a new recombinant Lipase.

The clinical trial will be conducted at the Hospital "la Timone" in Marseilles, France. The goal of the clinical trial is to demonstrate safety and proof-of-concept data for the recombinant lipase as treatment for chronic pancreatitis.

Lipase is an enzyme that is produced by the pancreas to digest fat. Chronic pancreatitis is defined as long term inflammation of the pancreas, characterized by irreversible changes in pancreatic cells. This chronic inflammation can lead to chronic abdominal pain and/or impairment of hormone and digestive enzyme functions of the pancreas, and can produce serious weight loss. A lack of digestive enzymes made by the pancreas results in the inability to properly digest food and absorb nutrients, resulting in malnutrition. Vitamin absorption (A, D, E, and K) is impaired. The main clinical symptoms are fat malabsorption known as steatorrhea, diarrhea, weight loss, abdominal discomfort and abdominal swelling.

"In extensive preclinical studies, our Lipase was shown to be fifty times more active than currently available products", stated Steve Turner, Protea's CEO. "The challenge has been to find a lipase that will be active in the harsh environment of the GI tract where you have low pH, protein degradation, and the presence of bile salts. Discovered in a French government laboratory, we believe this recombinant Lipase is the best one ever to be produced. "

"We are very pleased to begin this Phase I/IIA human clinical trial. We strongly believe that such a product could have a significant improvement for the treatment of Exocrine Pancreatic Insufficiency" stated Jean-Nicolas Vernin, Mayoly-Spindler laboratories 's CEO

According to IMS Health, the worldwide market for global prescription sales of existing pancreatic enzyme replacement products was approximately \$858 million in 2007. There are over 200,000 patients in the United States who suffer from symptoms of EPI.

Under terms of their partnership agreement, Protea receives from Mayoly-Spindler the exclusive marketing rights for the recombinant Lipase in North America.

Protea Biosciences, Inc. (<u>www.proteabio.com</u>) develops new technologies that enable the direct analysis of proteins in biological samples, and applies its technology to the development of new pharmaceuticals, products and services.

Laboratoires Mayoly-Spindler is a privately-owned French pharmaceutical company, founded in 1929, focused primarily on gastroenterology. (www.mayoly-spindler.com)

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