

PROGRAM

DAY 1



THURSDAY, JUNE 19, 2025

8:30 am • 9:00 am
9:00 am • 9:15 am

Registration & coffee

Welcome address by Holger Gerhardt, Deputy Scientific Director of the Max Delbrück Center

SESSION 1

Sequencing at Scale – Tools to Decode Life's Molecular Code

Chair: **Juliana Roscito**

9:15 am • 10:00 am

Ulf Landegren, Uppsala University, Sweden

Tools to analyze very many molecules – and even very few

10:00 am • 10:15 am

Daniel León-Periñán, MDC-BIMSB, Berlin, Germany

Malva: Real-time Sequence Search across Billions of Cells

10:15 am • 11:00 am

Camille Marchet, CNRS, Université de Lille, France

Scaling genomic reuse: hypothesis and algorithms for k-mer collections

11:00 am • 11:30 am

Coffee break

SESSION 2

Expanding the Map – Inclusive Transcriptomics Across Species and Populations

Chair: **Nick Gilbert**

11:30 am • 12:15 pm

Vinicius Maracaja-Coutinho, University of Chile, Santiago, Chile

Addressing inclusion in transcriptomic studies: from animal models to human single-cell biology

12:15 pm • 12:30 pm

Can Ergen, UC Berkeley, USA

ResolVI – addressing noise and bias in spatial transcriptomics

12:30 pm • 12:45 pm

Tilman Hoffbauer, Technical University of Munich, Germany

DNA language model based modelling of transcription start sites in twelve yeast species

12:45 pm • 1:00 pm

Olga Bakina, Charité – Universitätsmedizin Berlin, Germany

RNA 4SU metabolic labeling in human retinal organoids under dissociation, glucose deprivation and light exposure

1:00 pm • 1:10 pm
1:10 pm • 3:00 pm

Group photo

Lunch & poster session

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SESSION 3

The RNA World – Mapping Viromes and Health Across Urban and Global Landscapes

Chair: **Markus Landthaler**

3:00 pm • 3:45 pm

Helder Nakaya, University of São Paulo, Brazil

AI for Health: From Precision Diagnostics to Pandemic Preparedness

3:45 pm • 4:00 pm

Alexander Lucaci, Weill Cornell Medicine, New York City, USA

Diversity and Distinctive Traits of the Global RNA Virome in Urban Environments

4:00 pm • 4:15 pm

Udo Gieraths, Charité – Universitätsmedizin Berlin, Germany

A century-old museum sample reveals a bandavirus with modern day presence in northern European bats

4:15 pm • 5:00 pm

Marion Koopmans, Erasmus Medical Center, Rotterdam, the Netherlands

TBA



FRIDAY, JUNE 20, 2025

8:30 am • 9:00 am

Registration & coffee

SESSION 4

Systems Medicine for a Connected World – Modeling Immune Responses and Disease Outcomes

Chair: **Antonio Jacinto**

9:00 am • 9:45 am

Beate Kampmann, Charité Center for Global Health, Berlin, Germany

A systems-biology approach to unravel the ontogeny of the immune system in newborns and the impact of vaccination

9:45 am • 10:00 am

Natalia von Staa Mansur, University of São Paulo, Brazil

Graph Neural Networks in Precision Medicine: Predicting Clinical Outcomes of Infectious Diseases

10:00 am • 10:45 am

Grace Androga & Brenda Kwambana Adams, Malawi Liverpool Wellcome Programme, Blantyre, Malawi

Genomics without borders to inform vaccine deployment against outbreak prone bacteria in Africa

10:45 • 11:15

Coffee break

SESSION 5:

Building Genomic Infrastructure for Planet Earth

Chair: **Ashley Sanders**

11:15 am • 12:00 pm

Alfred Ngwa, MRC Unit, The Gambia, London School of Hygiene & Tropical Medicine, UK

Evolutionary dynamics and malaria transmission in Africa

12:00 pm • 12:15 pm

Jonathan Wood, Wellcome Sanger Institute, Hinxton UK

Tree of Life – generating reference genomes at scale

12:15 pm • 1:00 pm

Tobias Marschall, Heinrich Heine University, Düsseldorf, Germany

Pangenome based analysis of structural variation

1:00 pm • 2:00 pm

Lunch

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SESSION 6:

Ecosystems in Sequence – Adaptive Genomics from
Crops to Coasts

Chair: **Sofia Forslund**

2:00 pm • 2:45 pm

Jörg Becker, NOVA University of Lisbon, Portugal
Harnessing male germ line transcriptomics to develop heat-
resilient crops

2:45 pm • 3:00 pm

Cristina Moraru, University of Duisburg-Essen, Germany
Impact of Viral Microdiversity on the Virocell Transcriptome in a
Marine Heterotrophic Bacterium

3:00 pm • 3:15 pm

Shuba Varshini Alampalli, Charité – Universitätsmedizin Berlin,
Germany
Living on the Edge: Seasonal Microbial Shifts in Coastal Oceans

3:15 pm • 4:00 pm

Detlev Arendt, EMBL, Heidelberg, Germany
Hotspots of cellular variation

4:00 pm

Closing remarks
