

Scientific programme

DAY 1: Sunday, August 27, 2017

- 15:00 – 17:00 Arrival, registration and welcome get-together
- 17:00 Opening Remarks
- 17:10 – 20:00 **Session 1: Recombination**
Chair: Daniel Camerini-Otero
- 17:10 – 17:32 **Raphael Mercier**, Institute Jean-Pierre Bourgin INRA, France
“What limits meiotic crossovers?”
- 17:32 – 17:54 **Valérie Borde**, Institute Curie, CNRS, France
“The MutL β complex limits the length of gene conversions in meiosis by interacting with the Mer3/HFMI helicase”
- 18:00 – 18:30 Break
- 18:30 – 18:52 **Monica Colaiacovo**, Harvard Medical School, USA
*“Assessing the effects of germline exposure to environmental toxicants in *C. elegans*”*
- 18:52 – 19:14 **Silvia Prieler**, University of Vienna, Austria
“A novel mechanism for meiotic gene conversion”
- 19:14 – 19:36 **Matt Neale**, University of Sussex, UK
“Regulation of meiotic recombination by Tel1/ATM”
- 20:00 – 22:00 Dinner

DAY 2: Monday, August 28, 2017

- 08:00 – 09:00 Breakfast
- 09:00 – 13:05 **Session 2: Chromosome dynamics and structure**
Chairs: Michael Klutstein, Ricardo Benavente
- 09:00 – 09:22 **Eric Greene**, Columbia University, USA
“Single molecule studies of condensin”
- 09:22 – 09:44 **Leonid Mirny**, Massachusetts Institute of Technology, USA
“Chromosome folding by loop extrusion”
- 09:44 – 10:06 **Vaishnavi Ananthanarayanan**, Indian Institute of Science, India
“Fission yeast Myo1 facilitates PI(4,5)P2-mediated anchoring of cytoplasmic dynein to the cortex”
- 10:06 – 10:28 **Alfonso Fernandez-Alvarez**, National Institutes of Health, USA
“Telomeric control of Nuclear Envelope Disassembly in Meiosis”
- 10:30 – 11:15 Coffee break
- 11:15 – 11:37 **Abby Dernburg**, University of California Berkeley, USA
“Evolutionary divergence in meiotic circuitry among nematodes: Pristionchus pacificus does things differently”
- 11:37 – 11:59 **Lorant Szekvolgyi**, University of Debrecen, Hungary
“A Set1C-centric view of meiotic recombination”
- 11:59 – 12:21 **Kevin Corbett**, University of California San Diego, USA
“Structural and functional dissection of yeast Hop1”
- 12:21 – 12:43 **Talia Hatkevich** University of North Carolina, USA
“An Mcm5 mutation reveals a role for SMC1 enrichment at the centromere in early meiosis”
- 12:43 – 13:05 **Gerben Vader**, Max-Planck-Institute of Molecular Physiology, Germany
“CRISPR/dCas9-driven ectopic targeting of kinetochore subunits reveals sufficiency in the local control of meiotic DNA break formation and recombination”
- 13:05 – 14:30 Lunch
- 14:30 – 17:00 Poster session 1a, coffee at 16:00. Odd numbers present.
- 17:00 – 19:00 **Session 3: Spindle**
Chair: Soni Lacefield
- 17:00 – 17:22 **Hiro Ohkura**, University of Edinburgh, UK
“Novel mechanisms to form the bipolar spindle only around chromosomes in oocytes”
- 17:22 – 17:44 **Nenad Pavin**, University of Zagreb, Croatia
“The spindle is chiral due to torques generated by motor proteins”
- 17:44 – 18:06 **Jan Brugues**, Max Planck Institute of Molecular Cell Biology and Genetics, Germany
“Autocatalytic microtubule nucleation determines the size and mass of spindles”
- 18:06 – 18:28 **Sadie Wignall**, Northwestern University, USA
“Interplay between microtubule bundling and sorting factors ensures acentrosomal spindle stability during C. elegans oocyte meiosis”
- 18:28 – 18:50 **Yoshinori Watanabe**, University of Tokyo, Japan
“Hierarchical regulation of centromeric cohesion protection by meikin and shugoshin in meiosis”
- 19:00 – 20:30 Dinner
- 20:30 – 22:00 Poster session 1b. Odd numbers continue to present.

DAY 3: Tuesday, August 29, 2017

- 08:00 – 09:00 Breakfast
- 09:00 – 13:05 **Session 4: Chromosome segregation and aneuploidy**
Chairs: JoAnne Engebrecht, Rolf Jessberger
- 09:00 – 09:22 **Eva Hoffmann**, University of Copenhagen, Denmark
“Towards combined gene conversion and crossover maps in the human meiosis”
- 09:22 – 09:44 **Tomoya Kitajima**, RIKEN Center for Developmental Biology, Japan
“A unique role of kinetochores in mammalian oocytes”
- 09:44 – 10:06 **Katja Wassmann**, Institute of Biology Paris Seine, France
“Mps1 kinase-dependent Sgo2 centromere localisation mediates cohesin protection in mouse oocyte meiosis I”
- 10:06 – 10:28 **Adele Marston**, University of Edinburgh, UK
“Establishment of meiosis I-specific chromosome segregation by SPO13”
- 10:30 – 11:15 Coffee break
- 11:15 – 11:37 **Melina Schuh**, Max Planck Institute for Biophysical Chemistry, Germany
“A method for the acute and rapid degradation of endogenous proteins in oocytes and other cell types”
- 11:37 – 11:59 **Kikue Tachibana-Konwalski**, Institute of Molecular Biotechnology, Austria
“Wapl-mediated cohesin release from chromosomes contributes to maternal age-related egg aneuploidy”
- 11:59 – 12:21 **Jan-Michael Peters**, Research Institute of Molecular Pathology, Austria
“Wapl and Pds5 proteins control cohesin-mediated chromosome axis and loop formation”
- 12:21 – 12:43 **Anna Kozunetsova**, Karolinska Institutet, Sweden
“Chromosome dynamics during the second meiotic division”
- 12:43 – 13:05 **Amira Sallem**, Cochin Institute, France
“Reducing human oocyte aneuploidy rate for assisted reproductive technologies”
- 13:05 – 14:30 Lunch
- 14:30 – 17:00 Poster session 2a, coffee at 16:00. Even numbers present.
- 17:00 – 19:00 **Session 5: Cell cycle**
Chair: Akira Shinohara
- 17:00 – 17:22 **Bela Novak**, University of Oxford, UK
“Cell cycle regulation by systems-level feedback controls”
- 17:22 – 17:44 **Wolfgang Zachariae**, Max Planck Institute of Biochemistry, Germany
“Lessons from meiosis II”
- 17:44 – 18:06 **Thomas Mayer**, University of Konstanz, Germany
“The role of calcineurin during exit from meiosis II”
- 18:06 – 18:28 **Orlando Argüello-Miranda**, University of Texas Southwestern, USA
“A high-dimensional fluorescent microscopy system for quantitative prediction of cell fate during yeast meiosis”
- 18:28 – 18:50 **Regis Meyer**, Oklahoma Medical Research Foundation, USA
“Phospho-regulation by Mps1 stabilizes force-generating kinetochore-microtubule attachment”
- 19:00 – 20:30 Dinner
- 20:30 – 22:00 Poster session 2b. Even numbers continue to present.

DAY 4: Wednesday, August 30, 2017

- 08:00 – 09:00 Breakfast
- 09:00 – 12:45 **Session 6: Pairing and the synaptonemal complex**
Chairs: Needhi Bhalla, Jeff Sekelsky
- 09:00 – 09:22 **Anne Villeneuve**, Stanford University, USA
*“Promoting and limiting COs during *C. elegans* meiosis”*
- 09:22 – 09:44 **Denise Zickler**, University Paris-Süd, France
“Asy2/Mer2: an evolutionarily conserved mediator of the recombinosome/structure interface at every stage of meiosis”
- 09:44 – 10:06 **Da-Qiao Ding**, Advanced ICT Research Institute, NICT, Japan
*“RNA transcription and termination factors are important in meiotic homologous chromosome pairing in *S. pombe*”*
- 10:06 – 10:28 **Owen Davies**, Newcastle University, UK
“Structural basis of meiotic chromosome synapsis through SYCP1 self-assembly”
- 10:30 – 11:15 Coffee break
- 11:15 – 11:37 **Vasily Zaburdaev**, Max Planck Institute for the Physics of Complex Systems, Germany
“Understanding the statistics of chromosomes during meiosis in fission yeast”
- 11:37 – 11:59 **Monique Zetka**, McGill University, Canada
*“A family of SUMO-E3 ligase-like proteins have distinct and essential functions in crossover formation in *C. elegans*”*
- 11:59 – 12:21 **Jiri Forejt**, Institute of Molecular Genetics of the ASCR, Czech Republic
“Prdm9-controlled asynapsis in sterile hybrid mice”
- 12:21 – 12:43 **Arp Schnittger**, University of Hamburg, Germany
“The Arabidopsis Cdk1/Cdk2 homolog CDKA;1 controls the number and position of interference-sensitive cross-overs”
- 12:45 – 14:00 Lunch
- 14:00 – 17:00 Social outdoors activities
- 17:00 – 19:00 **Session 7: Checkpoints and feedback controls**
Chair: Diana E. Libuda
- 17:00 – 17:22 **Ewelina Bolcun-Filas**, The Jackson Laboratory, USA
“Meiotic Defects And Quality Control In Oocytes From Genetically Diverse Mice”
- 17:22 – 17:44 **Attila Toth**, Technische Universität Dresden, Germany
“Controlling DNA Breaks in Mammalian Meiosis”
- 17:44 – 18:06 **Andreas Hochwagen**, New York University, USA
“Regional control of meiotic DSB formation by the synaptonemal complex”
- 18:06 – 18:28 **Martin Anger**, Central European Institute of Technology, Masaryk University, Czech Republic
“Functional correlation between Spindle Assembly Checkpoint and Anaphase Promoting Complex activity during mammalian meiosis I”
- 18:28 – 18:50 **Philip Jordan**, Johns Hopkins University Bloomberg School of Public Health, USA
“Polo-like Kinase 4 Is Required for Homologous Recombination during Mouse Meiosis”
- 19:00 – 20:30 Dinner
- 20:30 – 22:00 General poster session, scientific interactions

DAY 5: Thursday, August 31, 2017

- 08:00 – 09:00 Breakfast
- 09:00 – 13:05 **Session 8: Double-strand breaks, hotspots and recombination**
Chairs: Bertrand Llorente, Ian Henderson
- 09:00 – 09:22 **Bernard De Massy**, Institute of Human Genetics, CNRS, France
“The control of meiotic DSB formation by Prdm9”
- 09:22 – 09:44 **Alastair Goldman**, University of Bradford, UK
“Srs2 regulates Rad51 localisation during meiosis and protects from abnormal events.”
- 09:44 – 10:06 **Mathilde Grellon**, Institute Jean-Pierre Bourgin INRA, France
*“Meiotic recombination initiation in *A. thaliana*”*
- 10:06 – 10:28 **Florencia Pratto**, National Institutes of Health, USA
“Cell-type specific genomics and in silico modelling of the crosstalk between meiotic replication and recombination in mammals”
- 10:30 – 11:15 Coffee break
- 11:15 – 11:37 **Scott Keeney**, Memorial Sloan Kettering Cancer Center, USA
“Spo11: A “broken” topoisomerase”
- 11:37 – 11:59 **Paula Cohen**, Cornell University, USA
“Elucidating the Role of Cyclin N-terminal domain containing-1 (CNTD1) in Crossover Designation During Mammalian Meiosis”
- 11:59 – 12:21 **Ran Li**, University of Oxford, UK
“PRDM9 binding symmetry impacts crossover versus non-crossover recombination event resolution in mice”
- 12:21 – 12:43 **Galina Petukhova**, Uniformed Services University of the Health Sciences, USA
“Extensive sex differences at the initiation of genetic recombination”
- 12:43 – 13:05 **Maria Jasin**, Memorial Sloan Kettering Cancer Center, USA
“The mouse Shu complex SWS1-SWSAP1 is essential for meiotic recombination”
- 13:05 – 14:30 Lunch
- 15:00 – 17:15 **Session 9: Pathway choice**
Chair: Nancy Hollingsworth
- 15:00 – 15:22 **Neil Hunter**, University of California Davis, USA
“RNF212 Impedes DNA Break Repair to Enable Oocyte Quality Control”
- 15:22 – 15:44 **Michael Lichten**, National Cancer Institute, NIH, USA
“Interplay between chromosome structure and meiotic recombination biochemistry”
- 15:44 – 16:06 **Valentin Börner**, Cleveland State University, USA
“DNA Helicase Mph1/FANCM Mediates Interhomolog Repair of Meiotic DSBs by Disrupting D-Loops between Sister Chromatids”
- 16:06 – 16:28 **Joao Matos**, ETH Zurich, Switzerland
“Dynamic suppression of Holliday junction resolution enables meiotic crossover patterning”
- 16:28 – 16:50 **Francesca Cole**, University of Texas MD Anderson Cancer Center, USA
“Temporally and spatially distinct meiotic recombination pathways in mouse spermatocytes”
- 16:50 – 17:12 **Peter Donnelly**, University of Oxford, UK
“Repair delay is a key factor in the crossover/non-crossover decision in mouse meiosis”
- 17:15 – 18:00 Business meeting
- 20:00 – 24:00 Gala dinner
Entertainment

DAY 6: Friday, September 1, 2017

Breakfast

Departure