

Amyris Scientists Describe Breakthrough in Development of Anti-Malarial Drug Precursor

EMERYVILLE, Calif., April 11, 2013 (GLOBE NEWSWIRE) -- Scientists from [Amyris, Inc.](#) (Nasdaq:AMRS), a leading renewable chemicals and fuels company, published in the journal [Nature](#) the details of a major breakthrough in the field of synthetic biology that allows for the production of a key precursor to Artemisinin, the key ingredient in the world's most effective and preferred drug in combating malaria. Earlier today, pharmaceutical company Sanofi [announced the launch](#) of large-scale industrial production of Artemisinin utilizing Amyris designed strains.

"Yesterday, a group of scientists led by Amyris detailed how we engineered simple baker's yeast strains to produce unprecedented concentrations of the precursor to the anti-malarial drug ingredient. Today, Amyris scientists celebrate Sanofi's successful launch of the industrial production of the world's first semi-synthetic Artemisinin utilizing Amyris designed strains," said John Melo, President & Chief Executive Officer of Amyris.

"Sanofi's commercial launch of this key precursor to life-saving drugs produced with our technology underscores not only the success of Amyris's synthetic biology platform at scale but also the positive impact this technology can have on our planet," Melo concluded.

Malaria is a preventable disease that affects over a quarter of a billion people and claims the lives of 650,000 people annually, mostly children under the age of five in Africa. Artemisinin, sourced from the wormwood plant, *Artemisia annua*, has been used for centuries in treating malaria but its availability, cost and quality have been highly volatile.

Working with a number of partners, and with generous support from the Bill & Melinda Gates Foundation via [OneWorld Health](#) (now PATH's Drug Development Program), Amyris developed technology to convert plant-sugars into Artemisinic Acid, a late stage precursor to the anti-malarial drug ingredient, Artemisinin. The details of this breakthrough process, as well as an alternative process for converting Artemisinic Acid into Artemisinin, can be found in the online publication of the scientific journal [Nature](#).

In 2008, as part of this non-profit project, Amyris made available its Artemisinic Acid-producing yeast strains to Sanofi, via OneWorld Health, on a royalty-free basis. As [separately announced](#) by Sanofi earlier today, this technology is now being used at large-scale to produce Artemisinin, which will be combined in pill form with another anti-malarial in what is called Artemisinin-based Combination Therapy (ACT). Sanofi has indicated it plans to produce enough semi-synthetic Artemisinin for up to 150 million ACT treatments by 2014 and will ensure its distribution under the "no profit, no loss" principle.

"Amyris technology will alleviate drug manufacturers' dependency on erratic supply of plant-derived Artemisinin and reduce costs to malaria patients. This non-profit project is at the core of Amyris's values and culture, born from a passion to make a positive impact in the world through science," said Jack Newman, Amyris co-founder and Chief Scientific Officer.

Amyris will present these results alongside other related scientific advances at ["World Malaria Day, A Bay Area Scientific Symposium."](#) The event will be held in Emeryville, CA on April 25 and hosted by the United Nations Association of the USA, Nothing But Nets, the University of California at Davis and Zagaya, a non-profit created and funded by the founders of Amyris.

About Amyris, Inc.

Amyris is an integrated renewable products company focused on providing sustainable alternatives to a broad range of petroleum-sourced products. Amyris uses its industrial synthetic biology platform to convert

plant sugars into a variety of hydrocarbon molecules—flexible building blocks that can be used in a wide range of products. Amyris's initial portfolio of commercial products is based on Biofene, Amyris's brand of renewable farnesene, a long-chain hydrocarbon. Amyris is commercializing these products both as No Compromise® renewable ingredients in cosmetics, flavors and fragrances, polymers, lubricants and consumer products, and also as No Compromise renewable diesel and jet fuel. Amyris Brasil Ltda., a subsidiary of Amyris, oversees the establishment and expansion of Amyris's production in Brazil. More information about Amyris is available at www.amyris.com.

Forward-Looking Statements

This release contains forward-looking statements, and any statements other than statements of historical facts could be deemed to be forward-looking statements. These forward-looking statements include, among other things, statements regarding future events (such as expected timing, scale, economics and impact of semi-synthetic Artemisinin production and distribution) that involve risks and uncertainties. These statements are based on management's current expectations and actual results and future events may differ materially due to risks and uncertainties, including those associated with any delays or failures in development, production or commercialization of products, liquidity and ability to fund capital expenditures, Amyris's reliance on third parties to achieve its goals, and other risks detailed in the "Risk Factors" section of Amyris's quarterly report on Form 10-K filed on March 28, 2013. Amyris disclaims any obligation to update information contained in these forward-looking statements whether as a result of new information, future events, or otherwise.

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