AR Solutions *In Action*

CDC's Investments to Combat Antibiotic Resistance Threats Nationwide

FISCAL YEAR 2017

GEORGIA AR Investments (continued)

FUNDING TO UNIVERSITIES & HEALTHCARE PARTNERS

$382,485

EMORY UNIVERSITY: Innovative Prevention & Tracking
Investigators will develop computational tools to differentiate and analyze different types of DNA mixed in one sample. This project will help laboratories better understand the make-up of a mixture and its threat level.

$301,682

GEORGIA TECH APPLIED RESEARCH CORPORATION: Microbiome Assessment & Intervention
Researchers will continue this project from last year to identify novel probiotic and antibiotic intervention strategies for patients with cystic fibrosis. The project will validate and improve new treatment strategies by implementing them in a small group of patients.

$362,668

GEORGIA TECH APPLIED RESEARCH CORPORATION: Healthcare, Agriculture, and the Non-Healthcare Environment
This project will assess the types of antibiotic-resistant organisms in poultry houses, in addition to the amount of these organisms in a poultry house and further downstream in environmental waters. Researchers will also measure the amount of veterinary antibiotic residues in downstream environmental waters.

$507,954

THE UNIVERSITY OF GEORGIA: Healthcare, Agriculture, and the Non-Healthcare Environment
Investigators will sample surface water to analyze it for human and agricultural waste and antibiotic-resistant bacteria. This project will help to determine how antibiotics, pathogens and resistance elements move across environments and potentially pose a risk to human health.

$197,798

UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC.: Healthcare, Agriculture, and the Non-Healthcare Environment
Researchers will collect and characterize azole-resistant fungal strains from agricultural and horticultural sites. Azoles are used to protect crops from fungi, but azole-resistant fungi can infect people and cause disease that is difficult to treat and can lead to death.

$96,783

EMORY UNIVERSITY: Innovative Prevention & Tracking
In collaboration with CDC, researchers are investigating changes to the human microbiome that occur in two populations. The first is both donors and recipients of kidney transplants around the time of the transplant. The second is persons before and after international travel. These data can help understand international spread of antibiotic resistance as well as improve the detection, prevention and treatment of HAI/AR threats such as *C. difficile,* which can cause deadly diarrhea.

$68,825

EMORY UNIVERSITY: Innovative Prevention & Tracking
Researchers are using bioinformatics techniques to further define genetic markers of drug-resistant gonorrhea. This data can help predict future types of antibiotic resistance in gonorrhea and identify transmission networks.

$137,170

EMORY UNIVERSITY: Innovative Prevention & Tracking
Researchers will help solicit international isolates and support special studies for CDC.

$29,426

EMORY UNIVERSITY: Innovative Prevention & Tracking
With CDC, researchers are conducting a large-scale investigation to determine causes of sepsis (the body's extreme response to an infection) and identify potential interventions.

$108,364

EMORY UNIVERSITY: Innovative Prevention & Tracking
With CDC, investigators will evaluate special studies on how resistant germs spread in dialysis centers, make recommendations for preventing HAIs and resistant infections in patients receiving dialysis, and promote infection prevention measures and improved antibiotic use throughout the renal community.

$419,000

THE TASK FORCE FOR GLOBAL HEALTH/TEPHINET: Global Expertise & Capacity Enhancements
CDC's global work to combat AR prevents the importation of AR threats into the United States. Experts are working in the country of Georgia to support the Ministry of Labour, Health and Social Affairs and the National Center for Disease Control and Public Health to develop an infection control and prevention program to prevent and control the spread of HAIs and drug-resistant germs.

 This data represents CDC's largest fundng categories for AR. It shows domestic, extramural funding that supports AR activities from multiple funding lines. **AR:** antibiotic resistance **HAI:** healthcare-associated infection

CDC provides critical support to every state to protect Americans from antibiotic resistance.

www.cdc.gov/ARinvestments

U.S. Department of Heath and Human Services
Centers for Disease Control and Prevention