

From November 5-9 in 2017, I attended the 66th Annual Meeting of the American Society of Tropical Medicine and Hygiene (ASTMH) at The Baltimore Convention Center in Baltimore, the United States of America. The ASTMH Annual Meeting is a five-day educational conference that attracts approximately 4,400 attendees. It is the most prominent international meeting for tropical infectious diseases, in particular malaria. The goal of the conference is to bring together students, tropical medicine and global health professionals from all over the world, working in various settings like academia, industry, military, non-profits or government. The conference consists of several parallel sessions, mini symposia and plenary sessions on various topics, ranging from malaria, virology (e.g. HIV, dengue and zika), helminth infections to entomology.

On Sunday November 1st, the conference started with a plenary session, followed by an awards ceremony. During the plenary session, Prof. Paul Farmer, one of the founders of Partners in Health, gave an inspiring keynote speech. During this speech, Prof. Paul Farmer touched quickly on the cholera epidemic after the earthquake in Haiti and mainly focused on the Ebola outbreak in West Africa. He explained how and why these diseases could spread so quickly, e.g. due to the lack of capacity and poor functional health systems in these countries.

On the second day of the conference, there were many interesting concurrent sessions from early in the morning until late in the evening, amongst other about malaria vector control, immunology, (pre)clinical assessment of anti-malarials, or novel insights and methods of malaria diagnosis. Some of my selected sessions focused on malaria immunology, and microbiome-parasite interactions and their effect on parasite biology and host immunity. During these sessions, I learned that the midgut microbiome of the sand fly vector is important for survival of *Leishmania infantum* (published in Kelly, mBio, 2017) and that the composition of mouse gut microbiota modulates the severity of malaria (published in Villarino, PNAS, 2016). The first poster session was organised in the afternoon with many interesting posters to be presented. The session about novel insights and methods of malaria diagnosis was very well visited with many people standing in the room.

The third day of the conference also offered many interesting sessions. My selected sessions focused on malaria transmission-blocking vaccines, mechanisms of immunity to malaria and their implications for vaccine development, and the public health value of vaccines (not only malaria, but also dengue and cholera). I learned that dengue cases are increasing in the Americas and there is a shift from dengue type 1 towards type 2 in Brazilian children. Currently, there is a licensed live-attenuated recombinant dengue vaccine, named Dengvaxia, which has been developed by Sanofi Pasteur. After the morning sessions, I presented my own research in poster form, which focused on the contribution of the complement system to functional antibody-mediated responses that are induced by immunization with *Plasmodium falciparum* malaria sporozoites in the controlled human malaria infection model. I enjoyed the opportunity to discuss my work with fellow scientists. After the poster session, I attended the session on mechanisms of immunity to malaria, which was very inspiring, since it was very closely related to my PhD research. Professor James Beeson from Burnet Institute presented data suggesting that multiple antibody-mediated mechanisms likely contribute to protective anti-malarial immunity.

The fourth day of the conference kicked off with another interesting session about quantifying immunity to malaria. Isabel Rodriguez-Barraquer from the University of California mentioned that it is a challenge to identify antibody responses that are associated with protection, because they are confounded by cumulative parasite exposure and age, and suggested that antigens that are associated with anti-parasite and anti-immunity may be different. The next session involved presentations on various PfSPZ malaria vaccine studies and ended with an interesting overview talk from Stephen Hoffman, the Chief Executive and Scientific Officer from Sanaria.

During the afternoon poster session, I got the chance to visit several poster presentations, followed by a session on malaria vaccines. Carlota Dobaño from ISGlobal showed that RTS,S/AS01E vaccination induced functional IgG1 and IgG3 antibodies in African children. These antibodies are able to interact with complement and Fc-receptors in opsonic phagocytosis, and appear to be associated with a reduced risk of malaria. After the malaria vaccines session, I attended an epidemiology session. On the last morning of the conference, my selected sessions focused on malaria mosquito transmission and interruption, and biology and pathogenesis of malaria and protozoal diseases.

In conclusion, this conference was very inspiring and extremely informative. It was a great opportunity to hear about scientific advances and the latest research in these areas, but also to meet up with colleagues and collaborators from abroad to discuss ongoing and potential new projects. I am very grateful to the Netherlands Society for Parasitology for supporting my participation in this conference.

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