

Amyris Announces Positive Pre-Clinical Results For COVID-19 RNA Vaccine Platform With Advantaged Manufacturing, Storage And Distribution Characteristics

EMERYVILLE, Calif., Feb. 22, 2021 /PRNewswire/ -- Amyris, Inc. (Nasdaq: AMRS), a leading synthetic biotechnology company active in the Clean Health and Beauty markets through its consumer brands and a top supplier of sustainable and natural ingredients, today announced highly promising preliminary data in a pre-clinical study of its ribonucleic acid (RNA) COVID-19 vaccine platform as well as the potential to address current manufacturing, supply scale-up and refrigerated storage and distribution challenges.

On October 22, 2020, Amyris announced that it entered into a collaboration agreement and exclusive license with the Infectious Disease Research Institute (IDRI) to advance a novel RNA vaccine platform, including the development of a COVID-19 vaccine.

Preliminary data from a pre-clinical study of IDRI's Nanostructured Lipid Carrier (NLC) vaccine platform demonstrated a significant level of antibody production against the COVID-19 spike protein using a self-adjuvanting RNA vaccine. The results were consistent with similar data published by Moderna and Pfizer/BioNTech on their respective messenger RNA technologies. The Amyris/IDRI platform will be advancing to phase 1 clinical trials with the support of the Portuguese government and other partnerships.

The Amyris/IDRI RNA platform technology is expected to offer manufacturing, storage, and distribution advantages for the use and development of future vaccines, and to address the ongoing evolution of SARS-CoV-2 (COVID-19) and other potential pandemics.

- Scaling up production of formerly niche substances such as lipid nanoparticles for a global vaccine has been among the most complex challenges for the ramp up of vaccine manufacturing and distribution. The Amyris/IDRI RNA platform does not use difficult to source components but instead uses commercially available lipids and detergents. One of these lipids is Amyris's sustainable sugarcane squalene which would replace the use of traditional shark-derived squalene in vaccines.
- Some of the current mRNA vaccines use a novel microfluid technology methodology for which limited manufacturing capacity is available. The Amyris/IDRI platform's manufacturing process is designed with a well-established oil-in-water emulsion technology that is already used in commercialized vaccines.
- Current COVID-19 mRNA vaccines pose storage and distribution challenges due to the requirement of a deep cold chain to keep vaccines at sufficiently low temperatures which compromises universal accessibility of vaccine distribution. The Amyris/IDRI RNA platform demonstrates adaptability of a NLC RNA vaccine delivery system without reducing the efficacy of the RNA. This results in a vaccine that can be stored for a protracted period at refrigerator temperatures and for several months at room temperature and thus has the potential to significantly improve distribution of pandemic response vaccines, particularly in low-resource settings.

"We believe RNA technology is the future of vaccines. A second generation COVID-19 vaccine will be much needed to solve current supply chain and manufacturing scale-up bottlenecks and to improve accessibility and global deployment, including to countries with limited supply chain resources," said John Melo, President and Chief Executive Officer of Amyris. "We need a fast response pandemic-ready technology to address the current global crisis caused by COVID-19 and emerging variants of the virus as well as to be prepared for any future pandemic. We want to be part of the solution and believe that the Amyris/IDRI platform can address many of the current challenges. We are in active discussions regarding U.S. government long-term, non-dilutive financing to enable the scale up of U.S. production of our RNA vaccine and of our sustainable, non-shark semi-synthetic squalene production. This is a great example of the power of our synthetic biology platform that allows us to continue to focus on becoming one of the world's leading

Health and Beauty companies driven by science and sustainability for a healthier planet."

About Amyris

Amyris (Nasdaq: AMRS) is a science and technology leader in the research, development and production of sustainable ingredients for the Clean Health & Beauty and Flavors & Fragrances markets. Amyris uses an impressive array of exclusive technologies, including state-of-the-art machine learning, robotics and artificial intelligence. Our ingredients are included in over 3,000 products from the world's top brands, reaching more than 200 million consumers. Amyris is proud to own three consumer brands - all built around its No Compromise® promise of clean ingredients: Biossance® clean beauty skincare, Pipette® clean baby skincare and Purecane™, a zero-calorie sweetener naturally derived from sugarcane. For more information, please visit www.amyris.com.

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 forward-looking statements include, among other things, statements regarding Amyris's plans to proceed with phase 1 clinical testing and the timing thereof; expectations regarding the manufacturing, storage, and distribution advantages of Amyris/IDRI's RNA vaccine platform over existing vaccines; the potential of the RNA vaccine platform to significantly improve distribution of pandemic response vaccines and address current challenges thereof; and potential receipt of funding to scale up production of an RNA vaccine upon completion of clinical trials and regulatory approval. 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 delays or failures in development, regulatory approval, production and commercialization of products; risks related to Amyris's reliance on third parties (including in the supply chain); Amyris's liquidity and ability to fund operating and capital expenses; 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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