NOVEMBER 2020

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ACME Newsletter

ACME participation at the ASTMH 69th Annual Meeting, Nov. 15-19, 2020, held virtually:

This year, ACME will be sponsoring a Pre-Meeting Course, two symposia, and a virtual booth. We hope that you can make it to these events!

American Committee of Medical Entomology (ACME) Symposium I: Annual Business Meeting, Awards, Hoogstraal Medal Presentations

Location: Virtual, Meeting Room 7, Session 38 Time: Tuesday, November 17, 2020, 9:00 AM - 10:45 AM, Eastern Time Zone

This symposium provides a forum for exchange of information among people interested in research on arthropod vectors of disease. This session features a short ACME business meeting followed by presentation of the 2020 travel awardees and SC Johnson (SCJ) sponsored award. This serves in part to highlight the next generation of medical entomologists. The session moves to the presentation of the Hoogstraal medal and a plenary lecture by the recipient.

9:00 AM – 10:45 AM - Symposium Organizer Ellen Dotson, Centers for Disease Control and Prevention, Atlanta, GA, United States

9:00 AM - 10:45 AM - Co-Chair Gabriel Hamer, Texas A&M, College Station, TX, United States

9:00 AM – 9:20 AM - ACME Annual Business Meeting and Awards Ellen Dotson, Centers for Disease Control and Prevention, Atlanta, GA, United States

9:20 AM – 9:35 AM - SC Johnson (SCJ) Future Leaders Fellowship in International Medical Entomology Cusi Ferradas, Universidad Peruana Cayetano Heredia, Lima, Peru

9:35 AM – 9:50 AM - Introduction of Hoogstraal Medal Winner Stephanie James, Foundation for the National Institutes of Health, Bethesda, MD, United States

9:50 AM - 10:35 AM - Hoogstraal Medal Presentation and Plenary Lecture Stephen Higgs, Kansas State University, Manhattan, KS, United States

10:25 AM – 10:45 AM Conclusion and Passing of the Gavel Ellen Dotson, Ellen Dotson, Centers for Disease Control and Prevention, Atlanta, GA, United States

Times are approximate and a live question and answer session will be held at the end.



ACME Executive Council

Ellen Dotson Chair, Councilor

Gabriel Hamer Chair-elect, Councilor

Matthew Thomas Past-chair, Councilor

Molly Duman Scheel Secretary/Treasurer, Councilor

Councilors: Laura Harrington Matt Thomas Diana Ortiz Christopher Barker Ellen Dotson Gabriel Hamer Molly Duman Scheel Audrey Lenhart Douglas Norris Marco Neira Eleanore Sternberg Jennifer Stevenson



American Committee of Medical Entomology (ACME) Symposium II: The Origin of ACME: Past, Present and Future of Medical Entomology

Time: Tuesday November 17, 2020, 1:45 PM to 3:30 PM, Eastern Time Zone, Meeting Room 7

The American Committee of Medical Entomology was established 35 years ago. The initial formation was spearheaded by Charlie Bailey with support from many of the prominent leaders in the field at the time. ACME's many accomplishments include achieving its objectives of promoting medical entomology in the ASTMH, recognizing outstanding contributions by medical entomologists, and ensuring the next generation of medical entomologists. While the field of medical entomology has made countless advances, we still require core foundations in entomology and the ecology of vector-borne diseases in nature. Although, the field has faced many challenges with the global spread of arthropod vectors and the emergence of new vector-borne diseases, we also continue to battle some of the same disease systems. For example, the first ACME symposium was 'Rift Valley Fever Virus – Field Ecology, Vector Competence and Control', which remains a system that threatens human and animal health. The aim of this symposium is to help retain the knowledge of how ACME was formed, highlight the accomplishments of ACME, and showcase the future of the field of medical entomology.

1:45pm -Introduction

Symposium Organizer, Gabriel Hamer, Texas A&M, College Station, TX, United States Co-Chair, Ellen Dotson, Centers for Disease Control and Prevention, Atlanta, GA, United States

1:55pm -Not Wile E. Coyote's ACME, the Origin of our ACME Mike Turell, VectorID LLC, United States

2:12pm -Accomplishments of ACME: 35 years of excellence in medical entomology Rebekah Kading, Colorado State University, United States

2:37pm -When Vector Control hits the wall: reducing the risk for Chagas disease through integrated vector and reservoir control Pamela Pennington, Universidad de Valle, Guatemala

2:57pm -Host and habitat associations for an urban Ixodid tick community Meredith VanAcker, Colombia University, NY, United States

3 :15pm -Discussion

Visit and support the ACME Virtual Booth during 2020 ASTMH!

ACME will sponsor a booth at the 2020 ASTMH virtual meeting to promote its initiatives, raise funds, teach people about the rich history of ACME, and attract new members. Take a moment to test your vector identification skills and compete for prizes at the Vector Challenge! Although we won't have a chance to distribute your favorite arthropod collectors' items this year, you will still have the opportunity to donate in support of ACME causes. Any and all contributions are greatly appreciated.



ACME Professional Guidance

Current and past ACME Council Members publish a series of documents addressing the use of human participants in vector research.

Considerations for Human Blood-Feeding and Arthropod Exposure in Vector Biology Research: An Essential Tool for Investigations and Disease Control Harrington LC, Foy BD, Bangs MJ. . Vector Borne Zoonotic Dis. 2020 Sep 9. doi: 10.1089/vbz.2020.2620.

<u>Guidance for Evaluating the Safety of Experimental Releases of Mosquitoes, Emphasizing Mark-</u> <u>Release-RecaptureTechniques</u>

Benedict MQ, Charlwood JD, Harrington LC, Lounibos LP, Reisen WK, Tabachnick WJ. Vector Borne Zoonotic Dis. 2018 Jan;18(1):39-48. doi: 10.1089/vbz.2017.2152.

Considerations for the Use of Human Participants in Vector Biology Research: A Tool for Investigators and Regulators

Achee Nicole L., Youngblood Laura, Bangs Michael J., Lavery James V., and James Stephanie. Vector-Borne and Zoonotic Diseases. February 2015, 15(2): 89-102. doi:10.1089/vbz.2014.1628.

ACME Awards

At this year's ASTMH annual meeting, we will announce the recipients of the following awards.

ACME Future Leaders Fellowship in International Medical Entomology

The Future Leaders fellowship is a competitive award that will be offered to an outstanding 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. Applicants must be a non-US citizen from an LMIC.

Up to two awardees will receive \$2,000 each to be used towards attending the ASTMH annual conference and/or research supplies. The awardee must present their research at ASTMH and acknowledge the ACME Future Leaders Fellowship in their presentation and when publishing research supported by the fellowship. This award is supported by a generous donation from SC Johnson to the American Committee of Medical Entomology. Women are encouraged to apply.

ACME Travel Awards for Young Investigators

ACME now offers three Young Investigator Travel Awards: Masters, Doctoral and Post-doctoral and International. All research must involve arthropods of medical importance. Recipients will receive a complimentary registration to the Annual Meeting and *up to* \$900 to support travel and accommodation costs.

Hoogstraal Award

The Harry Hoogstraal Medal for Outstanding Achievement in Medical Entomology. Nominations for the Harry Hoogstraal Medal for outstanding Achievement in Medical Entomology may be submitted online during the Call for Nominations. Each year, the Executive Council shall consider all nominations so submitted as well as any nominations submitted during the previous three years, and decide whether to make an award at the business meeting to be held during the current year Annual Meeting. Any living medical entomologist not serving on the Executive Council is eligible to be selected to receive the award.

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ACME Leadership Developments

ACME welcomes new council members Adeline Williams (Colorado State, Trainee Representative), Lauren Cator (Imperial College), Catherine Hill (Purdue University), and Adriana Troyo (University of Costa Rica). Dr. Matt Thomas, Dr. Laura Harrington, and Dr. Diana Ortiz will complete their terms on the ACME council this year. Thanks to all members of the Executive Council (new, current and departing) for their service to ACME!

Get Involved!

If you are interested in learning more about ACME activities or serving on the ACME Executive Council, please contact <u>Ellen Dotson</u>.

ACME Financial Support

At the end of FY20, net assets for all ACME funds totaled \$24,003. For the current fiscal year to date, as of 8/31/20, revenue from membership dues totaled \$2,300. We have received \$1,539 in donations since January 1, 2020. As always, we are grateful to ACME donors and to the parent Board for their continued support of our medical entomology initiatives! Please remember to renew your membership and consider adding a contribution, large or small, to ACME. We will be initiating new fundraising efforts to support trainee attendance at the ASTMH Annual Meeting and other ACME causes. If you are aware of potential donors, have fundraising ideas to share with the council, or would be interested in serving on a fundraising task force, please contact Molly Duman Scheel (Secretary-Treasurer).

Workshop Opportunities

The next <u>Biology of Vector-borne Diseases Six Day Course</u> will be held on June 20-25, 20 **DISEASES** A shorted by the Center for Health in the Human Ecosystem at the University of Idaho in Mos **DISEASES** A shorted by <u>Shirley Luckhart</u>, and <u>Ed Lewis</u>.





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In Memoriam

The year 2020 has been hard on many fronts and ACME members lost two internationally recognized Medical Entomologists.

Dr. William "Bill" Walton was a Professor in the Department of Entomology, UC-Riverside, and the Co-Director of the Pacific Southwest Center of Excellence in Vector-Borne Diseases (PacVec). He also recently held leadership positions for the American Mosquito Control Association and the Society of Vector Ecology. Bill's career spanned almost three decades in the University of California, Riverside; first as a postdoctoral scholar for Mir Mulla, and later as a faculty member. His enthusiasm and excitement for science was infectious, and it was this unvarnished passion for science that drew many into Bill's sphere of influence. Bill used his expertise in aquatic insect ecology to forward the field of Integrated Mosquito Management, with a major focus on the design and management of constructed treatment wetlands, and the biological control of mosquitoes. Bill integrated multiple disciplines into his research, including limnology, wetland community ecology, microbiology, and aquatic chemistry.

Bill was an incredible scientist, mentor, and friend, was easy to work with. Bill taught courses in insect ecology and aquatic entomology, mentored multiple graduate students, published many peer-reviewed papers and articles, and through his commitment to evidence-based science and a nurturing career support network, influenced many in the vector control community. For more information on community-wide efforts to memorialize Bill, contact <u>Rick Redak</u>, Entomology Department Chair, UC Riverside.

Dr. Daniel Strickman recently retired from a distinguished career as a civilian and military medical entomologist. He served in the U.S. military for 22 years leading international operations and research related to toxicology, taxonomy, repellents, and vector-borne diseases. After retirement from the military, he was the National Program Leader for Veterinary, Medical, and Urban Entomology for the USDA, ARS. While at Walter Reed Army Institute for Research, Dan served on ACME Council from 1997-2001. Dan later joined the Bill & Melinda Gates Foundation as a Senior Program Officer for Vector Control in the Malaria and Neglected Infectious Diseases Programs, Global Health Division. While in "retirement", Dan co-authored the forthcoming, 1300+ page compendium entitled "Mosquitoes of the World" (Johns Hopkins University Press; 2020). Dan also served as a consultant to the Innovative Vector Control Consortium (IVCC) and volunteered his time at the Burke Museum of Natural History at the University of Washington describing the taxonomy of fossilized dipterans Dr. Strickman was habitually sought after as the leading subject matter expert for his phenomenal indepth knowledge of medical and public health entomology in the United States and abroad. He was a first-tier scientist and medical entomologist who contributed tremendously to Medical Entomology by advancing our understanding of medically important arthropods. Dan is survived by his wife, Linda and their three daughters Leah, Rachel and Rose and their families.

A <u>memorial website</u> has been established by the family where you can provide your memories or photos of Dr. Strickman. Donations may be made to the following causes that were near and dear to Dan:

- <u>Women in Vector Control (Gender Equity) through the Pan African Mosquito</u> <u>Control Association</u>
- Walter Reed Biosystematics Unit
- International Centre of Insect Physiology and Ecology (icipe)
- Ifakara Health Institute





ACME now has a Twitter account! Be sure to follow us on <u>Twitter</u>. We will begin by tweeting live news updates from the ASTMH conference and use this as a means of communicating important deadlines, etc. throughout the year. Do you need to send a job ad or other information out to the ACME community? You can forward your tweet to <u>Gabe Hamer</u> or <u>Molly Duman Scheel</u>. Please remember that you can still also post and receive announcements by subscribing to <u>My Communities</u>.



Renew your membership

<u>RENEW YOUR MEMBERSHIP!</u> Membership renewals are significantly reduced in comparison to last year at this time. Please remember that even when the meeting is virtual, your membership dues of \$25 are essential for support of ACME activities, including the ACME Young Investigators Travel Awards program and the ACME Symposia at the annual meeting. Please visit the ASTMH website for full membership dues information. Your ACME membership connects you to a diverse global community of Medical Entomologists at the ASTMH annual meeting and throughout the year. Membership allows you to access ACME communications, including our bi-annual newsletter, email communications that include job postings, and announcements about current events that may impact medical entomology practice and research. Remember that membership is free for students and post-doctoral trainees. Especially in these uncertain times, we take great pride in fostering community for our trainees, giving them access to job openings, as well as opportunities for awards to participate in the ASTMH meeting and advance their careers.





ACME members are participating in the Vector Borne Disease Network (VBDN) organized by the Entomological Society of America to advocate for research and control of disease vectors in the United States. The network was formed in May 2019 and membership consists of non-profit organizations, trade associations, vector control and public health groups, and the CDC Regional Centers of Excellence. The American Society of Tropical Medicine and Hygiene is a formal member. Among the networks' goals are to advocate for vector borne disease funding for CDC and other federal agencies and connect the broader community of vector professionals. A series of webinars have been held by the network including online meetings with Congressional staff. VBDN also provides input and endorsement for legislation. Learn more about the VBDN here or contact <u>Erin Cadwalader</u>,

ACME in Action



Cierra Briggs, graduate student with the Northeast Regional Center for Excellence in Vector-Borne Disease and the Dr. Laura Harrington Lab conducts research at the Nashville Zoo to understand mosquito diversity and arboviral risk. Lindsay Baxter, graduate student with the Northeast Regional Center for Excellence in Vector-Borne Disease and the Dr. Laura Harrington Lab conducted tick surveillance and small mammal trapping in Maine at a Powassan virus hotspot.



ACME in Action



PhD student Sarah Abusaa in Dr. Chris Barker Lab of UC-Davis and Trinidad Reyes of Madera County Mosquito and Vector Control District set up a rotator trap for a study on the timing of *Aedes aegypti* hostseeking in California's Central Valley.

> PhD student Karen Holcomb in Dr. Chris Barker Lab of UC-Davis tracks radio-tagged wild birds in Fort Collins, Colorado as part of a collaboration between Colorado State University, UC Davis, and CDC to evaluate birddelivered ivermectin as a novel control strategy for West Nile virus.





Dr. Sarah Hamer at Texas A&M University deploys fly traps outdoor and indoors of homes of COVID-19 patients to investigate the role of flies in the surveillance and transmission of SARS-CoV-2. Dr. Chris Roundy, postdoctoral researcher in the Dr. Gabriel Hamer Lab, processing fly traps to test for SARS-CoV-2.





During the early months of the pandemic (March-May), many universities and research labs had to close their doors and discontinue their mosquito colonies. The staff of the MR4 Vector Resource at the Centers for Disease Control and Prevention (CDC) continued to maintain mosquito colonies, ensuring the quality of the strains while taking extra precautions to remain safe during the pandemic. No shipments were made during initial months of the pandemic, but MR4 shipping activities are now back to normal. Here Catherine Hunt, who works with Dr. Ellen Dotson, a CDC research entomologist and the 2020 ACME Chair, is bleaching mosquito eggs.

*MR4 is the Malaria Research and Reference Reagent Resource Center, a part of the BioDefense and Emerging Infections (BEI) Resources, an NIAID supported repository program.