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Amarantus Opens First Clinical Trial Site and Commences Patient Enrollment for Lead Product Candidate Eltoprazine's Phase 2b Study in Parkinson's Disease Levodopa-Induced Dyskinesia

- Study Commenced at the Parkinson's Disease and Movement Disorders Center of Boca Raton, a Nationally Recognized Leading Clinical Research Institution -

SAN FRANCISCO and GENEVA, June 5, 2015 (GLOBE NEWSWIRE) --Amarantus BioScience Holdings, Inc. (OTCQB:AMBS), a biotechnology company focused on developing diagnostics in neurology, and therapeutic products in the areas of neurology, psychiatry, ophthalmology and orphan diseases, announced that the first clinical trial site is now open for enrollment for the Phase 2b study of its lead product candidate eltoprazine for the treatment of Parkinson's disease levodopa-induced dyskinesia (PD-LID).

The study will commence at the Parkinson's Disease and Movement Disorders Center of Boca Raton, a nationally recognized leading clinical research institution renowned for its testing of new treatments for improving the symptoms of Parkinson's disease (PD) and decelerating its progression. Stuart H. Isaacson, M.D., Director of the Parkinson's Disease and Movement Disorders Center of Boca Raton, will serve as Principal Investigator.

"We are pleased that the first Parkinson's disease center of excellence is now available for enrollment in our PD-LID clinical study with eltoprazine," said Gerald E. Commissiong, President & CEO of Amarantus BioScience Holdings, Inc. "Advancing eltoprazine in this Phase 2 program represents an important milestone for the Company and a critical step in building momentum with our therapeutic pipeline where we expect to make significant progress over the course of 2015."

Parkinson's disease levodopa-induced dyskinesia (PD-LID) is an abnormal involuntary, movement disorder resulting from prolonged levodopa-based therapy, the most commonly prescribed treatment for Parkinson's disease. PD-LID occurs in approximately 60-80% of PD patients and is one of the most difficult problems facing people with the disease. This dyskinesia can be severely disabling and impact quality of life by prohibiting the ability to perform routine daily functions.

"I look forward to commencing dosing in this important Phase 2b trial, especially given the data from the earlier eltoprazine Phase 2a study demonstrating such encouraging tolerability

and significantly reduced peak dose dyskinesia," commented Dr. Isaacson. "I believe eltoprazine has tremendous potential as a meaningful therapy to address a significant unmet need and improve the quality of life for individuals with Parkinson's disease."

The multi-center, 60-subject Phase 2b study in individuals with Parkinson's disease is a double-blind, placebo-controlled, four-way crossover, dose range finding, clinical trial designed to evaluate dose response effect of repeated eltoprazine dosing on safety, tolerability and dyskinesia severity using state-of-the-art rating scales, diaries and motion sensors (ClinicalTrials.gov Identifier: NCT02439125). Pharmacokinetics and pharmacodynamics will also be evaluated. The Company anticipates that results from the study will be available in 2016.

Additional study sites throughout the United States and Europe will be forthcoming for the Phase 2b clinical study with eltoprazine for the treatment of PD-LID.

Parkinson's Disease and Movement Disorders Center of Boca Raton

The Parkinson's Disease and Movement Disorders Center of Boca Raton is a nationally recognized leading clinical research institution that brings community access to Phase 2 and Phase 3 FDA-regulated clinical research trials testing new treatments for improving the symptoms of Parkinson's disease and trying to slow its progression. This Clinical Research Center is directed by Dr. Stuart Isaacson with experienced and compassionate research coordinators, and has conducted clinical research programs that have been sponsored by the Parkinson Study Group, the National Institutes of Health, the Michael J. Fox Foundation for Parkinson's Research, and numerous pharmaceutical companies. Over the past decade, research programs have led to the approval of several new medications for the progression of the disease. Ongoing studies have the potential for providing new hope for patients not responding well to current therapies. The Clinical research programs, and their commitment to helping find better treatments to not only improve symptoms, but also to ultimately slow, stop, or reverse the progression of the disease.

About Eltoprazine

Eltoprazine is a small molecule $5HT_{1A/1B}$ partial agonist in clinical development for the treatment of Parkinson's disease levodopa-induced dyskinesia (PD-LID), adult attention deficit hyperactivity disorder (ADHD) and Alzheimer's aggression. Eltoprazine has been evaluated in over 680 human subjects to date, and has a well-established safety profile. Eltoprazine was originally developed by Solvay Pharmaceuticals for the treatment of aggression. Upon Solvay's merger with Abbott Pharmaceuticals, the eltoprazine program was out-licensed to PsychoGenics. PsychoGenics licensed eltoprazine to Amarantus following successful proof-of-concept trials in PD-LID and adult ADHD.

About Parkinson's Disease and Levodopa-Induced Dyskinesia (PD-LID)

Parkinson's disease (PD) is a chronic, progressive neurodegenerative disorder that causes motor symptoms such as tremors, rigidity and slowed movements as well as non-motor symptoms including cognitive impairment, mood disorders and autonomic dysfunction. The Parkinson's Disease Foundation estimates that there are approximately one million people living with Parkinson's disease in the United States and seven to 10 million PD patients worldwide. The most commonly prescribed treatments for Parkinson's disease are levodopa-

based therapies. In the body, levodopa is converted to dopamine to replace the dopamine loss caused by the disease. As dopamine neurons in the brain are lost the therapeutic efficacy of levodopa attenuates, and increased use is associated with a side effect of dyskinesias. These are involuntary, uncontrollable and often exaggerated and jerky movements. They are distinct from the static, rhythmic tremor as a symptom of Parkinson's disease. Levodopa-induced dyskinesia can be severely disabling, rendering patients unable to perform routine daily tasks.

About Amarantus BioScience Holdings, Inc.

Amarantus BioScience Holdings (AMBS) is a biotechnology company developing treatments and diagnostics for diseases in the areas of neurology, psychiatry, ophthalmology and regenerative medicine. AMBS' Therapeutics division has development rights to eltoprazine, a Phase 2b ready small molecule indicated for Parkinson's disease levodopa-induced dyskinesia, adult ADHD and Alzheimer's aggression, and owns the intellectual property rights to a therapeutic protein known as mesencephalic-astrocyte-derived neurotrophic factor (MANF) and is developing MANF-based products as treatments for brain and ophthalmic disorders. AMBS' Diagnostics division owns the rights to MSPrecise®, a proprietary next-generation DNA sequencing (NGS) assay for the identification of patients with relapsing-remitting multiple sclerosis (RRMS) at first clinical presentation, has an exclusive worldwide license to the Lymphocyte Proliferation test (LymPro Test®) for Alzheimer's disease, which was developed by Prof. Thomas Arendt, Ph.D., from the University of Leipzig, and owns intellectual property for the diagnosis of Parkinson's disease (NuroPro). AMBS also owns the discovery of neurotrophic factors (PhenoGuard™) that led to MANF's discovery.

For further information please visit www.Amarantus.com, or connect with the Company on Facebook, LinkedIn, Twitter and Google+.

Forward-Looking Statements

Certain statements, other than purely historical information, including estimates, projections, statements relating to our business plans, objectives, and expected operating results, and the assumptions upon which those statements are based, are forward-looking statements. These forward-looking statements generally are identified by the words "believes," "project," "expects," "anticipates," "estimates," "intends," "strategy," "plan," "may," "will," "would," "will be," "will continue," "will likely result," and similar expressions. Forward-looking statements are based on current expectations and assumptions that are subject to risks and uncertainties which may cause actual results to differ materially from the forward-looking statements. Our ability to predict results or the actual effect of future plans or strategies is inherently uncertain. Factors which could have a material adverse effect on our operations and future prospects on a consolidated basis include, but are not limited to: changes in economic conditions, legislative/regulatory changes, availability of capital, interest rates, competition, and generally accepted accounting principles. These risks and uncertainties should also be considered in evaluating forward-looking statements and undue reliance should not be placed on such statements.

CONTACT: Investor and Media Contact:
Jenene Thomas
Jenene Thomas Communications, LLC
Investor Relations and Corporate Communications Advisor

T: (US) 908.938.1475
E: jenene@jenenethomascommunications.com

Source: Amarantus BioScience Holdings, Inc.