Charles River and Ziphius Vaccines Collaborate to Manufacture saRNA-Based Vaccine

Program aimed to deliver early-stage clinical supply of plasmid DNA for drug substance manufacturing

WILMINGTON, Mass. and GHENT, Belgium – June 23, 2022 – Charles River Laboratories International, Inc. (NYSE: CRL) and Ziphius Vaccines, a biopharmaceutical company developing self-amplifying RNA (saRNA) based medicinal products for vaccine and therapeutic applications, today announced an agreement to manufacture starting materials critical to clinical-stage research.

Ziphius Vaccines is developing a proprietary self-amplifying mRNA technology platform combined with innovative lipid formulations for delivery. saRNA or replicon RNA has the advantage of having self-replicating features, as the saRNA molecule encodes a viral RNA replicase in addition to the sequence of the protein(s) of interest. This mechanism leads to enhanced and prolonged protein expression levels at lower doses compared to conventional mRNA.

Plasmid DNA Manufacturing Services

Plasmid DNA is a critical starting material in the development of many advanced therapies. This collaboration will leverage Charles River's industry leading expertise in GMP and High Quality (HQ) plasmid DNA production. Utilizing its custom HQ plasmid offering which, being manufactured to the principles of GMP, serves as a phase-appropriate solution for early clinical trials, Ziphius Vaccines will benefit from accelerated timelines without compromising on quality. Charles River, with the acquisitions of Cognate BioServices, Cobra Biologics, and Vigene Biosciences in 2021, has expanded its comprehensive cell and gene therapy portfolio to include CDMO capabilities spanning viral vector, plasmid DNA and cellular therapy production for clinical through to commercial supply.

Approved Quotes

- "We are proud to work with Ziphius Vaccines in their early-stage program. The advancement of saRNA technologies is an exciting avenue for the development of vaccines and therapeutic programs, and we're looking forward to a successful partnership." – Kerstin Dolph, Senior Vice President, Global Biologics, Charles River
- "This collaboration with Charles River is an important milestone towards clinical testing and further validation of our vaccine candidates. Charles River's expertise in plasmid manufacturing made them the best partner for this stage of our saRNA manufacturing program. As we continue the development of our saRNA and carrier technology platform, we're excited by the potential their scale and efficiency offers." –Chris Cardon, CEO, Ziphius Vaccines

About Charles River

Charles River provides essential products and services to help pharmaceutical and biotechnology companies, government agencies and leading academic institutions around the globe accelerate their research and drug development efforts. Our dedicated employees are focused on providing clients with exactly what they need to improve and expedite the discovery, early-stage development and safe manufacture of new therapies for the patients who need them. To learn more about our unique portfolio and breadth of services, visit www.criver.com.

About Ziphius Vaccines

Ziphius Vaccines is a biopharmaceutical company focused on developing best-in-class vaccines and therapeutics based on its proprietary self-amplifying RNA and carrier technology platforms. The Company's lead compound ZIP1642 is a COVID-19 vaccine candidate that has been evaluated in preclinical studies. Based in Ghent, Belgium, the Company has a portfolio of next generation vaccine candidates targeting infectious diseases and gene supplementation therapies. For more information, visit www.ziphius.org, and follow us on LinkedIn.

Investor Contacts:

Todd Spencer
Corporate Vice President, Investor Relations
Charles River
781.222.6455
todd.spencer@crl.com

Hendrik Thys
Investor Relations Manager
Ziphius Vaccines
Hendrik.Thys@ziphius.org

Media Contact:

Amy Cianciaruso
Corporate Vice President, Chief Communications Officer
Charles River
781.222.6168
amy.cianciaruso@crl.com