

Qlife

Quantitative Biology Spring School Series

CELL DYNAMICS IN DEVELOPMENTAL SYSTEMS

MARCH 31ST - APRIL 4TH, 2025 - PARIS

LECTURERS & INSTRUCTORS

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Recent technological developments in sequencing, imaging and image analysis have granted access to unprecedented temporal and spatial resolution of gene expression, cell dynamics and morphological features. The Qlife program in Quantitative Biology of the PSL University organizes a spring school that will cover these emerging approaches through a series of introductory lectures in the mornings, followed by digital workshops in the afternoons, using datasets from *Drosophila*, ascidians and mammals. The evenings will include keynote speaker seminars and poster presentations by the students.

Dynamic, quantitative analysis of tissue development will be performed through the combination of image analysis (deep-learning based segmentation, cell tracking, registration) with multiscale analysis of forces and modelling. These data will be integrated with the output of single cell and spatial transcriptomic analyses to provide an unprecedented combined view of cell location, morphology, interactions, migration, expression pattern and fate.

Lunches and dinners with the speakers and instructors will foster informal discussions.

The spring 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.

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

Additional information is available on: <https://www.edu.bio.ens.psl.eu/spip.php?article291>

APPLICATION DEADLINE JANUARY 19TH, 2025

REGISTRATION FEES: 150 €*

- Register through the following link: <https://forms.office.com/e/zmcfDKmqMt>
- In addition, provide a CV, a motivation letter and a supporting letter from a supervisor as a simple pdf file with "Qlife Cell Dynamics School 2025_LASTNAME" as subject header to Qlife.events@psl.eu

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

