

From the University of Mississippi Medical Center Division of Public Affairs

CLINICAL TRIAL REVEALS PTEROSTILBENE LOWERS BLOOD PRESSURE IN ADULTS

Media contact: Mitchell Diggs (601) 915-7066 or mdiggs@olemiss.edu. Photos can be found [here](#).

JACKSON, Miss. – A form of pterostilbene, a compound found naturally in blueberries, reduces blood pressure in adults, according to results of a clinical trial presented today at the American Heart Association's 2012 Scientific Sessions on High Blood Pressure Research in Washington, D.C.

The randomized, double-blind, placebo-controlled study was conducted by University of Mississippi School of Pharmacy and School of Medicine researchers to determine whether pterostilbene (tero-STILL-bean), an ingredient being marketed as pTeroPure[®], improves cardiovascular health.

Investigators evaluated the ingredient in 80 patients with high cholesterol (total cholesterol of 200 or greater and/or LDL cholesterol of 100 or greater). Twice daily for six to eight weeks, participants received either high (125 mg) doses of pterostilbene, low (50 mg) doses of pterostilbene, pterostilbene (50 mg) with grape extract (100 mg), or a placebo, said Daniel M. Riche, the study's principal investigator.

Investigators assessed patients' blood pressure, body weight and blood lipids at the beginning and end of their participation in the study.

"We found reduced systolic and diastolic blood pressure in patients who received the high dose of pterostilbene and reduced systolic blood pressure in patients who received the low dose of pterostilbene with grape extract," said Riche, an assistant professor of pharmacy practice and medicine at the UM Medical Center in Jackson.

Participants in the high-dose pterostilbene group (250 mg per day) achieved significant reductions in blood pressure compared to placebo: 7.8 mmHg in systolic BP (p less than 0.01) and 7.3 mmHg in diastolic BP (p less than 0.001).

The only change in lipids was an increase in LDL cholesterol with pterostilbene (24.9 mg/dL, p less than 0.001), which was less among participants already on cholesterol-lowering medication and was not seen among those who also received the grape extract. Participants not on cholesterol medication also achieved a minor average reduction in body weight (reduced body mass index of 0.59 kg/m²) with pterostilbene; body weight did not change significantly compared to placebo for the other participants.

Patent rights covering the use of pterostilbene for various health benefits were licensed from UM for commercial development two years ago by the ChromaDex Corp., which is marketing it as pTeroPure, the key ingredient in BluScience™, a line of dietary supplements available in some 17,000 outlets across the country. The California-based company provided support to the university for its year-long clinical study (<http://clinicaltrials.gov> identifier NCT 01267227).

"We are pleased that the University of Mississippi Medical Center conducted our first human study, which was a key to us and our commitment to providing clinical proof for our ingredients," said Frank Jaksch

Jr., CEO and co-founder of ChromaDex. "This is an important milestone for us in adding credibility to our products for further market expansion opportunities."

Along with Dr. Marion Wofford, professor of medicine, the study's co-investigators include Justin J. Sherman, associate professor of pharmacy practice; Michael E. Griswold, director of UMMC's Center for Biostatistics; and Krista D. Riche, clinical pharmacy specialist at St. Dominic Hospital in Jackson.

"We are pleased to work with ChromaDex to explore the potential of this dietary supplement ingredient to improve the health and well-being of people in the U.S. and around the globe," said School of Pharmacy Dean David D. Allen.

ChromaDex is a leader in the development of phytochemical and botanical reference standards and the creation of associated intellectual property. The company is committed to sustainable "green chemistry" and provides dietary supplement, food, beverage, nutraceutical and cosmetic industries with novel ingredients, analytical tools and services to meet product regulatory, quality, efficacy and safety standards. For more information about the company, visit <http://chromadex.com>.

The UM School of Pharmacy has earned national and international recognition for accomplishments in education; basic, translational and clinical research; and professional community service. Its faculty members are involved in patient care and research at the university's hospitals and clinics and are dedicated to improving health through practice, teaching and research. For more information about the school, visit <http://www.pharmacy.olemiss.edu>.

The UM Medical Center is the university's academic health sciences campus. UMMC operates five hospitals, five schools and the state's largest biomedical and health science research enterprise. The Medical Center's threefold mission is to educate tomorrow's health care professionals, conduct innovative research to improve human health and to provide the highest quality care available to the state's population. For more information about programs at the Medical Center, go to <http://www.umc.edu>.

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