

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP)

We welcome all ASTMH members with interest in basic parasitology to join our subgroup and contribute to our programs.



Welcome Message from our President, Dr. Mahalia Desruisseaux

Hello friends in Parasitology!



I am hoping everyone's year is off to a good start. It is my distinct honor to start this term as the ACMCIP president in this new age of Zoom meetings and virtual conferences. I start this term excited about our unique position as a vibrant and highly energetic group who rose, and still are rising, to meet the peri-COVID era's challenges head-on. As you will see within this newsletter, we as a group have done a lot to be proud of. However, there is still a lot of work to do. This year, we will be introducing a new junior investigator award, which I am hoping will be coupled with a mentoring/sponsorship component. We will also be organizing a second ACMCIP symposium, co-chaired by our exceptional trainee group, which will feature our subgroup awardees, including a Keynote talk by the upcoming Trager awardee, and highlighting the work of our inaugural junior investigator awardee and our 3-minute thesis winners. Several events are also being planned – please see below. Here's to a better 2021!

Mahalia Desruisseaux

2020 ACMCIP Council Meeting



The COVID-19 pandemic may have us all feeling like we live in the Brady-Bunch Boxes of a Zoom Meeting. But look how much fun we had at ACMCIP Council Meeting! Coming off an amazing Pre-Meeting Course (*The Science and Business of Vaccines Against Tropical Parasitic Diseases: Discovery to Clinical Trials*, co-organized by Stephen L. Hoffman and John Adams), getting geared up for the amazing ACMCIP Symposium organized by Keke Fairfax (*Friend or Foe: The Many Faces of Myeloid Cells in Parasitic Infections*) and just before the

Plenary (in which many ACMCIP members swept award categories), we certainly had a lot to be smiling about!

SAVE THE DATE for #TropMed21!

The ASTMH 70th Annual Meeting will be held on November 17-21, 2021 (Wednesday through Sunday) at the Gaylord National Resort and Convention Center in Maryland USA (adjacent to Washington, DC) and will feature the following ACMCIP events and more!

ACMCIP Symposium: Bypassing Biological Barriers: Microsurgical Techniques in Parasitology

Organized by Michael Hsieh

Speakers: Lalita Ramakrishnan, University of Cambridge, James Collins III, UT Southwestern, Johannes Mayer, Malaghan Institute of Medical Research, Michael Hsieh, the George Washington University

Learning objectives will include: Understand current limitations to animal models of parasitic infections, using schistosomiasis as a case study; Learn microinjection techniques and how they could be applied to animal models of parasitic infections.

ACMCIP Trager Symposium

Organized by Keke C. Fairfax and Adesola Olatunde

This coming meeting ACMCIP will have a second symposium! This new symposium will highlight a Keynote by the Trager Award Winner and will feature trainee awardees.

Invited speakers will include winners of the inaugural junior investigator award as well as the winners of the ACMCIP 3-minute thesis award. Don't miss this inaugural Special Symposium!

ACMCIP Scientific Sessions

As in past meetings there will again be a number of ACMCIP-associated paper and poster sessions on numerous topics focused on cellular, molecular and Immunoparasitology. These will include the Burroughs Wellcome Fund sponsored award-winning trainee presentations selected from this year's Woods Hole Immunoparasitology and Molecular Parasitology Meetings. The program is being finalized so stay tuned for the latest on ACMCIP scientific sessions and symposia: <https://www.astmh.org/annual-meeting>

Call for Symposia ([Download the Call for Symposia](#))

Submission deadline: February 24, 2021

Call for Abstracts

The Call for Abstracts will be available in early March. Submission deadline: mid-April.

Please send your ideas for future Pre-Meeting Courses or ACMCIP Symposium topics and organizers to ACMCIP President [Mahalia Desruisseaux](#) as we are always eager to consider new proposals.

Trainee Corner

Hi there! Even in these challenging times, our team continues to organize activities and programming to promote trainee engagement and development. Last fall, we launched the “**Parasites at the Fireside**” seminar series organized by Jennie Dumaine (University of Pennsylvania) to provide

opportunities for trainees to connect with and learn from the experts in their fields. In these monthly seminars we invite global parasitology experts to give a 1 hour talk about their career path in science and the research conducted in their lab, with an open discussion following the presentation. To date, we have had participation from trainees at more than 50 institutions all over the world. Not only do



Parasites at the Fireside

Artwork by Jenna Wingfield - @WingfieldJenna

our speakers work on diverse organisms, they also reflect the global representation of our subgroup with labs in the United States, Singapore, and Kenya/Germany. At the conclusion of one seminar, a student was able to arrange a collaboration with the invited speaker! We look forward to continuing this engagement throughout the coming year. A special thank you to our first speakers: Sebastian Lourido, Cynthia He, Boris Striepen, and Faith Osier for helping us to launch this exciting series.

We are planning more events like abstract writing workshops and the recently concluded 3-minute thesis competition. The soon to be announced winners will be invited to give an oral presentation at the ACMCIP Trager Symposium during the ASTMH 2021 Annual Meeting. If you would like to help facilitate these events or suggest others, please send an email to acmcip.astmh@gmail.com. The [@ACMCIP](https://twitter.com/ACMCIP) twitter account has also become a significant avenue of engagement with our global membership. We encourage all trainees to join twitter and follow the [#ACMCIPtrainees](https://twitter.com/ACMCIP) hashtag to keep up with our activities and connect with the broader parasitology community.

Meet your trainee team & connect with us on Twitter!



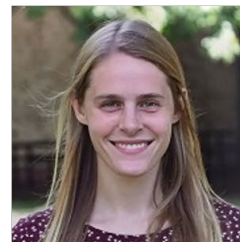
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Lọla
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ACMCIP Activities at the 69th ASTMH Annual Meeting

Basic, translational and clinical research in molecular, cellular and immunoparasitology was well represented at the ASTMH 69th Annual Meeting in its unique virtual format. The virtual format allowed for unprecedented attendance from all over the world and the turnout was an amazing 4,011 registered participants! Going remote doesn't mean the science stops! By all measures, the 69th ASTMH was an outstanding and successful conference. We would like to see even more basic parasite biology. Please consider submitting abstracts for 2021!

ACMCIP organized multiple scientific sessions (the Parasitology Pre-Meeting Course, the Annual ACMCIP Symposium and many other specialized symposia and oral scientific sessions), coordinating

mentoring events for trainees, and handing out awards to trainee and senior members of the Society. Here are some of the highlights of our participation.

Parasitology Pre-Meeting Course: *The Science and Business of Vaccines Against Tropical Parasitic Diseases: Discovery to Clinical Trials*

Organizers: Stephen L. Hoffman and John Adams

There is no vaccine for a human parasitic infection that has marketing authorization (licensure) anywhere in the world. However, we are on the verge of licensed vaccines for malaria and are making enormous progress for diseases caused by other protozoans like leishmaniasis and helminths like hookworm. A distinguished international faculty from the biotechnology industry, the government, and academia communicated their experience and insights regarding how to approach successful development of vaccines against parasites, including identification of the immunological mechanisms of protection and the antigenic targets of protective humoral and cellular immune responses, the construction of vaccine delivery systems (recombinant proteins, recombinant viruses, nucleotide (eg. mRNA), and whole wild type and genetically altered parasites) and achieving regulatory approval for conducting phase 1-3 clinical trials and translating from the laboratory to the clinic to assess safety and vaccine efficacy in the era of COVID-19.

ACMCIP Symposium: *Friend or Foe: The Many Faces of Myeloid Cells in Parasitic Infections*

Organizer: Keke C. Fairfax

The ACMIP symposium focused on the role of myeloid cells in parasitic infections, both the good and the bad. The presenters were Nathan Peters from the University of Calgary, Tracey Lamb from the University of Utah, Melissa Lodoen from University of California Irvine, and Keke Fairfax from the University of Utah. The symposium covers the breadth of parasitic infections, leishmania, malaria, *Toxoplasma gondii*, and *Schistosoma mansoni*. This fantastic symposium highlighted the immunoparasitology we love targeted against diverse parasites that we are striving to control!

2020 Award Winners Recognized at the ASTMH Awards Ceremony

The William Trager Lecture



The 2020 recipient of the ACMCIP William Trager Award: Dr. David Fidock (Columbia University) is an active and committed member of ACMCIP. The Trager Award was initiated in 2015 to honor the iconic legacy of William Trager by recognizing a scientist who has made a breakthrough in basic parasitology that unlocked completely new research areas. We recognized Dr.

David Fidock for his transformative work in genome editing in *Plasmodium falciparum*. Dr. Fidock's pioneering approaches and development of novel and approaches to genome editing have facilitated many fundamental discoveries in *P. falciparum* biology – from fitness to drug resistance. A committed mentor for trainees as well, David is truly a worthy ambassador of ACMCIP, and a deserving recipient of the Trager Award! **Congratulations David!**

Bailey K Ashford Medal Recipients



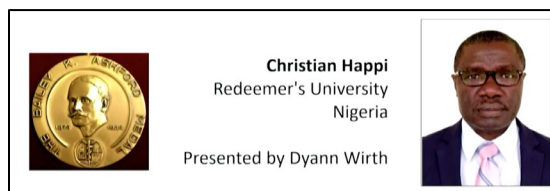
Mahalia Desruisseaux
Yale University School of
Medicine
United States

Presented by Christine Petersen

The Bailey K. Ashford Medal is presented to an ASTMH member for distinguished work in tropical medicine. This year, ACMCIP had not one, but two amazingly talented scientists honored: Our very own President, Mahalia Desruisseaux, and Christian Happi! Mahalia's research on

mechanisms of cerebral malaria, a disease in which > 25% of survivors suffer from persistent neurological and cognitive deficits, despite successful anti-parasitic treatment. Her goal is to identify the factors that cause these adverse long-term neurological sequelae, and to develop novel therapeutic targets for cerebral malaria. Her research has shaped our understanding of this deadly manifestation of malaria. As a clinician scientist, board certified in Infectious Diseases, her service and achievements in tropical medicine translate into patient clinical care as well. Thank you Mahalia for the work you do!

Christian Happi has been a driving force in Infectious Disease genomics throughout his career. He has made fundamental discoveries in Malaria, Lassa, Ebola, and HIV, just to name a few. Of his many career accomplishments, the most meaningful was my use of genomic technologies for early diagnosis and confirmation of Ebola virus disease (EVD) in Nigeria (within 6 hours). This singular action was major in containing EVD in Nigeria, and therefore saving lives! As the Director of the African Center for Excellence in Genomics of Infectious Diseases, he is a recognized leader in African genomic surveillance, research, and also training. Congratulations Christian on this well-deserved honor!



Christian Happi
Redeemer's University
Nigeria

Presented by Dyann Wirth

2021 ACMCIP Award Announcements

Travel Award for Low/Low-Middle Income Country Trainees ([Download Guidelines](#))

The ACMCIP student travel award will recognize a student or trainee who is primarily based in a Low/Low-Middle Income Country (LMIC) and who submits an abstract to the ASTMH Annual Meeting representing novel and exciting research in the field of molecular, cellular or immunoparasitology. The trainee must be, or become, an ASTMH and ACMCIP member.

Application Deadline: April 2021

Award for Advanced Training

This ACMCIP Award for Advanced Training is designed to defray travel expenses for trainees to attend practical training courses or workshops in the fields of molecular, cellular or immunoparasitology. The

award can be used to attend any post-graduate level training course of at least one day in duration. The trainee must be, or become, an ASTMH and ACMCIP member.

Application Deadline: April 2021

Exchange Fellowship Award

Generous funding from our ASTMH parent body, along with your membership contributions, has allowed us to continue this award for 2021. It is aimed at all levels of trainees, including junior independent researchers, seeking to gain new or additional research skills by visiting laboratories that employ cutting-edge methods. This award, up to \$500 for domestic travel and \$2,000 for international travel, will aid trainees in augmenting their molecular or immunoparasitology studies by supporting travel from or to an ACMCIP member's laboratory. The trainee must be, or become, an ASTMH and ACMCIP member.

Application Deadline: April 2021

The William Trager Award for Fundamental Breakthrough in Parasitology Research



The William Trager Award, established by the ACMCIP in 2015, recognizes a fundamental breakthrough in molecular, cellular or immunoparasitology. This annual award is named in honor of Prof. William Trager, PhD, a past President of ASTMH who established *in vitro* culture conditions for *Plasmodium* parasites and thereby directly enabled almost all of the current fields of basic and applied malaria research. This is not a career recognition award but is to recognize a recent breakthrough in basic parasitology that has been published (usually with the nominee as corresponding author) between two and 15 years ago. The awardee will be announced during the ASTMH Annual Meeting Awards Ceremony and the award will be made at ACMCIP's Business Meeting.

Meeting Awards Ceremony and the award will be made at ACMCIP's Business Meeting.

Application Deadline: May 2021

ParasiteSlack: a resource for parasitology online

Sign up to access the ParasiteSlack at ParasiteSlack.slack.com where you can share job opportunities, fellowships, meeting information or ask questions of the community. They are requesting that the community upload protocols as a resource also. If you have any ideas for how to make it more useful to you, let them know, or suggest new channels for your parasite to the people below. I asked for a #ParasiteImmunology channel, et viola, we have a new community! So get Slacking! ([Link to Parasite Slack](#))

Your ACMCIP Council

Position	Member
President	Mahalia Desruisseaux, <i>Yale School of Medicine</i>
Immediate Past President	Michael Ferdig, <i>University of Notre Dame</i>
Councilor for Awards & Pre-Meeting Course	Jeff Dvorin, <i>Boston Children's Hospital/Harvard T.H. Chan School of Public Health</i>

Councilor for Communications	Amy Kristine Bei, <i>Yale School of Public Health</i>
Councilor for Symposia	Keke Fairfax, <i>University of Utah</i>
International Councilor	Carolyn Kifude, <i>Kenya Medical Research Institute</i>
Secretary/Treasurer	Amanda Lukens, <i>Broad Institute/Harvard Chan School of Public Health</i>
Trainee Councilor	Lola Fagbami, <i>University of Georgia</i>

If you have any questions regarding ACMCIP, please do not hesitate to contact us.