

COMBATING ZIKA

AND FUTURE THREATS

A GRAND CHALLENGE FOR DEVELOPMENT

ZIKA INNOVATIONS

VECTOR CONTROL



Monash University
Michigan State University
Trustees of Indiana University
Johns Hopkins University

Scaled deployment of Wolbachia-infected mosquitoes to block disease transmission

Wolbachia-infected mosquitoes to suppress population and block disease

Natural yeast-based larvicide

Chromobacterium: an environmentally friendly biopesticide

PERSONAL/HOUSEHOLD PROTECTION



Barcelona Institute For Global Health
Ifakara Research Institute
Liverpool School of Tropical Medicine
QIMR Berghofer Medical Research Inst.
Johns Hopkins Bloomberg School of Public Health

Electric force field to repulse mosquitoes

Low-cost treated Sandals to prevent bites

Low-tech treated fabric for outdoor Use

Low-cost treated wall hangings for indoor use

Human scent mimic mosquito trap

VECTOR SURVEILLANCE



Stanford University
University of Queensland
Stanford University
Sao Paolo University
Johns Hopkins University

MosquitoFreq: Crowdsourced detection of Mosquitoes species using simple Flip Phones

Near infrared spectroscopy to detect transmission hotspots

VectorChip: Design and testing for pathogen identification tools in wild mosquito populations

Intelligent trap to enhance Zika surveillance

VectorWEB: Low-cost network of cloud connected ovitraps

COMMUNITY ENGAGEMENT



Institute for Global Environmental Studies
Johns Hopkins Center for Communications Programs

Mosquito Challenge Community Campaign: Kid citizen science to combat Zika

Rapid Habit Optimization Tool (R-SHOT)

DISEASE SURVEILLANCE



Premise Data

Citizen-led disease risk mapping and vector monitoring

DIAGNOSTICS



J. Craig Venter Institute
Abbott's Ibis Biosciences Business
BluSense Diagnostics
SystemOne

Rapid identification of peptides to speed development of Zika diagnostics

Rapid, handheld point of care diagnostic for ZIKV, DENV, CHKV

Viro-Track: Rapid point of care diagnostic for ZIKV, DENV, CHKV using blue ray technology

Aspect™ IoT software to prevent future outbreaks