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Amarantus Exercises Exclusive Option with Leipzig University for Alzheimer's Blood Diagnostic "LymPro Test 2.0"

- Scope of exercised Exclusive Option Agreement expanded to include negotiations for IP rights to additional key markers collected in German clinical study, including CSF-tau

NEW YORK, May 30, 2018 (GLOBE NEWSWIRE) -- Via OTC PR Wire -- Amaranthus Bioscience Holdings, Inc. (OTC Pink:AMBS) (the "Company," or AMBS), a US-based JLABS-alumnus biotechnology holding company, developing first-in-class orphan neurologic, regenerative medicine and ophthalmic therapies and diagnostics through its subsidiaries, today announced that based upon its review of the clinical data from a German-based clinical study led by Leipzig University's (Leipzig) Dr. Thomas Arendt, the Company has exercised its Exclusive Option with Leipzig to negotiate license rights to Alzheimer's blood diagnostic "LymPro Test 2.0," which compares traditional LymPro Test results with those of amyloid PET imaging for the diagnosis of Alzheimer's disease. Amaranthus and Leipzig have agreed to expand the scope of license negotiations to include additional key markers collected during the clinical study, including CSF-tau.

"LymPro holds significant promise as a solution to one of the key areas of Alzheimer's research: the use of a blood-based biomarker for the early detection of Alzheimer's, either at the pre-symptomatic stage or mild cognitive impairment stage, in patients likely to progress to full dementia of the Alzheimer's-type," said Dr. Michael Ropacki, Chief Medical Advisor for LymPro.

Leipzig University has completed a clinical study comparing LymPro's ability to distinguish dementia of the Alzheimer's-type from other types of dementia, as diagnosed using clinical assessments and biological markers (including amyloid PET imaging and CSF-tau). Upon closing a final license agreement for Leipzig's IP Rights related to LymPro Test 2.0, as well as related collaboration agreements, Amaranthus will collaborate with Leipzig on a confirmatory clinical study that is already enrolling in Germany under Dr. Arendt's supervision.

[AAIC 2015 Poster Presentation of LymPro Test LP-002 Clinical Data](#)

[Amarantus Alzheimer's Diagnostics Scientific Advisory Board](#)

[LymPro Test CLIA Validation complete](#)

[Dr. Ropacki Appointed Chief Medical Advisor for Alzheimer's Blood Diagnostic LymPro](#)

[Test](#)

About Alzheimer's Disease

According to the Alzheimer's Association, it is estimated that over 5.4 million people in the United States suffer from Alzheimer's disease. Over 500,000 patients are diagnosed annually, with nearly one-in-eight older Americans affected by the disease. Alzheimer's disease is the third leading cause of death in the United States. The cost of unpaid care in the United States is estimated at over \$210 billion annually. Total payments for care are estimated at over \$200 billion annually, including \$140 billion in cost to Medicare and Medicaid. Alzheimer's expenditures in the United States are expected to exceed \$1.2 trillion by 2050. There is no cure or effective treatment for Alzheimer's disease. Worldwide, about 35.6 million individuals have the disease and, according to the World Health Organization, the number will double every 20 years to 115.4 million people with Alzheimer's by 2050.

About Dr. Arendt's Research at Leipzig University

Dr. Thomas Arendt is Professor of Neuroscience at Leipzig University where he runs the Paul Flechsig Institute of Brain Research. He has a 30-year record in R&D of therapeutic and diagnostic strategies of neurodegenerative disorders and made several seminal contributions to therapeutic concepts of Alzheimer's disease, including stem cell therapy and modulating tumor suppressor genes. In the early 1980's, he was involved in identifying the degeneration of the cholinergic system in Alzheimer's disease laying the basis for today's only available treatment. He is one of the pioneers of the "cell-cycle theory" of Alzheimer's disease, which he developed towards a diagnostic and therapeutic concept.

About LymPro Test

The Lymphocyte Proliferation Test (LymPro Test) is a diagnostic blood test that determines the ability of peripheral blood lymphocytes (PBLs) and monocytes to withstand an exogenous mitogenic stimulation that induces them to enter the cell cycle. It is believed that certain diseases, most notably Alzheimer's disease, are the result of compromised cellular machinery that leads to aberrant cell cycle re-entry by neurons which then leads to apoptosis. LymPro is unique in the use of peripheral blood lymphocytes as a surrogate for neuronal cell function, suggesting a common relationship between PBLs and neurons in the brain.

About Amaranthus Bioscience Holdings, Inc.

Amarantus Bioscience Holdings (AMBS) is a JLABS alumnus biotechnology company developing treatments and diagnostics for diseases in the areas of neurology, regenerative medicine and orphan diseases through its subsidiaries. AMBS' wholly-owned subsidiary Elto Pharma, Inc. has development rights to eltoprazine, a Phase 2b-ready small molecule indicated for Parkinson's disease levodopa-induced dyskinesia, Alzheimer's aggression and adult attention deficit hyperactivity disorder, commonly known as ADHD. AMBS acquired the rights to the Engineered Skin Substitute program, a regenerative medicine-based approach for treating severe burns with full-thickness

autologous skin grown in tissue culture that is being pursued by AMBS' wholly-owned subsidiary Cutanogen Corporation. AMBS' wholly-owned subsidiary MANF Therapeutics, Inc. owns key intellectual property rights and licenses from a number of prominent universities related to the development of the therapeutic protein known as mesencephalic astrocyte-derived neurotrophic factor ("MANF"). MANF Therapeutics, Inc. is developing MANF-based products as treatments for brain and ophthalmic disorders. MANF was discovered by the Company's Chief Scientific Officer John Commissiong, PhD. Dr. Commissiong discovered MANF from AMBS' proprietary discovery engine PhenoGuard. The Company also re-acquired rights to the Alzheimer's blood diagnostic LymPro Test , MSPrecise and NuroPro.

For further information please visit www.Amarantus.com, or connect with the Amaranthus on [Facebook](#), [LinkedIn](#), [Twitter](#) and [Google+](#).

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