



PROGRAM (Course exclusively in English)

DAY 1 - MOLECULAR PATHOLOGY TECHNIQUES

08:45 - 09:00	Welcome and introduction Overview of training course and learning outcomes <i>Florence BERNEX Coordinator (Associate professor, scientific manager and Investigative Pathologist, RHEM and member of SFPT executive committee).</i>
09:00 - 10:30	Introduction to Immunohistochemistry (IHC) and immunofluorescence (IF) <i>Anne-Laure BAUCHET (IHC team manager & Translational medicine Lead, Sanofi)</i> Learning objectives : To provide an understanding/knowledge of general principles of IHC.
Coffee break	
11:00 - 12:30	Other techniques Pot-pourri <i>Stéphane LEZMI (Investigative and toxicologic Pathologist, Excilone)</i> Learning objectives : To provide an understanding/knowledge of a panel of other molecular pathology techniques
Session 1-1	
12:30 - 13:30	LUNCH
13:30 - 14:30	IHC troubleshooting - <i>Stéphane LEZMI</i> Learning objectives: To provide understanding/knowledge on IHC artefacts, their impact and troubleshooting strategy.
14:30 - 15:45	TCR - work in 2 groups - <i>Anne-Laure BAUCHET & Stéphane LEZMI</i> Learning objectives: To provide an understanding/knowledge of key concepts on biomarkers and application to immunohistochemistry (IHC).
Coffee break	
16:00 - 17:15	Use of IHC in translational drug development – work in 2 groups <i>Anne-Laure BAUCHET & Stéphane LEZMI</i> Learning objectives: To provide an understanding/knowledge of on- and off-target evaluation before the first use in human.
17:15 - 17:30	Wrap up & Q&A

DAY 2 - MOLECULAR PATHOLOGY TECHNIQUES / DIGITAL PATHOLOGY

09:00 - 10:00	Techniques for detection of RNAs in tissue sections: technique and applications <i>Dirk SCHAUDIEN (Pathologist, Fraunhofer ITEM)</i> Learning objectives: To provide an understanding/knowledge of techniques for detection of RNA in situ in tissue sections
Coffee break	
10:30 - 12:00	What covers digital pathology? <i>Lise BERTRAND (EU Digital Pathology Lead, Charles River) & Erio BARALE-THOMAS (Scientific Associate Director, Pathology – Janssen R&D)</i> Learning objectives: To provide general understanding/knowledge of a digital pathology system
Session 2-1	
12:00 - 13:00	LUNCH
13:00 - 15:00	How can digital pathology help drug development? - <i>Lise BERTRAND & Erio BARALE-THOMAS</i> Learning objectives: To provide information on how digital can benefit to drug development
Coffee break	
15:30 - 17:00	How can AI help drug development? - <i>Lise BERTRAND & Erio BARALE-THOMAS</i> Learning objectives: To provide an understanding/knowledge of the use of artificial intelligence during drug development.
17:00 - 17:30	Wrap up & Q&A

DAY 3 - BASICS IN IMAGE ANALYSIS

09:00 - 10:30	Image analysis, key concepts and tools <i>Lev STIMMER (ICM - Brain & Spine Institute)</i> <i>Nelly PIROT (RHEM team manager, IRCM, Inserm, France)</i> Learning objectives: To provide general understanding/knowledge of image analysis.
Coffee break	
11:00 - 12:30	Image analysis, key concepts and tools, applications - <i>Lev STIMMER & Nelly PIROT</i>
12:30 - 13:30	LUNCH
13:30 - 15:30	Workshop: set up of a image analysis strategy – work in groups- <i>Lev STIMMER & Nelly PIROT</i> Learning objectives: To provide practical knowledge on the potential strategies to set up image analysis in your projects. Coffee break
16:00 - 16:30	Wrap up, Q&A & survey

MADPATH course design committee
Florence Bernex, Elie Dagher,
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WHAT IS MADPATH ?

MADPATH is a 3-day training course initially designed for veterinary pathology residents as well as pathologists and researchers who wish to discover, increase their skills and improve their knowledge in molecular and digital pathology techniques. This course has been prepared by the French Society of Toxicologic Pathology, the European Society of Toxicologic Pathology and the Veterinary School of Nantes (Oniris VetAgroBio) in order to meet the educational needs of the future generation of pathologists and scientists who are more and more involved in these techniques. The courses will be given by experts in the field who will present the state of the art in both complementary fields.



WHO ?

- Pathologists and research scientists / Students

EVENT DATES



14 - 16 April 2026



LOCATION

Oniris - Nantes (France)
Veterinary campus

REGISTRATION FEE

Research scientists (Private full program
presential session)
650 € Net of tax

Research scientists (Public full program
presential session)
450 € Net of tax

Distance learning (only sessions 1-1; 2-1)
250 € Net of tax

VALIDATION: Certificate of continuing

Registration : <https://connectpro.oniris-nantes.fr> Veterinary field section short courses

The number of places is limited. The choice of participating auditors will be made by the SFPT. Those selected will receive an email confirming registration.