

CHEMISTRY CENTER FOR COMBATING ANTIBIOTIC-RESISTANT BACTERIA

A program to accelerate discovery of novel antibiotics to combat resistant bacteria.



THE CRITICAL NEED

The Centers for Disease Control and Prevention has classified several drug-resistant bacteria as urgent and serious public health threats that are responsible for placing a substantial clinical and financial burden on global health care systems and patients. Consequently, there is a critical need to discover and develop novel antibiotics to maintain control over opportunistic and communicable infections.

AIM AND SCOPE

CC4CARB is an innovative chemistry center focused on the synthesis and delivery of rationally designed, focused libraries for the scientific community to use in Gram-negative antibacterial drug discovery programs. The ultimate objective of CC4CARB is to create a large collection of chemical matter specifically targeting Gram-negative antimicrobial drug discovery.

A NOVEL COLLABORATIVE APPROACH

Chemical scaffold ideas will be solicited from the scientific community for inclusion into the program. A peer-review process will determine CC4CARB program fit and synthetic feasibility of each scaffold proposal. Once a scaffold is approved, CC4CARB will design and synthesize libraries for inclusion into the collection, focused on properties suitable for Gram-negative cell penetration. Compounds will be formatted onto 96-well and 384-well plates (and other formats) and shipped as requested to researchers upon approval by the National Institute of Allergy and Infectious Diseases.

CC4CARB will be a catalyst for delivering a robust antibacterial development pipeline and fits within the broader aims of the National Action Plan for Combating Antibiotic-Resistant Bacteria. All compounds included within the CC4CARB collection will be screened against select antibiotic-resistant Gram-negative and Gram-positive organisms.

TEAM

National Institute of Allergy and Infectious Diseases

RTI International
Head of Chemistry and Solicitation Center

Scientific Advisory Board
Expert medicinal chemists and microbiologists within antibiotic discovery



For more information, email CC4CARB@rti.org or call +1.833.870.0484 or visit us on the web at www.cc4carb-collection.org/

