

Nicole Achee
Chair, Councilor

Lyric Bartholomay
Chair-elect, Councilor

Jennifer M. Anderson
Past-chair, Councilor

Rebekah Kading
*Secretary/Treasurer,
Councilor*

**ASTMH 64th Annual Meeting,
October Oct. 25-29, 2015
Philadelphia, PA**

The ASTMH Annual Meeting is fast approaching. Please remember to come and attend the two, back to back, ACME Symposia that include the annual Business Meeting on Monday, October 26th, 8:00am – 12:00pm and in the Marriott - Grand Ballroom Salon CD. Highlights include presentations from the winners of the ACME awards for lifetime achievement (the Hoogstraal metal) and student travel awards, a 30th celebration complete with the reveal of an extensive archive of photographs, and presentations to showcase the next generation of Medical Entomologists.

Our Chair-Elect, Lyric Bartholomay, has assembled an excellent second symposium focusing on the research of next-generation medical entomologists. See complete list of titles and speakers below:

- Comparative genomics of fundamental processes in vector taxa; Robert Waterhouse, University of Geneva Medical School, Geneva, Switzerland*
- Physiological interaction between the immune and circulatory systems in mosquito larvae and adults; Garrett League, Vanderbilt University, Nashville, TN, United States*
- Diapause suppresses the diuretic capacity and molecular expression of aquaporins in the WNV vector Culex pipiens; Liu Yang, The Ohio State University, Columbus, OH, United States*
- Assemblage and ecological function of bacteria microbiota in Aedes albopictus; Xiaoming Wang, University of California-Irvine, Irvine, CA, United States*
- Novel transmission routes for flea-borne rickettsial agents; Lisa D. Brown, Pathobiological Sciences, Louisiana State University, Baton Rouge, LA, United States*
- The role of juxtaposition: utilization of American crows by host-seeking Culex mosquitoes; Sarah Wheeler, University of California, Davis, Davis, CA, United States*
- Effects of Repellent Chemicals on Vector Life Traits; Joseph Wagman, Uniformed Services University, Bethesda, MD, United States*
- Landscape ecology of vector-borne disease with emphasis on malaria; Robert McCann, Wageningen University, Netherlands*

Remember there will also be an ACME-sponsored networking and social time between the two sessions with a special 30th Anniversary celebration slideshow!

ACME Celebrates it's 30th Anniversary!!

Come join us during the ACME Social and Networking session on Mon Oct 26th 9:45-10:15am in the Marriott - Grand Ballroom Salon CD to view displays of the original Hoogstraal Medal molds, notes from early discussions amongst early ACME leaders and other great finds from member archives! A special slideshow will be running during the social time – you won't want to miss this!



The ACME Executive Council will be capturing a 'living history' of ACME members and key events to celebrate the 30th Anniversary of our subgroup. We thank those early founders and past Chairs that have already contributed and encourage all members to share their ACME-related experiences. We will be recording events during the ASTMH annual meeting for use in future newsletters, social media links and ACME webpage. Thanks to current ACME Councilor Gonzalo Vasquez for volunteering to serve as the first ACME Archivist/Social Media Coordinator!

Plan to visit the ACME booth during the 2015 ASTMH meeting in Philadelphia, PA!!



Have a great story or item for the ACME archives? Or picture for our ACME 30th Anniversary Celebration slideshow? Please come by the ACME booth during the annual meeting or contact Nicole Achee (nachee@nd.edu) or Lyric Bartholomay (lbartholomay@wisc.edu).

Membership: As of September 2015, ACME is 300 members strong. We expect this number to grow as society membership renewals continue under the new ASTMH fiscal year system, and as the annual meeting approaches. Consistent with previous years, students and post-doctoral researchers comprise the majority of our membership. Thank you to returning members for your continued support of ACME, and welcome new members!

ASTMH highlights our ACME 30th Anniversary! It was with great pleasure to be asked by the ASTMH Council to provide information about ACME for the October 2015 ASTMH newsletter. Be sure to read the full article to learn more about our subgroup's milestones, early years and current endeavor!

ACME's First Ever Pre-meeting Course!

A first-ever ACME pre-meeting course is set to debut in 2015 - thanks to all participants in helping to make history! The course will focus on 'clinical entomology' with including select topics in medical entomology that is hoped to incite interest in a wide audience to include young investigators, clinicians and seasoned medical entomologists who would simply like a refresher.

Complete details can be found in the ASTMH 2015 Registration Brochure. Look for more details regarding a 2016 ACME pre-meeting course and how to register in the next ACME newsletter and emails!



Sponsor ACME!

ACME is actively pursuing individual, foundation or corporate sponsorship to increase the number and amount of ACME Young Investigator Awards. ACME sees these awards as critical for strengthening the future of medical entomology research. **ACME members who are interested in such sponsorship, or who have connections with foundations or corporations that may be interested in such sponsorship are encouraged to contact Nicole Achee (nachee@nd.edu) or Lyric Bartholomay (lbartholomay@wisc.edu).**

ACME Sponsored ASTMH Society Prestigious Medals: The Harry Hoogstraal Medal

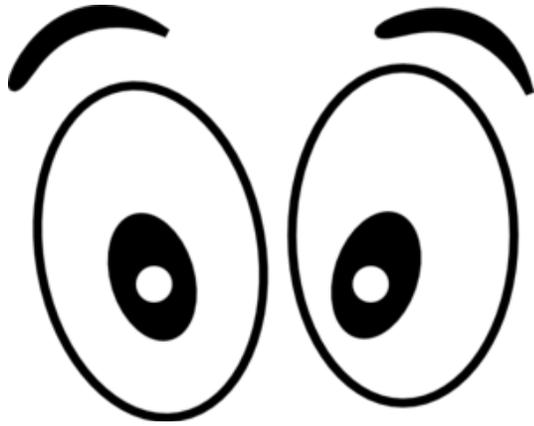
Thanks once again to ex-council member **Sam Telford** for agreeing to Chair the **2015 Hoogstraal Medal selection committee!** All our nominees represented distinguished members of the medical entomology community. The 2015 Award will be announced during the opening Plenary Session and Awards Ceremony on Sunday October 25, 2015 from 5:30-7:30 pm. For details on how to make a nomination for 2016, the list of previous award winners and additional application information please go to the ACME website:

<http://www.astmh.org/ACME.htm#hoogstraal>



Get involved! If you are interested in learning more about ACME year-round activities or serving on the ACME Executive Council, please contact Nicole Achee (nachee@nd.edu).





Be sure to take a look at updates to the ACME Web site!!

We have added two additional Quick Links: 1) Perspectives and 2) Advocacy. The goal of creating these links was highlight the vision of the role of ACME in the wider tropical medicine community, bringing key topics of specific importance to ACME members to your attention and broader community engagement events.

<http://www.astmh.org/ACME.htm>

Have a suggestion for the website? Please contact Nicole Achee (nachee@nd.edu) or Lyric Bartholomay (lbartholomay@wisc.edu).

ACME Young Investigator Awards

In 2015, ACME received a very generous independent donation specifically to support an international student travel award. This award is in addition to the \$1,500 we again received from ASTM Council. ACME used these funds to support three Young Investigator travel awards. Congratulations to all our 2015 winners!! Please support them these young investigators by attending their presentations!!



Graduate Awards:

#117 Marissa Grossman Fine-scale patterns of pyrethroid resistance in *Aedes aegypti* from Yucatan, Mexico

#1311 Bahjat Marayati Identifying Oviposition Attractants from the Larval Rearing Medium of *Phlebotomus papatasi*, the Vector of Old-World Zoonotic Cutaneous Leishmaniasis

Postdoctoral Award: #1445 Claudia Rueckert The role of PIWI-interacting RNAs in *Culex quinquefasciatus* cells and mosquitoes during West Nile virus infection

International Award: #125 Marlon Saavedra Romero Behavior of *Anopheles darlingi* in three communities in the Peri-Iquitos region of Amazonian Peru

Thanks once again to ACME Member, **Ellen Dotson**, to serve as Chair on the 2015 ACME Young Investigator Award Committee!

We whole-heartedly thank the parent council for their continued support of our subgroup, as well as the individual sponsor of this year's international travel award!



Want to make a donation to support the ACME Young Investigator Award?
Please contact Nicole Achee (nachee@nd.edu) or Lyric Bartholomay
(lbartholomay@wisc.edu) for more information. For a list of previous award
winners and additional application information, please go to the ACME
website:
<http://www.astmh.org/ACME.htm>



ACME Fundraising Booth

Last year, through a silent auction and t-shirt/hat sale at the ASTMH meeting in New Orleans, ACME raised \$465. Our goal for the Philadelphia meeting is to beat our highest yet earnings of \$1,000! Stop by the booth during the meeting to purchase an item, make a cash donation and/or learn more about ACME! The exhibit hall will be open on Sunday October 25 from 7:00-9:30pm, Monday October 26 from 9:30-10:30am, Noon-1:45pm and 3:15-4:15pm, Tuesday October 27 from 9:30-10:30 am, Noon-1:45pm and 3:15-4:15pm and Wednesday October 28 from 9:30-10:30am and 12-2:30pm. The ACME table will be positioned in the '500 aisle', behind tables 511/513/515. If you would like to donate something for the 2015 sale or sign up to man the booth, please email Nicole Achee at nachee@nd.edu

RENEW YOUR ACME MEMBERSHIP!! Your membership dues of \$25 are vital to support ACME activities such as the ACME Young Investigators Travel Awards program and the ACME Symposia at the annual meeting. Look to the ASTMH website for full membership dues information including reduced offerings!

http://www.astmh.org/Join_ASTMH/6344.htm#ACME

ACME works to promote medical entomology within ASTMH and in organizations whose scopes of activities include the area of human diseases transmitted by arthropods. We seek opportunities to emphasize and expand the contributions of medical entomology to tropical medicine and also to appropriately recognize outstanding contributions by medical entomologists.

Have ideas for the next newsletter?
Send your ideas to Stephen Dobson
sdobson@uky.edu

ACME Executive Council to vote on Student Council Representative! In order to further engage the next generation of medical entomologists, ACME councilors have agreed on the benefit and importance of a student representative to serve on the Council. Learn more during the ACME Business Meeting in Philadelphia!!

A First Ever ACME Industry Donation!!



A FAMILY COMPANY

ACME is excited to announce that SC Johnson has committed to donating \$5K each year starting in 2015 to support ACME's mission statement!! We thank the company for enabling the subgroup to enhance its initiatives! Watch for more details at the Philadelphia meeting and in 2016!!

ASTMH highlights our ACME 30th Anniversary!

It was with great pleasure to be asked by the ASTMH Council to reflect on ACME's first 30 years for the October 2015 ASTMH newsletter. Be sure to read the full article to learn more about our subgroup's milestones, early years and current initiatives!

Over **50 presentations** at the 2015 annual meeting will be presented by ACME members!! Please support ACME members who are presenting posters and oral presentations during the meeting by attending their sessions or stopping by their poster – apologies if your presentation is not included in the list!

Oral Presentations

October 25

#127 YIA Brandyce St. Laurent/Jennifer M. Anderson- Artemisinin-resistant *Plasmodium falciparum* clinical isolates infect diverse vectors of Southeast Asia and Africa

#94 YIA Natalie Cain House Infestation Dynamics of *Triatoma dimidiata* in San Lorenzo, Ecuador

October 26

Symposium #2 Sandra Olkowski - Can health-center based surveillance dynamically estimate dengue incidence? Multi-system evidence from Iquitos, Peru

Symposium #14 Joseph Wagman - Effects of Repellent Chemicals on Vector Life Traits

Symposium #14 Lisa D. Brown - Novel transmission routes for flea-borne rickettsial agents

Symposium #22 Gonzalo Vazquez-prokopec - Semi-sylvatic habitats: a key environment for Chagas disease amplification and bug reinfestation

#8 Sara E Canavati - Failure of dihydroartemisinin-piperazine in northern Cambodia for the treatment of uncomplicated *Plasmodium falciparum*

#9 Sara E Canavati - Safety and efficacy of pyronaridine-artesunate against uncomplicated *Plasmodium falciparum* in western Cambodia

October 27

#61 Carolina Barillas-Mury -Molecular Mechanisms Mediating Innate Immune Priming in *An. gambiae* mosquitoes

#634 Sarah Short - Investigating mosquito molecular factors that control gut microbiota variability in *Aedes aegypti*

#664 Sarah Hamer/ Gabriel Hamer - Chagas disease epidemiology and outreach in high-risk human and canine populations along the US-Mexico border

#1193 Molly Scheel - Applications from a FAIRE-seq open chromatin profiling study in *Aedes aegypti*

#1197 Seokyoung Kang - *Anopheles gambiae* prefoldin as a *Plasmodium* agonist interacting with LRRD7

#1236 Saul Lozano/Rebekah Kading - The use of endectocides in cattle to control outdoor residual malaria transmission in western Kenya

#1247 Melissa Garcia - DNA in Blood Samples from Autochthonous Chagas Disease Patients from Southeastern and Central Texas

October 28

#1260 Jennifer M. Anderson/ Steve M. Taylor - A four-year prospective study of the impact of red blood cell variants on childhood falciparum malaria in Southern Mali

#1308 Gwyneth Sullivan/John Grieco - Development and implementation of odorant baited traps to monitor and control *Triatoma dimidiata* in Toledo, Belize

#1309 Jennifer K. Peterson - *Rhodnius prolixus* survival when infected with *Trypanosoma cruzi* and *Trypanosoma rangeli*: the effect of infective dose and co-infection.

#1310 Maggy Sikulu - Rapid and non-destructive near-infrared spectroscopy can predict the age and Wolbachia infection in *Aedes aegypti* mosquitoes

#1311 Bahjat Fadi Marayati - Identifying Oviposition Attractants from the Larval Rearing Medium of *Phlebotomus papatasi*, the Vector of Old-World Zoonotic Cutaneous Leishmaniasis

#1312 Laura Harrington - Mosquito hearing: opening the door to a new mosquito sensory modality

#1359 Matthew Eng - Autophagy as a factor for dengue infection in the vector mosquito, *Aedes aegypti*

#1805 Ethan Degner - Conditions that lead to polyandrous behavior in the yellow fever mosquito *Aedes aegypti*

#1811 Quirine A. ten Bosch/Nicole L. Achee/John P. Grieco/Neil F. Lobo/Amy C. Morrison - Direct, Household-Level Effects of Spatial Repellents for Dengue Control - A Modeling Assessment

#1855 Yan-Jang (Scott) Huang - Infection, dissemination and transmission of Japanese encephalitis virus in North American *Culex* mosquitoes

#1946 Marta Maia - A cross-over study to evaluate the diversion of malaria vectors in a community with incomplete coverage of spatial repellents in the Kilombero Valley, Tanzania

October 29

#1866 Edward D. Walker/Mark Wilson - Urban Malaria Risk Characteristics from Multiple Metrics of the Urban-to-Rural Continuum: Relationships with *Anopheles* Vector Abundances in Blantyre, Malawi

#1888 Gabriel Hamer - Quantifying dispersal behavior for *Culex quinquefasciatus* and *Aedes albopictus* in College Station, Texas

Poster Presentations

October 26

- #94 Natalie Cain** House Infestation Dynamics of *Triatoma dimidiata* in San Lorenzo, Ecuador
- #96 Suppaluck Polsomboon/Nicole L. Achee /John P. Grieco** - A survey of tick species (Acari: Ixodidae) and screening of tick-borne rickettsial pathogens in Belize, Central America
- #104 Angela Caranci/John Grieco/Nicole Achee** - Phylogeography of *Triatoma dimidiata*, a major vector of Chagas disease, in Belize
- #121 Hitoshi Tsujimoto** - Differential expression in dengue-infected *Aedes albopictus* reveals genes important for antiviral response
- #164 Wei-June Chen** - Regulatory effects on the synthesis of dengue virus E protein during the unfolded protein response (UPR) in mosquito cells
- #220 Vorleak Try/Jennifer M. Anderson** - Recrudescence *Plasmodium falciparum* isolates from DHA-piperazine failures in Cambodia: in-vitro susceptibility to newer antimalarial drugs
- #462 Layla S. Mofid** - Comparison of Kato Katz and Mini-FLOTAC for estimation of prevalence and intensity of infection with soil-transmitted helminths in the Peruvian Amazon
- #528 Nilanjan Lodh** - Point-of-care diagnosis for *Schistosoma mansoni* and *S. haematobium*

October 27

- #707 Sherrie Xie** - Can bed bugs mediate an urban Chagas epidemic?
- #729 Fanny Castro-Llanos/Nicole L. Achee/John P. Grieco** - Experimental hut entrance and resting behavior of *Anopheles darlingi* from Zungarococha, Loreto, Peru
- #735 Edward D. Walker/John B. Keven** - The host feeding patterns of *Anopheles* mosquitoes from malaria endemic villages in Madang Province, Papua New Guinea
- #736 : Edward D. Walker/ Themba Mzilahowa** - Household-level Environmental Characteristics Associated with *Anopheles* Species Abundance in Malaria-Endemic Blantyre, Malawi
- #743 Matthew Aliota** - Evolution of chikungunya virus in Wolbachia-infected mosquitoes
- #779 Sandra Olkowski** - Comparison of clinical diagnosis and symptom clusters for differentiating dengue from other acute febrile illnesses in Iquitos, Peru
- #872 Sara E Canavati** - Intensifying surveillance of antimalarial multi-drug resistance in the Cambodian National control program by integrating genetic epidemiology into routine activities of village malaria workers
- #1104 Gillian Eastwood** - Enzootic Transmission and Ecology of Arboviruses in Sylvatic regions of Kenya

October 28

- #1350 Hitoshi Tsujimoto** - Evolution and function of the dual-affinity amino acid transporter, AaSlif in *Aedes aegypti*
- #1354 - Jacob Meyers** - Mosquitocidal properties of IgG against established insecticide targets in three mosquito disease vectors
- #1356 Alvaro Molina-Cruz** - The role of the mosquito immune system and Pfs47 in the adaptation of *Plasmodium falciparum* to different anopheline vectors
- #1360 - Ryan Smith** - Proteomic analysis of mosquito blood cells reveals distinct phagocytic hemocyte profiles and immune activation in the absence of parasite challenge
- #1362 Edward D. Walker/ Shicheng Chen Hemolysin** - gene expression under variable iron regimes of *Elizabethkingia anophelis*, a commensal bacterium of the *Anopheles*
- #1364 Duverney Chaverra Rodriguez** - Targeted delivery of molecular cargo into the mosquito germline
- #1368 Diane B. Choi/Nicole L. Achee/John P. Grieco** - Effect of Spatial Repellents on Dengue Vector Attractancy Behavior
- #1388 Kevin C. Deitz** - The Effect of Hybridization on Gene Expression in the *Anopheles gambiae* Complex
- #1402 Megan E. M. Saunders** - Spatio-temporal mechanisms of coexistence in urban mosquitoes
- #1403 Victor A. Sugiharto/John P. Grieco/Michael J. Turell/ Nicole L. Achee** - Effect on *Aedes aegypti* feeding behavior following pre-exposure to DEET
- #1441 Yan-Jang (Scott) Huang** - Characterization of a genetic determinant for the mouse neurovirulence of yellow fever virus in *Aedes aegypti*
- #1445 Claudia Rueckert** - The role of PIWI-interacting RNAs in *Culex quinquefasciatus* cells and mosquitoes during West Nile virus infection
- #1447 Mary Danforth** - The impacts of cycling temperature on West Nile virus transmission in California's Central Valley
- #1714 Erica Burkman** - Investigating early infection status of the filarial parasite *Brugia malayi* in laboratory animal models

Late Breaker Presentations

- Priscila Bascuñán** - Characterization of the midgut microbiota of two main Colombian malaria vectors
- Kritsawan Phonjatturas** - Evaluation of Mosquito Behavior in response to LLINs for Mosquito Control
- Raúl G. Saraiva** - A natural Enterobacter mosquito midgut commensal's role in arresting malaria parasite development