



**CDC Southeastern
Center of Excellence in
Vector Borne Diseases
The Gateway Program**

Newsletter

WINTER '20 – '21

News and Updates

Featured Update: All-CoE Seminar Series

We are excited to announce a 5-part seminar series hosted by the 5 regional VBD Centers of Excellence! **Please join us Jan. 28, 2:30 - 4 PM EST** for our first installment: "New Bugs on the Block," and save the dates for our future sessions (see right).

Each seminar will include presentations and a moderated Q&A session with participants from the 5 regional CoEs and subject matter experts from the CDC. Register for one or all of the sessions [here!](#)

January 28 – New Bugs on the Block: Invasive Species

February 25 – Mosquito Wrangling: Finding Effective Control Methods

March 25 – Building the VBD Workforce

April 29 – Tomorrow’s Vector Forecast: Predicting VBD Activity

May 27 – A Bug’s Life: Vector Behavior & Trends

Check out the agenda for the first installment below:

Vector-Borne Diseases Centers of Excellence Seminar Series

"New Bugs on the Block"
January 28, 2021 | 2:30pm ET

Lack of earth observations at the microhabitat scale limits our ability to predict suitable niches for invasive vectors
Emily Pascoe, PhD | PacVec COE

Effect of temperature and relative humidity on the Asian longhorned tick
Julia Gonzalez, PhD | Northeast COE

Tracking down the Asian longhorned tick
Melissa Nolan, PhD, MPH | Southeast COE

Tracking the spread and seasonal risk of *Aedes albopictus*
Chris Stone, PhD | Midwest COE



Register at bit.ly/COESeminars



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FIU Awarded \$15M by DARPA to Develop Skin Microbiome-based Mosquito Repellent

Congratulations to SECVBD Project 1 investigator Dr. Matt DeGennaro (pictured) who, in collaboration with Ginkgo Bioworks, Azitra, Inc., FIU, and Latham BioPharm Group (LBG), was awarded a \$15M contract by the Defense Advanced Research Projects Agency (DARPA) as part of its ReVector program. The team plans to create a new type of mosquito repellent that is based on the skin microbiome. The new repellent, a Live Biotherapeutic Product (LBP), will block human chemical signals which mosquitoes are attracted to while also repelling the insects. This new mosquito repellent is expected to be applied to situations in military, consumer, and global health. Read more about this novel repellent [here](#) and [here](#)!



Publication Highlights

Validating Species Distribution Models with Standardized Surveys for Ixodid Ticks in Mainland Florida | Journal of Medical Entomology

Research from Project 3 investigator Dr. Gregory Glass and former SECVBD postdoctoral associate Dr. Claudia Ganser was recently published in the Journal of Medical Entomology. This publication showcases Project 3's work validating tick species distribution models throughout Florida. With tick-borne pathogens on the rise, this work supports goals of the CDC to better monitor changes in the occurrence of ticks and their related tick-borne diseases. Read the full study [here](#) and learn more about Project 3's ongoing work [here](#).

Clustered Rapid Induction of Apoptosis Limits ZIKV and DEN-2 Proliferation in the Midguts of *Aedes aegypti* | Communications Biology

Congratulations to Project 1 researchers Jasmine Ayers, Dr. Heather Coatsworth, and Dr. Rhoel Dinglasan for their recent publication in Communications Biology! The publication, "Clustered rapid induction of apoptosis limits ZIKV and DENV-2 proliferation in the midguts of *Aedes aegypti*," elucidates the role of apoptosis as a rapid vector mosquito immune response.



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Understanding how mosquitoes respond to infection with viruses such as dengue and Zika can facilitate public health interventions such as predicting local transmission of these viruses as well as aid in the development of virus-resistant mosquito strains. Read the full study [here](#).

Modelling the Distribution of *Aedes aegypti* and *Aedes albopictus* using climate, host density and interspecies competitive effects | PLOS NTD

A collaborative manuscript including researchers from Projects 3 and 4 and scientists from throughout the SECVBD, “Modelling the distribution of *Aedes aegypti* and *Aedes albopictus* using climate, host density and interspecies competitive effects,” will be published soon in PLOS NTD! The study pulled in collaborators from academia, public health departments, and vector control districts throughout Florida and beyond to create a model predicting distribution of *Aedes* vectors. Predictive models such as this can aid surveillance and vector control efforts. Read the pre-print [here](#) and be on the lookout for the publication in PLOS NTD.

Training Opportunities

2021 Dodd Short Courses | FMCA

Registration for the 2021 Dodd Short Courses is open until January 27th! This year’s Dodd will be held entirely online, beginning February 1st through February 5th, 2021. Be sure to check out the updated course offerings, which new courses as well as returning favorites. View the agenda and course offerings [here](#) and register for the courses [here](#).



2021 Dodd Short Courses

**** Looking for Dodd’s Introduction to Mosquito Control course?
Please see the newly offered condensed course for this year, listed below ****



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Introduction to Mosquito Control | FMCA

Don't need CEUs? Attend for free via SECVBD!

Although the Introduction to Mosquito Control course is missing from this year's Dodd Short Courses lineup, a condensed version will be held at the end of February by the FMCA. The course will run 4 days and be worth 11 CEUs. **For those who do not require CEUs, a sponsorship to attend the course is available: the first 55 registrants from within the states and territories served by the SECVBD* will be able to attend the course for free.** Please contact [Liz Foreman](#) for additional details.

**States and territories: AL, AR, FL, GA, KY, LA, MO, MS, NC, PR, SC, TN, USVI, VA*



Third Annual Biology of Vector-Borne Diseases Course | University of Idaho

The third annual Biology of Vector-borne Disease course is scheduled for Sunday through Friday, June 20-25, 2021. This six-day course, offered through the University of Idaho, is both lecture- and discussion-based and is delivered by internationally recognized experts, with integrated case studies of emerging vector-borne pathogens. The course registration fee (USD \$1,500) includes housing, meals, course materials and social activities. Registration will be due following acceptance into the course. Apply online [here](#).



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Upcoming VBD Webinars

Climate Change and Emerging Infectious Diseases Seminars | NY State Department of Health & University at Albany

The New York State Department of Health and University at Albany are hosting a joint seminar series on Climate Change and Emerging Infectious Diseases. Join this group on the third Thursday of the month (unless otherwise noted) at 4 PM EST for presentations on VBDs and climate change. More information on the schedule, presentations, and Zoom link available [here](#).

Fourth Virtual Vector Biology Seminar Series 2021 | University of Nevada, Reno

Join the 4th Virtual Vector Biology seminar series to hear about research on mosquitoes, ticks, tsetse flies, and kissing bugs! Seminars run from every Friday at 12pm ET from January 15 to March 19, 2021. Access the agenda [here](#) and register online [here](#)!

Virtual Seminar Series on Vector-Borne and Zoonotic Diseases | Centers for Research in Emerging Infectious Disease

The Centers for Research in Emerging Infectious Disease (CREID) is hosting a virtual seminar series every second Tuesday of the month starting January 12, 2021. (CREID) is a coordinated network with centers in regions around the globe where emerging and re-emerging infectious disease outbreaks are likely to occur. You can view the agenda and register for each session [here](#).

Career Opportunities

Field Inspector | Lee County Mosquito Control District (Apply by Jan 29th, 2021)

A Field Inspector position is available at Lee County Mosquito Control. The individual will perform ground inspections and spray missions in assigned areas, including surveillance of larvae, pupae, and adult mosquitoes as well as monitoring of rainfall and tide data. To see the full description, qualifications, and instructions to apply, visit our [job board](#)!



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Postdoctoral Research Associate | University of South Carolina Laboratory of Zoonotic and Vector-borne Diseases

The U of SC Laboratory of Zoonotic and VBDs is seeking a postdoctoral research associate to join the lab, starting January 2021. The successful candidate will work closely with Dr. Melissa Nolan to execute multiplex pathogen detection assays, sequencing, and phylogenetic analysis on pediatric cohort samples and insect vector species. About the U of SC Laboratory of Zoonotic and VBDs: the laboratory focuses on the epidemiology of Spotted Fever group rickettsioses, Chagas disease, gastrointestinal parasites and emerging arboviral pathogens in the United States and Latin America. This translational research laboratory performs field sample collections and pathogen detection of clinical and insect samples in the United States, El Salvador, Brazil, Mexico and Colombia. See the full posting and application instructions [here!](#)

Assistant Professor Biochemistry & Molecular Biology, Arthropods | University of Nevada, Reno

The College of Agriculture, Biotechnology and Natural Resources at the University of Nevada, Reno seeks to fill a 9-month, tenure-track Assistant Professor in the Department of Biochemistry and Molecular Biology. The Department is currently expanding its research base and is seeking a researcher whose expertise complements existing strengths in arthropod vectors and associated pathogens, with a particular interest in outstanding Biochemists, Molecular Biologists, or Biotechnologists. For the full description, qualifications, and application instructions, click [here](#).

Global Technical Director (Entomologist) – VectorLink | US President's Malaria Initiative

Abt Associates seeks a Technical Director to support the VectorLink Project, a PMI funded integrated vector control program. The Technical Director will provide technical advice to project leadership, PMI, project staff, and Ministries of Health. They will ensure that all country programs supported by PMI adhere to technical standards, provide on-site technical assistance to country programs; make substantive technical and policy contributions in collaboration with international and national partners such as WHO, Global Fund for AIDs Tuberculosis and Malaria (GFATM), and NMCPs in the selection and rational deployment of malaria vector control interventions. The position description and application instructions are [here](#).



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Research Associate I, Pathology Research (VBDs) | University of Texas Medical Branch, Galveston

The research associate will assist in the laboratory study of vector borne diseases, with an emphasis on *Rickettsia* and *Ehrlichia* bacterial species and tick-borne viruses. Studies will be focused on the epidemiology of tick- and flea-borne bacterial and viral pathogens in conjunction with academic and public health collaborators. Tasks will include basic microbiologic techniques, growth and propagation of various rickettsial species, basic molecular and immunodiagnostic techniques, and the field collection of arthropod vectors. [Click here](#) for the full listing.

For all training and job opportunities, please visit our website:

Training: bit.ly/SECVBD_Training

Job Board: bit.ly/SECVBD_JobBoard

To advertise VBD-related opportunities, please email kd.mccoy@ufl.edu.

Want to join our mailing list? Subscribe here: bit.ly/SECVBD_Newsletter_Signup



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