

ACME Newsletter

Volume 4, Issue 2 April 2017 Gonzalo Vazquez-Prokopec *Chair, Councilor*

Philip Armstrong Chair-elect, Councilor

Lyric Bartholomay Past-chair, Councilor

Alvaro Molina-cruz Secretary/Treasurer, Councilor

Rebekah Kading Past-Secretary/Treasurer, Councilor



Two New Awards Announced:

We proudly announced two new ACME awards for Breakthroughs in Medical Entomology and Future Leaders Fellowship in International Medical Entomology as described in the two documents that follow. Please look through these award details and consider nominating yourself or a colleague next year!

1. Breakthroughs in Medical Entomology Award

The American Committee of Medical Entomology seeks to award outstanding recent (within the past 5 years) contributions to the study and/or practice of Medical Entomology that ultimately will contribute to reducing the burden of human diseases transmitted by arthropods. This award was designed to encourage and acknowledge significant advances in the field by investigators at any career stage. Examples of such advances include breakthrough research findings in vector biochemistry, molecular biology, genetics, genomics or insecticide resistance, or significant advances in technologies for vector surveillance or control. Women are particularly encouraged to apply.

More information:

http://www.astmh.org/getattachment/Subgroups/ACME/Breakthroughs-in-Medical-Entomology-application-guidelines-2017.pdf

2. Future Leaders in International Medical Entomology Fellowship

ACME is pleased to announce a new fellowship sponsored by a generous donation from SC Johnson: A Family Company. The Future Leaders fellowship is a competitive award that will be offered to an outstanding non-US citizen junior medical entomology researcher (must be at the undergraduate to post-doctoral level) to showcase individuals that have matched interests to ACME's objectives of promoting medical entomology and reducing the burden of human diseases transmitted by arthropods globally. For further information and application instructions, visit:

http://www.astmh.org/getattachment/Subgroups/ACME/Future-Leaders-in-International-Medical-Entomology-2017.pdf

2016 Harry Hoogstraal Medal

ACME congratulates Dr. Patricia Nuttall as the 2016 recipient of the Hoogstraal award for lifetime achievement in Medical Entomology. Dr. Nuttall received this award for her truly exceptional contributions to research on tick physiology, ecology and control, for her inspirational leadership and her dedication as a mentor. In the words of Dr. Uli Munderloh, who delivered an impassioned and eloquent presentation of the award, "Dr. Nuttall's research has been instrumental to understand the interactions between ticks and tick-borne pathogens and how they interact with their environment. Her contributions include novel concepts such as the realization that pathogens con be exchanged among individual feeding ticks in the absence of bloodstream infection, and that the tick saliva is a pharmacopeia of useful drugs".

The prestigious ACME Hoogstraal Medal goes to an individual who demonstrates outstanding achievements and lifelong service in the field of medical entomology. Consider nominating someone with these credentials for the 2017 Hoogstraal medal. Find details at:

http://www.astmh.org/subgroups/acme



Photo: Dr. Nuttall (center) and ASTMH past-president Stephen Higgs.

100th birthday of Dr. Harry Hoogstraal

On February 24, we celebrated what would be Hary Hoogstraal's 100th birthday. ACME and ASTMH featured Harry's career and legacy as an influential medical entomologist throughout the month of February. A special mention will also be made at the ACME symposium during the upcoming 65th annual ASTMH meeting in Baltimore.



This image of Harry Hoogstraal on an expedition in Africa ca. 1948 is one of many photos archived by ACME.



SC Johnson Breakthroughs in Medical Entomology award

The inaugural presentation of ACME's Breakthroughs in Medical Entomology, sponsored by SC Johnson, A Family Company, was to Dr. Serap Askoy. This award was given in recognition of the recent discovery of a novel role of trypanosome's Variant Surface Glycoproteins (VSG). Important in the interaction with the mammalian immune system to promote infection, VSGs were found to promote infection of the tsetse fly by the parasite (Aksoy, E, Vigneron A, Bing X, et al. (2016) "Mammalian African trypanosome VSG coat enhances tsetse's vector competence." Proc Natl Acad Sci U S A 113(25): 6961-6966). Congratulations to Dr. Aksoy!



Photo: Dr. Aksoy (center-right) exhibiting the ACME's Breakthroughs in Medical Entomology plaque, joined by ACME and SC Johnson representatives: Dr. Lyric Bartholomay (left), Dr. Maude Meier (SC Johnson), Dr. Nicole Achee and Dr. Cavid Eland (SC Johnson).

ACME seeks to award outstanding recent (within the past 5 years) contributions to the study and/or practice of Medical Entomology that ultimately will contribute to reducing the burden of human diseases transmitted by arthropods. For information about nominations follow the link <u>http://www.astmh.org/subgroups/acme.</u>







ACME's Travel Awards for Young Investigators:

Congratulations to the three outstanding awardees of the 2016 ACME Young Investigator travel awards. Allan Muhwezi from Makerere University, Uganda, received the International travel Award for his pioneering studies on the evolution of *Glossina* in Africa.





Laura Dickson from the Pasteur Institute, Paris, France, was the Postdoctoral awardee. Laura presented her original research on bacterial composition of *Aedes aegypti* larval sites and its effect on vectorial capacity.

The graduate student travel award was presented to Rebecca Love from the University of Notre Dame for her studies on the genetic analysis of the *Anopheles gambiae* Bamako ecotype.



One way ACME promotes outstanding young medical entomologist investigators is through travel awards that help defray costs to attend the Annual Meeting. This assistance is possible due to continued financial endowment by the ASTMH parent society and private donations. Thank you to ACME member Ellen Dotson for chairing the Award Committee faithfully for many years; your contributions to this process went above and beyond the call of duty! ACME encourages applications from graduate studies and postdocs from all over the world.

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! **To renew:** Visit the <u>member login page</u> at astmh.org; Login using your username and password (case sensitive). If you don't know your login and password, go to <u>"forgot your password"</u>; Click "Renew" on right side of screen and follow instructions

2016 pre-meeting course

Drs. Lyric Bartholomay and Kathryn Hanley, Chairs of the ACME and the American Committee on Arthropod-Borne Viruses (ACAV), respectively, organized a very successful premeeting course in response to the 2016 Zika epidemic. The course, "Know Thine Enemy: Methods to Identify Mosquitoes and the Viruses They Carry" took place on Sunday preceding the meeting, with 57 participants. The course included principles and current tools for identifying the vector and virus in a mosquito-borne disease epidemic. The course included presentations by Dr. Yvonne Linton and David Pecor from Walter Reed Biosystematics, Drs. Gonzalo Vazquez-Prokopec, Scott Ritchie, Bob Tesh, Laura Kramer, Mike Turell, Lark Coffey, and Mark Stenglein. The organization and flow of ideas successfully related the challenge of incriminating both vector and virus in the event of a vector-borne disease outbreak.

A select group of 28 pre-meeting course students also took part in an additional hands-on workshop organized by Lyric Bartholomay and Paul Howell at the Malaria Research and Reference Reagent MR4 labs at CDC. These students practiced mosquito identification, dissections, forced salivation and husbandry. All signs point to appreciative and edified attendees. Special thanks to Laura Kramer and Kathy Hanley for sharing their expertise in forced salivation with students. And to Dr. Rick Wilkerson and Vinicios Ferreira-de-Freitas for teaching mosquito taxonomy. This event was made possible by Paul Howell and Ellen Dotson at CDC, and Lyn Maddox and Karen Goraleski who arranged our transport.

ACME Symposium highlights at the ASTMH meeting

The ACME Symposium was, at times, standing room only for the 2016 ASTMH Meeting. We were fortunate to have Dr. Scott Richie deliver a lively, entertaining and poignant keynote presentation entitled: "State of the art in urban *Aedes aegypti* control for Zika emergency response".





ACME members at the symposium were grateful that Dr. Uriel Kitron and Gonzalo Prokopec put together some slides and thoughts together to celebrate the life and career of Dr. Dave Chadee, who passed away suddenly this year.

Photo: Dr. Dave Chadee, 1954-2016.

The thrust of this year's symposium was applied medical entomology. Talks were diverse and included an overview of the biodiversity of mosquito fauna of Brazil (given by PhD candidate Vinicios Ferreira-de-Freitas), a description of the spatial heterogeneity in insecticide resistance patterns in *Ae. aegypti* (by PhD candidate Marissa Grossman), findings from a field study interrogating indoor and outdoor mosquito populations in the Texas-Mexico border (by Dr. Gabe Hamer) and insights from mathematical modeling about targets for the control of tick-borne pathogens (by Dr. Maria Diuk-Wasser).

Trainees' events at the 2016 ASTMH meeting

ACME organized two new events for trainees during the 2016 Annual Meeting. An informal lunch session with trainees allowed students and post-doctoral researchers to socialize and network with established principal investigators. This event had a great turn-out, and we look forward to offering this opportunity again at future annual meetings. We thank Chris Mores, Lyric Bartholomay, Uli Munderloch, Sam Telford and Gonzalo Vazquez-Prokopec for participating as mentors.





ACME also participated in a speed networking event with other subgroups, where we had 10 mentors and many trainees participate. Thanks to the trainers and trainees who attended. Scott Huang, our new ACME trainee councilor, and Diana Ortiz are to be commended for their enthusiastic and effective organization of these events!

Special thanks to Nicole Achee, Kate Aultman, Lyric Bartholomay, Lark Coffey, Nick Hamon, Laura Harrington, Marcelo Jacobs-Lorena, Chris Mores, Daniel Strickman, Sam Telford, Joe Wagman who participated as mentors.

In Memoriam

ACME members were sad to hear about the recent death of Dr. Richard Axtell. In the words of Dr. Nancy Hinkle "Dick was the 1993 recipient of the Lifetime Achievement Award in Veterinary Entomology at the Livestock Insect Workers Conference in Santa Fe, NM, and a longtime leader of the LIWC and veterinary entomology in general. Most of our veterinary entomologists can trace their roots back to Dick Axtell, and his impact on the discipline cannot be overestimated".



ACME leadership happenings

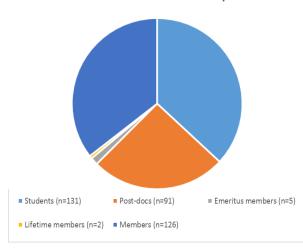
ACME welcomes new elected council members Drs. Laura Harrington (Cornell), Diana Ortiz (Westminster College) and Matt Thomas (Penn State), along with our trainee council member, Dr. Scott Huang (Kansas State). Congratulations to Dr. Philip Armstrong who was elected to the ACME Chair. Philip will serve as chair-elect during the next year, alongside Gonzalo Vazquez-Prokopec as chair and Lyric Bartholomay as past chair. Alvaro Molina-Cruz was nominated and elected to the Secretary-Treasurer position. Many thanks to all of you for joining forces to propel ACME ever forward. This year, Drs. Kristin Michel, Nicole Achee, and Lyric Bartholomay finished their terms on ACME council. ACME is grateful for their service.

Get involved !

If you are interested in learning more about ACME year-round activities or serving on the ACME Executive Council, please contact Gonzalo Vazquez-Prokopec (gmvazqu@emory.edu).

Renew your membership- benefits

RENEW YOUR MEMBERSHIP! Your membership dues of \$25 are vital to support ACME activities including 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. Membership in ACME connects you to a global community of Medical Entomologists both at the ASTMH annual meeting and throughout the year. Membership gives you access to ACME communications, including our bi-annual newsletter and email communications that include job postings and announcements about happenings that impact our research and practice as Medical Entomologists. Membership is free for students and post-doctoral trainees. We take great pride in fostering community for our trainees; through your membership, you will be kept in the loop on meeting events for trainees, job openings, and opportunities for awards to participate in the ASTMH meeting.



ACME Membership

As of December 8, 2016, ACME is 355 members strong! The majority of our membership is comprised of students and post-doctoral trainees. Thank you to our members for your continued support of ACME!

Call for sponsorship

ACME is actively pursuing individual, foundation or corporate sponsorship to increase the number and amount of ACME Young Investigator Awards. These awards are 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 ACME Chair, Gonzalo Vazquez-Prokopec (gmvazqu@emory.edu).

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