

Annual Conference on

# Atherosclerosis and Clinical Cardiology

July 11-12, 2016 Philadelphia, USA



## Dennis I Goldberg

LipimetiX Development, Inc., USA

### Clinical development of apolipoprotein E mimetic peptides

A<sub>EM</sub>-28 (hE18A), the prototype 28 amino acid Apolipoprotein E mimetic is being developed for the treatment of refractory dyslipidemias and acute coronary syndrome. As part of the preclinical pharmacology program, AEM-28 was tested in cynomolgus monkeys to examine the effect of the peptide in a model with normal apo E expression and functionality. The monkeys were fed a high-fat and cholesterol diet that raised their cholesterol to 325 mg/kg. The monkeys were treated in an ascending dose protocol with 3, 6 or 12 mg/kg, biweekly. The animals were maintained on the high-fat and cholesterol diet throughout the study and recovery period following each dose. A single infusion of AEM-28, 12 mg/kg, decreased cholesterol to 100 mg/kg within 24 hours. Total cholesterol in the cynos remained 25% below baseline one week after infusion of AEM-28, despite continuation of the experimental diet. This resulted in a dramatic decrease in artery wall cholesterol exposure. AEM-28 was tested in Phase 1/2a clinical trials, demonstrating dose dependent decreases in VLDL cholesterol and TG of more than 70% within 1 hour of infusion. The 3.54 mg/kg peptide dose decreased fasting TG from 140 mg/dl to 32 mg/dl and VLDLc decreased from 32 mg/dl to 8 mg within 1 hour. VLDLc and TG decreases were identical after each of three doses administered in the Phase 2a study, indicating the absence of neutralizing antibody formation. AEM-28-14, is a novel, second generation peptide that is 4X more potent than the prototype peptide in animal models. A new formulation has increased the NOAEL dose in animals 5X, potentially increasing the therapeutic window 20X. LipimetiX plans to move AEM-28-14 into the clinical in the first half of 2017.

### Biography

Dennis I Goldberg has served as President, CEO and Founder of Transport Pharmaceuticals, Inc., President, CEO and Founder of neXus therapeutics, inc., a biotechnology management and consulting company, President, CEO and Director of BZL Biologics, a company developing monoclonal antibodies for the treatment of prostate cancer. He was President, CEO and co-Founder of Talaria Therapeutics and also Vice President of Product development and regulatory Affairs at GelTex Pharmaceuticals (NASDAQ:GELX), where he was responsible for all biological and clinical development activities at the company, leading to the approval of RenaGel® and WelChol®. He was also co-founder of Transcend Therapeutics, a spin out of Clintec Nutrition Co. (a joint venture between Baxter and Nestle), where he was Vice President of Research and Development, and Science Coordinator for the Atherosclerosis Research Program at Pfizer Central Research. He holds a PhD in Physiology and Biochemistry from Temple University and received Post-doctoral training at the University of Pennsylvania and at the Specialized Center of Research on Atherosclerosis, University of California, San Diego. He is a Fellow of the American Heart Association. He has published extensively in basic and clinical sciences and is the inventor on fifteen USA patents.

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