

MEDIA RELEASE

**CARB-X FUNDS LIMMATECH BIOLOGICS AG TO DEVELOP A VACCINE
THAT PREVENTS GONORRHEA INFECTIONS**

The vaccine aims to prevent *Neisseria gonorrhoeae* infections for which only one antibiotic remains effective in treating resistant bacterial strains

(BOSTON: February 27, 2024) – Combating Antibiotic-Resistant Bacteria Biopharmaceutical Accelerator (CARB-X) is awarding US\$2.2 million to LimmaTech Biologics AG to advance the development of its novel vaccine candidate targeted to prevent *Neisseria gonorrhoeae* infections. LimmaTech is a Swiss clinical stage biotech company that has built a robust pipeline of innovative vaccines to provide solutions against increasingly dangerous infections, including *Staphylococcus aureus* and *Shigella*.

The *Neisseria gonorrhoeae* (NG) bacterium causes gonorrhea, the second most commonly reported sexually-transmitted bacterial infection. Approximately [82 million people were infected](#) globally in 2020. Patients with gonorrhea can face serious health effects, including pelvic inflammatory disease, chronic pain, infertility, and an increased risk of contracting HIV. Since patients do not always exhibit symptoms, reported cases may only capture a fraction of the true burden.

“Resistant strains of *Neisseria gonorrhoeae* have evaded all but one existing antibiotic (ceftriaxone),” said Erin Duffy, PhD, R&D Chief of CARB-X. “Vaccines are powerful tools in the prevention of bacterial infections. LimmaTech’s vaccine project, if successful, could prevent the disease, and significantly curb the spread of resistant bacteria across the globe.”

The CARB-X award supports the development of LimmaTech’s vaccine candidate that incorporates multiple antigens commonly found on NG bacteria. The goal is to develop a cost-effective vaccine that elicits a robust immune response against different NG bacterial strains to help protect patients in low- and middle-income countries (LMICs), where affordability is vital and around the world.

“Gonorrhea is becoming increasingly resistant to treatment, which reinforces the pressing need for a highly effective and safe vaccine that can protect against this serious and pervasive pathogen,” said Dr. Franz-Werner Haas, CEO of LimmaTech. “We believe our proprietary vaccine technology offers advantages in efficacy, production scalability and simplicity to include multiple antigens that can effectively address bacterial infectious disease threats. We are thankful to CARB-X for its dedicated commitment to support and help expedite our development efforts as we move towards clinical testing of our vaccine candidate as a potential solution for the increased burden of antimicrobial resistance in gonorrhea.”

An estimated [1.27 million people died](#) due to drug-resistant bacterial infections in 2019, a death toll that exceeded HIV/AIDS (864,000) and malaria (643,000) in that same year. CARB-X is

building a pipeline of high-value products to prevent, diagnose and treat bacterial infections, including those that have become resistant to antibiotics. CARB-X emphasizes performance characteristics that will allow the broadest use of these products against infections driving the greatest global morbidity and mortality.

When CARB-X was founded in 2016, the early-stage antibiotic pipeline was stalled. Since then, CARB-X has supported 97 R&D projects in 13 countries, and CARB-X product developers have made tremendous progress: 18 projects have advanced into or completed clinical trials; 12 remain active in clinical development, including late-stage clinical trials; and two diagnostic products have reached the market. Additionally, at least 9 product developers with active R&D projects have already secured advanced development partnerships which can help support their clinical development after leaving the CARB-X portfolio.

In 2022, CARB-X launched new funding rounds to support R&D projects and fill critical gaps in the antibacterial pipeline. These include oral therapeutics to replace the workhorse antibiotics that are failing; vaccines for neonatal sepsis, which kills [2.5 million infants annually](#); and oral therapeutics, vaccines and rapid diagnostics for gonorrhea. LimmaTech's vaccine is the sixth project to receive a CARB-X grant as part of the [2022-2023 funding call](#). Additional projects are under review, and new product developers will be announced this year. Register for the [CARB-X newsletter](#) to learn about upcoming funding calls that will be announced in 2024.

CARB-X funding for this research is supported by federal funds from the U.S. Department of Health and Human Services (HHS); Administration for Strategic Preparedness and Response; Biomedical Advanced Research and Development Authority; under agreement number 75A50122C00028, and by awards from Wellcome (WT224842), Germany's Federal Ministry of Education and Research (BMBF), the UK Department of Health and Social Care as part of the Global Antimicrobial Resistance Innovation Fund (GAMRIF), the Public Health Agency of Canada (PHAC), the Bill & Melinda Gates Foundation, and the Novo Nordisk Foundation. The U.S. National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health (NIH) in HHS, provides support in the form of in-kind services through access to a suite of preclinical services for product development. The content of this press release is solely the responsibility of the authors and does not necessarily represent the official views of any CARB-X funders.

CARB-X Contact: Genevieve Holmes, carbopr@bu.edu

LimmaTech Contacts: Gretchen Schweitzer and Sara Ortiz, limmatech@trophic.eu

About CARB-X

CARB-X (Combating Antibiotic-Resistant Bacteria Biopharmaceutical Accelerator) is a global non-profit partnership dedicated to supporting early-stage antibacterial research and development to address the rising threat of drug-resistant bacteria. CARB-X supports innovative therapeutics, preventatives and rapid diagnostics. CARB-X is led by Boston University and funded by a consortium of governments and foundations. CARB-X funds only projects that target drug-resistant bacteria highlighted on the CDC's [Antibiotic Resistant Threats list](#), or

the [Priority Bacterial Pathogens list published by the WHO](#), with a priority on those pathogens deemed Serious or Urgent on the CDC list or Critical or High on the WHO list. <https://carb-x.org/> | X (formerly Twitter) @CARB_X

About LimmaTech Biologics AG:

LimmaTech Biologics is at the forefront of combating the global antimicrobial resistance epidemic based on its unparalleled track record in vaccine technology and clinical candidate development. The company is leveraging its proprietary self-adjuvanting and multi-antigen vaccine platform alongside additional disease-specific vaccine approaches to prevent increasingly untreatable microbial infections. With decades of expertise and an expanding, robust pipeline, the LimmaTech team is dedicated to generating protective solutions to deliver transformative value worldwide. For more information, please visit www.lmtbio.com.

About BARDA and NIAID

The U.S. Department of Health and Human Services works to enhance and protect the health and well-being of all Americans, providing for effective health and human services and fostering advances in medicine, public health, and social services. The Administration for Strategic Preparedness and Response (ASPR) leads the nation’s medical and public health preparedness for, response to and recovery from disaster and other public health emergencies. Within ASPR, the Biomedical Advanced Research and Development Authority ([BARDA](#)) invests in innovation, advanced research and development, acquisition, and manufacturing of medical countermeasures – vaccines, drugs, therapeutics, diagnostic tools, and non-pharmaceutical products – needed to combat health security threats and is one of the leading public sector funders of advanced development of antimicrobial therapeutics and diagnostics.

As part of HHS, NIH is the primary U.S. federal agency conducting and supporting basic, clinical, and translational medical research, and is investigating the causes, treatments, and cures for both common and rare diseases. NIAID conducts and supports research — at NIH, throughout the United States, and worldwide — to study the causes of infectious and immune-mediated diseases, and to develop better means of preventing, diagnosing and treating these illnesses. News releases, fact sheets and other NIAID-related materials are available on the NIAID website.

About Wellcome

[Wellcome](#) supports science to solve the urgent health challenges facing everyone. We support discovery research into life, health and wellbeing, and we’re taking on three worldwide health challenges: mental health, infectious disease and climate and health.

About the German Federal Ministry of Education and Research (BMBF)

Education and research are crucial foundations for our future. Thus, the promotion of education, science and research is a policy priority of the German Federal Government. [The German Federal Ministry of Education and Research](#) (BMBF) strengthens education at all stages of life and provides support for scientific research and innovation.

About the Global AMR Innovation Fund (GAMRIF)

The Global AMR Innovation Fund (GAMRIF) is a One Health UK aid fund that supports research and development around the world to reduce the threat of antimicrobial resistance (AMR) in humans, animals and the environment for the benefit of people in low- and middle-income countries (LMICs). GAMRIF core objectives are to develop innovative One Health solutions to tackle AMR; increase availability of context-specific, accessible, and affordable innovations for LMICs; establish international research partnerships with industry, academia, and governments; and collaborate with and leverage additional funding from other global donors.

About the Public Health Agency of Canada

The Public Health Agency of Canada is an agency of the Government of Canada that is responsible for public health, emergency preparedness and response, and infectious and chronic disease control and prevention. Created in 2004 with a mission to promote and protect the health of Canadians through leadership, partnership, innovation and action in public health, the Agency's activities focus on preventing disease and injuries, responding to public health threats, promoting good physical and mental health, and providing information to support informed decision making. The Agency has a long history of working with domestic and international partners on combatting health threats, including AMR. Most recently, the Agency released the Pan-Canadian Action Plan on AMR, a multijurisdictional effort that emphasizes One Health collaboration to make progress on AMR.

About the Novo Nordisk Foundation

Established in Denmark in 1924, the Novo Nordisk Foundation is an enterprise foundation with philanthropic objectives. The vision of the Foundation is to improve people's health and the sustainability of society and the planet. The Foundation's mission is to progress research and innovation in the prevention and treatment of cardiometabolic and infectious diseases as well as to advance knowledge and solutions to support a green transformation of society.

www.novonordiskfonden.dk/en

About Boston University

Founded in 1839, Boston University is an internationally recognized institution of higher education and research. With nearly 37,000 students, it is the third-largest independent university in the United States. BU consists of 17 schools and colleges and the interdisciplinary Faculty of Computing & Data Sciences, along with a number of multi-disciplinary centers and institutes integral to the University's research and teaching mission. In 2012, BU joined the Association of American Universities (AAU), a consortium of 71 leading research universities in the United States and Canada. For further information, please contact Kim Miragliuolo at kmira@bu.edu. www.bu.edu

###