

## CADDE Workshop on Portable Metagenomics for Pathogen Surveillance

13–17 March, São Paulo, Brazil

segunda-feira 13 março 2

Location: Mario Camargo Auditorium, IMT

*Responsible: Ester Sabino and Nuno Faria*

Time	Topic
08:00 – 09:00	Registration
09:00 – 09:30	<a href="#">Introduction</a> Nuno Faria (ICL/USP/Oxford) Ester Sabino (USP)
09:30 – 10:00	<a href="#">Global arbovirus surveillance initiative</a> Diana Rojas (World Health Organization, Switzerland)
10:00 – 10:30	<a href="#">Surveillance of outbreaks in Latin America</a> Jairo Mendez (Pan American Health Organization, USA)
10:30 – 11:00	<i>Coffee break</i>
11:00 – 11:30	<a href="#">Public policies for surveillance in Brazil</a> Daniel Ramos (Ministry of Health, Brazil)
11:30 – 12:00	<a href="#">Outbreaks, public health, and decision making in São Paulo</a> Adriano Pinter (Pasteur Sao Paulo, Brazil)
12:00 – 13:30	<i>Lunch break</i>
13:30 – 14:00	<a href="#">Genomic surveillance in the Caribbean</a> Christine Carrington (University of West Indies, Trinidad & Tobago)
14:00 – 14:30	<a href="#">Genomic surveillance in Ecuador</a> Paul Cardenas (Universidad San Francisco de Quito, Ecuador)
14:30 – 15:00	<i>Coffee break</i>
15:00 – 15:30	<a href="#">Virus diversity and vaccine development in Brazil</a> Esper Kallas (Butantan Institute, Brazil)
15:30 – 16:00	<a href="#">Coordinating a SARS-CoV-2 national genomic surveillance programme</a> Fernando Spilki (Feevale, Rede CoronaOmica, Brazil)

16:00 – 16:30	<i>Coffee break</i>
16:30 – 17:00	<a href="#">Tracking emerging zoonotic viruses and their zoonotic potential in Brazilian bats: a one health approach</a> Helena Ferreira Lage (USP, Brazil)
17:00 – 17:30	<a href="#">Metagenomics applied to the study of viral diversity in the Brazilian fauna</a> Mirela D'Arc (UFRJ, Brazil)
17:30 - 18:00	<a href="#">Wastewater surveillance of human pathogens</a> Alex Shaw (ICL, UK)

**terça-feira 14 março 2023**

Location (AM): Mario Camargo Amphitheatre, IMT

Location (PM): IMT Molecular Laboratories

*Responsible: Ingra Claro, Jaqueline Goes, Jeremy Mirza*

Time	Topic
08:00 – 8:30	<a href="#">Introduction to Nanopore Sequencing</a> Natalia Cortes and Aaron Pomerantz (ONT, UK)
08:30 – 09:30	<a href="#">Introduction to Nanopore Sequencing</a> <a href="#">Nanopore Sequencing, walking through the protocols, tilling amplicon, metagenomic and shotgun sequencing</a> Ingra Morales Claro (ICL/USP, Brazil/UK) and Filipe Romero (UFRJ/ICL, Brazil/UK)
09:30 – 09:45	<i>Coffee break</i>
09:45 – 11:30	<a href="#">Library Preparation Part 1 (Groups 1 and 2)</a> <a href="#">Barcoding, End Repair and Clean Up</a> Ingra Morales Claro (ICL/USP, UK/Brazil) Darlan Candido (ICL, UK) Filipe Romero (UFRJ/ICL, Brazil/UK) Chris Kent (UoB, UK) Jaqueline Goes de Jesus (USP/Baiana, Brazil) Alex Shaw (ICL, UK) Natalie Sparks (UoB, UK) Jeremy Mirza (UoB, UK)

	<p>Esmenia (USP, Brazil)</p> <p>Mayara Bethane (USP, Brazil)</p> <p>Sam Wilkinson (UoB, UK)</p>
11:30 – 13:00	<p><a href="#">Library Preparation Part 2 (Groups 1 and 2)</a></p> <p><a href="#">Adaptor ligation, clean-up and QuBit</a></p> <p>Ingra Morales Claro (ICL/USP, UK/Brazil)</p> <p>Darlan Candido (ICL, UK)</p> <p>Filipe Romero (UFRJ/ICL, Brazil/UK)</p> <p>Chris Kent (UoB, UK)</p> <p>Jaqueline Goes de Jesus (USP/Baiana, Brazil)</p> <p>Alex Shaw (ICL, UK)</p> <p>Natalie Sparks (UoB, UK)</p> <p>Jeremy Mirza (UoB, UK)</p> <p>Esmenia (USP, Brazil)</p> <p>Mayara Bethane (USP, Brazil)</p> <p>Sam Wilkinson (UoB, UK)</p>
13:00 – 14:30	<p><i>Lunch break</i></p>
14:30 – 17:30	<p><a href="#">ONT Sequencing</a></p> <p><a href="#">Real-time Metagenomic Sequencing using Rampart</a></p> <p>Ingra Morales Claro (ICL/USP, UK/Brazil)</p> <p>Darlan Candido (ICL, UK)</p> <p>Filipe Romero (UFRJ/ICL, Brazil/UK)</p> <p>Chris Kent (UoB, UK)</p> <p>Jaqueline Goes de Jesus (USP/Baiana, Brazil)</p> <p>Alex Shaw (ICL, UK)</p> <p>Natalie Sparks (UoB, UK)</p> <p>Jeremy Mirza (UoB, UK)</p> <p>Esmenia (USP, Brazil)</p> <p>Mayara Bethane (USP, Brazil)</p> <p>Sam Wilkinson (UoB, UK)</p>

**quarta-feira 15 março 2023**

Location (PM): Horto Florestal Sao Paulo

*Responsible: Jeremy Mirza, Ingra Claro, Juliana, Filipe Romero, Esménia*

<b>Time</b>	<b>Topic</b>
07:45 – 8:45	<i>Transport to Horto Florestal</i>
09:30 – 10:00	<a href="#">Introduction to the YFV outbreak in São Paulo</a> Juliana Telles de Deus (Pasteur Sao Paulo) and Márcio Carvalho
10:00 – 11:00	<a href="#">Entomology crash course</a> Maria Anice Sallum (USP-SPH)
11:00 – 11:30	<i>Coffee break</i>
11:30 – 12:30	<a href="#">Bioinformatic pipelines for consensus sequence generation of ONT data</a> Sam Wilkinson (UoB) and Filipe Romero (UFRJ/ICL) - Concepts in Consensus Sequence Generation
12:30 - 14:00	<i>Lunch</i>
14:00 – 16:00	<a href="#">Metagenomics tabletop exercise: Can YOU prevent an outbreak becoming the next pandemic?</a> Sam Wilkinson (UoB) and Jeremy Mirza (UoB)
15:30 – 16:00	<i>Coffee break</i>
16:00 – 17:00	<a href="#">Host vector pathogen dynamics for metagenomic sequencing of mosquitos</a> Jeremy Mirza (UoB), Esmenia Coelho (IMT/USP) and Ingra Claro (IMT/USP)

**quinta-feira 16 março 2023**

Location (PM): Faculty of Medicine Room 2155

*Responsible: Nuno Faria, Camila Romano, Charlie Whittaker, Anderson Brito*

<b>Time</b>	<b>Topic</b>
08:00 – 09:00	<a href="#">Ester's Lightning Talks (for selected posters)</a>
09:00 – 09:45	<a href="#">Maximizing the impact of genomic sequencing in public health</a> Nuno Faria (ICL/USP/Oxford)
09:45 – 10:30	<a href="#">Building curated genomic datasets with associated metadata</a> Camila Romano (USP)
10:30 – 11:00	<i>Coffee break</i>

11:00 – 11:30	<a href="#">From viral genome sequences to phylogenetic trees</a> Camila Romano (USP) and Darlan Candido (ICL/USP)
11:30 – 13:00	<a href="#">Phylogenetic tree interpretation and visualization with FigTree and MicroReact</a> Darlan Candido (ICL/USP) and Ian Nunes (USP)
13:00 – 14:30	<i>Lunch break</i>
14:30 – 16:30	<a href="#">Automated genomic epidemiology analyses with nextstrain</a> Anderson Brito (ITPS), Filipe Romero (UFRJ/ICL) and Ian Nunes (USP)
16:30 – 17:30	<i>Poster session</i>
19:00 – 21:00	Workshop dinner

**sexta-feira 17 março 2023**

Location (PM): Faculty of Medicine Room 2155

*Responsible: Charlie Whittaker and Marcia Castro*

Time	Topic
08:30 – 10:00	<a href="#">Dated Bayesian phylogenetic analysis to infer parameters of epidemiological interest</a> Sam Hong (KUL, Belgium)
10:30 - 11:00	<a href="#">Coffee Break</a>
11:00 – 11:30	<a href="#">Characterising pathogen transmissibility: an introduction to the reproduction number</a> Charlie Whittaker (ICL, UK)
11:30 – 13:00	<a href="#">Estimating time varying reproduction numbers using EpiEstim</a> Charlie Whittaker (ICL, UK)
12:30 – 14:00	<i>Lunch break</i>
14:30 – 16:00	<a href="#">Geospatial modelling to assess drivers of infectious disease spread</a> Sabrina Li (Southampton, UK)
16:00 – 16:30	<i>Coffee break</i>
16:30 – 17:30	<a href="#">Climate change and deforestation of Brazil's tropical forests</a> Marcia Castro (Harvard, US)
17:30 – 18:00	Concluding remarks