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Amarantus Announces Positive MANF Ocular Toxicology Data

SAN FRANCISCO and GENEVA, Sept. 9, 2014 (GLOBE NEWSWIRE) --Amarantus Bioscience Holdings, Inc. (OTCQB:AMBS), a biotechnology company focused on the development of diagnostic and therapeutic interventions for Alzheimer's disease, Parkinson's disease and orphan ophthalmological disorders, today announced positive 15-day non-GLP toxicology data for a single intravitreal administration of MANF in an ocular safety animal model, relevant to MANF's development in ocular diseases, including orphan indications such as Retinitis Pigmentosa. The intravitreal method of administration was chosen because it is the delivery method expected for human application of MANF. The experiments were conducted at a leading ophthalmology contract research laboratory in France.

"We are pleased to see continued progress in our orphan program for MANF in ophthalmological diseases," said Gerald E. Commissiong, President & CEO of Amarantus. "The results seen in this ocular tolerance study are encouraging for an initial clinical focus on MANF in orphan ocular diseases. This data will support the preparation of our orphan drug designation application with the FDA for MANF in one or more ocular disorders in the fourth quarter, including Retinitis Pigmentosa."

The aim of this study was to evaluate the ocular tolerance of MANF after a single intravitreal administration in pigmented rabbits over a 15 day period at dosing levels expected to be above therapeutically relevant dosing levels in human. Ten female pigmented rabbits were divided in two groups of five animals each, corresponding to treatment with MANF and treatment with vehicle (control). MANF and the vehicle were dosed by intravitreal injection in the right eye once, on Day 1. Slit-lamp examinations on four days during the 15-day follow-up period were complemented with a histopathology evaluation of the treated eyes on day 15. There were no treatment or administration-related effects on body weight, clinical observations or ophthalmic examinations. No pathological findings related to treatment were found in any of the eyes observed during histopathology evaluation. The report from the study concluded that a single intravitreal administration of MANF in pigmented rabbits was macroscopically and microscopically very well tolerated.

About Retinitis Pigmentosa

Retinitis Pigmentosa (RP) refers to a group of inherited diseases causing retinal degeneration. The cell-rich retina lines the back inside wall of the eye and is responsible for capturing images from the visual field. People with RP experience a gradual decline in their vision because photoreceptor cells (rods and cones) die. Symptoms include a progressive degeneration of peripheral and night vision as well as the degeneration in color perception and central vision; night blindness is one of the earliest and most frequent symptoms of RP. RP is typically diagnosed in adolescents and young adults. The rate of progression and

degree of visual loss varies from person to person. Most people with RP are legally blind by age 40. There are approximately 100,000 patients in the United States, 100,000 patients in Europe and 50,000 patients in Japan diagnosed with RP, qualifying is as an orphan indication. There are currently no approved treatments in the market. It is estimated the RP is a multi-billion dollar market opportunity.

About Mesencephalic-Astrocyte-derived Neurotrophic Factor (MANF)

MANF (Mesencephalic-Astrocyte-derived Neurotrophic Factor) is believed to have broad potential because it is a naturally-occurring protein produced by the body for the purpose of reducing and preventing apoptosis (cell death) in response to injury or disease, via the unfolded protein response of the endoplasmic reticulum. By manufacturing MANF and administering it to the body, Amarantus is seeking to use a regenerative medicine approach to assist the body with higher quantities of MANF when needed. Amarantus is the front-runner and primary holder of intellectual property (IP) around MANF, and is initially focusing on the development of MANF-based protein therapeutics. MANF's current lead indication is Retinitis Pigmentosa, and other applications including Parkinson's disease, Alzheimer's disease and Wolfram's Syndrome. Additional applications for MANF may include Traumatic Brain Injury (TBI), myocardial infarction, antibiotic-induced ototoxicity and certain other rare orphan diseases currently under evaluation.

About Amarantus BioScience Holdings, Inc.

Amarantus BioScience Holdings (AMBS) is a biotechnology company developing treatments and diagnostics for diseases associated with neurodegeneration and protein misfolding-related apoptosis. AMBS has licensed Eltoprazine ("Eltoprazine"), a phase 2b ready small molecule indicated for Parkinson's Levodopa induced dyskinesia and Adult ADHD. AMBS has an exclusive worldwide license to the Lymphocyte Proliferation test ("LymPro Test(R)") for Alzheimer's disease 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 disorders. AMBS also owns intellectual property for the diagnosis of Parkinson's disease ("NuroPro") and the discovery of neurotrophic factors ("PhenoGuard"). Amarantus operations are located at Janssen Labs @QB3 in San Francisco, CA. For further information please visit www.Amarantus.com, or connect with the Company on Facebook, LinkedIn, Twitter and Google+.

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.

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