

# **NE-1443: Biology, Ecology & Management of Emerging Disease Vectors**

**Inaugural Meeting ; New Orleans, LA**

**WEDNESDAY, APRIL 1, 2015**

**1-5pm**

**Warwick Room, Hilton New Orleans Riverside**

**1:00 – 5:00 pm - NE1443 Meeting - Warwick Room,  
Hilton New Orleans Riverside**

## **Agenda:**

- Preliminary Business Meeting
  - Chair's Report
  - CSREES Representative's Report
  - Administrative Advisor's Comments
- Introductions – Each participant briefly introduce self and interests
- Review of Major Objectives and Review of Meeting Goals
- Breakout session – Smaller group discussions within specific objectives
- Break and Group Photo
- Large Group meeting to identify potential funding sources and discuss development of prospective collaborative proposals
- Discussion of leadership for 2015-2016, Chair and Objective Leaders
- Discussion of 2016 Annual Meeting site, dates, venue and agenda
- Adjourn

## **NE-1443 Major Objectives**

**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

**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



Participants: Dan Kline, James Becnel, Ted Andreadis, Jim Cilek, Jonathan Oliver, Graham White, Jason Richardson, Alden Estep, Stephen Dobson, Catalina Alfonso, Dan Strickman, Dina Fonseca, Paul Leisham, Rajeev Vaidyanathan

*By Phone: Jason Rasgon, Philip Armstrong, Vida Irani, Goudarz Molaei, Brian Federici, Gabe Hamer, Laura Harrington*

## **Meeting Minutes**

### Opening:

Administrative Advisor's Comments: Dr. Andreadis stated the importance of interdependently interacting with other states, developing concrete collaborative projects.

Dr. Andreadis reminded participants that it is important to formally sign up at the NIMSS site. Participants can include industrial, government and university participants.

Projects are to have one meeting per year. Typically meetings last 1.5 days. Meeting minutes are posted (send to Ruby). An annual report is due within 60 days of the meeting, which includes impact statements.

It is important that project-funded research is acknowledged in the resulting publications.

Based on availability of researchers on phone, we started with sequential discussion of Aims 3, 2, 1, 4 and 5.

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

Discussion included Laura Harrington's points of *Ae. albopictus* range expansion, modeling ChikV in the USA, and potential interventions. Dina Fonseca and Peter Armbruster are working on evolutionary effects of temperature and models of insecticide intervention.

**Action Items: A suggestion was made that an Aim 3 goal might be to develop a Fact Sheet. Other action items are: email lists and Aim 3-focused conference calls.**

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

Discussion-novel pathogens, high throughput assays (metagenomics technology, microbiome work), climate change effect on tick distribution, mammalian hosts, variation across time and space, role of national zoo and identification of ticks, presence of filarial nematodes in ticks which are tick specific.

Need to address variation in the system and variation in technique. The group focused on coming up with a standardized method to analyze prevalence of pathogens.

There is interest in EEE virus. Discussion included *Culiseta melanura* is involved in transmission to humans.

**Action items: Standardized Detection Methods-materials for screening and extraction methods. Once done, publish it to the research community. Jason Rasgon will send an email out to the Obj 2 group.**

Aim 1: Development of parasitic and arthropod catalogue/resources.

Discussion-USDA labs in Gainesville, Manhattan for resources, working panel at NIH to set up centralized NIH-funded resources for livestock, vets, non-human diseases, post colony info on web, nominal price for eggs/larvae, shipping via FEDEX needs permits.

Availability of tick cell lines, strains and transformants of Anaplasma and Babesia could be requested from Dr. Ulrike Munderloh's MN lab acc. to her postdoc researcher, Dr. Jonathan Oliver.

Aim leaders communicating with the BEI resource center.

**Action items: None identified.**

Aim 4: New Control Tools, including socio-ecological approaches.

Discussion of developing a catalog of control tools, discussion on *Bacillus thuringiensis israelensis* (Bti), thermal foggers vs larvacides, deliverable item-novel application technology, biological control of ticks, nootkatone for tick controls.

**Action items: None identified.**

Aim 5: Training and training tools.

Discussion of developing a training tool to train next generation of techs/ entomologists, online M.S. courses on med entomology (Univ of Nebraska), target audiences should be Ph.D. postdocs and Abatement districts, good statewide mosquito control in FL and NJ compared to CA, use of technology (3D printer models of mosquitoes for educational purposes), catalog/distribute stuff online, identify and improve better strategies for education, peer review of courses. One member stated: we will be better prepared next year to answer/ background research for Obj 5. Another suggestion was to rather develop a brand new course, first make people aware of current ongoing courses, and then possibly develop online offerings.

**Action items: Compile a list of current training course, including their locations, foci etc. Paul Leisnham will set up an editable cloud document for people to add information.**

Discussion of Leadership for 2015-2016, Chair and Objective Leaders.

Dr. Andreadis stated that for continuum from administrative standpoint, Chair leadership should be for 2 years. Dr. Dobson was re-elected Chair. There will be a discussion at next year's meeting for next chairmanship and we should have a nomination next year before the annual meeting.

Discussion of 2016 Annual Meeting site, dates, venue and agenda.

AMCA next year in Savannah, GA. Important to get people to participate at a day-day and half meeting. We will investigate holding the annual meeting at the Anastasia Mosquito Control District facility at St. Augustine, FL (host Dr.

Rui-De Xue). Maybe have outdoor field trips, plenary speaker, use Dropbox for contact and general information.

Meeting adjourned at 5pm.

Special Thanks to Dan Strickman and Vida Irani for recording minutes of the meeting!