

# Amarantus to Evaluate LymPro Test as a Diagnostic and Prognostic for Chronic Traumatic Encephalopathy

CSO Dr. John W. Commissiong to present hypothesis at #C4CT Concussion Awareness Summit

SUNNYVALE, Calif.-- Amarantus BioScience Holdings, Inc. (OTCQB: AMBS), a biotechnology company discovering and developing treatments and diagnostics for diseases associated with neurodegeneration and apoptosis, today announced that it plans to evaluate its LymPro Test® as a potential diagnostic and prognostic for Chronic Traumatic Encephalopathy (CTE).

"The scientific basis of cell-cycle dysfunction that underpins the rationale for development of the LymPro Test as a diagnostic blood test for Alzheimer's disease may also be utilized to diagnose CTE in populations that have been subjected to multiple head injuries and possibly even identify individuals who are pre-disposed to developing CTE before they engage in activities likely to subject them to multiple head injuries," said Dr. John W. Commissiong, Chief Scientific Officer of Amarantus. "As a blood test, LymPro would have significant advantages over other more complex and expensive diagnostic alternatives, in particular the ability to detect the onset of CTE at an early stage. We plan to begin the evaluation process in the second half of 2013 by conducting a small proof-of-concept clinical study in addition to our planned Alzheimer's studies."

Amarantus is a co-host of the Concussion Awareness Summit (#C4CT Summit) being held today at the Minneapolis Club in Minnesota, bringing together current and former professional athletes, scientists, physicians and business leaders to discuss the effects of concussions, including CTE. Dr. Commissiong will be presenting the scientific rationale for the Company's planned studies at the #C4CT Summit later today.

The potential market for a CTE diagnostic/prognostic is large and widespread. According to various surveys and studies, approximately 1.5<sup>1</sup> million Americans participate in contact sports at the collegiate and high school level, with another 3.5<sup>2</sup> million in youth sports leagues. It is estimated that at least 1.6<sup>3</sup> million athletes suffer a concussion each year in the United States; 1.7 million more Americans receive traumatic brain injury through accidents every year<sup>4</sup>; and 274,000 members of the U.S. armed forces have suffered traumatic brain injury since 2000<sup>5</sup>.

## **About Chronic Traumatic Encephalopathy**

Chronic Traumatic Encephalopathy is a progressive degenerative disease of the brain found

in athletes and others with a history of repetitive brain trauma. This trauma, which includes multiple concussions, triggers progressive degeneration of the brain tissue, including the build-up of an abnormal protein called tau. These changes in the brain can begin months, years or even decades after the last concussion or end of active athletic involvement. The brain degeneration is associated with memory loss, confusion, impaired judgment, paranoia, impulse control problems, aggression, depression and, eventually, progressive dementia.

#### **About Amarantus**

Amarantus is a development-stage biotechnology company founded in January 2008. The Company has a focus on developing certain biologics surrounding the intellectual property and proprietary technologies it owns to treat and/or diagnose Parkinson's disease, Traumatic Brain Injury, Ischemic Heart Disease and other human diseases. The Company 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. The Company also 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 and licenses for the diagnosis of Parkinson's disease and Alzheimer's disease. For further information please visit <a href="https://www.Amarantus.com">www.Amarantus.com</a>.

### **Forward Looking Statements**

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements include, but are not limited to, statements about the possible progress of the MANF technology in testing for Parkinson's disease, as well as statements about expectations, plans and prospects of the development of Amarantus' diagnostic product candidates for Parkinson's and Alzheimer's disease, and for Chronic Traumatic Encephalopathy. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including the risks associated with development of therapeutic drug candidates, as well as the risks, uncertainties and assumptions relating to the development of Amarantus' new product candidates, including those identified under "Risk Factors" in Amarantus' most recently filed Annual Report on Form 10-K and Quarterly Report on Form 10-Q and in other filings Amarantus periodically makes with the SEC. Actual results may differ materially from those contemplated by these forward-looking statements Amarantus does not undertake to update any of these forward-looking statements to reflect a change in its views or events or circumstances that occur after the date of this presentation.

#### Sources:

- 1. National High School Athletics Survey 2011
- 2. SafeKids (Gainesville/Hall Counties)
- 3. Pediatrics; American Journal of Sports Medicine, 2011
- 4. Centers for Disease Control and Prevention, 2010

# 5. United States Department of Defense; Defense and Veterans Brain Injury Center, 2013

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