

## **SPECIFIC DIAGNOSTICS ACHIEVES CARB-X MILESTONE AND ADVANCES ITS REVEAL RAPID ANTIBIOTIC SUSCEPTIBILITY TEST FOR LIFE-THREATENING DRUG-RESISTANT INFECTIONS TOWARD CLINICAL TESTING**

***Specific awarded second stage of funding from CARB-X to continue development of its new antibiotic susceptibility testing system to identify superbugs within 4 hours of a positive blood sample and help speed life-saving treatment***

03.28.2019 | Specific Diagnostics announced today that, based on the achievement of development and testing milestones, CARB-X has proceeded with a second stage of funding for Specific's Reveal™ rapid antibiotic susceptibility test (AST) instrument. Specific will receive up to \$1.7 million, which is on top of the \$1.7 million already awarded by CARB-X. The additional \$1.7M will enable Specific's preparation for clinical trials in 2019 of this important new diagnostic system. The original CARB-X [award, announced April 4, 2018](#), helped support development of the Reveal AST system, which offers the same-day susceptibility results needed to change the way drug-resistant infections are diagnosed and treated.

Specific Diagnostics' system is a potential game-changer in the way life-threatening infections are diagnosed, replacing current lengthy processes with a device that determines the antimicrobial susceptibility of blood infection within an average of 4 hours. It currently takes 2 days of laboratory testing to determine the susceptibility of a superbug infection.

"CARB-X has a very engaged expert oversight team with whom we worked closely during the first phase of our award. We are honored to be one of just 5 diagnostics companies in the *Powered by* CARB-X portfolio, and that the CARB-X advisory team has seen fit to recommend a continuation of this invaluable support. We look forward to bringing Reveal to clinical laboratories in both Europe and the United States during 2019," said Paul A. Rhodes, Ph.D., Specific's CEO. "The simplicity of our instrument and disposable provides for robust performance, ease of use, and high throughput, at a price low enough to prompt widespread adoption. We could not have gotten here without CARB-X support."

### **The Reveal rapid AST system**

Reveal produces antibiotic susceptibility results within an average of just 4 hours following inoculation with a positive blood culture sample or isolate dilution, enabling rapid susceptibility determination and action for time-sensitive infection. Specific's technology uses low-cost proprietary printed arrays of highly sensitive volatile-responsive indicators to rapidly detect growth of microorganisms. CARB-X funding will support Specific readying the Reveal system for regulatory validation so Reveal can be brought to hospitals around the world.

### **Partnership to drive antibacterial innovation**

CARB-X is a global partnership funded by the US Department of Health and Human Services [Biomedical Advanced Research and Development Authority \(BARDA\)](#), part of the Office of the Assistant Secretary for Preparedness and Response (ASPR) in the US Department of Health and Human Services, the UK charity [Wellcome Trust](#), the German [Federal Ministry of Education and Research \(BMBF\)](#), the UK [Department of Health and Social Care's Global Antimicrobial Resistance Innovation Fund](#), 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). The CARB-X funding announced today is in addition to previously announced support from NIAID for development of the Specific's microorganism identification and antibiotic susceptibility diagnostics.

CARB-X has up to US\$550 million to support the development of new antibiotics, rapid diagnostics and other life-saving products to address the rise of drug-resistant bacteria. The goal is to support projects through the early phases of development through Phase 1, so that they will attract additional private or public support for further clinical development and approval for use in patients. The scope of CARB-X funding is restricted to projects that target drug-resistant bacteria highlighted on the 'Antibiotic Resistant Threats in the United States' report published by the [Centers](#)

for Disease Control and Prevention (CDC) in 2013 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.

Responsible use of existing antibiotics and equitable access, particularly in low-income countries where need is greatest, is also vital to addressing the global health problem. Both are a condition of CARB-X funding.

*This **news release** is supported by the Cooperative Agreement Number IDSEP160030 from ASPR/BARDA and by an award from Wellcome Trust, as administrated by CARB-X. The contents are solely the responsibility of the authors and do not necessarily represent the official views of the HHS Office of the Assistant Secretary for Preparedness and Response, the National Institutes of Health or Wellcome Trust.*

**Media Contacts:**

**CARB-X:**

Jennifer Robinson  
514-914-8974  
[carbopr@bu.edu](mailto:carbopr@bu.edu)

**Specific Diagnostics:**

[press@specificdx.com](mailto:press@specificdx.com)

**About CARB-X**

CARB-X is a global partnership dedicated to accelerating early development antibacterial R&D to address the rising global threat of drug-resistant bacteria. CARB-X funding is provided by US Department of Health and Human Services Biomedical Advanced Research and Development Authority (BARDA), part of the 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, the German 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, with in-kind support from National Institute of Allergy and Infectious Diseases (NIAID), part of the US National Institutes of Health (NIH). A non-profit partnership, CARB-X is investing up to \$550 million from 2016-2021 to support innovative antibiotics and other therapeutics, vaccines, rapid diagnostics and devices. CARB-X supports the world's largest and most innovative pipeline of preclinical products against drug-resistant infections. CARB-X focuses exclusively on high priority drug-resistant bacteria, especially Gram-negatives. CARB-X is based at Boston University School of Law. <https://carb-x.org/>. Follow us on Twitter @CARB X.

**About Specific Diagnostics**

Specific Diagnostics has developed *in vitro* diagnostic systems for the detection and identification of microorganisms while they grow in culture. The company's unique patented technology leverages a low-cost printed chemical sensor array, enabling diagnostic products that simplify workflow and speed time-to-answer at low cost. During growth in culture, bacteria emit organism-specific small molecule metabolite mixtures. Specific's products utilize inexpensive printed sensor arrays to obtain a profile of such mixtures, enabling detection of growth, determination of antibiotic efficacy, and microorganism ID with simple, automated, low-cost instruments and disposables. Accuracies of minimum inhibitory concentration (MIC) determination meet those of gold standard broth microdilution methods, but with results obtained within four hours of a positive blood culture, directly from a diluted positive blood sample. The system will streamline lab workflow, reduce costs, and substantially shorten the time from sample arrival to selection of effective therapy, saving patients faced with fast-moving and deadly drug-resistant blood infections. Specific is located in Mountain View, California. For more information, visit [www.specificdx.com](http://www.specificdx.com), or email us at [press@specificdx.com](mailto:press@specificdx.com).