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**SCIENTIFIC PROGRAM**

**46<sup>th</sup> ANNUAL CONFERENCE OF SOCIETY FOR VECTOR ECOLOGY  
ALBUQUERQUE, NEW MEXICO  
SEPTEMBER 27 – OCTOBER 1, 2015**

***SUNDAY – SEPTEMBER 27, 2015***

2:00 – 6:00      **REGISTRATION**

4:00 – 5:30      **BOARD MEETING  
ROOM**

**\*NO OTHER ACTIVITY\***

***MONDAY – SEPTEMBER 28, 2015***

8:00 – 8:05      **WELCOME**

8:05 – 8:10      **AWARD PRESENTATIONS**

8:10 – 8:15      **ANNOUNCEMENTS  
Major S. Dhillon**

8:15 – 8:45      **PRESIDENTIAL ADDRESS  
Bulent Alten**

8:45 – 9:20      **KEYNOTE SPEAKER  
Phil Lounibos [lounibos@ufl.edu](mailto:lounibos@ufl.edu)  
Where Vectors Collide: Determinants of Co-existence or  
Exclusion in Invasive Mosquitoes**

- 9:20 – 9:25      **WALTER LEAL**  
International Congress of Entomology 2016
- 9:25 – 9:40      **TICKS: ESA's tick IPM recommendations**
- 9:40 – 9:55      **REPORTS FROM OVERSEAS SOVE REGIONS:**  
*EURO SOVE*  
*BRAZILIAN SOVE*  
*ASIAN SOVE*
- 9:55 – 10:15    **BREAK**
- 10:15 – 12:15   **SYMPOSIUM 1: MODELING IN VECTOR ECOLOGY RESEARCH**  
**Moderators: Daniel E. Dawson** [dan.dawson@ttu.edu](mailto:dan.dawson@ttu.edu)  
The Institute of Environmental and Human Health,  
Texas Tech University, Lubbock, TX
- 10:15    Beyond Forecasting: Modeling for Decision Support, Policy, and Translational Research  
**Eric Lofgren** [lofgrene@vbi.vt.edu](mailto:lofgrene@vbi.vt.edu)  
Virginia Bioinformatics Institute, Virginia Tech University,  
Blacksburg, Virginia
- 10:30    Getting back to basics: The role of mechanistic models in identifying drivers of spatiotemporal variation in vector-borne disease transmission  
**Alex Perkins** [taperkins@nd.edu](mailto:taperkins@nd.edu)  
Eck Institute for Global Health, University of Notre Dame,  
Notre Dame Indiana
- 10:45    Modeling vector-borne pathogens: Issues of scale  
**Cynthia Lord** [clord@ufl.edu](mailto:clord@ufl.edu), B. W. Alto, C. R. Connelly, J. F. Day, J. J. Pohedra, S. L. Richards, C. T. Smartt and W. J. Tabachnick  
Florida Medical Entomology Laboratory, University of Florida,  
Vero Beach, Florida

- 11:00 SkeeterBuster, a detailed model of *Aedes aegypti* populations:  
Past, Present, Future  
**Christian Gunning** [cegunnin@ncsu.edu](mailto:cegunnin@ncsu.edu), K. Okamoto, E.C. Griffiths, A.L. Lloyd and F. Gould  
North Carolina State University, Raleigh, NC
- 11:20 Why can't we still predict West Nile virus outbreak  
**Krisztian Magori** [kgmagori@gmail.com](mailto:kgmagori@gmail.com)  
Eastern Washington University, Cheney, Washington
- 11:35 A spatially-explicit population model for *Culex tarsalis* in the  
Southern High Plains: A mixed IBM-matrix model using the  
RNetLogo interface  
**Daniel E. Dawson** [dan.dawson@ttu.edu](mailto:dan.dawson@ttu.edu) and  
Christopher J. Salice  
The Institute of Environmental and Human Health, Texas Tech  
University, Lubbock, TX
- 11:55 Predicting the introduction and transmission of Rift Valley Fever  
virus in the U.S.  
**Andrew Golnar** [agolnar@tamu.edu](mailto:agolnar@tamu.edu) and  
Gabe Hamer [ghamer@tamu.edu](mailto:ghamer@tamu.edu)  
Texas A&M University, College Station, Texas
- 12:15 – 1:30 **LUNCH**
- 1:30 – 3:30 **SYMPOSIUM 2: VECTOR-MICROBE INTERACTIONS**  
**Moderators: Dagne Duguma** [duguma@ufl.edu](mailto:duguma@ufl.edu)  
Florida Medical Entomology Lab, University of Florida,  
Vero Beach, FL  
**Michael Kaufman** [kaufma15@msu.edu](mailto:kaufma15@msu.edu)  
North Carolina State University, Raleigh, NC
- 1:30 Effects of leaf condition on larvae-microbial interactions in  
water-filled tree holes  
**Beth Norman** [bcheever@msu.edu](mailto:bcheever@msu.edu)  
Michigan State University, East Lansing, MI
- 1:45 Developing Wolbachia-based dengue control in China  
**Zhiyong Xi** [xizy@msu.edu](mailto:xizy@msu.edu)  
Michigan State University, East Lansing, MI

- 2:00 Changing Ecology of Tick-borne Diseases in the Southern US: A New Paradigm  
**Charles Apperson** [apperson@ncsu.edu](mailto:apperson@ncsu.edu), M. Kakumanu, L. Ponnusamy, H. Sutton, W. L. Nicholson, and S. R. Meshnick  
 North Carolina State University, Raleigh, NC
- 2:20 Improving mosquito fitness through insulin signaling  
**Michael Riehle** [mriehle@ag.arizona.edu](mailto:mriehle@ag.arizona.edu)  
 The University of Arizona, Tucson, AZ
- 2:40 Ecological interactions of larval mosquitoes and their control with microbiota in aquatic ecosystems  
**Dagne Duguma** [duguma@ufl.edu](mailto:duguma@ufl.edu), C. Wilson and W. E. Walton  
 University of Florida/IFAS: Florida Medial Entomology Lab, Vero Beach, FL, Dept. of Soil and Water Sciences, Gainesville, FL;  
 Dept. of Entomology, University of Calif. Riverside, CA
- 3:00 Friend-foe interactions: do gut fungal and bacterial communities influence susceptibility of *Aedes* mosquitoes to La Crosse virus?  
**Ephantus Muturi** [emuturi2@illinois.edu](mailto:emuturi2@illinois.edu), Chang-Hyun Kim and Allison Hansen  
 Illinois Natural History Survey, Champaign, IL
- 3:15 Ecological genomics view of the mosquito gut  
**Jiannong Xu** [jxu@nmsu.edu](mailto:jxu@nmsu.edu)  
 New Mexico State University, Las Cruces, NM
- 3:30 – 4:00 **BREAK**
- 4:00 – 6:10 **SYMPOSIUM 3: INNOVATIONS IN VECTOR CONTROL**  
**Moderators: Stephen Dobson** [sdobson@uky.edu](mailto:sdobson@uky.edu)  
 Dept. of Entomology, University of Kentucky,  
 Lexington, KY
- 4:00 Innovation: An Embarrassment of Riches and Nowhere to Spend Them  
**Dan Strickman** [dan.strickman@gatesfoundation.org](mailto:dan.strickman@gatesfoundation.org)  
 Global Health Program, Bill & Melinda Gates Foundation
- 4:20 Requirements and challenges faced by new vector control paradigms: A focus on spatial repellents

**Nicole Achee** [nachee@nd.edu](mailto:nachee@nd.edu)

Eck Institute for Global Health, Dept. of Biological Sciences,  
University of Notre Dame, Notre Dame, IN

4:50 Vector competence of *Aedes aegypti* and *Ae. albopictus* for dengue and chikungunya viruses.

**Eva Veronesi** [eva.veronesi@uzh.ch](mailto:eva.veronesi@uzh.ch), Fabrizio Balestrino,  
Alexander Mathis, Jeremie Gilles and Anna-Bella Failloux  
University of Zurich Foundation, Switzerland

5:10 Combining IIT and SIT for a powerful and safe synergistic approach to mosquito suppression

**Lees Rosemary Susan R.** [Lees@iaea.org](mailto:Lees@iaea.org), Dongjing Zhang,  
Kostas Bourtzis and Jeremie RL Gilles

FAO/IAEA Agriculture Biotechnology Lab, Seibersdorf, Austria

5:30 *Aedes aegypti* Control Strategies in Brazil: Transgenic technologies to overcome the persistence of Dengue Epidemics

**André Luis Costa-da-Silva** [alcosta@icb.usp.br](mailto:alcosta@icb.usp.br), D. O Carvalho,  
B. B Kojin, H. R. C Araújo, R. S. Ioshino and M. L. Capurro  
Institute of Biomedical Sciences, Dept. of Parasitology,  
University of Sao Paulo, Brazil

5:50 Autocidal methods against vectors - Male mosquitoes as delivery vehicles

**Stephen Dobson** [sdobson@uky.edu](mailto:sdobson@uky.edu), J. Mains, C. Brelsfoard and  
H. Yamada

Dept. of Entomology, University of Kentucky, Lexington, KY

6:30 – 8:30      **RECEPTION**

## **TUESDAY – SEPTEMBER 29, 2015**

9:00 – 4:00      **ECOLOGICAL FIELD EXCURSION:**

6:00 – 8:00      **DINNER**

## **WEDNESDAY – SEPTEMBER 30, 2015**

**8:00 – 10:00 POSTER SESSION**

**LIST ALL POSTERS HERE IN NUMERICAL ORDER:**

**10:00 – 12:00 SYMPOSIUM 4: NEW APPROACHES TO CULICOIDES AND SAND FLY CONTROL**

**Moderators: Eva Veronesi** [eva.veronesi@uzh.ch](mailto:eva.veronesi@uzh.ch)

University of Zurich Foundation, Switzerland

**Bulent Alten** [kaynas@hacettepe.edu.tr](mailto:kaynas@hacettepe.edu.tr)

Hacettepe University, Turkey

10:00 Culicoides population control using insecticidal sugar baits

**Lee Cohnstaedt** [lee.cohnstaedt@ars.usda.gov](mailto:lee.cohnstaedt@ars.usda.gov)

Arthropod-Borne Animal Disease Research Unit, USDA-ARS-CGAHR, USA

10:25 Why do we need control measures for Culicoides biting midges when we have vaccines?

**Simon Carpenter** [simon.carpenter@pirbright.ac.uk](mailto:simon.carpenter@pirbright.ac.uk)

Head of National Capability/Entomology, Pirbright Institute, UK

10:50 Evaluation of the efficacy of OLYSET® plus in a village-based cohort study in the Cukorova plain, Turkey, in an area of hyperendemic cutaneous leishmaniasis

**Bulent Alten** [kaynas@hacettepe.edu.tr](mailto:kaynas@hacettepe.edu.tr), Yusuf Ozbel, Ozge

Erisoz Kasap, Filiz Gunay, Mehmet Karakus, Sinan Kaynas, Gizem Oguz, Yasemen Sarikaya, and Mert Dogan

Hacettepe University, Faculty of Science, Dept. of Biology, Ecology Division, HUESRL-VERG Lab, Beytepe, Ankara, Turkey;

Ege University Faculty of Medicine Dept. of Parasitology, Bornova, Izmir, Turkey; Mehmet Akif University Faculty of Veterinary, Burdur, Turkey

11:15 Integrated Vector Management against sand fly populations associated with animal facilities

**Chaskopoulou Alexandra** [achaskopoulou@ars-ebcl.org](mailto:achaskopoulou@ars-ebcl.org),

A. Chaskopoulou, J. Kashefi, S. Demir and P. Koehler  
USDA-ARS European Biological Control Lab, Thessaloniki,  
Greece; American Farm School, Perrotis College, Thessaloniki,  
Greece; Ege University, Dept. of Biology, Izmir, Turkey;  
University of Florida, Dept. of Entomology, Gainesville, FL

11:40 Control of sand flies using attractive toxic sugar baits

**Whitney A. Qualls** [w.qualls@med.miami.edu](mailto:w.qualls@med.miami.edu), John C. Beier and

Gunter C. Muller

University of Miami, Miller school of Medicine, Miami, FL;  
Hebrew University, Israel

12:00 – 1:30 **LUNCH**

1:30 – 3:30 **SYMPOSIUM 5: STUDENT ORAL PRESENTATIONS**

**Moderators: William Walton** [william.walton@ucr.edu](mailto:william.walton@ucr.edu)

Dept. of Entomology, University of Calif. Riverside,  
Riverside, CA

1:30 An epizootic of BTV and EHDV among cattle and penned  
white-tailed deer in the absence of the U.S. vector  
*Culicoides sonorensis*

**Michael Becker** [mbecker@agcenter.lsu.edu](mailto:mbecker@agcenter.lsu.edu) and Lane Foil

Louisiana State University, Baton Rouge, LA

1:45 Larval diet alters adult survival and human malaria parasite  
incubation period, significantly impacting accuracy of disease  
transmission predictions

**Lillian Moller-Jacobs** [llmjacobs23@gmail.com](mailto:llmjacobs23@gmail.com) and

Matthew Thomas

Penn State University, State College, PA

2:00 *Ixodes scapularis* in North Dakota, an emerging vector  
population

**Michael W. Dougherty** [michael.dougherty@my.und.edu](mailto:michael.dougherty@my.und.edu),

Robert A. Gaultney, Nathan M. Russart, John F. Kryda,

Catherine A. Brissette and Jefferson A. Vaughan

Department of Biology, University of North Dakota, Grand  
Forks, ND



- 2:15 Effects of Container size on competition between *Aedes* mosquito larvae  
**Peter Brabrant** [pjbraba@ilstu.edu](mailto:pjbraba@ilstu.edu) and Steven Juliano  
 Illinois State University, Normal, IL
- 2:30 *Pseudomonas aeruginosa* in *Musca domestica* L.: Temporospatial Examination of Bacteria Population Dynamics and House Fly Antimicrobial Responses  
**Mary Katherine Mills** [mm02463@ksu.edu](mailto:mm02463@ksu.edu), C. Joyner and D. Nayduch  
 Kansas State University, Manhattan, Kansas
- 2:45 Using permethrin to reduce mosquito attack rate and improve health of nestling Barn Owls  
**Caroline Efstathion** [cefstathion@ufl.edu](mailto:cefstathion@ufl.edu) and William Kern  
 University of Florida, Dept. of Entomology and Nematology, Gainesville, FL
- 3:00 Eco-epidemiological risk and sylvatic vectors of Chagas disease in Panama  
**Erin Allmann Updyke** [erinallmann@gmail.com](mailto:erinallmann@gmail.com)  
 University of Illinois at Urbana-Champaign, Champaign, IL
- 3:15 Host specific response to DEET selection in *Anopheles coluzzi* and *Aedes aegypti*  
**James D. Ricci** [james.ricci@email.ucr.edu](mailto:james.ricci@email.ucr.edu) and Bradley J. White  
 Department of Entomology, UC Riverside, Riverside, CA

3:30 – 4:00 **BREAK**

4:00 – 5:30 **SYMPOSIUM 6: MOLECULAR GENETICS AND GENOMICS FOR THE STUDY OF VECTOR POPULATIONS**

**Moderators:** **Greg Lanzaro** [gclanzaro@ucdavis.edu](mailto:gclanzaro@ucdavis.edu)

Dept. Pathology, Microbiology & Immunology,  
 UC Davis, California

**Douglas Norris** [douglas.norris@jhu.edu](mailto:douglas.norris@jhu.edu)

Johns Hopkins Bloomberg School of Public Health Dept. of Molecular; Microbiology and Immunology  
 Johns Hopkins Malaria Research Institute, Baltimore, MD

4:00 **TITLE**

**Greg Lanzaro** [gclanzaro@ucdavis.edu](mailto:gclanzaro@ucdavis.edu)

Dept. Pathology, Microbiology & Immunology,  
UC Davis, California

4:20 **TITLE**

**Douglas Norris** [douglas.norris@jhu.edu](mailto:douglas.norris@jhu.edu)

Johns Hopkins Bloomberg School of Public Health Dept. of  
Molecular; Microbiology and Immunology Johns Hopkins  
Malaria Research Institute, Baltimore, MD

4:40 **TITLE**

**William Black IV** **EMAIL**

**AFFILIATION**

5:00 **TITLE**

**Michel Slotman** **EMAIL**

**AFFILIATION**

5:15 Molecular genetics and genomics for the study of vector  
population

**Feliz Gunay** [gunay@gmail.com](mailto:gunay@gmail.com)

**AFFILIATION**

5:30 **BUSINESS MEETING:**

**Bulent Alten** [kaynas@hacettepe.edu.tr](mailto:kaynas@hacettepe.edu.tr)

President of SOVE

Hacettepe University, Turkey

**Major S. Dhillon** [mdhillon@northwestmvcd.org](mailto:mdhillon@northwestmvcd.org)

SOVE Secretary-Treasurer

Corona, CA

## **THURSDAY – OCTOBER 1, 2015**

8:00 – 10:10 **SYMPOSIUM 7: FLIES AS VECTORS OF DISEASE**

**Moderators: Jerry Hogsette** [jerry.hogsette@ars.usda.gov](mailto:jerry.hogsette@ars.usda.gov)

USDA-ARS-CMAVE, Gainesville, FL

8:00 Why flies are good vectors

- Jerry Hogsette** [jerry.hogsette@ars.usda.gov](mailto:jerry.hogsette@ars.usda.gov)  
 USDA-ARS-CMAVE, Gainesville, FL
- 8:10 House flies as potential mechanical vectors of animal pathogens  
**Alec Gerry** [alec.gerry@ucr.edu](mailto:alec.gerry@ucr.edu)  
 Dept. of Entomology, University of California, Riverside, CA
- 8:30 Flourishing in filth: Fly-microbe interactions across life history  
**Dana Nayduch** [dana.nayduch@ars.usda.gov](mailto:dana.nayduch@ars.usda.gov)  
 USDA-ARS, Center for Grain and Animal Health Research,  
 Manhattan, KS
- 8:50 Differential transmission of food-borne bacteria to leafy greens  
 by blow flies and house flies  
**Astri Wayadande** [a.wayadande@okstate.edu](mailto:a.wayadande@okstate.edu)  
 Dept. of Entomology, Agricultural Plant Science, Oklahoma State  
 University, Stillwater, OK
- 9:10 Do horn flies and stable flies have a role in the transmission of  
 bacterial pathogens?  
**Pia Olafson** [pia.olafson@usda.ars.gov](mailto:pia.olafson@usda.ars.gov)  
 USDA-ARS, US Livestock Insects Research Laboratory,  
 Kerrville, TX
- 9:30 Transmission by Calliphorids  
**Sonja Swiger** [slswiger@ag.tamu.edu](mailto:slswiger@ag.tamu.edu)  
 Texas A&M AgriLife Extension Service, Stephenville, TX
- 9:50 Tabanid mechanical transmission of pathogens and  
 comparison of vector potential to other flies and iatrogenic  
 vehicles  
**Lane Foil** [lfoil@agcenter.lsu.edu](mailto:lfoil@agcenter.lsu.edu)  
 Louisiana State University, Baton Rouge, LA
- 10:10 – 10:30 **BREAK**
- 10:30 – 12:00 **SYMPOSIUM 8: DEVELOPMENT OF REPELLANTS AND  
 INSECTICIDES FOR MOSQUITOES**  
**Moderator: Ulrich R. Bernier** [uli.bernier@ars.usda.gov](mailto:uli.bernier@ars.usda.gov)  
 Center for Medical, Agricultural, and Veterinary  
 Entomology, USDA-ARS, Gainesville, FL

- 10:30 Mosquito ABC transporters: A pharmacological barrier to insecticide delivery  
**Troy D. Anderson** [anderst@vt.edu](mailto:anderst@vt.edu)  
Dept. of Entomology, Fralin Life Science Inst., Virginia Tech
- 10:45 Structure-Activity and Modeling of Mosquito Repellents  
**Ulrich R. Bernier** [uli.bernier@ars.usda.gov](mailto:uli.bernier@ars.usda.gov)  
Center for Medical, Agricultural, and Veterinary Entomology, USDA-ARS, Gainesville, FL
- 11:00 Impact of synergists on insecticide resistance in *Anopheles gambiae*  
**Jeffrey R. Bloomquist** [jbquist@epi.ufl.edu](mailto:jbquist@epi.ufl.edu)  
Dept. of Entomology and Nematology, Emerging Pathogens Institute, University of Florida, Gainesville, FL
- 11:15 A Phytochemical Approach to Insect Repellents  
**Joel R. Coats** [jcoats@iastate.edu](mailto:jcoats@iastate.edu)  
Dept. of Entomology, Iowa State University, Ames, IA
- 11:30 Utilizing Recent Progress in USDA Spatial Repellent Program  
**Daniel L. Kline** [dan.kline@ars.usda.gov](mailto:dan.kline@ars.usda.gov)  
USDA-ARS, Center for Medical, Agricultural and Veterinary Entomology
- 11:45 Dose-persistence relationship of experimental repellents AI3-37220 and AI3-35765 compared with Deet against *Aedes albopictus* and *Culex nigripalpus*  
**Rui-De Xue** [xueamcd@gmail.com](mailto:xueamcd@gmail.com), Gunter C. Muller, Donald R. Barnard and Mustapha Debboun  
Anastasia Mosquito Control Dist, St Augustine, FL
- 12:00 **CLOSING OF THE CONFERENCE**