

MOLECULAR AND DIGITAL PATHOLOGY  
(MADPATH)

Société Française  
de Pathologie Toxicologique

**PROGRAM** (Course exclusively in English and in presential due to its interactive nature)

**DAY 1 - MOLECULAR PATHOLOGY TECHNIQUES**

08:30 - 09:00	Welcome coffee and introduction
09:00 - 12:30	Immunohistochemistry (IHC) Introduction to IHC <i>Anne-Laure BAUCHET (IHC team manager &amp; Translational medicine Lead, Sanofi)</i> Biomarker validation process from non-clinical to clinical phase <i>Anne-Laure BAUCHET</i> Coffee break Workshop: Validation of a new antibody 2 groups (2x30 min) <i>Anne-Laure BAUCHET, Stephane LEZMI (Investigative and toxicologic Pathologist, Excilone)</i>
12:30 - 13:30	LUNCH
13:30 - 17:00	IHC troubleshootings - <i>Anne-Laure BAUCHET, Stephane LEZMI</i> Tissue cross reactivity : guidelines, methods, scoring, reporting - <i>Anne-Laure BAUCHET</i> Coffee break Workshop: Use of IHC in translational drug development - <i>Anne-Laure BAUCHET</i>
17:00 - 17:30	Wrap up & Q&A

**DAY 2 - MORNING - MOLECULAR PATHOLOGY TECHNIQUES**

08:30 - 09:30	Other techniques Pot-pourri - <i>Stéphane LEZMI</i>
09:30 - 10:00	Coffee break
10:00 - 11:00	In situ hybridization (ISH): Methods and applications <i>Dirk SCHAUDIEN (Pathologist, Fraunhofer ITEM)</i>
11:00 - 12:00	Tissue mass spectrometry: general principles & examples of applications <i>Bogdan Munteanu (Lab head Imaging Mass Spectrometry, Sanofi)</i>
12:00 - 12:30	Wrap up & Q&A
12:30 - 13:30	LUNCH

**DAY 2 - AFTERNOON - DIGITAL PATHOLOGY: USE OF WHOLE SLIDE IMAGING**

13:30 - 15:30	What covers digital pathology? <i>Foundations of WSI technology, hardware, software, IT infrastructure, ancillary data</i> <i>Erio BARALE-THOMAS (Scientific Associate Director, Pathology – Janssen R&amp;D) &amp; Lise BERTRAND (EU Digital Pathology Lead, Charles River)</i>
15:30 - 16:00	Coffee break
16:00 - 17:00	Workshop: How can digital pathology help drug development? Use of Image Viewers (case-centric vs. study centric) in discovery and nonclinical toxicity studies <i>Erio BARALE-THOMAS &amp; Lise BERTRAND</i>
17:00 - 17:30	Wrap up & Q&A

**DAY 3 - DIGITAL PATHOLOGY: IMAGE ANALYSIS AND USE OF ARTIFICIAL INTELLIGENCE**

08:30 - 10:00	Image analysis: theory and practical concerns (first part) Common tools for customization & high throughput computational pathology – how to choose the right tool for the right analytical context? <i>Elton REXHEPAJ (Director of Data Sciences, Bioimaging &amp; Computational Pathology, Sanofi)</i>
10:00 - 10:30	Coffee break
10:30 - 12:00	Image analysis: theory and practical concerns (second part) Hands-on session using the publically available tools on a few examples <i>Elton REXHEPAJ</i>
12:00 - 13:00	LUNCH
13:00 - 14:30	Workshop: set up of a image analysis strategy Practical session to learn how to develop an image analysis solution <i>Elton REXHEPAJ</i>
14:30 - 15:00	Coffee break
15:00 - 16:30	How can AI help drug development? Tools of artificial intelligence and application to selected use cases <i>Erio BARALE-THOMAS &amp; Lise BERTRAND</i>
16:30 - 17:00	Wrap up + survey

MADPATH course design committee  
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Sébastien Laurent, Stéphane Lezmi  
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**WHAT IS MADPATH ?**

MADPATH is a 3-day training course designed initially for residents in veterinary pathology as well as for pathologists and research scientists who want to discover, increase competency and improve knowledge in molecular pathology techniques and digital pathology. This course was prepared by the French Society of Toxicologic Pathology in order to meet the educational needs of the forthcoming generation of pathologists and scientists that are more and more involved in these techniques. The lessons are given by field experts presenting the state of the art in both complementary fields.

**WHO ?**

- Pathologists and research scientists / Students

**EVENT DATES**

4-6 April 2023

**LOCATION**

Oniris - Nantes (France)  
Veterinary campus

**REGISTRATION FEE**

Research scientists (Private)  
800 € Net of tax  
Research scientists (Public)  
650 € Net of tax  
Students (valid proof at the time of registration)  
200 € Net of tax

VALIDATION: Certificate of continuing education completion