

Paris-Munich Epigenetics Symposium 2023

Wednesday June 14 – Friday June 16, 2023

Max Planck Institute of Biochemistry

Large Auditorium of the T-Building,

Am Klopferspitz 18, 82152 Planegg-Martinsried, Germany

Symposium Programme

Wednesday, June 14

15:00 - 17:00 **Registration open** – arrival of speakers & general participants

17:00 - 17:15 **Welcome and introduction** for symposium by the Organizers

Session 1 – DNA Methylation I – Chair: Heinrich Leonhardt

17:15 - 17:45 **THOMAS CARELL** (CuP, LMU Munich)

High and specific anti-leukemic activity with a carbocyclic 5-azacytosine-based DNMT inhibitor

17:45 - 18:15 **MAXIM GREENBERG** (Institut Jacques Monod, Paris)

Non-canonical functions of DNA methylation during epigenetic reprogramming in mammals

18:15 - 19:00 EMBO YIP guest lecturer - **EDDA SCHULZ** (MPI Molecular Genetics Berlin)

Signal decoding at the Xist locus

Speakers' dinner (Biergarten Waldheim)

Free evening in Munich for students/post-docs and other participants

Thursday, June 15

Session 2 – DNA Methylation II – Chair: Pierre-Antoine Defossez

09:00 - 09:30 **DÉBORAH BOURC'HIS** (Institut Curie, Paris)

DNA methylation and methylation control during early cellular decisions

09:30 - 10:00 **HEINRICH LEONHARDT** (Human Genetics & BioImaging, LMU Munich)

Regulation of DNA modifications in mammals

10:00 - 10:15 Short talk - **Annika Menke** (CuP, LMU Munich)

Modelling TET Enzyme Reactivity with Synthetic Iron(IV)-oxido Complexes and a Variety of Epigenetically Relevant Substrates

10:15 - 10:30 Short talk - **Margherita Mori** (Université Paris Cité)

Deciphering DNA methylation maintenance mechanisms in response to UV damage in mammalian cells

Coffee break in Foyer

(Thursday, June 15)

Session 3 - Quantitative Approaches – Chair: Kikuë Tachibana

- 11:00 - 11:30 **MARIA COLOMÉ-TATCHÉ** (Physiological Chemistry, LMU Munich)
Studying heterogeneity in cell populations with epigenomic measurements
- 11:30 - 12:00 **TILL BARTKE** (Helmholtz Munich)
Decoding chromatin states by proteomic profiling of modification-dependent nucleosome readers
- 12:00 - 12:15 Short talk - **Gabriele Lubatti** (IES, Helmholtz Munich)
CIARA: a cluster independent algorithm for the identification of markers of rare cell types from single cell omics data
- 12:15 - 12:30 Short talk - **Julien Richard Albert** (Institut Jacques Monod, Paris)
Epigenetic switcheroo: A genetic and computational approach to investigate the interplay between DNA methylation and Polycomb in mouse development
- 12:30 - 13:00 **10 Poster Flash Talks** (2.5 min. each) - **Yixuan Fu** (University of Zurich), **Teresa Urli** (Institut Jacques Monod, Paris), **Xiaoying Chen** (Université Paris Cité), **Emmanuel García Sánchez** (IGBMC, Illkirch, France), **Franziska Greulich** (TU Munich), **Arohi Khurana** (IFE, Helmholtz Munich), **Marlet Morales-Franco** (Helmholtz Munich), **Sandra Nitsch** (IFE, Helmholtz Munich), **Bihter Özdemir-Aygenli** (IFE, Helmholtz Munich), **Anuroop V Venkatasubramani** (BMC, LMU Munich)

Lunch break (MPI Canteen) – "Meet the Speakers" for students/post-docs

14:00 – 16:00 – POSTER SESSION (including selection of poster prize)

Coffee, drinks and light snacks available in Foyer

Session 4 – Chromatin Regulation – Chair: Sophie Polo

- 16:00 - 16:30 **PIERRE-ANTOINE DEFOSSEZ** (Université Paris Cité)
New functions of UHRF1 in DNA methylation
- 16:30 - 17:00 **RAPHAËL MARGUERON** (Institut Curie Paris)
Polycomb complex PRC2 regulation in the germline
- 17:00 - 17:15 Short talk - **Marlies Oomen** (IES, Helmholtz Munich)
The transcriptional repertoire of transposable elements during mammalian preimplantation development
- 17:15 - 17:30 Short talk - **Emeline Roger** (Institut Curie Paris)
Chromatin and TE control: yet another discovered pathway

Coffee break in Foyer

(Friday, June 16)

- 18:00 - 18:30 **CLAIRE ROUGEULLE** (Université Paris Cité)
Control of X chromosome activity in early primate development
- 18:30 - 19:00 **KIKUË TACHIBANA** (MPI Biochemistry, Martinsried)
Orphan nuclear receptor Nr5a2 is the “spark of life” that awakens the zygotic genome
- 19:00 - 19:30 **MARIA ELENA TORRES-PADILLA** (IES, Helmholtz Munich)
Epigenetic mechanisms of cellular plasticity and reprogramming to totipotency

Buffet Dinner, Mix & Mingle with drinks and music in the MPI Canteen

Friday, June 16

Session 5 – Chromatin Dynamics – Chair: Till Bartke

- 09:00 - 09:30 **GENEVIÈVE ALMOUZNI** (Institut Curie Paris)
Histones variants and friends, a state of play for shaping chromatin and cell fate
- 09:30 - 10:00 **SOPHIE POLO** (Université Paris Cité)
Mitotic chromatin marking governs asymmetric segregation of DNA damage
- 10:00 - 10:15 Short talk - **Anupam Bhoi** (TU Dresden)
Conformational Dynamics of the ISWI nucleosome remodelling enzyme
- 10:15 - 10:30 Short talk - **Lena Paasche** (Institute for Genetics, JLU Giessen)
Function of the H2A.Z-associated protein ZNF512B in differentiation and chromatin organization processes

Coffee break

- 11:00 - 11:15 Short talk - **Lexi Gao** (MPI Biochemistry, Martinsried)
Transfer RNA pools in human cells are controlled by selective gene expression
- 11:15 - 11:30 Short talk - **Vera Manelli** (Helmholtz Munich)
Neurog2 and its cofactors as potential drivers of enhancer-promoter contacts during mouse cortical development
- 11:30 - 12:00 **PETER BECKER** (Molecular Biology, LMU Munich)
Analysis of transcription factor interactions with in vitro-assembled naïve embryonic chromatin
- 12:00 - 12:15 **Poster/Short Talk prizes and concluding remarks**

End of Symposium - departure of speakers & general participants