2nd European Cancer Epigenetics Conference

Heidelberg, 11th - 13th May 2017

Venue:
German Cancer Research Center (DKFZ)
Im Neuenheimer Feld 280
69120 Heidelberg
Germany

Organizers:

Frank Lyko          DKFZ, Epigenetics, f.lyko@dkfz.de
Christoph Plass    DKFZ, Epigenomics and Cancer Risk Factors, c.plass@dkfz.de
Karsten Rippe      DKFZ, Genome Organization and Function, karsten.rippe@dkfz.de
Manon van Engeland Maastricht University, manon.van.engeland@mumc.nl
Olaf Witt           Heidelberg University / DKFZ, Pediatric Oncology, o.witt@dkfz.de
Day 1 - May 11th, 2017

13:00 – 14:00  Registration & Lunch

14:15 – 14:25  Welcome on behalf of the Scientific Organizers: Prof. Christoph Plass

Session 1 - Mechanisms of epigenetic deregulation
Chair: Christoph Plass (DKFZ)

14:25 - 14:50  Iñaki Martin-Subero, IDIBAPS, Barcelona, Spain
Decoding the epigenome of normal and neoplastic B cells: biological and clinical impact

14:50 - 15:15  Stephan Beck, UCL Cancer Institute, London, UK
From profiles to function

15:15 - 15:40  Joseph Costello, UCSF, San Francisco, CA, USA
Driver lessons from brain tumor evolution

15:40 - 16:10  Coffee break

16:10 - 16:35  Manel Esteller, IDIBELL Bellvitge Biomedical Research Institute, Barcelona, Spain
Cancer Epigenome and Epitranscriptome: From Knowledge to Applications

16:35 - 16:50  Christoph Plass, DKFZ, Heidelberg, Germany
DNMT and HDAC inhibitors globally induce cryptic TSSs encoded in long terminal repeats

16:50 - 17:05  Toshikazu Ushijima, National Cancer Center Research Institute, Tokyo, Japan
Clinical impact of epigenetic cancer risk diagnosis

17:05 - 17:20  Desiree Melanie Schneider, DKTK Partner University Hospital Freiburg, Germany
RNAi-based functional identification of epigenetic response modifiers impacting DNA methylation inhibitors in AML

17:20 - 20:00  Poster Session & Dinner Reception

Day 2 - May 12th, 2017

Session 2 - Single Cell Epigenomics & Transcriptomics in Cancer
Chair: Karsten Rippe (DKFZ)

09:00 - 09:25  Beat Fierz, EPFL, Lausanne, Switzerland
Probing the multivalent readout of chromatin modification patterns

09:25 - 09:50  Ana Pombo, MDC, Berlin, Germany
Genome Architecture Mapping, a new approach to map single-cell chromatin contacts

09:50 - 10:05  Karsten Rippe, DKFZ, Heidelberg, Germany
Dissecting deregulated enhancer activity in chronic lymphocytic leukemia by single cell sequencing
2nd European Cancer Epigenetics Conference in Heidelberg

10:05 – 10:20 **Anne Zirkel**, University of Cologne, Germany
Topological demarcation by HMGB2 is disrupted early upon senescence entry and induces CTCF clustering across cell types

10:20 - 10:35 **Lars Velten**, EMBL, Heidelberg, Germany
Human haematopoietic stem cell lineage commitment is a continuous process

10:35 - 10:50 Coffee break

**Session 3 - Epigenetic programming and epigenetic plasticity**
Chair: Frank Lyko (DKFZ)

10:50 - 11:15 **Christoph Bock**, CeMM, Vienna, Austria
Toward high-throughput functional epigenomics using CRISPR single-cell sequencing

11:15 - 11:40 **Yehudit Bergman**, Hebrew University, Jerusalem, Israel
Epigenetic programming of allelic choice

11:40 - 12:05 **Dirk Schübeler**, FMI, Basel, Switzerland
Reading and writing DNA methylation

12:05 - 12:20 **Frank Lyko**, DKFZ, Heidelberg, Germany
Cell-of-origin differentiation stages define methylation-based subtypes of colorectal cancer

12:20 - 12:35 **Gabriella Ficz**, Barts Cancer Institute, London, UK
Hit-and-run epigenetic editing enables senescence escape in primary breast myoepithelial cells from healthy donors

12:35 – 12:50 **Francesco Neri**, Leibnitz Institute on Aging, Jena, Germany
Intragenic DNA methylation prevents spurious transcription initiation

12:50 - 13:30 Lunch

**Session 4 - Cancer Epigenomes/Translational epigenetics**
Chair: Manon van Engeland (Maastricht University)

13:30 - 13:55 **James Herman**, University of Pittsburgh, Pittsburgh, USA
Taking the Epigenome to the Cancer Patient

13:55 - 14:20 **François Fuks**, University of Brussels, Brussels, Belgium
DNA modifications: from Mechanisms to Genome-Wide Profiling in Cancers

14:20 - 14:45 **Monika Hegi**, Lausanne University Hospital, Lausanne, Switzerland
From Translational Studies to Personalized Therapy in Glioma – the MGMT story

14:45 - 15:00 **Manon van Engeland**, Maastricht University, Maastricht, The Netherlands
Cancer DNA methylation markers: promise versus practice

15:00 - 15:15 **Pavlo Lutsik**, DKFZ, Heidelberg, Germany
MeDeCom: reference-free decomposition of DNA methylomes as a promising tool for unraveling tumor heterogeneity

15:15 - 15:30 **Tine Goovaerts**, The Ghent University, Belgium
The human breast imprintome and its deregulation in cancer

3
2nd European Cancer Epigenetics Conference in Heidelberg

15:30 - 15:50  Coffee break & Group Photo

15:50 - 18:20  Heidelberg City Tour: 10 minutes’ walk to Neckar ferry, departure 16h20, guided tour from Heidelberg Old Bridge: 16h45 - 18h15

19:00  Speaker’s Dinner, Old Town Heidelberg
Restaurant Oskar, Haspelgasse 5, 69117 Heidelberg

Day 3 - May 13th, 2017

09:00 - 09:45  Keynote Lecture
Stephen B. Baylin, The Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD. USA
The Cancer Epigenome – A Target For Cancer Management?

Session 5 – Clinical Epigenetics
Chair: Olaf Witt (University Heidelberg / DKFZ)

09:45 - 10:10  David Jones, DKFZ, Heidelberg, Germany
DNA methylation profiling as a tool to explore the landscape of human brain tumors

10:10 - 10:35  Stefan Knapp, Institute of Pharmaceutical Chemistry, Goethe-Univ., Frankfurt, Germany
Targeting epigenetic reader domains in cancer

10:35 - 10:50  Tim de Ruijter, Maastricht University, The Netherlands
Prognostic DNA-methylation markers for anti-endocrine treated breast cancer: The trans-DATA study

10:50 - 11:10  Coffee break

11:10 - 11:35  Michael Lübbert, Medical Center - University of Freiburg, Germany
Combination therapies with DNMT inhibitors in acute myeloid leukemia and myelodysplastic syndromes

11:35 - 12:00  Jean-Pierre Issa, Fels Institute for Cancer Research and Molecular Biology, Lewis Katz School of Medicine, Temple University, USA
Expanding the reach of epigenetic therapies

12:00 - 12:15  Olaf Witt, DKFZ, Heidelberg, Germany
Epigenetic treatment approaches in childhood cancers

12:15 - 12:30  Poster and Short Talk Award

12:30  Closing Ceremony & Lunch (to go)