

SOURCE: Neptune Technologies & Bioresources Inc.

Neptune Technologies & Bioresources Inc. subsidiary Acasti Pharma Inc. reports superior effect of Drug Candidate CaPre™ over Lovaza®

CaPre® Scores 105% Higher than Prescription Drug Lovaza® on Omega-3 Index Test

Laval, Québec, CANADA – September 22, 2010 – Neptune Technologies & Bioresources Inc. (“Neptune”) (NASDAQ.NEPT - TSX.V.NTB) subsidiary Acasti Pharma Inc. reports preclinical results showing that its leading drug candidate CaPre™, performed better than the currently marketed drug, Lovaza®, by increasing the HS-Omega-3 Index® 105% more. The index measures an emerging risk factor for sudden death from coronary heart disease.

The results of the present preclinical study indicate that on a per gram basis [total eicosapentaenoic acid (“EPA”) and docosahexaenoic acid (“DHA”)], CaPre™ scored 105% higher than Lovaza® on the HS-Omega-3 Index®; CaPre™ increased the index by 63% versus a 31% increase by Lovaza®. More specifically, per gram of EPA content, CaPre™ increased the HS-Omega-3 Index® by 103% compared to 55% by Lovaza and on a per gram of DHA, CaPre™ increased the HS-Omega-3 Index® by 161% compared to 69%; scoring respectively 86% and 134% higher than Lovaza®.

Healthy adult male rats were treated daily with either 1g CaPre™ or 4g Lovaza® human equivalent doses. After two months of treatment, the HS-Omega-3 Index® was measured using technology developed by an independent US-based laboratory lead by an internationally recognized expert on omega-3 fatty acids. The HS-Omega-3 Index® is measured in red blood cells and is expressed as a percentage of EPA + DHA of total fatty acids.

“These results indicate that CaPre™ may be more effective than Lovaza® in improving HS-Omega-3 Index®, a scientifically accepted coronary heart disease risk factor” said Dr. Bruno Battistini, Senior Director, Pharmaceutical R&D. “Considering that a unit increase of the HS-Omega-3 Index® is associated with about a 40% lower risk for sudden cardiac death (C. Albert et. al., NEJM, 2002), the current data suggest that a low dose of CaPre™ may help to prevent this condition and other heart-related morbidities.”

Lovaza® is the only FDA approved prescription fish oil solely indicated for the treatment of severe hypertriglyceridemia (very high triglycerides >500mg/dl). According to market research firm IMS Health, global sales of Lovaza® topped \$1 billion in 2009, with \$758 million of those sales originating in the U.S. GlaxoSmithKline PLC (LSE/NYSE: GSK) acquired the USA rights to Lovaza® by its acquisition of Reliant Pharmaceuticals Inc. in 2007 for \$1.65 billion.

“It is noteworthy that one gram per day omega-3 of Acasti drug candidate CaPre™ has potentially better beneficial effects than Lovaza®, as indicated by the present increase in the HS-Omega-3 Index®. These results, along with previously reported beneficial lipid-management effects of CaPre™, repeatedly shown to significantly reduce triglycerides and LDL (bad cholesterol) while increasing HDL (good cholesterol), suggest that Acasti’s prescription drug candidate CaPre™ potentially offers more complete lipid management in dyslipidemic patients than presently existing options” said Dr. Tina Sampalis, President of Acasti.

According to the American Heart Association’s Heart Disease and Stroke Statistics, 2010 update, an estimated 81 million American adults (more than one in three) have one or more types of cardiovascular disease. Of these, 38 million are estimated to be age 60 or older and 17.6 million involve coronary heart disease.

About Neptune Technologies & Bioresources Inc.

Neptune is an industry-recognized leader in the innovation, production and formulation of science-based and clinically proven novel phospholipid products for the nutraceutical and pharmaceutical markets. The Company focuses on growing consumer health markets including cardiovascular, inflammatory and neurological diseases driven by consumers taking a more proactive approach to managing health and preventing disease. The Company sponsors clinical trials aimed to demonstrate its product health benefits and to obtain regulatory approval for label health claims. Neptune is continuously expanding its intellectual property portfolio as well as clinical studies and regulatory approvals. Neptune's products are marketed and distributed in over 20 countries worldwide.

About Acasti Pharma Inc.

Acasti Pharma is developing a product portfolio of proprietary novel long-chain omega-3 phospholipids. Phospholipids are the major component of cell membranes and are essential for all vital cell processes. They are one of the principal constituents of High Density Lipoprotein (good cholesterol) and, as such, play an important role in modulating cholesterol efflux. Acasti Pharma's proprietary novel phospholipids carry and functionalize the polyunsaturated omega-3 fatty acids EPA and DHA, which have been shown to have substantial health benefits and which are stabilized by potent antioxidants. Acasti Pharma is focusing initially on treatments for chronic cardiovascular conditions within the over-the-counter, medical food and prescription drug markets.

About NeuroBioPharm Inc.

NeuroBioPharm is pursuing pharmaceutical neurological applications, and a clinical study for a medical food product with a multinational partner is already initiated. The development of a prescription drug candidate is currently in progress. Advanced clinical development and commercialization is planned to be carried out with multinational partners.

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