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Amarantus BioScience, U.S. Army and Rutgers University in Partnership to Expand Development of Engineered Skin Substitute (ESS) for the Treatment of Severe Thermal Burn Wounds

SAN FRANCISCO and GENEVA, Aug. 3, 2015 (GLOBE NEWSWIRE) --[Amarantus BioScience Holdings, Inc.](#) (OTCQX:AMBS), a biotechnology company developing therapeutic and diagnostic product candidates in orphan indications and neurology, announced the signing of a Cooperative Research and Development Agreement (CRADA) with the U.S. Army Institute of Surgical Research (USAISR) and Rutgers, The State University of New Jersey (Rutgers University) to expand the development of Amarantus' autologous full thickness skin replacement product, Engineered Skin Substitute (ESS), for the treatment of deep partial- and full-thickness burn wounds in adult patients.

"This CRADA represents an important partnership for Amarantus as we work with the USAISR and Rutgers to advance the clinical program for ESS," said Gerald E. Commissiong, President & CEO of Amarantus. "The study is designed to evaluate patient response to ESS as compared to meshed split-thickness autograft (AG). We believe the autologous dermal and epidermal cell matrix from ESS has the potential to provide a more effective direct permanent restoration of structure and function of full thickness skin with minimal scarring."

Amarantus is developing ESS for the treatment of severe burns and is preparing to commence Phase 2 clinical studies in the third quarter of 2015. ESS has received orphan drug designation from the U.S. Food and Drug Administration for the treatment of hospitalized patients with deep partial and full thickness burns requiring grafting, and has an open corporate-sponsored IND under which the clinical study can proceed.

Rick Jocz, Program Manager, Research Directorate, at USAISR, commented, "The U.S. Army is working to address the need for more effective treatments for severe burns. We expect this partnership with Amarantus and Rutgers to enhance our capabilities given that ESS has the potential to provide meaningful reduction in morbidity after life-threatening burns by decreasing the need for skin grafts following wound closure."

In the United States, there are between 500 and 2,000 burn cases annually involving greater than 50% total body surface area, many of which include deep partial or full thickness burns. Recovery from full-thickness burn injuries requires costly and complex critical care. Despite the administration of comprehensive care by specialized burn teams, the immunosuppression caused by the injury makes extensively burned patients susceptible to

sepsis leading to increased morbidity and mortality. Effective skin substitute treatments that provide rapid and permanent wound closure lead to restoration of immune function, one of the key factors to burn patients' survival and recovery.

"This partnership with the USAISR and Amarantus allows us to initiate the investigation of the clinical benefits of ESS in patients with an urgent need for the restoration of healthy skin to promote wound healing and improve clinical outcomes," added Joachim Kohn, Ph.D., Principal Investigator of the Rutgers-Cleveland Clinical Consortium of the Armed Forces Institute of Regenerative Medicine, New Jersey Center for Biomaterials, Rutgers University. "While treatment with autografts is most commonly used, it has several limitations including introduction of additional wound sites, increased risk of infection and hypertrophic scarring particularly in patients with large burn areas affecting a major portion of the total body surface. It is my hope that ESS will provide patients with tangible benefits and we are greatly anticipating the launch of the clinical trial."

About Engineered Skin Substitute (ESS)

Engineered Skin Substitute (ESS) is a tissue-engineered skin prepared from autologous (patient's own) skin cells. It is a combination of cultured epithelium with a collagen-fibroblast implant that produces a skin substitute that contains both epidermal and dermal components. This model has been shown in preclinical studies to generate a functional skin barrier. Most importantly, self-to-self skin grafts for autologous skin tissue are less likely to be rejected by the immune system of the patient, unlike with porcine or cadaver grafts in which immune system rejection is a possibility. ESS has been used in an investigator initiated clinical setting in over 130 human subjects, primarily pediatric patients, for the treatment of severe burns up to 95% total body surface area.

About Amarantus BioScience Holdings, Inc.

Amarantus BioScience Holdings (OTCQX:AMBS) is a biotechnology company developing treatments and diagnostics for diseases in the areas of neurology and orphan diseases. AMBS' Therapeutics division has development rights to eltoprazine, a small molecule currently in a Phase 2b clinical program for Parkinson's disease levodopa-induced dyskinesia with the potential to expand into adult ADHD and Alzheimer's aggression. The Company has an exclusive worldwide license to intellectual property rights associated to Engineered Skin Substitute (ESS), an orphan drug designated autologous full thickness skin replacement product in development for the treatment of severe burns currently preparing to enter Phase 2 clinical studies. AMBS owns the intellectual property rights to a therapeutic protein known as mesencephalic-astrocyte-derived neurotrophic factor (MANF) and is developing MANF as a treatment for orphan ophthalmic disorders, initially in retinitis pigmentosa (RP). AMBS also owns the discovery of neurotrophic factors (PhenoGuard™) that led to MANF's discovery.

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), and 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 further intellectual property for the diagnosis of Parkinson's disease (NuroPro®).

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.

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