



### SCHEDULE IN EASTERN STANDARD TIME (EST)

8:30 - 8:40am | Welcome: **Peter Agre**, Johns Hopkins University

8:40 - 8:45am | Symposium overview – **Victoria Balta**, Johns Hopkins University

**Moderator: Emma Camacho, Johns Hopkins University**

8:45 - 9:00am | **Henrico Langeveld**, University of Pretoria “Novel kinases play an essential role during asexual proliferation of *Plasmodium falciparum* parasites”

9:00 - 9:15am | **Leon Mugenzi**, Centre for Research in Infectious Diseases “Impacts of a 4.3kb structural variant on gene expression and insecticide resistance phenotype in the malaria vector *An. funestus* s.s.”

9:15 - 9:30am | **Julius Lautenbach**, Karolinska Institutet “Systems analysis shows a role of cytophilic antibodies in shaping innate tolerance to malaria”

9:30 - 9:45am | **Anna Strampelli**, Imperial College London “A Male-Drive Female-Sterile (MDFS) system in *Anopheles gambiae* targeting doublesex”

9:45 -10:00am | **Himanshu Gupta**, The London School of Hygiene and Tropical Medicine “Assessing the use of microRNAs for the diagnosis of severe *falciparum* malaria”

10:00 - 10:15am | **Jean Erick Massamba**, Congolese Foundation for Medical Research “Prevalence of *Plasmodium falciparum* submicroscopic infection and pregnancy outcomes in Congolese women at delivery”

10:15 - 10:25am | *Break*

**Moderator: Andrew Hammond, Johns Hopkins University**

10:25 - 11:30am | **KEYNOTE LECTURE** | **Etienne Bilgo**, Institut de Recherche en Sciences de la Santé / Centre Muraz “Using transgenic fungi to kill malaria mosquitoes”

**Moderator: Victoria Balta, Johns Hopkins University**

11:30 - 11:45am | **Audrey Brown**, University of Virginia “Broad nutrient stress increases *P. falciparum* survival of artemisinin”

11:45 - 12 noon | **Willem Laursen**, Brandeis University “Up close and personal: Cellular and molecular bases of short-range attraction in *Anopheles* mosquitoes”

12:00 - 12:15pm | **Heather Kudyba**, National Institutes of Health “Conditional knockdown of essential proteins in *P. falciparum* midgut stages”

12:15 - 12:30pm | **Diego Giraldo**, Johns Hopkins University “A semi-field system for quantitative tracking of *Anopheles gambiae* olfactory preferences”

12:30 - 12:45pm | **Manuela Runge**, Northwestern University “Estimating the impact of RTS,S deployment in areas with seasonal malaria chemoprevention”

12:45 - 12:55pm | **VEuPathDB Team**, “Beta.clinepidb.org: A platform for sharing and exploring malaria epidemiological datasets”

12:55 - 1:00pm | *Break*

1:00 - 1:30 pm | **LIGHTNING TALKS** (details and Zoom link on following page)

**1:00 - 1:30 pm EST | LIGHTNING TALKS | SESSIONS A, B, & C | Sessions run concurrently.**

**Zoom link** <https://jh.zoom.us/j/92766466688>

Meeting ID: 927 6646 6688

Passcode will be announced during the 12:55pm break.

## **SESSION A**

**Moderators: Andrew Hammond, Johns Hopkins University and Anna Strampelli, Imperial College London**

**Awosolu Oluwaseun**, Universiti Sains Malaysia

“Trends in *falciparum* malaria prevalence, parasite density and associated risk factors in Akure, Southwestern Nigeria: An implication for malaria elimination”

**William Garrod**, Imperial College London – England

“Assessing off-target effects of CRISPR-Cas9 based gene drives in *Anopheles gambiae*”

**Jacques Gnambani**, Institut de Recherche en Sciences de la Santé – Burkina Faso

“Heritable cultivable bacteria associated to wild *Anopheles gambiae s.l.* in Burkina Faso for paratransgenic control perspectives of malaria”

**Rosalia Nghitalesheni Joseph**, University of Namibia

“Evaluation of neonicotinoid (Fludora fusion and SumiShield) insecticides against pyrethroid - resistant *Anopheles gambiae s.l.* in Zambezi region, Namibia”

**Mbama Ntabi Jacques Dollon**, Fondation Congolaise pour la Recherche Médicale (FCRM) – Congo

“Prevalence of non-*falciparum* malaria in individuals living in south of Brazzaville and its surroundings in Republic of Congo”

**Rebecca Rosenberg**, Johns Hopkins University – USA

“VectorCAM: a low cost hand held tool for automated, rapid morphological identification of mosquito species”

## **SESSION B**

**Moderators: Victoria Balta, Johns Hopkins University and Audrey Brown, University of Virginia**

**Mariko Kanai**, Columbia University – USA

“Identification of a novel determinant associated with quinine resistance in a *Plasmodium falciparum* genetic cross”

**Heather Colvin**, Wake Forest University – USA

“An *ex vivo* model of oxidatively stressed red blood cells demonstrates a role for exogenous amino acids in enhancing bystander red blood cell function and morphology in malaria”

**James McLellan**, University of Texas at San Antonio – USA

“Single-cell quantitative bioimaging of *P. berghei* liver stage translation”

**Frank Addae**, University of Ghana

“Evaluating the effects of sorbitol synchronization of clinical isolates of *Plasmodium falciparum* on their susceptibility to antimalarial compounds”

**Kyle McLean**, Massachusetts Institute of Technology (MIT) – USA

“A modular cloning system for high efficiency production of *Plasmodium falciparum* transfection vectors”

**Deepti Shrivastava**, Central Drug Research Institute (CSIR) – India

“Mitochondrial multidrug resistant transporter (MDR6) and its interaction with the ISC pathway in *Plasmodium falciparum*”

**Laura M. Hagenah**, Columbia University – USA

“Modeling the emergence of piperazine-resistant *Plasmodium falciparum* malaria in Africa”

## SESSION C

Moderators: Emma Camacho, Johns Hopkins University and Manuela Runge, Northwestern University

**Abdou KDJ Fall**, Université de Paris – France

“Influence of opsonizing antibodies to *Plasmodium falciparum* merozoites in the control of asymptomatic malaria infection in Beninese children”

**Victoria Shelus**, University of North Carolina at Chapel Hill – USA

“Inappropriate sales of antimalarials in private-sector drug shops in rural Uganda”

**Hongquan Li**, Stanford University – USA

“Octopi: a ready-to-deploy high-throughput imaging solution for malaria management and malaria research”

**Lucie Jelinkova**, University of New Mexico – USA

“Virus-like particle-based malaria vaccine displaying the L9 epitope of the circumsporozoite protein confers sterilizing protection in a mouse challenge model”

**Caroline Abanto Alvarez**, Universidad Peruana Cayetano Heredia – Peru

“Factors associated with asymptomatic recurrences due to *Plasmodium vivax* infection after radical cure treatment in communities in the Peruvian Amazon”

**Sophie Bérubé**, Johns Hopkins University – USA

“Distinct antibody responses to *Plasmodium* antigens reveal candidate biomarkers of the intensity and timing of past exposure to malaria”

**Hannah L. Markle**, Johns Hopkins University – USA

“Comparison of overnight to early evening malaria vector collections in indoor setting in Nchelenge District, Zambia”

### Organizers

Victoria Balta – PhD Candidate

Emma Camacho, PhD – Research Associate

Andrew Hammond, PhD – Visiting Scholar  
(Sarah Maguire, PhD – Postdoctoral Fellow)

Rahul P Bakshi, PhD – Faculty Advisor



**JOHNS HOPKINS**  
BLOOMBERG SCHOOL  
of PUBLIC HEALTH

**Malaria Research  
Institute**