

Discover the work of top scientists around the world



USA



Holland



Japan



France



Australia



Germany



USA



France



Israel

Multidisciplinary

English

International Master in Life Sciences

Immersion in research environment

Methodological guidance

Molecular Developmental Biology Cell Research Regenerative Biophysics  
Microfluidics Epigenetics Imaging Genomics Virology  
Genetics Immunology Cloning  
Dictyostelium Chicken Human Mouse Zebrafish  
Cenoraditis Drosophila

## THE PROGRAM AT A GLANCE...

### M1 SCIENCE DU VIVANT

#### Trends in biomedical research (6 ECTS) - BIO2701M

Introductory lectures, research seminars, journal clubs

#### Cellular decisions (6 ECTS) - BIO2706M

Research seminars, journal clubs

#### Model organisms practicum (12 ECTS) - BIO2702M

Introductory lab work, guided research project within a research laboratory, poster session & report

#### Scientific communications (6 ECTS) - BIO2707M

Bibliographical methods, ethics in science communication, oral & poster presentation, infographics & video, report writing

#### 2 Elective courses (3 ECTS each) to choose from:

- Microfluidics - BIO2703M
  - Physics of Life - IPH2297M
  - Advanced bio-imaging - BIO2638M
  - Quantitative approaches in biology – IPH2299M\*
  - Tissue and Cell Engineering – IPH2143M\*
- \* Recommended for students with a background in physics

#### 2 Elective courses (3 ECTS each) to choose from:

- Molecular genetics of neuromuscular disorders - BIO2372M
- Molecular mechanisms of cell signalling - BIO2404M
- Aging and cell death - BIO2405M
- Mitochondria in physiopathology - BIO2409M
- Emerging concepts in functional genomics - BIO2410M
- Shaping the cell: from architecture to function - BIO2639M
- or any other 3ECTS unit, validated by the Master organizers

#### Internship 1 (6 ECTS)

7 weeks (March-April)

#### Internship 2 (12 ECTS)

At least 7 weeks (possible extension over the summer)

### M2 FRONTIERS IN BIOLOGY

#### Trends in regenerative medicine (3 ECTS) - BIO2669M

Research seminars

#### Biostatistics & Bioinformatics (3 ECTS) - BIO2633M

Practical course

#### Technical workshops (9 ECTS) - BIO2709M

- 3 elective workshops. Indicative list:
- Cloning: from design to benchwork
  - Electron microscopy
  - Virology
  - AI for Image analysis
  - Transcriptomics

#### Review writing for beginners (6 ECTS) - BIO2708M

in relation to internship 3 project

#### 3 Elective courses (3 ECTS each) to choose from:

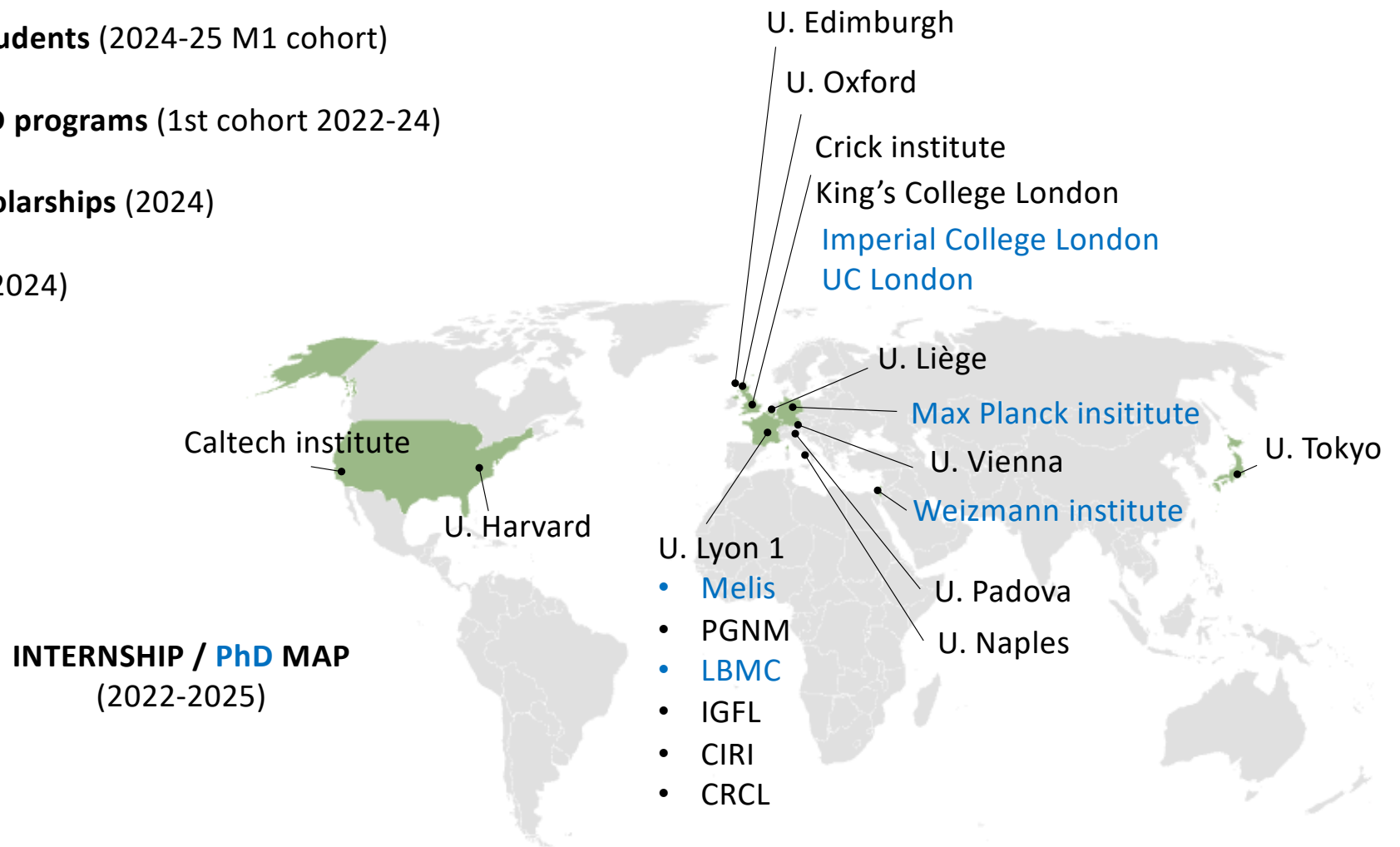
- Epigenetics and diseases - BIO2636M
- Immunology and cancer - BIO2261M
- Neuro-immunology : autoimmunity, infection and inflammation - BIO2360M
- Neuro-immunology: immune privilege and biotherapies - BIO2412M
- Quantitative approaches in biology – IPH2299M
- Tissue and Cell Engineering – IPH2143M
- Systems biology - BIO2408M
- Image processing - BIO2665M
- Microfluidics - BIO2703M
- Physics of Life - IPH2297M
- Advanced bio-imaging - BIO2638M
- Molecular genetics of neuromuscular disorders - BIO2372M
- Molecular mechanisms of cell signalling - BIO2404M
- Aging and cell death - BIO2405M
- Mitochondria in physiopathology - BIO2409M
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- Shaping the cell: from architecture to function - BIO2639M
- or any other 3ECTS unit, validated by the Master organizers

#### Internship 3 (30 ECTS)

About 6 months (January-June)

## FACTS IN NUMBERS

- **30% international students** (2024-25 M1 cohort)
- **8/13 students in PhD programs** (1st cohort 2022-24)
- **2 BMIC doctoral scholarships** (2024)
- **1 Arqus fellowship** (2024)



## STUDENT PROFILE

- Interested in innovative scientific research
- Curious and enthusiastic
- Self-motivated
- Adaptable
- Strong team spirit

## PREREQUISITES

- English: at least B2 level
- For biologists: Molecular Biology of the Cell or Essential Cell Biology (Alberts et al.)  
+ an interest in physics / biophysics
- For non-biologists: at least one introductory biology course  
+ willingness to catch up basic knowledge in biology (Essential Cell Biology, Albert et al.)

## REGISTRATION (Mon Master platform)

- **Applications: February 25 - March 24**
- **Online interviews: April-May**

*NB: International candidates who reside in one of the countries affected by the 'Études en France' procedure must have registered via the embassy*