Western Gulf Center of Excellence for Vector-Borne Diseases

Center Updates
Scott Weaver
3rd Annual Progress Meeting
Edinburg, TX June 20th - 21st, 2019
Applied Research Project Changes

Project 8 ended August, 2018: Symbiotic Bacterial Delivery of RNA Interference to Mosquitoes to Inhibit Diverse Arbovirus Transmission (Grant Hughes left UTMB for Liverpool)

South Texas Tropical Medicine & Vector Borne Disease Conference

February 13-15, 2019
South Padre Island, TX

- Sponsored by Texas Department of State Health and Human Services, Public Health Region 11
- Presentations on vector biology, vector control emergency management, vector borne disease pathology, epidemiology, public health, vector control techniques, laws, and regulations
- Promote awareness of VBDs and the interdisciplinary approach involved in controlling and preventing vector borne diseases
Senators Introduce Legislation to Address Lyme and Tick-Borne Diseases

U.S. Senators Susan Collins (R-ME) and Tina Smith (D-MN) introduced the *Ticks: Identify, Control, and Knockout (TICK)* Act:

1) Establish an office of oversight and coordination for vector-borne diseases at the Department of Health and Human Services

2) Reauthorize Regional Centers of Excellence in Vector-Borne Diseases for five years at $10 million per year

3) Authorize CDC grants at $20 million per year that would be awarded to state health departments to improve data collection and analysis, support early detection and diagnosis, improve treatment, and raise awareness.

4) WGCVBD co-signed a letter of support
WGCVBD Joins Entomological Society of America in Vector-Borne Disease Network

• Purpose: To gather the expertise and perspectives of a variety of stakeholders invested in the mission to reduce the public-health and economic risks posed by ticks and mosquitoes

• 18 scientific and medical societies, professional associations, and advocacy groups have formed the VBD Network

• A new coalition that will channel collective action for national vector-borne disease strategy

• American Mosquito Control Association, American Society of Tropical Medicine & Hygiene, Council of State and Territorial Epidemiologists, National Association of County and City Health Officials, all five Centers of Excellence in Vector-Borne Diseases, and several other non-profit organizations
Field Experience in One Health and Outbreak Investigation

- University of Texas Rio Grande Valley, Texas A&M university, and University of Texas Medical Branch at Galveston
  - Veterinary health and zoonotic diseases
  - Wildlife biology and vector dynamics
  - Public health and epidemiologic methods
  - Field work and specimen collection
  - Molecular diagnostics
  - Biosafety and security
  - Outbreak evaluation and response through simulation
Harris County Mosquito & Vector Control Division/ CDC Intern

- Kevin Pritts, Cornell University
- Mentor: Dr. Mustapha Debboun & Dr. Saul Lozano
- Evaluation of *Aedes aegypti* suppression using *Wolbachia*-infected males produced by MosquitoMate, Inc.
- Recruit households, deploy and monitor with BG-sentinel traps
- Field collections, mosquito identification, write report and publish findings
• Jackeline Salazar, University of Texas, El Paso
• Mentor: Dr. Bethany Bolling
• Species identification of collected mosquito specimens from various Texas city and county health departments
• Arbovirus testing (RT-PCR assays): WNV, STL, EEE, WEE, ZIKV CHIKV, & DENV
• Cell culture-based surveillance testing for newly emerging arboviruses
• Insecticide resistance testing
WGCVBD Tick Surveillance Project Intern

- Karen Valdez, University of Texas, El Paso
- Mentor: Dr. Donald Bouyer
- Assist research team with field collections of ticks (Project 3)
- Perform pathogen testing on collected samples
- Report findings to describe prevalence of ticks and TBDs in Western Gulf region
City of Harlingen Environmental Health Department Intern

- Elieth Jamarillo, Undergraduate at University of Texas Rio Grande Valley
- Mentor: Josh Ramirez, MPA, CPM, City of Harlingen
- Conduct surveillance and control efforts using different trapping strategies for *Aedes* spp. mosquitoes in Harlingen
- Establish baseline studies and resistance profiles of different mosquito populations
- Participate in basic ecologic studies on survival, flight range, mating potential, and ideal gamma-irradiation dosage for mosquito releases (USDA, Gainesville, FL)
Appointment of Caroline Weldon  
WGCVBD Program Manager  

- BS, Public Health: University of South Carolina and MPHTM, Tropical Medicine: Tulane University  
- Conducted field studies on community response after the 2016 Zika epidemic in Iquitos, Peru  
- Southeastern CoE Summer Intern, 2018, at Collier Mosquito Control District in Florida  
- Southeastern CoE Program Coordinator  
- Appointed Program Manager at the Western Gulf CoE in February 2019  
- Implemented Summer Internship Program  
- Developed Quarterly Newsletter  
- Produced all-CoE policy update  
- Coordinated tri-institutional One Health Course  
- Expanded social media presence and Center outreach  
- Coordinated CoE network events and reports  
- Liaised UTMB IHII research efforts  
- Elected Research, Education And Community Health Coalition (R.E.A.C.H) Vice Chair