**The 15th Arbovirus Surveillance**

**and Mosquito Control Workshop in conjunction with the**

**ne 1443 regional project’s 4th ANnual meeting AND THE FMCA’S NE REGIONAL MEETING**

*(20 CEU’s)*

**Sponsored by AMCD, USDA/CMAVE, & NE 1443 Regional Project Committee**

Being held at AMCD’s New Base Station Complex at:

**120 EOC Drive, St. Augustine, Florida, 32092**

**March 19-22, 2018**

[**www.amcdsjc.org**](http://www.amcdsjc.org)

**PROGRAM AGENDA**

**(TENTATIVE)**

**Monday, march 19, 2018**

10:00am fLORIDA eNTOMOLOGY sOCIETY ‘S EXECUTIVE BOARD mEETING in AMCD’S CONFERENCE ROOM AND VISITING the 2018’S ANNUAL MEETING FACILITY in WORLD GOLF VILLAGE, sT. AUGUSTINE, FL, IN the Afternoon.

**Tuesday, March 20, 2018**

7:30am Registration … **AMCD Staff**

**Panel Session:**

**Moderator: Dr. Rui-De Xue, Executive Director, AMCD, St. Augustine, FL**

8:25am Welcome & Introduction… **Chairperson Mr. Gary Howell, AMCD’s Board of Commissioners; Dr. Jerry Hogsette, Lead Scientist, USDA/CMAVE**, and M**r. T. Wayne Gale, President of the FMCA**

8:30am **Keynote Speaker**: Reflections on the Ecology and Epidemiology of Mosquito-Borne Viruses in Connecticut: An Analysis from 20 Years of Research and Surveillance … **Dr. Theodore G. Andreadis, Director, The Connecticut Agricultural Experiment Station, Center for Vector Biology & Zoonotic Diseases, New Haven, CT**

9:10am **GUEST SPEAKER**: Progress and achievements of the world insecticide resistance network (WIN project) … **Dr. Vincent Corbel, Professor, Institute de Recherche pour le Development, Montpellier, France**

9:30am **GUEST SPEAKER**: Vector surveillance and control at ports, airports, and ground crossings in India ... **Dr. Ashwani Kumar, Scientist & Officer-in-Charge, ICMR-National Institute of Malaria Research, Campal, Panaji, Goa-403.001, India**

**9:50 A.M. - Break**

**Moderator: Dr. John C. Beier, Professor & Section Chair, Department of Public Health & Environmental Sciences,**

**University of Miami, Miami, FL**

10:10am Focus on the future of mosquito-borne illness: What is the next Zika … **Dr. Stanton Cope, Past President of the American Mosquito Control Association and Vice President, Technical Products and Services, Atlantic Paste & Glue**

10:40am What makes a mosquito a vector, and why is that importaqnt? … **Dr. Michael Turell, Senior Arbovirologist (retired), US Army Medical Research Institute of Infectious Diseases, Fort Detrick, MD**

11:00am Frequent sugar feeding behavior by *Aedes aegypti* in Bamoke, Mali, makes them ideal candidates for control with ATSB … **Dr. Gunter Muller, Visiting Professor, Hebrew University, Israel**

11:20am The Arabian Peninsula: epidemiology, challenges and opportunities for prevention and control of arbovirus diseases … D**r. Emad I.M. Khater, Hany A. Kamal, and Ernest Tambo, Public Health Pests Laboratory of Jeddah Governorate, Saudi Arabi**

11:40am Development sterile insect technique (SIT) as a tool for integrated *Aedes aegypti* control ... **Dr. Daniel A. Hahn, Associate Professor, Department of Entomology & Nematology, University of Florida, Gainesville, FL**

12:00pm New products from UNIVAR for 2018 … **Mr. Jason E. Conrad, Industry Specialist, UNIVAR**

**12:10 PM - Lunch break (**provided by **UNIVAR)**

**Programs & Associations:**

**Moderator: Dr. William Walton, President of the AMCA and Vice Chair, Dept. of Entomology, University of California, Riverside, CA**

1:00pm Overview of CDC’s Northeast Regional Center for Excellence in Vector-borne Diseases ... **Dr. Laura C. Harrington, Center Director & Professor, Department of Entomology, Cornell University, Ithaca, NY**

1:20pm Overview of CDC’s Southeast Regional Center of Excellence in Vector-borne Diseases, The Gateway Program ... **Dr. Rhoel R. Dinglasan, Center Director, Associate Professor, Emerging Pathogens Institute, University of Florida, Gainesville, FL**

1:40pm Update on the American Mosquito Control Association … **Dr. William Walton, President of the AMCA and Vice Chair, Dept. of Entomology, University of California, Riverside, CA**

2:00pm Update on the Society of Vector Ecology (SOVE) … **Dr. Major Dhillon, Executive Director of the SOVE, and Manager of Northwest Mosquito and Vector Control District, CA**

2:15pm Overview of Entomology program at the University of Florida ... **Dr. Blair D. Siegfried, Chair, Department of Entomology and Nematology, UF/IFAS, Gainesville, FL**

2:30pm Florida’s DACS grant fund priority, process and schedule update … **Dr. Caroline Efstathion, Environmental Specialist III, Entomology and Pest Control Section, DACS, Tallahassee, FL**

2:45pm Zika risk and related knowledge, attitudes, and practices during 2016 outbreak in Miami, Dade County, Florida … **Dr. Imelda K. Moise, University of Miami, Miami, F**L

**3:00 P.M. – Break**

**DiseasE SURVEILLANCE:**

**Moderator: Dr. Laura C. Harrington, Center Director & Professor, Department of Entomology, Cornell University, Ithaca, NY**

3:20pm Arbovirus surveillance report in Florida, 2017 … **Dr. Andrea Morrison, Arbovirus Surveillance Coordinator, Bureau of Epidemiology, DOH, Tallahassee, FL**

3:40pm An *Anopheles* surveillance system based on aquatic habitat spectral signatures using a hand-held spectrophotometer, UAV (drone) and sub-meter satellite imagery in Cambodia … **Dr. Robert J. Novak, Professor, University of South Florida, Department of Global Health, Tampa, FL**

4:00pm How nutritional status of *Culex pipiens* affects vector competence for WNV … **Dr. Rajeev Vaidyanathan, Director, Environmental Science, Clarke, St. Charles, IL**

4:15pm EEE human case and vector control response in Jacksonville MCD … M**s. Marah Clark, Entomologist, Jacksonville MCD, Jacksonville, FL**

4:25pmInspection and quarantine of invasive vector mosquito species at Entry-Exit ports, Zhenjiang, China … **Dr. Tian-Ci Yang, Senior Entomologist & Deputy Section Chief, Zhejiang Entry-Exit Inspection & Quarantine Bureau, Hangzhou, China**

4:40pmMosquito control response after hurricane Irma in Volusia County … **Mr. James McNelly, Director, Volusia Mosquito Control District, New Smyrna, FL**

5:05pmZika and hurricane response in Texas, 2017… **Dr. Whitney Qualls, Medical Entomologist, Texas Department of Health Service/Zoonosis Control Branch, Austin, TX**

5:20pm Mosquito population outbreak and control efforts after hurricane Irma in St. Johns County, FL … **Mrs. Kay Gaines, Operations Manager, AMCD, St. Augustine, FL**

**5:30 P.M. End of the session**

**6:00pm Dinner & Lecture at meeting site (all participates)**: Public Health Service Excellence in St. Johns County **… Dr. Dawn Allicock, Director, Department of Health of St. Johns County, St. Augustine, FL**

**Wednesday, March 21, 2018**

**Biology & Ecology:**

**Moderator: Dr. Paul Linser, Professor, University of Florida/Whitney Laboratory, St. Augustine, FL**

8:30am Transcription profile for permethrin resistance *Aedes aegypti* from Florida in response to Zika virus … **Dr. Liming Zhao, Research Assistant Professor, University of Florida/IFAS/FMEL, Vero Beach, FL**

8:45am Physiological impact of acoustic larvicide against *Culex quinquefasciatus* … **Dr. Paul Linser, Professor, University of Florida, Whitney Laboratory, St. Augustine, FL and Mr. Herbert Nyberg, CEO, New Mountain Innovations, Inc., Niantic, CT**

9:00am A survey of *Wolbachia* infection in *Aedes aegypti* wild population in New Mexico … **Dr. Jiannong Xu, Associate Professor, Department of Biological Sciences, New Mexico State University**

9:15am Ornamental Bromeliads of Miami-Dade County, Florida are important breeding sites for *Aedes aegypti* … **Dr. Andre Wilke, Post Doctor Associate, University of Miami, Miami, FL**

9:30am Overview of Florida Bromeliads conservation project … **Dr. Teresa Cooper, Manager, Save Florida’s Bromeliads Conservation Project, Newberry, FL**

9:45am Climatic risk impact on *Aedes* vector seasonal fluctuation and persistent dengue public health burden in Saudi Arabia … **Dr. Ernest Tambo, Public Health Pests Laboratory, Jeddah Governate, Jeddah, Kingdom of Saudi Arabia**

10:05am A community-wide trial of In2Care traps in Holly Hill, Florida … **Drake Falcon, Miranda Tressler, Hong Chen, and James McNelly, Volusia Mosquito Control, New Smyrna Beach, FL**

**10:20 A.M. – Break**

**Attractant / Trap / Repellent:**

**Moderator: Dr. Jiannong Xu, Associate Professor, Department of Biological Sciences, New Mexico State University**

10:40am Update on BG sentinel traps and new BG count traps … **Dr. Martin Geier, CEO, BioGents, Germany**

10:55am Efficacy of Knight Stick stable fly traps increases when traps are protected by electric fence and placed close to host animals … **Dr. Jerry Hogsette, Lead Scientist & Research Entomologist, USDA/ARS/CMAVE, Gainesville, FL**

11:10am Mosquito abundance and field trials of AGO traps against *Aedes aegypti* in the Texas-Mexico Border … **Dr. Gabriel Hamer, Assistant Professor, Department of Entomology, Texas A & M University, TX**

11:25am An oviposition attractant and trap for mosquito surveillance and control … D**r. Matthew DeGennaro, Assistant Professor, Department of Biology, Florida International University, Miami, FL**

11:40am Evaluating Pyrethroid insecticides in a novel type of olfactometer … **Dr. Christopher Batich,** **Professor, Department of Materials Science and Engineering, University of Florida, Gainesville, FL**

11:55am Summary of DeltaGard aerial application trials which led to EPA registration … **Mr. John Paige III, Bayer Environmental Science, Vero Beach, FL and Mr. Chris Pederson, ADAPCO, Sanford, FL**

**12:10 P.M. - Lunch break (**provided by **ADAPCO & FMCA)**

**The FMCA’s Northeast Regional roundtable meeting … Dr. Peter Jiang, FMCA’s NE Regional Director**

**Larval & Adult Control:**

**Moderator:** **Dr. Jerry Hogsette, Research Entomologist, USDA/ARS/CMAVE, Gainesville, FL**

1:00pm Update on SpringStar’s lethal oviposition traps for *Aedes* mosquito control … **Dr. Emily Kuhns, Head of Research and Development, SpringStar Inc., Seattle, WA**

1:15pm Large-scale deployment of CDC/AGO traps for control of *Aedes* mosquitoes … **Mrs. Dena Autry, Mosquito Control Technician, AMCD, St. Augustine, FL**

1:30pm Introduction to Nylar 0.5G: Seasonal-long larvicidal control in catch basins across three geographies in 2017 ... **Dr. Jennifer Williams, Entomologist, MGK, MN**

1:45pmOptimization of ULV space sprays for mosquito vector control … **Dr. Peter Jiang, Entomologist & Director, Gainesville City Mosquito Control Division, Gainesville, FL & Dr. Muhammad Farooq, Navy Entomology Center of Excellence, Jacksonville, FL**

2:00pm Control efforts of *Aedes albopictus* in Jiangsu, China ... **Dr. Tian Ye, Department of Disinfections and Vector Control, Jiangsu Provincial CDC, Nanjing, China**

2:15pm ATSB successful field trial of bait stations for outdoor control of malaria parasite transmission in Mali … **Dr. John Beier, Professor & Section Chair, Department of Public Health and Environmental Science, University of Miami, Miami, FL**

2:30pm Optimization of ATSB bait stations for a variety of mosquito vectors … **Dr. Onie Tsabari, Director of Research and Development, Westham Co, Israel**

2:45pm Going for gold: Academia’s relationship with operational vector control. … **Dr. William Walton, President of the AMCA and Vice Chair, Dept. of Entomology, University of California, Riverside, CA**

**3:00 P.M. – Break**

**INSECTICIDES AND RESISTANCE**:

**Moderator:** **Dr. J.R. Bloomquist, Professor, Department of Entomology and Nematology, EPI, University of Florida, Gainesville, FL**

3:20pm Update on new insecticides research at UF/EPI … **Dr**.**J. R. Bloomquist, Dept. of Entomology and Nematology, EPI, University of Florida,** **Gainesville, FL**

3:40pm Rapid determination of pyrethroid resistance without toxicology testing: Getting more from surveillance samples ... **Mr. Alden S. Estep, Ms. Christy Waits, and James J. Becnel, USDA/CMAVE & NECE-CMAVE Detachment, Gainesville, FL**

3:55pm Pyrethroid-resistance in *Aedes aegypti* from Puerto Rico and Miami Beach ... **Ms. Christy Waits, Mr. Alden S. Estep, and Dr. James J. Becnel, USDA/CMAVE & NECE-CMAVE Detachment, Gainesville, FL**

4:10pm Variation in resistance levels and *kdr* mutations in Florida *Aedes aegypti* ... **Ms. Sarah Bernard, Mr. Alden S. Estep, & Dr. James J.Becnel, USDA/CMAVE & NECE-CMAVE Detachment, Gainesville, FL**

4:25pm Can sublethal exposure to spatial repellents have an impact on oviposition behavior and fecundity? **… Mr. Christopher Bibbs, Biologist and Ph.D. Candidate, Anastasia Mosquito Control District, St. Augustine, FL**

4:40pm Mosquito resistance to insecticides detected by CDC bottle bioassay in Volusia, FL … **Dr. Hong Chen, Jesse Julien, and Mr. James McNelly, Volusia Mosquito Control District, New Smyma, FL**

4:50pmPassive Tools, Aptamer-Based Diagnostics and Nanoparticles for Vector Surveillance and Control: An Update … **Dr. Bradley Willenberg, Assistant Professor, Department of Intern Medicine, University of Central Florida, Orlando, FL.**

5:10pm Training opportunity and contribution by the Florida Mosquito Control Association (FMCA) … **Mr. T. Wayne Gale, President of the FMCA, Immediate Past President of the AMCA, Executive Director of Lee County Mosquito Control District, Ft. Myers, FL**

**5:25 P.M. End of the session**

**Thursday, March 22, 2018**

**mODERATOR: Dr. Philip Armstrong**, **Connecticut Agricultural Experiment Station, Center for Vector Biology & Zoonotic Diseases, New Haven, CT**

**NE-1443: Biology, Ecology & Management of Emerging Disease Vectors (**4th Annual Meeting)

**8:30am: Keynote Speaker:** Overview of arbovirus surveillance and vector control in Harris County and the City of Houston … **Dr. Mustapha Debboun, Retired Colonel, Current Director, Harris County Mosquito and Vector Control Division, Houston, TX**

**9:00am:** Sterile insect based approaches: the future of mosquito control? ... **Dr. Derric Nimmo, OXITEC, U.K.**

**9:15am**: Wide angle UV LEDs for use in mosquito light traps ... **Mr. Randy Buckley, Dr. Roberto Pereia, and Dr. Phil Koehler, Department of Entomology and Nematology, University of Florida, Gainesville, FL**

**9:30am:** Implementation and real impact of smart mosquito device system at the Metropolitan cities in South Korea … **Dr. Hoonbok Yi, Professor, Seoul Women University, Seoul, Korea**

**9:45am:** Preliminary Business Meeting

* + Chair’s Report
  + CSREES Representative’s Report
  + Administrative Advisor’s Comments

**10:15 am:** Introductions – Each participant briefly introduces themselves and their interests

**10:25 am:** **Break**

**10:40 am:** Prevalence and distribution of pathogen infection and permethrin resistance in tropical and temperate brown dog tick populations … **Dr. Phillip E. Kaufman, Nicholas S. G. Tucker and Emma N. I. Weeks, Department of Entomology & Nematology, UF, Gainesville, FL**

**10:55am:** Review of Major Objectives and Goals

Objective 1: Development of parasitic arthropod catalogue/resources

Objective 2: Integrated tick management and community-centered approaches, including understanding the biology and ecology of novel and emerging tick-borne pathogens

**11:50am**: New products from Central Life Sciences for 2018 ... **Mr. Zane McCallister, Central Life Sciences**

**12:00 pm:** **Lunch Break (provided by Central Life Sciences)**

**1:00 pm:** Field comparison of CDC’s AGO traps and In2Care traps for control of *Aedes* mosquitoes in St. Augustine, FL … **Dr. Daniel Dixon, Molecular Biologist, AMCD, St. Augustine, FL**

**1:15 pm:**  Review of Major Objectives and Goals *(continued)*

Objective 3: *Ae. albopictus* and *Ae. aegypti*, with a focus on surveillance, range expansion, ecology, genetics, climate change and disease risk

Objective 4: New Control Tools, including socio-ecological approaches

Objective 5: Training and training tools

**3:00 pm:** **Break and Group Photo**

**3:30 pm:** Group discussions on potential funding sources and development of prospective collaborative proposals

**4:30 pm:** Wrap-up including discussion of 2019 Annual Meeting site, dates, venue and agenda

**5:00 pm: Adjourn and workshop end**

For additional information about NE 1443 meeting, see the NE 1443 Website at: <http://www.nimss.org/projects/view/mrp/outline/16677>

Or contact Dr. Philip Armstrong <Philip.Armstrong@ct.gov>