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Amarantus BioSciences Explores Orphan Drug Strategy Based on MANF Protein Folding

SUNNYVALE, Calif., Nov. 1, 2012 /PRNewswire/ -- Amaranthus BioSciences, Inc. (OTCQB: AMBS), a biotechnology company developing new treatments and diagnostics for Parkinson's disease and Traumatic Brain Injury centred on its proprietary anti-apoptosis therapeutic protein MANF, today announced that it intends to pursue the identification of one or multiple therapeutic indications for its lead therapeutic candidate MANF that could lead to the therapy receiving orphan drug designation(s) with the Food and Drug Administration (FDA). The strategy is centred on exploiting MANF's unique mechanism of action related to facilitating proper protein folding and processing in the endoplasmic reticulum in order to identify rare and/or ultra-rare diseases where MANF treatment may play a significant role in improving patient outcomes in disease states where no other treatment options are currently available.

"Protein misfolding and aggregation plays a significant role in a wide range of human diseases, including very common diseases such as Parkinson's and Alzheimer's, as well as many rare and ultra-rare diseases," said Gerald E. Commissiong, President & CEO of Amaranthus. "MANF has a unique ability to mediate protein folding in an extracellular fashion, making it potentially an ideal biologic drug candidate for a wide range of human conditions. Parkinson's continues to remain the Company's primary focus, especially in light of recently announced data where MANF demonstrated superiority over GDNF in a neurorestoration animal model of Parkinson's disease. However, the recent grant the Company was awarded by the Center of Excellence in Apoptosis Research will allow our scientific team to explore MANF's utility in diseases that have much smaller patient populations, and we will make a concerted effort to focus on rare and ultra-rare diseases when reviewing the results. This strategy may afford the Company an accelerated pathway to commercialization by identifying therapeutic applications for MANF that would require few small clinical trials. Data already pooled from publicly available databases suggests this orphan designation strategy may bear fruit for the Company in the near-term."

The Orphan Drug Act (ODA) provides for granting special status to a product to treat a rare disease or condition upon request of a sponsor. The combination of the product to treat the rare disease or condition must meet certain criteria. This status is referred to as orphan designation. Orphan designation qualifies the sponsor of the product for the tax credit and marketing incentives of the ODA. A marketing application for a prescription drug product that has been designated as a drug for a rare disease or condition is not subject to a prescription drug user fee unless the application includes an indication for other than a rare disease or condition.[1]

A prime example of a successful strategy is Genzyme, who was successful in turning its

orphan drug strategy into a \$20.1B buyout by Sanofi Aventis in 2011. Another example of a successful orphan strategy is FerroKin Biosciences, who was successfully acquired by Shire for \$325M in early 2012 with only \$27M in paid-in-capital and a virtual staff of 7 employees. In 2011, Alexion Pharmaceuticals reported \$783M in revenue based on sales of its only product Soliris, a drug that treats a population of approximately 10,000 patients in the US and Western Europe.

About Amaranthus BioSciences, Inc.

Amarantus BioSciences, Inc. 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 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. For further information please visit www.Amarantus.com.

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 benefits of MANF therapeutic applications and/or advantages presented by Amaranthus' PhenoGuard technology, as well as statements about expectations, plans and prospects of the development of Amaranthus' new product candidates. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including the risks that the anticipated benefits of the therapeutic drug candidates or discovery platforms, as well as the risks, uncertainties and assumptions relating to the development of Amaranthus' new product candidates, including those identified under "Risk Factors" in Amaranthus' most recently filed Annual Report on Form 10-K and Quarterly Report on Form 10-Q and in other filings Amaranthus periodically makes with the SEC. Actual results may differ materially from those contemplated by these forward-looking statements. Amaranthus 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.

[1]<http://www.fda.gov/ForIndustry/DevelopingProductsforRareDiseasesConditions/Howtoapply>

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