

# PhD Programme in Genetics, Molecular and Cellular Biology, University of Pavia

## Molecular Phylogenetics: from genes to communities to kingdoms - 26-30 April 2021

*Organizers: Ludvik Gomulski and Lino Ometto*

### Monday 26 April

**Lluis Quintana Murci** (Human genomics and evolution, Institut Pasteur, Parigi)

14:00-15:00 Population genetics: from Africa to the Pacific Ocean.

15:00-16:00 An evolutionary genetics view of immunity to infection.

### Tuesday 27 April

**Robert Waterhouse** (Evolutionary and functional genomics, Università di Lausanne)

09:30-10:30 Fundamentals of comparative genomics - homology and orthology.

11:00-12:00 Building and analysing species trees (phylogenomics) and genes trees (phylogenetics).

13:30-14:30 Phylogenomic/genetic applications in insect genomics and evolutionary biology.

15:00-16:00 Practical session: from orthologues to alignments to trees.

### Wednesday 28 April

**Alessandro Minelli** (Evo-Devo, Università di Padova)

09:30-11:00 Evo-Devo perspectives behind the use of morphology in the reconstruction of metazoan phylogeny

**Daniel Bopp** (Evolutionary biology and development, Università di Zurigo)

14:30-16:30 The genetics and evolution of sex determination in insects.

### Thursday 29 April

**Omar Rota Stabelli** (Phylogenetics and molecular clocks, Fondazione Edmund Mach)

14:30-16:30 Clock and dating

16:30-18:30 Practical

### Friday 30 April

**Nicola Segata** (Microbiome metagenomics, Università di Trento)

09:30-11:30 Metagenomics and phylogenetics of the human microbiome