Entasis Therapeutics Receives Second CARB-X Award, Providing up to $10.1 Million for Development of Non-Beta-lactam PBP Inhibitor Program

October 13, 2017

WALTHAM, Mass. — October 12, 2017—Entasis Therapeutics Inc., a company focused on the discovery and development of breakthrough anti-infective products, today announced that it has received a CARB-X award to progress its pre-clinical penicillin-binding protein (PBP) inhibitor program from lead optimization through Phase 1 clinical trials. The award commits initial funding up to $3.8 million with the possibility of up to another $6.3 million based on the achievement of milestones. This is Entasis' second CARB-X award following ETX0282CPDP, Entasis' oral beta-lactamase inhibitor in combination with cefpodoxime targeting multidrug-resistant Gram-negative infections, recognized in the inaugural round of CARB-X funding in March 2017.

Current leads in the PBP inhibitor program have shown potent *in vitro* and *in vivo* antibacterial activity against some of the toughest-to-treat Gram-negative pathogens including multi-drug-resistant *Pseudomonas aeruginosa*, carbapenem-resistant *Enterobacteriaceae*, and multi-drug-resistant *Acinetobacter baumannii*.

"Our continued partnership with CARB-X exhibits enormous promise as we develop our pre-clinical penicillin-binding protein inhibitors to address drug-resistant infections. Anti-infective products are in high demand as drug-resistant bacterial infections are on the rise across the U.S. and the world, causing great concern for both government and industry professionals alike," said Manos Perros, CEO of Entasis. "We are excited to extend our work with CARB-X following our initial partnership earlier this year and look forward to working together to bring these new anti-infective products through discovery into clinical trials."

CARB-X (Combating Antibiotic Resistant Bacteria Biopharmaceutical Accelerator) was launched in July 2016 to accelerate pre-clinical product development in the area of antibiotic-resistant infections, one of the world's greatest public health threats. CARB-X was established by the Biomedical Advanced Research and Development Authority (BARDA) and the National Institute of Allergy and Infectious Diseases (NIAID) of the U.S. Department of Health and Human Services along with Wellcome Trust, a global charitable foundation dedicated to improving health. This partnership has committed $455 million in new funds over the next five years to increase the number of antibiotics, vaccines and rapid diagnostics in the drug-development pipeline. This non-profit public-private partnership reflects a new approach to how antibacterial research and drug development is identified, funded and accelerated to the clinic.

"While beta-lactam antibiotics typically kill bacteria by binding to PBPs, many bacterial pathogens have evolved to produce defense mechanisms, known as beta-lactamases, which inactivate these agents," said Ruben Tommasi, Ph.D., Chief Scientific Officer of Entasis. "The latest leads to emerge from our discovery platform are unaffected by all classes of beta-lactamases while demonstrating remarkable biochemical potency and bacterial permeation, which translate to *in vitro* and *in vivo* activity against multiple drug-resistant Gram-negative pathogens. The award from CARB-X will aid in the further design and development of our lead molecules to deliver effective anti-infective agents addressing the growing medical need in the space."

Kevin Outterson, Executive Director of CARB-X, said: "The world urgently needs new antibiotics to combat the rise of drug-resistant bacteria. With the Entasis PBP program, the CARB-X portfolio now has 19 projects aimed at treating the most urgent drug-resistant infections. If successful in development, these projects hold exciting potential to save lives and make headway in the global fight against drug-resistant bacteria."

About Entasis Therapeutics Inc.

Entasis Therapeutics is developing a portfolio of innovative cures for serious drug-resistant bacterial infections, a global health crisis affecting the lives of millions of patients. Entasis' anti-infective discovery platform has produced a pipeline of meaningfully differentiated programs which target serious bacterial infections, including ETX2514SUL (targeting *Acinetobacter baumannii*infections), ETX0282CPDP (targeting infections caused by *Enterobacteriaceae*), Non-Beta-lactam PBP inhibitors (targeting Gram-negative infections), and zoliflodacin (targeting *Neisseria gonorrhoeae*). www.entasistx.com

About Non-Beta-lactam PBP Inhibitor

Entasis' PBP inhibitor program is a novel antibiotic class targeting the PBPs, cell wall targets unique to bacteria. While beta-lactams kill bacteria by binding to PBPs, bacteria evolved to produce beta-lactamases which inactivate these agents. Entasis' non-beta-lactam PBP inhibitors are unaffected by all four classes of beta-lactamases while demonstrating remarkable antibacterial activity. The program is currently in the lead optimization stage of development. To date, current leads have demonstrated potent *in vitro* and *in vivo* activity against some of the toughest to treat Gram-negative pathogens, including multidrug-resistant *Pseudomonas aeruginosa*, carbapenem-resistant *Enterobacteriaceae*, and multidrug-resistant *Acinetobacter baumannii*.

About CARB-X

CARB-X is the world's largest public-private partnership devoted to early stage antibacterial R&D. Funded by BARDA and Wellcome Trust, with in-kind support from NIAID, CARB-X will spend up to $455 million from 2016-2021 to support innovative products from 'hit-to-lead' stage through to Phase 1 clinical trials. CARB-X focuses on high priority drug-resistant bacteria, especially Gram-negatives. CARB-X is led by Boston University. Other partners include the Broad Institute of Harvard and MIT, MassBio, the California Life Sciences Institute and RTI International. For more information, please visit www.carb-x.org.

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