

*Virtual Conference Agenda*

Start (BST)	Finish (BST)	Presenter details
-------------	--------------	-------------------

**Monday, 7 June 2021**

**13:00 13:10 Welcome**

*Scientific Programme Committee:*  
[Caroline Buckee, Harvard University, USA](#)  
[Deus Ishengoma, National Institute for Medical Research, Tanzania](#)  
[Mara Lawniczak, Wellcome Sanger Institute, UK](#)  
[Dan Neafsey, Broad Institute, USA](#)

**13:10 15:00 Session 1: Spatial Epidemiology**

Introduction to the session  
*Chair: Deus Ishengoma, National Institute for Medical Research, Tanzania*

13:10 13:30 The host with the most: High-resolution parasite genotyping to identify elusive reservoirs of malaria transmission  
[Wendy O'Meara, Duke Global Health Institute, USA/Moi University, Eldoret, Kenya](#)

13:30 13:50 Spatial analysis of parasite population genomics during malaria elimination efforts in Eastern Myanmar  
*Xue Li, Texas Biomedical Research Institute, USA*

13:50 14:00 Novel highly multiplexed Amplicon targeted NGS assay for *P. vivax* molecular surveillance achieves geographical differentiation of global isolates from 26 countries and at within-country level in Vietnam.  
*Eline Kattenberg, Institute of Tropical Medicine Antwerp, Belgium*

14:00 14:10 Population genetics of the *Plasmodium falciparum* circumsporozoite protein in two distinct regions with different malaria endemicity in Tanzania  
*Beatus Lyimo, National Institute for Medical Research, Tanzania*

14:10 14:20 Fine-scale relatedness analysis reveals the recent epidemiological history of *P. falciparum* populations in the Pacific Coast of South America  
[Manuela Carrasquilla, Harvard T.H. Chan School of Public Health, USA](#)

Highly commended lightning talk  
*Somya Mehra, Burnet Institute, Australia*

Highly commended lightning talk  
*Hugo Valdivia, NAMRU-6, Peru*

Highly commended lightning talk  
*Sarah Volkman, Harvard T.H. Chan School of Public Health, USA*

14:30 15:00 Q&A  
*Chair: Deus Ishengoma, National Institute for Medical Research, Tanzania*  
*Moderator: Mara Lawniczak, Wellcome Sanger Institute, UK*

**15:00 15:20 Break**

**15:20 15:50 Networking**

**15:50 17:35 Session 2: Insecticide Resistance**

Introduction to the session

*Chair: Dan Neafsey, Broad Institute, USA*

15:50 16:10 Genomic structural variations and insecticide resistance in malaria vectors

[\*Charles Wondji, Liverpool School of Tropical Medicine, UK\*](#)

16:10 16:30 Anopheles mosquitoes surveillance and genomics

[\*Damaris Matoke-Muhia, Kenya Medical Research Institute, Kenya\*](#)

16:30 16:40 Genetic variation in insecticide resistance genes - a pan-African perspective from 2,784 wild-caught *Anopheles gambiae*, *coluzzii* and *arabiensis* mosquitoes

*Chris Clarkson, Wellcome Sanger Institute, UK*

16:40 16:50 Mapping the frequency of genetic mutations conferring insecticide target site resistance in African malaria vector species

*Penelope Hancock, Imperial College London, UK*

Highly commended lightning talk

*Amelie Wamba Ndongmo Regine, CRID-LSTM unit, Cameroon*

Highly commended lightning talk

*Naveen Kumar, Tata Institute for Genetics and Society, India*

Highly commended lightning talk

*Petra Korlevic, EMBL-EBI, UK*

Highly commended lightning talk

*Eric Lucas, LSTM, UK*

17:05 17:35 Q&A

*Chair: Dan Neafsey, Broad Institute, USA*

*Moderator: Caroline Buckee, Harvard University, USA*

**17:35 18:05 Networking**

Tuesday, 8 June 2021

**13:00 14:20 Session 3: Drug Resistance**

Introduction to the session

*Chair: Dan Neafsey, Broad Institute, USA*

13:00 13:20 Genetic surveillance to support national malaria control in Vietnam

[Nguyen Thanh Thuy Nhien, OUCRU, Vietnam](#)

13:20 13:30 Molecular monitoring of Plasmodium falciparum to evaluate the interventions strategies in Senegal from 2015 to 2019

*Yaye Die Ddiaye, Cheikh Anta Diop University, Senegal*

13:30 13:40 Comparison of different genotyping methods for differentiating Plasmodium falciparum recrudescence from new infections in antimalarial drug clinical trials

*Annina Schnoz, Swiss Tropical and Public Health Institute, Switzerland*

Highly commended lightning talk

*Alfred AmambuaNgwa, MRC Unit The Gambia at LSHTM, Gambia*

Highly commended lightning talk

*Irene Omedo, University of Oxford, UK*

Highly commended lightning talk

*Aung Myint Thu, Shoklo Malaria Research Unit, Thailand*

13:50 14:20 Q&A

*Chair: Dan Neafsey, Broad Institute, USA*

*Moderator: Deus Ishengoma, National Institute for Medical Research, Tanzania*

14:20 14:50 Break

**14:50 15:20 Networking**

**15:20 17:10 Session 4: Biological Insights from Genomes**

Introduction to the session

*Chair: Mara Lawniczak, Wellcome Sanger Institute, UK*

15:20 15:40 Genetic and genomic approaches to inform malaria interventions and vaccine design

[Amy Bei, Yale School of Medicine, USA](#)

15:40 15:50 The protective effect of sickle haemoglobin against severe malaria depends on parasite genotype

*Gavin Band, University of Oxford / Wellcome Sanger Institute, UK*

15:50 16:00 Plasmodium falciparum histidine-rich protein 2 deletion is under recent positive selection in Ethiopia and threatens malaria diagnostic and control strategies

*Jonathan Parr, University of North Carolina at Chapel Hill, USA*

16:00 16:10 Within host evolution of malaria parasites revealed by single genome sequencing

*Ian Cheeseman, Texas Biomedical Research Institute, USA*

16:10 16:20 Improving statistical power in severe malaria genetic association studies by augmenting phenotypic precision

*James Watson, MORU, Thailand*

Highly commended lightning talk

*Kevin Esoh, University of Cape Town, South Africa*

Highly commended lightning talk

*Emily LaVerriere, Harvard University, USA*

Highly commended lightning talk

*Alistair Miles, Wellcome Sanger Institute, UK*

Highly commended lightning talk

*Richard Pearson, Wellcome Sanger Institute, UK*

16:40 17:10 Q&A

*Chair: Mara Lawniczak, Wellcome Sanger Institute, UK*

*Moderator: Caroline Buckee, Harvard University, USA*

17:10 17:40 **Networking**

**Wednesday, 9 June 2021**

13:00 14:30 **Session 5: Bioinformatics Tools for 21st Century**

Introduction to the session

*Chair: Mara Lawniczak, Wellcome Sanger Institute, UK*

13:00 13:20 Genealogical trees at the population scale

[Jerome Kelleher, University of Oxford, UK](#)

13:20 13:30 High resolution Anopheles species assignment from a genus-wide sequencing approach

*Marilou Boddé, University of Cambridge / Wellcome Sanger Institute, UK*

13:30 13:40 Fast estimates of IBD from unphased polyclonal malaria infections with Dcifer

*Inna Gerlovina, EPPICenter at UCSF, USA*

13:40 13:50 A genomic surveillance platform for indel-rich genes from Plasmodium spp. using long-read amplicon sequencing

*David Plaza, Karolinska Institutet, Sweden*

Highly commended lightning talk

*Jacob Almagro Garcia, Oxford University, UK*

Highly commended lightning talk

*Brice Letcher, EMBL-EBI, UK*

Highly commended lightning talk

*Kevin Wamae, University of North Carolina, USA*

14:00 14:30 Q&A

*Chair: Mara Lawniczak, Wellcome Sanger Institute, UK*

*Moderator: Dan Neafsey, Broad Institute, USA*

14:30 14:40 **Break**

**14:40 16:15 Session 6: Transmission**

Introduction to the session

*Chair: Caroline Buckee, Harvard University, USA*

14:40 15:00 SIMPLEGEN: Exploring genetic sampling designs through simulation  
[Robert Verity, Imperial College, UK](#)

15:00 15:20 Gene drive for malaria vector control: From lab to application  
*Diabate Abdoulaye, Institut de Recherche en Sciences de la Santé/Centre Muraz, Bobo-Dioulasso, Burkina Faso*

15:20 15:30 Plasmodium falciparum genetic diversity associated with continued malaria transmission in pre-elimination settings in South Africa  
*Hazel Beverly Gwarinda, University of Pretoria, South Africa*

Highly commended lightning talk

*Juliana Cudini, Wellcome Sanger Institute, UK*

Highly commended lightning talk

*Jason Hendry, University of Oxford, UK*

Highly commended lightning talk

*Maxwell Murphy, EPPICenter at UCSF, USA*

Highly commended lightning talk

*Myo Naung, Walter Eliza Hall of Medical Institute, Australia*

Highly commended lightning talk

*Abebe Fola, Purdue University, USA*

15:45 16:15 Q&A

*Chair: Caroline Buckee, Harvard University, USA*

*Moderator: Mara Lawniczak, Wellcome Sanger Institute, UK*

16:15 16:30 Break

**16:30 18:00 Session 7: Genomic surveillance for Elimination and Barriers to Translation**

Introduction to the session

*Chair: Deus Ishengoma, National Institute for Medical Research, Tanzania*

16:30 16:45 Africa pathogen genomics initiative (Africa PGI): beyond COVID-19  
[Sofonias Tessema, University of California, San Francisco, USA](#)

16:45 17:00 Advancing genomics for malaria eradication: What can we learn from COVID-19  
[Jennifer Gardy, Gates Foundation, USA](#)

17:00 17:15 Putting genomic epidemiology into practice for malaria and covid-19  
[Dominic Kwiatkowski, Wellcome Sanger Institute, UK](#)

17:15 18:00 Panel discussion - Opportunities and challenges - Where does the field go from here?  
*Chair: Deus Ishengoma, National Institute for Medical Research, Tanzania*  
*Moderator: Dan Neafsey, Broad Institute, USA*

**18:00 18:10 Closing remarks by the Scientific Programme Committee:**

*Caroline Buckee, Harvard University, USA*

*Deus Ishengoma, National Institute for Medical Research, Tanzania*

*Mara Lawniczak, Wellcome Sanger Institute, UK*

*Dan Neafsey, Broad Institute, USA*