Amarantus Announces Positive Independent Peer-Reviewed Preclinical Data for MANF in Alzheimer's and Diabetes

SAN FRANCISCO, May 1, 2014 (GLOBE NEWSWIRE) -- Amarantus Bioscience Holdings, Inc. (OTCQB:AMBS), a biotechnology company focused on the discovery and development of novel diagnostics and therapeutics related to cell cycle dysregulation, endoplasmic reticulum stress, neurodegeneration and apoptosis, today announced the publication of positive independent peer-reviewed data on MANF in the areas of Alzheimer's disease and Diabetes, as well as additional studies further supporting its critical role in proper cellular function. The studies further corroborate the role of MANF's critical importance in reducing misfolded protein concentration and improving proper overall endoplasmic reticulum function.

In a study entitled "MANF Inhibits Tau Hyperphosphorylation in Cultured Neuronal Cells" published in the journal Chinese Pharmacological Bulletin, the authors demonstrated that MANF had a pronounced effect in reducing tau hyperphosphorylation, reducing cell death, and improving overall cellular health in a preclinical models. Misfolded tau is a significant part of the pathophysiology of Alzheimer's disease and Chronic Traumatic Encephalopathy (CTE). The data in the study demonstrated:

- Pretreatment with recombinant MANF can inhibit okadaic acid (OA) induced tau hyperphosphorylation in N2a cells;
- Transfection of N2a cell with MANF cDNA also inhibits OA-induced tau hyperphosphorylation and supports cell viability;
- Downregulation of MANF with siRNA promotes OA-induced toxicity.

In a study entitled "MANF Is Indispensable for the Proliferation and Survival of Pancreatic β Cells" published in the journal Cell, the authors demonstrated that MANF is essential for the protection and proliferation of pancreatic beta islet cells. Beta islet cells degenerate via apoptosis in Type-1 Diabetes, Type-2 Diabetes and Wolfram Syndrome. The data in the study demonstrate:

- MANF-deficient mice show growth retardation and a diabetic phenotype;
- Beta cell mass is significantly reduced in MANF KO mice, caused by decreased proliferation and increased apoptosis;
- Recombinant MANF significantly increases beta cell proliferation in vitro, while overexpression of MANF in the pancreas of diabetic mice enhances beta cell regeneration.
"The underlying mechanism of MANF appears to be truly unique, breakthrough biology with the potential to alter the practice of medicine in various large, underserved medical applications worldwide," said David A. Lowe, PhD and member of the Amarantus Board of Directors. "These two papers are particularly striking, given the emerging evidence for overlap in mechanisms involved in Alzheimer's disease and Diabetes. They provide further support for our work and raise the spectrum of future clinical developments, alongside Retinitis Pigmentosa and Parkinson's disease, into which our current development activities with MANF could feed. We are currently focused on the translation of this tremendous biological opportunity into clinical development and are making steady progress in this regard. We are encouraged the worldwide research community continues to increase the value of our IP position by publishing such important work and is conducting much of the proof of concept work related to this fascinating molecule as we move towards clinical trials."

About Amarantus

Amarantus is a biotechnology company developing treatments and diagnostics for diseases associated with neurodegeneration and protein misfolding-related apoptosis. The Company has licensed Eltoprazine ("Eltoprazine"), a phase 2b ready indication for Parkinson's Levodopa induced dyskinesia and Adult ADHD. The Company 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. Amarantus is a Founding Member of the Coalition for Concussion Treatment (#C4CT), a movement initiated in collaboration with Brewer Sports International seeking to raise awareness of new treatments in development for concussions and nervous-system disorders. The Company also owns intellectual property for the diagnosis of Parkinson's disease ("NuroPro") and the discovery of neurotrophic factors ("PhenoGuard"). 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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