Chromatin and Epigenetics: Inheritance and Design
April 1-3, 2019
Munich, Germany

Conference Program

Monday, April 1

11:30 – 13:00  Panel discussion: Ethics in research publishing (Room 041 Building 36.20)
13:00 – 14:00  Coffee and Registration

**Session 1:**  
**Chairs:** Maria Colomé-Tatché and Robert Schneider

Reading and writing modifications

14:00 – 14:15  Welcome
14:15 – 14:45  Kristian Helin (Memorial Sloan Kettering Cancer Center, US)  
*Role of the Polycomb repressive complex 2 (PRC2) in transcriptional regulations and cancer*

14:45 – 15:15  Karmella Haynes (Emory University, US)  
*Synthetic reader-effectors for epigenetic reprogramming of genes in cancer*

15:15 – 15:35  Philipp Voigt (Wellcome Trust Centre for Cell Biology, UK)  
*Nucleosomal Asymmetry Shapes Histone Mark Binding at Bivalent Domains*

15:35 – 15:55  Marc Timmers (German Cancer Research Center, Germany)  
*Chaperones and Transcription Complex Assembly*

15:55 – 16:30  Coffee break

16:30 – 16:50  Sophie Polo (CNRS/Universite Paris Diderot, France)  
*Epigenome maintenance in response to DNA damage*

16:50 – 17:10  Raffaela Santoro (University of Zurich, Switzerland)  
*NoRC complex safeguards genome architecture of ground-state pluripotent stem cells*

17:10 – 17:30  Valentina Ignatova (Helmholtz Zentrum München, Germany)  
*Characterization of novel RNA methyltransferases*

17:30 – 18:00  Tony Kouzarides (The Gurdon Institute, UK)  
*Modifications of RNA: their function and role in cancer*

18:00 – 18:35  Poster Flash Talks

**Free evening**
Tuesday, April 2

Session 2: Chairs: Manolis Papamichos-Chronakis and Poonam Bheda

Global chromatin interactions

09:00 – 09:30
Wendy Bickmore (University of Edinburgh, UK)
The remote control of gene expression

09:30 – 09:50
Sandro Baldi (Biomedical Center LMU Munich, Germany)
Principles of nucleosome phasing revealed by genome-wide mapping and in-vitro reconstitution

09:50 – 10:10
Magda Bienko (Karolinska Institute, Sweden)
Radial organization of the genome revealed by GPSeq

10:10 – 10:40
Bas van Steensel (The Netherlands Cancer Institute, The Netherlands)
Large-scale perturbation approaches to study chromatin and gene regulation

10:40 – 11:10
Coffee break

11:10 – 11:20
Abcam

11:20 – 11:50
Frederic Berger (Austrian Academy of Sciences, Austria)
Histone variants: architects of genome functional organization

11:50 – 12:10
Michiel Vermeulen (Radboud University Nijmegen, The Netherlands)
Deciphering chromatin biology in health and disease using integrative omics approaches

12:10 – 12:40
Beat Fierz (Ecole Polytechnique Fédérale de Lausanne, Switzerland)
Probing the dynamic interaction landscape of modified chromatin

12:40 – 13:30
Lunch

13:30 – 15:30
Poster session and coffee

Session 3: Chairs: Thomas Cremer and Boris Pfander

Decoding the future

15:30 – 16:00
Hendrik Dietz (Technische Universität München, Germany)
DNA machines of the future

16:00 – 16:20
Tuncay Baubec (University of Zurich, Switzerland)
Engineered chromatin readers reveal the genome-wide proteome composition at key chromatin states in living cells

16:20 – 16:40
Nadine Vastenhouw (Max Planck Institute, Germany)
Transcription organizes euchromatin via microphase separation

16:40 – 17:00
Till Bartke (Helmholtz Zentrum München, Germany)
Decoding chromatin modification states using chemical biology and computational proteomics

17:00 – 17:40
Coffee break

17:40-18:00
Maria Elena Torres Padilla (Helmholtz Zentrum München, Germany)
Epigenetic mechanism in early development
18:00 – 19:00  **Keynote Speaker:** Azim Surani (The Gurdon Institute, UK)
*From genomic imprinting to the human germline*

19:15  Dinner and disco

**Wednesday, April 3**

**Session 4:**  **Chairs:** Stephan Hamperl and Jacqueline Mermoud
*Modelling and reprogramming chromatin*

09:00 – 09:30  Eileen Furlong (EMBL, Germany)
*Developmental enhancers and their function within three dimensional topologies*

09:30 – 09:50  Verena Heinrich (Max Planck Institute, Germany)
*CRUP: A comprehensive framework to predict condition-specific regulatory units*

09:50 – 10:10  Juanma Vaquerizas (Max Planck Institute, Germany)
*Transposable element-driven reorganisation of 3D chromatin during early embryonic development*

10:10 – 10:40  Fabian Theis (Helmholtz Zentrum München, Germany)
*Machine learning in single cell gemonics*

10:40 – 11:10  Coffee break

11:10 – 11:40  Gavin Kelsey (Babraham Institute, UK)
*A mutation in DNMT3A enhances methylation of bivalent chromatin*

11:40 – 12:00  Raffaele Tepperino (Helmholtz Zentrum München, Germany)
*Paternal overweight controls transgenerational metabolic health via Polycomb*

12:00 – 12:20  Maria Colomé-Tatché (Helmholtz Zentrum München, Germany)
*Episcanpy: single cell epigenomics*

12:20 – 12:40  Andrea Schorn (Cold Spring Harbor Laboratory, US)
*tRNA-derived small RNAs support genome stability during epigenetic reprogramming*

12:40 – 13:25  Lunch

13:25 – 15:30  Poster session and coffee

**Session 5:**  **Chair:** Thomas Cremer
*Epigenome maintenance*

15:30 – 16:00  Rob Martienssen (Cold Spring Harbor Laboratory/Howard Hughes Medical Institute, US)
*The chromosomal impacts of small RNA*

16:00 – 16:20  Ana Boskovic (University of Massachusetts, US)
*Molecular mechanism of paternal contribution to epigenetic inheritance in mice*

16:20 – 16:40  Andreas Ladurner (Ludwig Maximilians University of Munich, Germany)
*The S. pombe histone chaperone FACT and H2B ubiquitination maintain genic and intergenic genome architecture*
16:40 – 17:10 Robin Allshire (University of Edinburgh, UK)
Establishment and maintenance of specialised chromatin domains

17:10 – 17:15 Closing remarks