



SutroVax Receives CARB-X Award for Up to \$15 Million to Develop a Universal Vaccine to Prevent Group A Streptococcus Infections

September 3, 2019

Proprietary conserved antigen with potential to provide broad protection against strains of Group A Strep licensed from University of California San Diego

Foster City, CA, September 3, 2019 – [SutroVax](#), Inc., a biopharmaceutical company dedicated to the development of best-in-class conjugate vaccines and novel complex antigen-based vaccines to prevent serious infectious diseases, today announced it has received an award from CARB-X for up to \$15 million in non-dilutive funding to develop a universal vaccine to prevent infections caused by Group A Strep bacteria, which include pharyngitis, impetigo, and necrotizing fasciitis. The award commits initial funding of up to \$1.6 million and up to \$15 million in total funding available upon achievement of development milestones.

“This funding will support our collaborative efforts to develop a safe, effective Group A Strep conjugate vaccine where none exist today to prevent a highly prevalent disease with widespread morbidity and mortality,” said Jeff Fairman, Ph.D., Vice President Research and co-founder of SutroVax. Grant Pickering, CEO, and co-founder of SutroVax added “Conjugate vaccines have been the most successful approach to providing protection against pathogenic bacteria, and we are pleased to leverage our technology platform to advance this vaccine with support from CARB-X.”

“Vaccines are vital weapons in the global fight against drug-resistant bacteria. Vaccines prevent infections and reduce the need for antibiotics, thereby helping to curb the spread of drug-resistance and enhancing health security,” said Kevin Outterson, Executive Director of CARB-X and Professor of Law at Boston University. “Thanks to vaccines, bacterial infections such as tetanus, diphtheria and whooping cough can now be prevented. The SutroVax project is in the early stages of development but if successful and approved for use in patients, it could potentially save thousands of lives.”

Innovative Group A Streptococcus Vaccine

SutroVax’s Group A Strep vaccine is based on a discovery at the University of California, San Diego, that led to the development of a conserved cell wall polysaccharide antigen with the potential to provide broad protection against strains of the bacteria, while avoiding cross-reactive antibodies that could target human tissue. SutroVax exclusively licensed the rights to this patented antigen and is developing the Group A Strep vaccine, by utilizing its proprietary conjugation technology, which permits site-specific conjugation of polysaccharide antigens to immunogenic proteins and preservation of critical B-cell and T-cell epitopes on the carrier protein, resulting in improved conjugate vaccines. Conjugate vaccines have led to multiple highly effective vaccines to prevent disease caused by pneumococcus, meningococcus, and *Haemophilus influenzae* B bacteria and represent the largest segment of the global vaccines market.

About Group A Streptococcus

Group A *Streptococcus* is a serious human pathogen causing an estimated 600 million cases of pharyngitis annually worldwide and increasing cases of severe invasive infections, including sepsis, necrotizing fasciitis, and toxic shock syndrome.¹ Pharyngitis is highly prevalent in school-age children and a significant driver of antibiotic prescriptions worldwide. The growing use of antibiotics contributes to antibiotic resistance, which can threaten the ability to prevent the spread of infections and lead to higher medical costs, prolonged hospital stays, and increased mortality. In the United States, the Centers for Disease Control and Prevention (CDC) estimates that 23,000 people die each year from drug-resistant bacterial infections. In Europe, the European Centre for Disease Prevention and Control (ECDC) estimates that there are 33,000 deaths annually from the rise of drug-resistant bacteria. Group A Strep is also responsible for post-infectious immune-mediated rheumatic heart disease (RHD), a leading cause of mortality in the developing world. An estimated 30 million people are currently affected by RHD, with over 500,000 deaths annually (60% under the age of 70) and over 11 million disability-adjusted life years lost.² Despite high global demand, there is currently no commercially available vaccine against Group A Strep.

About CARB-X (Combating Antibiotic Resistant Bacteria Biopharmaceutical Accelerator)

CARB-X, a global non-profit partnership led by Boston University, is dedicated to accelerating antibacterial innovation to tackle the rising global threat of drug-resistant bacteria. CARB-X funding is restricted to projects that target drug-resistant bacteria highlighted on the [CDC’s 2013 Antibiotic Resistant Threats list](#), or the [Priority Bacterial Pathogens list published by the World Health Organization \(WHO\) in 2017](#) – with a priority on those pathogens deemed Serious or Urgent on the CDC list or Critical or High on the WHO list. CARB-X is investing more than \$500 million from 2016-2021 to support innovative antibiotics and other therapeutics, vaccines and rapid diagnostics. CARB-X funding is provided by the [Biomedical Advanced Research and Development Authority](#) (BARDA), part of the U.S. Department of Health and Human Services’ Office of the Assistant Secretary for Preparedness and Response (ASPR), the [Wellcome Trust](#), a global charity based in the UK working to improve health globally, [Germany’s Federal Ministry of Education and Research \(BMBF\)](#), the UK [Department of Health and Social Care’s](#) Global Antimicrobial Resistance Innovation Fund (UK GAMRIF), the [Bill & Melinda Gates Foundation](#), and with in-kind support from [National Institute of Allergy and Infectious Diseases](#) (NIAID), part of the US National Institutes of Health (NIH).

About SutroVax

SutroVax is a biopharmaceutical company dedicated to the development of best-in-class conjugate vaccines and novel complex antigen-based vaccines to prevent serious infectious diseases. SutroVax’s conjugate vaccines are developed utilizing the Company’s exclusive rights to Sutro

Biopharma's Xpress CF™ Platform, a cell-free protein synthesis technology. The platform represents a significant advancement over conventional conjugate vaccine production methods, by enabling precise and consistent conjugation of antigens to site-specific locations on a protein carrier that does not impede T-cell help resulting in higher-potency conjugates. SutroVax is utilizing these specific conjugates to develop, among other programs, a broader-spectrum pneumococcal conjugate vaccine to address residual disease burden caused by serotypes not yet covered by existing conjugate vaccines.

For more information, visit www.sutrovax.com.

Contact:

Julie Rathbun
Rathbun Communications
206-769-9219
julie@rathbuncomm.com

1. Steer AC, Carapetis JR, Dale JB, Fraser JD, Good MF, Guilherme L, Moreland NJ, Mulholland EK, Schodel F, Smeesters PR. Status of research and development of vaccines for *Streptococcus pyogenes*. 2016. *Vaccine*. 2016 Jun 3;34(26):2953-2958.
2. Carapetis JR, Steer AC, Mulholland EK, Weber M. The global burden of group A streptococcal diseases. *Lancet Infect Dis*. 2005 Nov; 5(11): 685-94.