

Amyris Is Selected by NIH Grant Recipient, IDRI, to Engineer Molecules for Vaccine Adjuvant Applications

Sustainable Squalene Replacement Needed for Pharma

EMERYVILLE, Calif. and SEATTLE, Feb. 12, 2019 (GLOBE NEWSWIRE) -- Amyris, Inc. (Nasdaq:AMRS), and IDRI (Infectious Disease Research Institute), are pleased to announce IDRI's receipt of a \$4.4 million, five-year grant from the National Institute of Allergy and Infectious Diseases (part of the U.S. National Institutes of Health) to discover sustainable alternatives to shark squalene to use as vaccine adjuvants (grant number: R01AI135673). Funding is provided by a special bioengineering research grant aimed at bringing engineering expertise to focus on a biomedical problem and ultimately develop a new solution.

Adjuvants are added to vaccines to enhance their effectiveness; the aim of the new project is to discover and evaluate novel, sustainable squalene-like compounds produced by bio- or chemical engineering for vaccine adjuvant applications.

IDRI has selected Amyris and the University of Nottingham, (UK) as partners because of their record of success in engineering pure molecules from sustainable sources at low cost. Instead of sourcing squalene from sharks, Amyris uses patented biotechnology to create squalene-like compounds using sugarcane syrup as the fermentation feedstock. Amyris has developed specific expertise as a clean manufacturer of sustainably sourced squalane.

"While one of our goals is to find a replacement for the pharmaceutical squalene derived from sharks, another key driver of this project is to understand how squalene formulations actually work as adjuvants," said Christopher Fox, PhD, Vice President of Formulations at IDRI and principal investigator for the project. "By generating compounds with various structural alterations, we can study the structure-function relationship of squalene-like molecules and shine a light on their mechanisms of action."

Fox added that key attributes of adjuvants in vaccines are the ability to improve an immune response and minimize the dose of vaccine necessary to confer immunity, which is particularly important where there is a disease outbreak that results in a vaccine shortage. "Development of this technology could enable formulations that effectively increase the number of vaccine doses available in the event of an influenza pandemic for example," Fox said.

"We're pleased to assist IDRI and to work with the University of Nottingham in this endeavor," Amyris President, Research & Development Joel Cherry, Ph.D. said. "Today, we're producing enormous amounts of squalane for customers around the world. This is a sustainably sourced version of squalane, with high purity and performance, and we're looking forward to lending our assistance to apply what we know to benefit more people."

About Amyris

Amyris is the integrated renewable products company that is enabling the world's leading brands to achieve sustainable growth. Amyris applies its innovative bioscience solutions to convert plant sugars into hydrocarbon molecules and produce specialty ingredients and consumer products. The company is delivering its No Compromise™ products and services across a number of markets, including specialty and performance chemicals, flavors and fragrances, cosmetics ingredients, pharmaceuticals, and nutraceuticals. More information about the company is available at www.amyris.com.

About IDRI

As a nonprofit global health organization, IDRI (Infectious Disease Research Institute) takes a comprehensive approach to combat infectious diseases, combining the high-quality science of a research

organization with the product development capabilities of a biotech company to create new diagnostics, drugs and vaccines. Founded in 1993, IDRI has 125 employees headquartered in Seattle with nearly 100 partners/collaborators around the world. For more information, visit www.idri.org.

Forward-Looking Statements

This release contains forward-looking statements, and any statements other than statements of historical fact could be deemed to be forward-looking statements. These statements are based on management's current expectations and actual results and future events may differ materially due to risks and uncertainties, including risks related to Amyris's liquidity and ability to fund operating and capital expenses, potential delays or failures in development, production and commercialization of products, risks related to Amyris's reliance on third parties, and other risks detailed from time to time in filings Amyris makes with the Securities and Exchange Commission, including Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. 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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