6th TRR 81 Symposium
"Chromatin Changes in Differentiation and Malignancies"

27th to 29th September 2022 in Egmond aan Zee, The Netherlands

Tuesday, 27th September

15:00 - 16:00 **Registration**

16:00 - 16:15 **Welcome: Alexander Brehm**

16:15 – 17:00 **Welcome Keynote:**
Multi-tasking in instructed cell differentiation: the Mowat-Wilson Syndrome transcription factor ZEB2
Danny Huylebroeck
Erasmus MC, Rotterdam, The Netherlands

17:00 - 17:15 **Poster Tidbits A-K**

17:15 - 17:30 **Coffee Break**

Session 1: Histone Modifications and Variants

Chair: Uta-Maria Bauer

17:30 - 17:55 **Regulation of centromere function by PTMs on the centromeric H3 variant CENP-A/ Cse4 in yeast**
Ann Ehrenhofer-Murray
Institute for Biology, Berlin, Germany

17:55 - 18:20 **H2A.Z's "social" network: functional partners of an enigmatic histone variant**
Sandra B. Hake
Institute for Genetics, Gießen, Germany

18:20 - 18:35 **Short talk: The H2A.Z-associated protein ZNF512B in chromatin organization and differentiation**
Lena Paasche
Institute for Genetics, Gießen, Germany

18:35 - 19:00 **From the structure of Poly-ADP-Ribose-activated chromatin remodeler ALC1 to allosteric cancer therapies**
Andreas Ladurner
Biomedical Center, Munich, Germany

19:00 - 19:15 **Poster Tidbits L-R**

20:00 **Dinner**

Wednesday, 28th September

Session 2: Structural Organization of the Chromosome

Chair: Joost Gribnau

09:00 - 09:25 **Assembly and targeting of a global epigenetic regulator containing lncRNA**
Peter Becker
Biomedical Center, Munich, Germany

09:25 - 09:50 **Delving into primate X chromosome inactivation**
Claire Rougeulle
Epigenetics and Cell Fate Centre, Paris, France

09:50 - 10:05 **Short talk: Notch-dependent and -independent functions of transcription factor RBPJ**
Tobias Friedrich
Institute for Biochemistry, Gießen, Germany

10:05 - 10:30 **Coordination of chromatin functions and genome stability by the nuclear membrane protein Lem2**
Sigurd Braun
Institute for Genetics, Gießen, Germany

10:30 - 11:00 **Coffee Break**

Session 3: The Genome in Three-Dimensional Space

Chair: Frank Grosveld

11:00 - 11:25 **Initiating and manipulating individual cohesin loop extrusion trajectories in living cells**
Wouter de Laat
Hubrecht Institute for Developmental Biology and Stem Cell Research, Utrecht, The Netherlands

11:25 - 11:50 **RNA polymerases are essential for 3D chromatin folding and antagonise loop extrusion**
Argyris Papantonis
Institute of Pathology, Göttingen, Germany

11:50 - 12:15 **Multi-scale epigenomic priming of inflammatory genes enables rapid recall in human memory T helper cells**
Ralph Stadhouders
Erasmus MC, Rotterdam, The Netherlands

12:15 - 12:40 **Genome organization in and around the nucleolus**
Raffaella Santoro
Department of Molecular Mechanisms of Disease, Zurich, Switzerland

12:40 - 12:55 **Poster Tidbits S-Z**

12:55 - 15:00 **Lunch & Poster Session I (A-M)**

Session 4: Dynamics of Transcription and RNA Processing

Chair: Sandra B. Hake

15:00 - 15:25 **Cell-type specific gene regulatory networks to investigate ageing and disease**
Judith Zaugg
European Molecular Biology Laboratory, Heidelberg, Germany

15:25 - 15:50 **Noisy neighbors: How DNA supercoiling affects transcriptional bursting of adjacent genes**
Tineke Lenstra
Netherlands Cancer Institute, Amsterdam, The Netherlands

15:50 - 16:15 **Chromatin can go beyond the DNA: a dynamic role for histone marks in regulating cell type-specific RNA splicing programs relevant for cell identity.**
Reini Fernandez de Luco
Institute of Human Genetics, Montpellier, France

16:15 - 16:40 **The complex role of the nuclear cap binding complex in gene expression revealed by degron-mediated depletion in a mammalian system**
Marek Bartkuhn
Biomedical Informatics and Systems Medicine, Gießen, Germany

16:40 - 17:00 **Coffee Break**

Session 5: Chemical Epigenetics

Chair: Sjaak Philipsen

17:00 - 17:25 **Uncovering Cancer-Associated Epigenetic Events Using Novel Chemical Tools**
Yael David
Memorial Sloan Kettering Cancer Center, New York, United States of America

17:25 - 17:40 **Short talk: Ambivalent hangovers: A transcription factor that interacts with activating and repressive chromatin modifiers.**
Jonathan Lenz
Institute of Molecular Biology and Tumor Research, Marburg, Germany

17:40 - 17:55 **Short talk: The p65 NF-kB proximity-labelled interactome reveals a multi-level crosstalk with the lysosomal transcription factor system**
Lisa Leib
Rudolf Buchheim Institute of Pharmacology, Gießen, Germany

17:55 – 18:10 **Short talk: Elucidating the role of the DREAM complex in small-cell lung cancer (SCLC) using advanced CRISPR mouse models**
Katharina Kochhan
Institute of Molecular Oncology, Marburg, Germany

18:10 - 18:35 **Optochemical Control of Epigenetics**
Olalla Vázquez
Department of Chemistry & Center for Synthetic Micro-biology (SYNMIKRO), Marburg, Germany

20:00 Dinner

Thursday, 29th September

Session 6: Enhancer Function in Differentiation and Disease

Chair: Debbie van den Berg

09:45 - 10:10 **Epigenetic changes arising from acute depletion of the tumour suppressor ARID1A**
Tom Owen-Hughes
Centre for Gene Regulation & Expression, Dundee, United Kingdom

10:10 - 10:35 **Gene repression dynamics are modulated by transiently active regulatory elements**
Marit Vermunt
Children's Hospital of Philadelphia, United States of America

10:35 - 10:50 **Short talk: Severe COVID-19-associated variants linked to chemokine receptor gene control in monocytes and macrophages**
Bernard Stikker
Erasmus MC, Rotterdam, The Netherlands

10:50 – 11:15 **Super-enhancers require both enhancers and facilitators to fully activate gene expression**
Douglas Higgs
MRC Weatherall Institute of Molecular Medicine, Oxford, United Kingdom

11:15 - 13:30 **Poster Session II (N-Z) & Lunch**

Session 7: Chromatin Changes in Neuronal Differentiation

Chair: Raymond Poot

13:30 - 13:55 **Morphogen regulated developmental cell fate choice employs two distinct cis regulatory strategies**
James Briscoe
Francis Crick Institute, London, United Kingdom

13:55 - 14:20 **Modelling CdLS in human brain organoids**
Debbie van den Berg
Erasmus MC, Rotterdam, The Netherlands

14:20 - 14:35 **Short Talk: Using an MPRA to explore the non-coding genome in neurodevelopmental disorders**
Noud Klaassen
Netherlands Cancer Institute, Amsterdam, The Netherlands

14:35 - 15:00	**Single cell epigenomic reconstruction of human brain organoid development** Fides Lea Zenk *ETH Zürich, Basel, Switzerland*
15:00 - 15:30	**Final conclusions & poster prizes**
15:30	**End of symposium**