



Summit on the *Aedes aegypti* Crisis in the Americas: Joining Together to Address a Grand Challenge

Background:

The Entomological Society of America (ESA) and Sociedade Entomológica do Brasil (SEB) serve as hosts for a new entomological summit on addressing the research, implementation, and vector control issues associated with *Aedes aegypti*, the yellow fever mosquito. Though the diseases—including Zika virus, chikungunya, yellow fever, dengue, and others—transmitted by this insect have been the subject of much news attention recently, this Summit will focus on establishing lasting and effective methods of vector control.

The purpose of the Summit is to assemble the leaders of the global entomological community and explore opportunities to work together and use our collective influence to achieve these outcomes. We seek to explore how, as societies, we can marshal our collective expertise to address mosquito-borne disease in the Americas via more effective and consistent control. If we band together to form a novel coalition, we can enhance existing efforts and develop new initiatives that may significantly contribute to reducing the numerous public health crises caused by this insect.

This Grand Challenge undertaking, while daunting, is practical and will have significant benefits to the constituent societies and our members. The goals of the Summit are to identify the key challenges and opportunities that must be addressed to resolve the crisis, determine how entomological societies can most effectively collaborate, and develop an initial action plan to be carried forward in a sustainable manner to ensure success.

This effort will be highlighted in a global summit planned for the International Congress of Entomology meeting in Orlando in September 2016.

Summit Details:

This free Summit is funded by the Entomological Society of America with generous support from .

It will be held in conjunction with the Brazilian/Latin American Congress of Entomology (<http://cbe2016.com.br/>) at the Ruth Cardoso Cultural and Exhibition Center, in Maceió, Alagoas, Brazil (<http://www.centrodeconvencoes.al.gov.br/>). Dress for the Summit is business casual. All general sessions will be in the Auditório Virgínio Loureiro and breakouts will be in the Mangaba and Siriguela rooms. Meals and refreshment breaks will be provided for registered attendees. The primary language will be English and simultaneous English/Portuguese/Spanish translation is available for the parts of the Summit noted below (🔊) in the Agenda. Walk-in registrations are available, though advance registration is strongly advised. See registration staff onsite for details and with additional questions. Portions of this agenda may change.

Summit Objectives:

The Summit will bring together key stakeholders and experts to identify, discuss, and explore:

1. Ways to marshal the international community of entomologists to better control mosquito-borne diseases in the Americas and around the world.
2. Areas where more research or knowledge is needed to accomplish effective control.
3. Existing and novel technologies as well as implementation approaches for solving the *Aedes aegypti* crisis.
4. Communication needs for engaging the public at large in effective, consistent, and lasting control programs.

Summit Agenda

8:00am	Breakfast (for invited and registered attendees)
9:00am	Welcome and Overview of the Grand Challenge Initiative (🔊) <i>Dr. Frank Zalom, 2014 President (ESA)</i> <i>Dr. Pedro Neves, 2016 President (SEB)</i>
9:10am	Keynote address (🔊) Controlling the spread of <i>Aedes aegypti</i> is a complicated and daunting challenge. Our morning keynote speaker knows this first-hand, as the Secretary of Health for Belo Horizonte, Brazil, the sixth largest city in the nation. Professor Pimenta will set the stage for the day's conversations about vector control as we learn about challenges faced in Belo Horizonte and other locations. Prof. Fabiano Pimenta , Secretaria Municipal Saude, Belo Horizonte, BH, Brazil
9:45am	Statement of the Problem (🔊) In this segment we will review the current state of the <i>Aedes aegypti</i> crisis in Brazil and the surrounding region as well as the implications this has for the rest of the Americas. Speakers will address the latest control efforts, including successes and challenges, and also discuss vector control problems as a global grand challenge. Dr. Giovanini Coelho , Coordinator National Dengue and Chikungunya and Zika Control Dr. Carlos F. Campelo de A. e Melo , National Coordinator on Dengue, OPAS/OMS Dr. Luciano Moreira , Summit Co-Chair and Project Leader of the Instituto Oswaldo Cruz Dr. Grayson Brown , Summit Co-Chair and Professor of Entomology, Univ. of Kentucky
10:30am	Break
10:45am	Challenge Areas (🔊) This section of the program will feature short talks by experts on important areas related to this issue. As time permits, audience questions may be addressed. <i>Chemical control and resistance</i> Dr. Ademir Martins , Instituto Oswaldo Cruz

Non-Transgenic Replacement and Suppression of Vector Mosquitoes
Dr. Stephen Dobson, University of Kentucky

Transgenic mosquitoes
Dr. Margareth Capurro, University of São Paulo

Implementation needs
Dr. Mustapha Debboun, Harris County Public Health & Environmental Services
(Houston, Texas, USA)

11:50pm **An Association Model for Action** (🔊)
This session will feature a short video produced by ESA on how professional associations can use their unique influence to create a model for sustained action.

12:05pm **Instructions for afternoon breakout sessions** (🔊)

12:10pm **Lunch (provided for registered attendees)**
Before and during lunch attendees are encouraged to review scientific posters which will be displayed near the session rooms.

1:10pm **Breakout sessions**
There will be two facilitated breakout sessions and attendees are encouraged to participate in the one which most closely aligns with their professional and/or research interests.

Breakout Session 1: Research needs

Session goal: Identify research knowledge gaps that must be identified. Specifically, the session will review insecticide resistance, *Wolbachia*, transgenic mosquitoes, and other factors that constitute gaps in the community's knowledge regarding this issue.

Facilitators: **Luciano Moreira** and **Chris Stelzig** (ESA staff)
Location: Mangaba room

Breakout Session 2: Implementation needs

Session goal: Identify critical opportunities and challenges to establish effective control in the Americas. Specifically, this session will focus on issues related to surveillance and identification; modeling, GIS, and decision-making tools; and pesticide application and calibration, including certification and record-keeping.

Facilitators: **Grayson Brown**, **Paula Macedo** (AMCA), and **Mustapha Debboun**
Location: Siriguela room

2:40pm **Break**

2:55pm **Breakout Session Reports** (🔊)
This session will begin with a report from each of the breakout sessions, highlighting important areas of conversation and any research priorities that need to be addressed as well as identifying any challenge areas that may impede implementation. Models for successful action will be addressed.

Moderator: **Phil Torres**, entomologist and broadcast news reporter

- 3:10pm **Agency and NGO Perspectives (🔊)**
 In this session a panel of experts and representatives from various non-governmental organizations and governmental agencies will reflect on the breakout reports and present their perspective, including their unique global experiences, thoughts on the issues addressed throughout the day, barriers to success and recommendations for moving forward.
- Panelists:
Dr. Roberto Barrera, US Centers for Disease Control and Prevention
Dr. Angela Harris, Bill and Melinda Gates Foundation
Col. Jamie Blow, PhD, US Armed Forces Pest Management Board
Dr. Denise Valle, Instituto Oswaldo Cruz
- Moderator: **Phil Torres**, entomologist and broadcast news reporter
- 3:55pm **Model for Interaction and Major Next Steps (🔊)**
 This panel discussion will focus on the critical nature of collaboration with respect to seeking sustainable scientific solutions including a projected plan for the development and implementation of a solution framework.
- Panelists:
Prof. John Pickett, Royal Entomological Society
Dr. Paula Macedo, American Mosquito Control Association
Dr. Frank Zalom, Entomological Society of America
Mr. C. David Gammel, Entomological Society of America
- 4:25pm **Closing Keynote (🔊)**
 Solving the *Aedes aegypti* is a global challenge and it takes a global vision from influential parties to make a lasting difference. PCI Media Impact has been involved with many public health crises around the globe, including the 2014 Ebola epidemic. Establishing open lines of collaboration and communication was key to bringing that crisis back under control. The shared responsibility for solutions must be borne by a variety of partners, including professional societies and novel partnerships.
- Brenda Campos**, PCI Media Impact
- 4:50pm **Summit Close (🔊)**
 Closing comments and next steps.
- Dr. Frank Zalom**, 2014 President (ESA)
Dr. Pedro Neves, 2016 President (SEB)
- 5:00pm **Poster Session Reception**
 Join other attendees and speakers as we view the scientific posters and enjoy light refreshments before the start of the joint Latin American/Brazilian Congress.