



# EUROPEAN MASTER MOLECULAR PATHOLOGY MSc EMMP

MARIUS ILIÉ, PU-PH

FACULTÉ DE MÉDECINE – CHU DE NICE



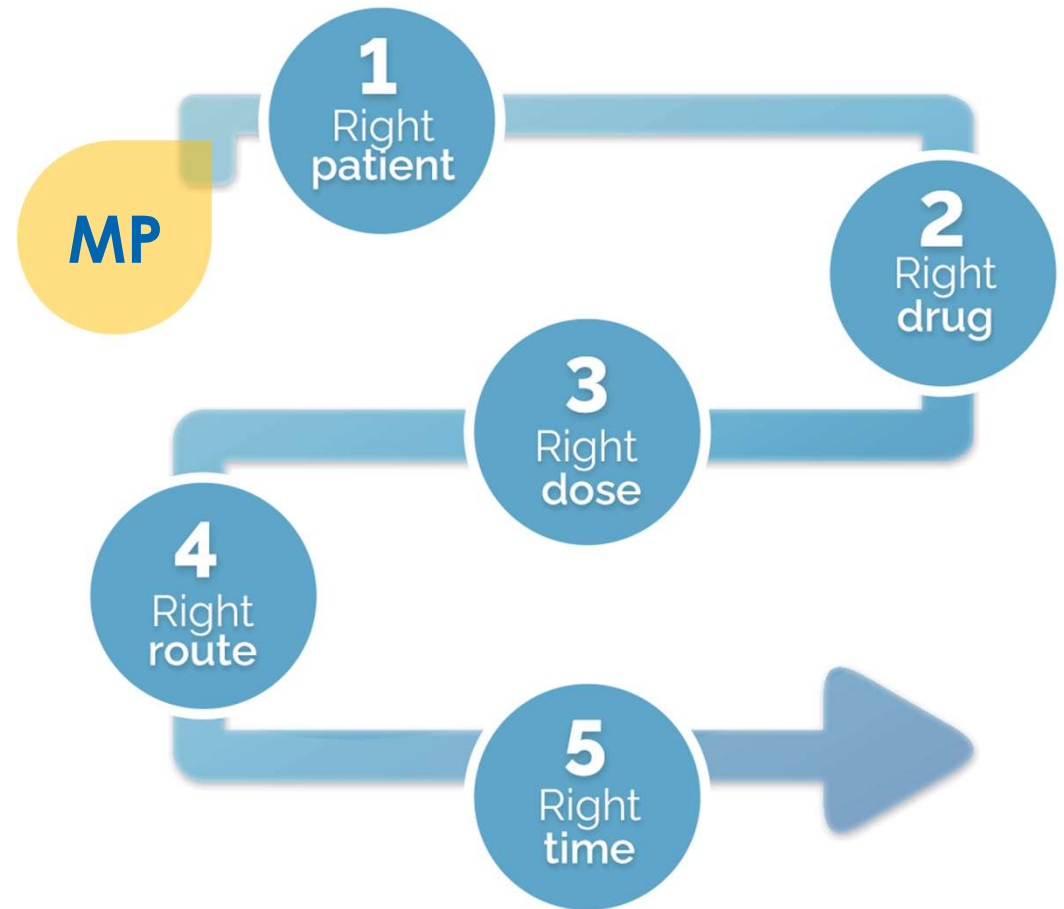
UNIVERSITÉ  
CÔTE D'AZUR



# Molecular Pathology

Patient care and safety  
through investigation of  
tissue and fluids

Correct diagnosis  
&  
personalized therapy



Challenges

Pathology

Molecular  
Pathology

Low standardization  
Rapid evolution in technologies  
At the border of research

Histology

Standardized  
International codification  
Medical Schools

Macroscopy

# Rationale

- **URGENT NEED !!!**
- Standardization of the molecular analyses
- Safety for patients
- Reproducibility
- Exchangeability among European institutions
- Efficacy of treatments for all patients





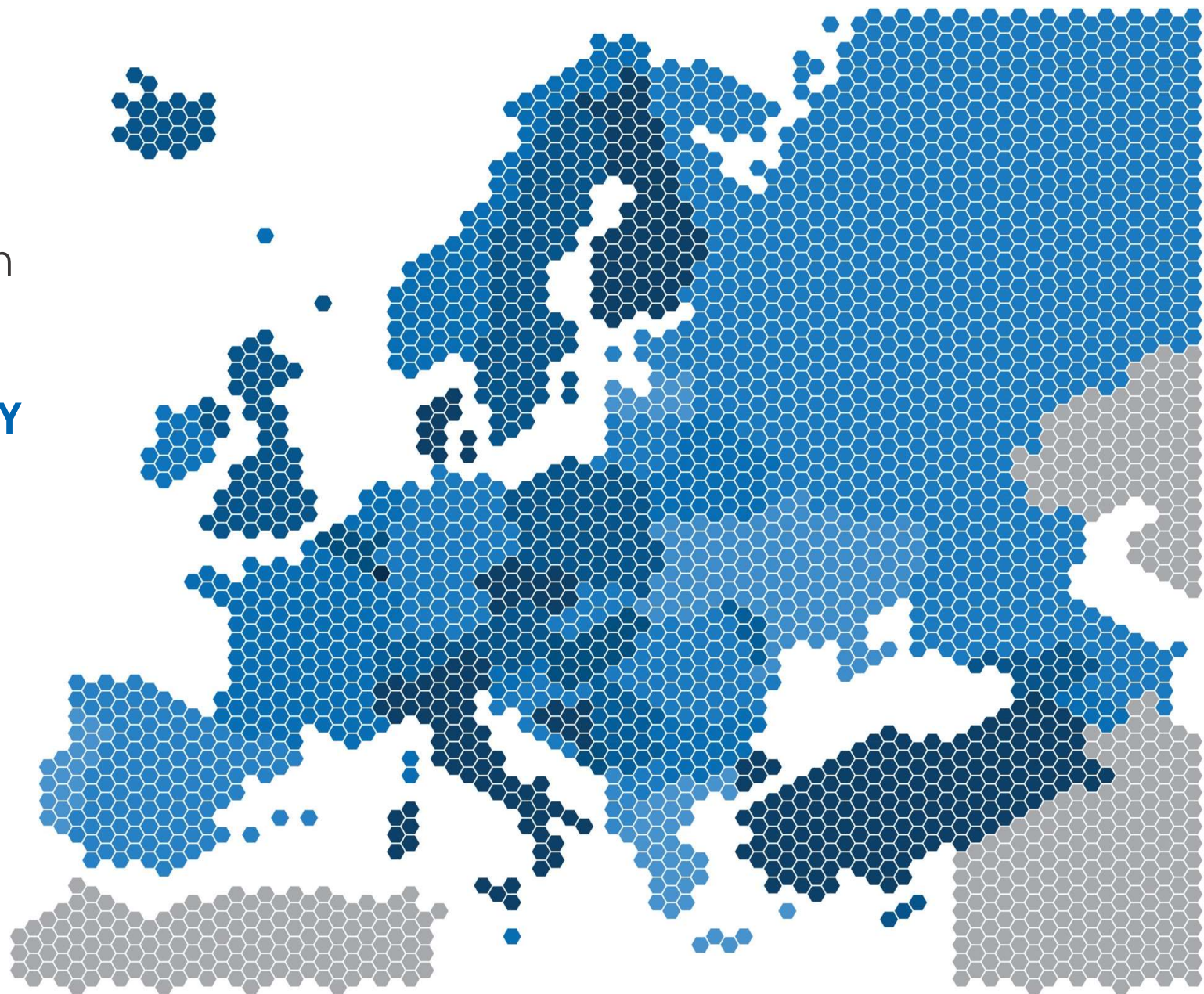
UEMS Pathology Section

## **EUROPEAN MASTER MOLECULAR PATHOLOGY**

**MSc EMMP**

Achieve high quality &  
standardization of  
molecular pathology

Our patients  
All over Europe



# Steering Committee

Marius Ilié & Paul Hofman

- Université Côte d'Azur, Nice, **France**

Enrique de Alava

- Virgen del Rocío University Hospital, Institute of Biomedicine of Seville (IBiS),  
University of Seville-CSIC, **Spain**

Gerald Hoefler

- Director ESP WG Molecular Pathology, Pathology, University of Graz, **Austria**

Falko Fend

- Pathology, Tübingen University, **Germany**

Michael Hummel

- German Molecular Pathology Initiative, Pathology, University of Berlin

Ed Schuurin

- Molecular Pathology, University of Groningen, **The Netherlands**

Henrique Rui and Fernando Schmitt

- Pathology, University of Porto, **Portugal**

Pedro L. Fernandez

- Pathology, Autonomous University of Barcelona, **Spain**

Andrzej Marszałek

- Pathology, Poznan University, **Poland**

Serena Bonin

- Molecular Histopathology Lab, University of Trieste, **Italy**

Matteo Fassan

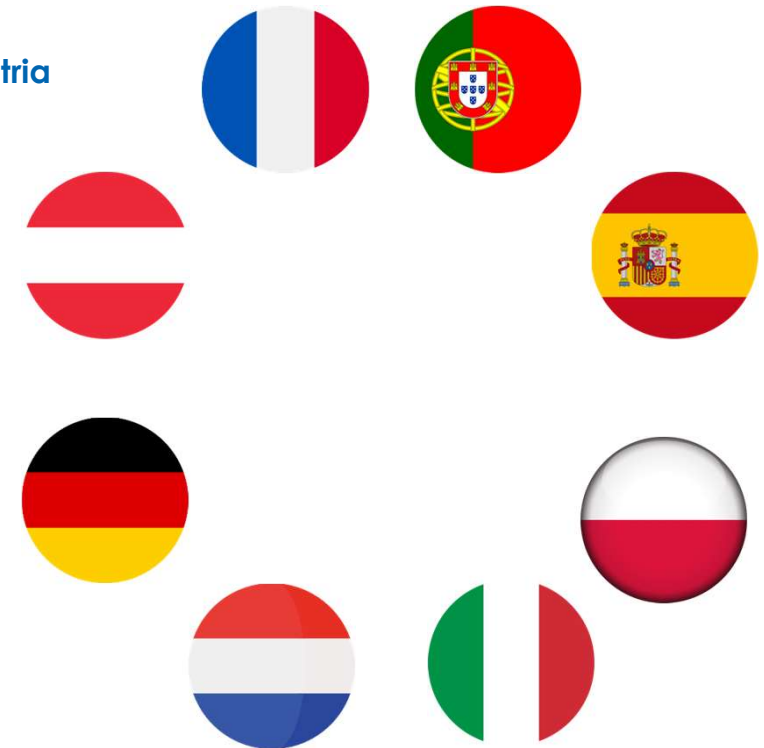
- Pathology, University Padova, **Italy**

Giorgio Stanta

- Chair of Biobanking and Molecular Pathobiology WG OEIC, **Italy**

Ambrogio Fassina

- Chair of Pathology Committee of UEMS and University of Padova, **Italy**



# Partnerships

Ulysseus European University

Pr NGO-MAI



E.g. University of Seville

- Steering Committee
- Will lead several Modules

# Partnerships

- European Society of Pathology (ESP)
- Organization of European Cancer Institutes (OECI)
- European Association for Cancer Research (EACR)
- European Society for Medical Oncology (ESMO)
- Association for Molecular Pathology, USA (AMP)
- MD Anderson Cancer Center, USA
- FHU OncoAge





# Partnerships Industry

Johnson & Johnson

AstraZeneca 

**ThermoFisher**  
S C I E N T I F I C



# Agenda

- 1<sup>st</sup> YEAR: 6 modules + exams
- 2<sup>nd</sup> YEAR: 5 modules + exams + final oral report
- 1 Internship in an accredited lab (EUMS / ESP / MSc EMMP)
- Candidates will present their Master thesis in a **dedicated ceremony** with the MSc EMMP Professors and UEMS Officials in Brussels
- Diploma will be issued by the UEMS and UCA

# Agenda

52 lecturers  
372 hours

1<sup>st</sup> YEAR

2<sup>nd</sup> YEAR

**MODULE 1**

Molecular Biology and Genetics

**MODULE 2**

Transcriptomics

**MODULE 7**

Immunopathology

**MODULE 8**

Quality controls and regulation

**MODULE 3**

Proteomics

**MODULE 4**

Pre-analytical and analytical  
methodology

**MODULE 9**

Digital Pathology, Bioinformatics  
and AI

**MODULE 10**

Accreditation and Biobanking

**MODULE 5**

Applied Molecular Pathology in  
Oncology

**MODULE 6**

Infectious diseases

**MODULE 11**

Research Methods

Lab project



# European benchmarking



## MSc Molecular Pathology

Develop skills for a career in clinical practice, the NHS, diagnostic laboratories, the pharmaceutical industry or academic research.

Master of Science  
1 year full time

### Fees

UK students (per annum):  
**£12,000**

International, including EU,  
students (per annum):  
**£26,000**



## Molekulare Medizin Master

Immunology  
Neurosciences  
Infectious diseases  
Oncology

1 year full time

**Fees: 3,000 €**



Hospital Universitario  
Fundación Jiménez  
Díaz, Madrid

Oncology  
Molecular Biology

1 year  
Online program  
**Fees: 6,900 €**

# European Market in Molecular Diagnostics

**2019**

The Europe Molecular  
Diagnostics Market is valued at  
**2574 Million USD**







# EUROPEAN MASTER MOLECULAR PATHOLOGY MSc EMMP

MARIUS ILIÉ, PU-PH

FACULTÉ DE MÉDECINE – CHU DE NICE



UNIVERSITÉ  
CÔTE D'AZUR

