



UNIVERSITÉ DE  
MONTPELLIER  
PROGRAMME D'EXCELLENCE I-SITE

# LabUM EPIGENMED 2024

## Epigenetics in development, reproduction & disease

### PROGRAM

#### WEDNESDAY NOVEMBER 27

13h00 - 14h00 **Welcome of registered participants**

14h00 - 14h15 **Introduction**

Jacques Mercier - Vice-President in charge of Research University of Montpellier  
Robert Feil - Scientific coordinator LabUM EpiGenMed

#### Session Environment, metabolism and epigenetic regulation

Chair : Rosemary Kiernan, Institute of Human Genetics, FR

14h15 - 15h00 **Paternal exposures and health alter the sperm epigenome and associate with disease in the next generation**

**Keynote**

Sarah Kimmins, CHUM University of Montréal, CA

15h00 - 15h30 **Epigenetics routes to antifungal drug resistance**

Robin Allshire, University of Edinburgh, UK

#### Coffee break & poster session

16h15 - 16h45 **When metabolism meets the epitranscriptome: links between pyruvate metabolism and tRNAs acetylation in the Leigh syndrome**

Laurent Le Cam, Institut de Recherche en Cancérologie Montpellier, FR

16h45 - 17h00 **Inherited Health: The Surprising Role of Paternal Diet and Genetic Factors**

Archana Tomar, Helmholtz Munich, DE

17h00 - 17h15 **Microbial Metabolite PreQ1 and its Role in Modulating Host tRNA Modification, Gene Expression, and Cancer Cell Proliferation**

Kuldeep Lahry, Institut de Recherche en Cancérologie Montpellier, FR

17h15 - 17h45 **Discovery of a new regulatory mechanism in the control of histone acetylation**

Carlo Petosa, Institut de Biologie Structurale, FR

17h45 - 18h15 **Chromatin complexes and Metabolic control of self-identity in Drosophila**

Patrick Jouandin, Institut de Recherche en Cancérologie Montpellier, FR

## THURSDAY NOVEMBER 28

### Session Epigenetic mechanisms in development

Chair: Odil Porrua, Institute of Molecular Genetics of Montpellier, FR

- 09h00 - 09h45**      **Chromatin remodeling of histone variants underlies the epigenetic inheritance of centromeres**  
**Keynote**  
Robert Martienssen, Cold Spring Harbour Laboratory, USA
- 09h45 - 10h15**      **X-chromosome reactivation during female mouse development**  
Maud Borensztein, Institute of Molecular Genetics of Montpellier, FR
- 10h15 - 10h30**      **Cracking the (epi)code: Uncovering Rules in Environmental Epigenetic**  
Patrick Allard, University of California, USA

### Coffee break

- 11h00 - 11h30**      **Exploring the epigenetic dynamics of imprinted X inactivation during early mouse development**  
Emma Kneuss, European Molecular Biology Laboratory Heidelberg, DE
- 11h30 - 12h00**      **LTRs as drivers of genomic imprinting**  
Gavin Kelsey, Babraham Institute, UK
- 12h00 - 12h30**      **Epigenetic regulation of genome function in development and cancer**  
Giacomo Cavalli, Institute of Human Genetics, FR

### Lunch break & poster session

### Session Epigenetic mechanisms in development

Chair: Charlène Boumendil, Institute of Human Genetics, FR

- 14h00 - 14h30**      **Uncovering cell fate decisions by integrating transcription factors into RNA-regulatory networks**  
Julie Carnesecchi, Institute of Molecular Genetics of Montpellier, FR
- 14h30 - 14h45**      **Deciphering the chromatin landscape and regulatory logic behind lymphatic endothelial cells using a multi-omic approach**  
Virginia Panara, Uppsala University, SE
- 14h45 - 15h15**      **RNA condensates in oocyte adaptation to quiescence and stress**  
Arnaud Hubstenberger, Institut de Biologie Valrose, FR

### Coffee break

- 15h45 - 16h15**      **Germ granule higher-order organization coordinates their different functions**  
Anne Ramat, Institute of Human Genetics, FR
- 16h15 - 16h30**      **Interplay between cell differentiation and chromatin landscape**  
Lara El Berjawi, IGBMC Illkirch, FR
- 16h30 - 17h00**      **Link between pseudouridine, carbohydrate metabolism and drosophila behavior**  
Jean-Yves Roignant, University of Lausanne, CH

**17h00 - 17h30**    **The spark of life. Initiating transcription in embryos**  
Nadine Vastenhouw, University of Lausanne, CH

**Gala Dinner: Brasserie du Corum**

## **FRIDAY NOVEMBER 29**

**Session Reproduction and transgenerational inheritance**  
**Chair: Martine Simonelig, Institute of Human Genetics, FR**

**09h00 - 09h45**    **Epigenetics, plasticity and evolution in a Lake**  
**Keynote**            Eric Miska, Gurdon Institute, University of Cambridge, UK

**09h45 - 10h15**    **Meiosis at the heart of epigenetic reprogramming**  
Frédéric Berger, Gregor Mendel Institute of Molecular Plant Biology, AT

**10h15 - 10h30**    **The question of epimutation: How does epigenetic information become heritable?**  
Maximilian Fitz-James, University of Oxford, UK

**10h30 - 10h45**    **Sexually-dimorphic modulation of mammalian embryonic growth by intracellular glycosylation**  
Sara Formichetti, European Molecular Biology Laboratory, IT

### **Coffee break & poster session**

**11h30 - 12h00**    **Small RNAs in Epigenetic Inheritance: a lesson from worms**  
Germano Cecere, Institut Pasteur, FR

**12h00 - 12h30**    **Paternal effects in mammals: tRNA fragments and beyond**  
Ana Boskovic, European Molecular Biology Laboratory Rome, IT

**12h30 - 13h00**    **Safeguarding germline immortality**  
Dónal O'Carroll, University of Edinburgh, UK

**13h00 - 13h10**    **Closure**

**Buffet**