

INSTITUT PASTEUR COURSE - EDUCATION CENTER

**Program 2025-2026**

**Advanced Bioimage  
Analysis With Artificial Intelligence  
AI**

Institut Pasteur, Paris, June 01 - 05, 2026

Course directors: Jean-Yves Tinevez & Jean-Christophe Olivo-Marin

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FRANCE-BIOIMAGING



PR[AI]RIE  
Paris Research in Artificial Intelligence



INSTITUT  
pasteur

**Directors**

Jean-Christophe Olivo-Marin      Jean-Yves Tinevez

**Teaching assistants**

Lenka Backová      Gaëlle Letort      Thomas Musset  
Minh-Son Phan      Laura Xénard      Stéphane Rigaud

**Location**

Institut Pasteur - Education Center  
28, rue du Docteur Roux 75015 Paris.  
Lectures: Room No. 2 & 3 ground floor

# ECI TRACK

## MONDAY – 1<sup>ST</sup> OF JUNE

9:00 – 9:30

**Welcome coffee**

9:30 - 10:00

**General introduction to the course**

Jean-Christophe OLIVO-MARIN

10:00 – 11:00

**Installing software  
Preparation  
Break**

Laura XENARD, Julie MABON, Minh-Son PHAN, Gaëlle LETORT, Lenka BACKOVA

11:00 - 12:30

**Lecture: Introduction to Bioimage Analysis**

Jean-Yves TINEVEZ

12:30 - 14:00

**Lunch break**

14:00 - 16:00

**Getting started in image analysis with Fiji I**

Mélodie AMBROSET  
Helper: Laura XENARD, Julie MABON, Minh-Son PHAN, Gaëlle LETORT, Lenka BACKOVA

16:00 - 16:30

**Break**

16:30 - 18:00

**Getting started in image analysis with Fiji II**

Mélodie AMBROSET Helper: Laura XENARD, Julie MABON, Minh-Son PHAN, Gaëlle LETORT, Lenka BACKOVA

## TUESDAY – 2<sup>ND</sup> OF JUNE

|               |                                                               |                                                                                                                              |
|---------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| 9:00 – 9:30   | <b>Welcome coffee</b>                                         |                                                                                                                              |
| 9:30 – 10:30  | <b>Introduction to Machine learning for Bioimage Analysis</b> | Gaëlle LETORT                                                                                                                |
| 10:30 – 11:00 | <b>Break / Group photo</b>                                    |                                                                                                                              |
| 11:00 – 12:30 | <b>Ilastik for Machine Learning in image analysis I</b>       | Minh-Son PHAN<br>Helper : Gaëlle LETORT, Julie MABON, Laura XENARD, Lenka BACKOVA,                                           |
| 12:30 – 14:00 | <b>Lunch break</b>                                            |                                                                                                                              |
| 14:00 – 15:00 | <b>Cellpose for Machine Learning in Image Analysis</b>        | Julie MABON<br>Helper : Gaëlle LETORT, Minh-Son PHAN, Laura XENARD, Lenka BACKOVA,                                           |
| 15:00 – 16:00 | <b>Bioimage analysis with Icy I</b>                           | Carlos GARCIA-LOPEZ DE HARO<br>Helper: Thomas MUSSET, Gaëlle LETORT, Julie MABON, Laura XENARD, Lenka BACKOVA, Minh-Son PHAN |
| 16:00 – 16:30 | <b>Break</b>                                                  |                                                                                                                              |
| 16:30 – 18:00 | <b>Bioimage analysis with Icy II</b>                          | Carlos GARCIA-LOPEZ DE HARO<br>Helper: Thomas MUSSET, Gaëlle LETORT, Julie MABON, Laura XENARD, Lenka BACKOVA, Minh-Son PHAN |

## WEDNESDAY – 3<sup>RD</sup> OF JUNE

|               |                                                                        |                                                                                                                  |
|---------------|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 9:00 - 9:30   | <b>Welcome coffee</b>                                                  |                                                                                                                  |
| 9:30 - 10:30  | <b>Lecture</b>                                                         | Vannary Maes-Yedid Hardy                                                                                         |
| 11:00 - 12:30 | <b>Whole-slide image analysis with open-source software QuPath I</b>   | Thierry PÉCOT<br>Helper: Stéphane RIGAUD, Gaëlle LETORT, Julie MABON, Laura XENARD, Lenka BACKOVA, Minh-Son PHAN |
| 12:30 - 14:00 | <b>Lunch break</b>                                                     |                                                                                                                  |
| 14:00 - 16:00 | <b>Whole-slide image analysis with open-source software QuPath II</b>  | Thierry PÉCOT<br>Helper: Stéphane RIGAUD, Gaëlle LETORT, Julie MABON, Laura XENARD, Lenka BACKOVA, Minh-Son PHAN |
| 16:00 - 16:30 | <b>Break</b>                                                           |                                                                                                                  |
| 16:30 - 18:00 | <b>Whole-slide image analysis with open-source software QuPath III</b> | Thierry PÉCOT<br>Helper: Stéphane RIGAUD, Gaëlle LETORT, Julie MABON, Laura XENARD, Lenka BACKOVA, Minh-Son PHAN |
| 18:00 - 21:30 | <b>Garden party</b>                                                    |                                                                                                                  |

## THURSDAY – 4<sup>TH</sup> OF JUNE

|               |                                                    |                                                                                                     |
|---------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 9:00 - 9:30   | <b>Welcome coffee</b>                              |                                                                                                     |
| 9:30 - 11:00  | <b>Keynote : Bioimage analysis in Neuroanatomy</b> | Roberto TORO                                                                                        |
| 11:00 - 12:30 | <b>Deep learning for Bioimage Analysis I</b>       | Lenka BACKOVA<br>Helper: Minh-Son PHAN, Gaëlle LETORT, Julie MABON, Laura XENARD, Marcela RIVERA    |
| 12:30 - 14:00 | <b>Lunch break</b>                                 |                                                                                                     |
| 14:00 - 16:00 | <b>Deep learning for Bioimage Analysis II</b>      | Lenka BACKOVA<br>Helper: Minh-Son PHAN, Gaëlle LETORT, Julie MABON, Laura XENARD, Marcela RIVERA    |
| 16:00 - 16:30 | <b>Break</b>                                       |                                                                                                     |
| 16:30 - 17:00 | <b>Tracking cells and organelles</b>               | Jean-Yves TINEVEZ                                                                                   |
| 17:00 - 18:00 | <b>Tracking with TrackMate I</b>                   | Jean-Yves TINEVEZ<br>Helper: Laura XÉNARD, Gaëlle LETORT, Julie MABON, Lenka BACKOVA, Minh-Son PHAN |

## FRIDAY – 5<sup>TH</sup> OF JUNE

9:00 - 9:30

**Welcome coffee**

9:30 - 10:30

**Closing keynote: How Generative AI impacts Bio-Image Data Science**

Robert HAASE

10:30 - 11:00

**Break**

11:00 - 12:30

**Tracking with TrackMate II**

Jean-Yves TINEVEZ  
Helper: Laura XÉNARD, Gaëlle LETORT, Julie MABON, Lenka BACKOVA, Minh-Son PHAN

12:30 - 14:00

**Lunch break**

14:00 - 16:00

**Analyzing cell tracking results with Python**

Laura XÉNARD  
Helper: Lenka BACKOVA, Gaëlle LETORT, Julie MABON, Laura XENARD, Minh-Son PHAN

16:00 - 16:30

**Coffee break**

16:30 - 18:00

**Work on your own data  
Goodbyes**

