

# Qlife

# Quantitative Biology Winter School Series

## POLYGENIC ADAPTATION FROM QUANTITATIVE GENETICS TO POPULATION GENOMICS

MARCH 10<sup>TH</sup> - 14<sup>TH</sup>, 2025 - PARIS

### LECTURERS & SPEAKERS

Neda BARGHI, Vienna  
Nicholas BARTON, Vienna  
Timothée FLUTRE, Paris  
Frédéric GUILLAUME, Helsinki  
Susan JOHNSTON, Edinburgh  
François MALLARD, Paris  
Katrina McGUIGAN, Brisbane  
Luisa PALLARES, Tübingen  
Patrick PHILLIPS, Eugene  
Christian SCHLÖTTERER, Vienna  
Bertrand SERVIN, Toulouse  
Erik SVENSSON, Lund  
Jacqueline SZTEPANACZ, Toronto  
Henrique TEOTÓNIO, Paris  
Céline TEPLITSKY, Montpellier  
Pierre de VILLEMEREUIL, Paris  
Ben WÖLFL, Vienna

### COORDINATORS

Patrick CHARNAY, Paris  
Christian SCHLÖTTERER, Vienna  
Henrique TEOTÓNIO, Paris

Adaptation to novel environments depends on many alleles with small, hence largely undetectable, fitness effects. With the advance of DNA sequencing technologies, the combination of genome-wide association analyses with genomic prediction methods has become the state-of-the-art approach to link adaptive trait responses to genetic changes at the molecular level. The workshop will introduce students to evolutionary theory and the tools employed to test alternative models of polygenic adaptation. Current advances in detecting polygenic adaptation in experimental and natural population will be discussed. The course will introduce the participants to the analysis of phenomic and genomic data covering the latest software.

The course will include introductory lectures in the mornings, followed by digital practicals in the afternoons. The evenings will include keynote speaker seminars and poster presentations by the students.

Common lunches and dinners with the speakers and instructors will foster informal discussions.

The winter school is limited to 25 participants. It is open to Master 2 and PhD students, as well as postdocs, engineers and junior scientists, with backgrounds in life sciences, physics, computer science or mathematics, and a strong interest in evolutionary genetics.

Experience in file manipulation under Unix/Linux and Python or R programming is required.

Additional information is available on: <https://www.edu.bio.ens.psl.eu/spip.php?article287>

**APPLICATION DEADLINE JANUARY 8<sup>TH</sup>, 2025**

REGISTRATION FEES: 150 €\*

- Register through the following link: <https://forms.office.com/e/1VySeNcY0Y>
- In addition, provide a CV, a motivation letter and a supporting letter from a supervisor as a simple pdf file with "Qlife Polygenic Adaptation Winter School2025\_LASTNAME" as subject header to [Aida.Fakhr@curie.fr](mailto:Aida.Fakhr@curie.fr)

\* Fees cover lunches from Monday to Friday and some dinners.

