

The EMBO Conference on Meiosis (1st)
Isle sur la Sorgue , Sept 19 to 23, 2009

Meeting program

Day 1 (Saturday September 19)

Afternoon:

14:00-18:00

Arrival and check-in

Evening:

18:45-19:45

Dinner

20:00-20:10

Welcome, Introduction

20:10-22:20

Session 1 : Early DNA and chromosome events, chair Denise Zickler (Institut de Génétique et Microbiologie, Orsay, France)

20:10-20:30

Scott Keeney (Memorial Sloan-Kettering Cancer Center, New-York, USA)

« Mechanism and regulation of meiotic double-strand break formation »

20:30-20:40

Discussion

20:40-20:55

Dean Dawson (Oklahoma Medical Research Foundation, Oklahoma city, USA)

« Meiotic cohesins and the synaptonemal complex protein, Zip1, promote associations of non-homologous centromeres while chromosome arms engage in homologous interactions »

20:55-21:05

Discussion

21:05-21:20

Franz Klein (University of Vienna, Austria)

« DSB-promoting factors link DSB formation with chromosome structure »

21:20-21:30

Discussion

21:30-21:45

Kunihiro Ohta (Faculty of Life Sciences, University of Tokyo, Japan)

« Control of meiotic DSB formation by chromatin, cohesin, and Spo11-accessory proteins »

21:45-21:55

Discussion

21:55-22:10

Alain Nicolas (Institut Curie, Paris, France)

« Histone modifications and meiotic recombination initiation sites »

22:10-22:20

Discussion

Day 2 (Sunday September 20)

Morning:

7:00-8:30

Breakfast

8:30-12:00

Session 2 : Mechanisms of recombination, chair Raphaël Mercier (INRA SGAP, Versailles, France)

8:30-8:50

Gerry Smith (Fred Hutchinson Cancer Research Center, Seattle, USA)

«Mechanism and control of meiotic recombination in *S. pombe*: from DSBs to RNAi »

8:50-9:00

Discussion

9:00-9:15

Bernard de Massy (Institut de Génétique Humaine, CNRS, Montpellier, France)

«Genome wide control of the distribution of meiotic recombination in mice »

9:15-9:25

Discussion

9:25-9:40

Dan Camerini-Otero (Genetics and Biochemistry Branch, NIDDK, NIH, Bethesda, USA)

« Meiotic Homologous Recombination and Pairing in Mice »

9:40-9:50

Discussion

9:50-10:15

Coffee break

10:15-10:30

Neil Hunter (University of California, Davis, USA)

« Implementing a Crossover Outcome During Meiotic Recombination. »

10:30-10:40

Discussion

10:40-10:55

Alexander Lorenz (University of Oxford, UK)

« The human Holliday Junction resolvase GEN1 rescues the meiotic phenotype of a fission yeast *mus81* deletion »

10:55-11:05

Discussion

11:05-11:20

Holger Puchta (Botanical Institute II, University of Karlsruhe, Germany)

« Topoisomerase 3 α and RMI1 suppress somatic crossovers and are essential for resolution of meiotic recombination intermediates in *Arabidopsis thaliana* »

11:20-11:30

Discussion

11:30-11:45

Adriana La Volpe (CNR Institute of Genetics and Biophysics, Naples, Italy)

« Roles of FANCD2 ortholog in meiotic DSBs repair in *Caenorhabditis elegans* »

11:45-11:55

Discussion

12:30-13:30

Lunch

Afternoon :

14:00-16:00

Poster I (even numbers)

Free time

,

Evening :

18:00-20:10

Session 3 : Crossover control, part 1, chair Adriana La Volpe (CNR Institute of Genetics and Biophysics, Naples, Italy)

18:00-18:20

Michael Lichten (National Cancer Institute, Bethesda, USA)

« Efficient sister chromatid recombination during meiosis when homologous sequences are absent from the homolog »

18:20-18:30

Discussion

18:30-18:45

Rita Cha (MRC, London, UK)

« Essential Roles of Mec1/Tel1 during Budding Yeast Meiosis »

18:45-18:55

Discussion

18:55-19:10

Paula Cohen (Cornell University, Ithaca, USA)

« Crossover control in the mouse: a complex interplay between MUS81, BLM helicase, and the meiotic mismatch repair machinery »

19:10-19:20

Discussion

19:20-19:35

Jennifer Fung (University of California, San Francisco, USA)

« Global Analysis of Crossover Control in Budding Yeast »

19:35-19:45

Discussion

19:45-20:00

Denise Zickler (Institut de Génétique et Microbiologie, Orsay, France)

« Coming together is fraught with danger even for meiotic chromosomes »

20:00-20:10

Discussion

20:30

Dinner

Day 3 (Monday September 21)

Morning :

7:00-8:30

Breakfast

8:30-12:00

Session 4 : Crossover control, part 2, chair Michael Lichten (National Cancer Institute, Bethesda, USA)

8:30-8:50

Sue Armstrong (University of Birmingham, UK)

« Early Events in the Barley Meiotic Pathway »

8:50-9:00

Discussion

9:00-9:15

Nancy Kleckner (Harvard University, Boston, USA)

« Meiotic sister/homolog relationships are governed by chiasma-dictated logic of recombinosome/structure interplay »

9:15-9:25

Discussion

9:25-9:40

Attila Toth (Institute of Physiological Chemistry, Dresden, Germany)

« *Mus musculus* HORMAD1 and 2 mark unsynapsed meiotic chromosome axes and their removal from chromosomes in response to synapsis requires the TRIP13 AAA-ATPase »

9:40-9:50

Discussion

9:50-10:15

Coffee break + group photo

10:15-10:30

Anne Villeneuve (Stanford University, USA)

« Manipulation and Visualization of Recombination Events during *C. elegans* Meiosis »

10:30-10:40

Discussion

10:40-10:55

Barbara Meyer (Howard Hughes Medical Institute / U.C. Berkeley, USA)

« Condensin Complexes Regulate DSB Distribution and thereby Crossover Frequency by Controlling Chromosome Structure »

10:55-11:05

Discussion

11:05-11:20

Christer Höög (Karolinska Institutet, Stockholm, Sweden)

« Organization and function of the central element of the synaptonemal complex »

11:20-11:30

Discussion

11:30-11:45

Andreas Hochwagen (Whitehead Institute for Biomedical Research, Boston, USA)

« Roles of the checkpoint phosphatase PP4 in premeiotic DNA replication and crossover interference »

11:45-11:55

Discussion

12:30-13:30

Lunch

Afternoon :

14:00-16:00

Poster II (odd numbers)

Free time

Evening :

18:00-20:10

Session 5 : Chromosome dynamics, chair Kim Nasmyth (Dept. of Biochemistry, Oxford University, UK)

18:00-18:20

Yasushi Hiraoka (Osaka University, Japan)

« A hot spot of homologous chromosome pairing in fission yeast »

18:20-18:30

Discussion

18:30-18:45

Julie Cooper (Cancer Research UK, London, UK)

« Telomeric control of meiosis »

18:45-18:55

Discussion

18:55-19:10

Abby Dernburg (Howard Hughes Medical Institute/UC Berkeley, USA)

« Coordination of pairing and synapsis in roundworms and flatworms »

19:10-19:20

Discussion

19:20-19:35

Verena Jantsch (University of Vienna, Dept. of Chromosome Biology Max F. Perutz Labs, Austria)

« Alteration of nuclear envelope properties during the time of meiotic homologous pairing in *C. elegans* »

19:35-19:45

Discussion

19:45-20:00

Akira Shinohara (Institute for Protein Research, Osaka University, Japan)

« Two cell cycle kinases, CDK (cyclin-dependent kinase) and DDK (Dbf4-dependent kinase), control chromosome dynamics during meiosis »

20:00-20:10

Discussion

20:30

Dinner

Day 4 (Tuesday September 22)

Morning :

7:00-8:30

Breakfast

8:30-12:00

Session 6 : Chromosome segregation, chair Paula Cohen (Cornell University, Ithaca, USA)

8:30-8:50

Kim Nasmyth (Dept of Biochemistry, Oxford University, UK)

"Sister chromatid cohesion"

8:50-9:00

Discussion

9:00-9:15

Terry Orr-Weaver (Whitehead Institute, Dept. of Biology, MIT, Boston, USA)

« Regulation of Centromere Cohesion in *Drosophila* »

9:15-9:25

Discussion

9:25-9:40

Yoshinori Watanabe (University of Tokyo, Institute of Molecular Cellular Bioscience, Japan)

« Regulation of centromeric localization of shugoshin »

9:40-9:50

Discussion

9:50-10:15

Coffee break

10:15-10:30

Monica Colaiacovo (Harvard Medical School, Boston, USA)

« LAB-1 cooperates with cohesin to ensure accurate homolog segregation during meiosis I »

10:30-10:40

Discussion

10:40-10:55

Ounissa Aït-Ahmed (Institut de Génétique Humaine UPR 1142 CNRS, Montpellier, France)

« *Drosophila* female meiosis I: Yemanuclein-alpha is a new synaptonemal complex associated protein required for chromosome segregation »

10:55-11:05

Discussion

11:05-11:20

Kim McKim (Rutgers University, Piscataway, USA)

« Bi-orientation of bivalents before metaphase arrest in *Drosophila* oocytes »

11:20-11:30

Discussion

11:30-11:45

Marie-Hélène Verlhac (Laboratoire de Biologie du développement, UMR7622, Paris, France)

« HURP is required for maintenance of meiotic spindle bipolarity »

11:45-11:55

Discussion

12:30-13:30

Lunch or lunchboxes

Afternoon :

12:30-18:00

Excursion to Avignon

Evening :

18:30-20:40

Session 7 : Progression through the meiotic cycle, chair Thomas Mayer (University of Konstanz, Germany)

18:30-18:50

Masayuki Yamamoto (University of Tokyo Graduate School of Science, Japan)

« Molecular basis for the selective elimination of meiosis-specific mRNAs in growing fission yeast cells »

18:50-19:00

Discussion

19:00-19:15

Sophie Rousseaux (INSERM U823 Institut Albert Bonniot, Grenoble, France)

« Chromatin dynamics during spermatogenesis »

19:15-19:25

Discussion

19:25-19:40

Wolfgang Zacharie (MPI of Molecular Cell Biology and Genetics, Dresden, Germany)

« Control of chromosome segregation by a meiosis-specific form of the APC/C »

19:40-19:50

Discussion

19:50-20:05

Katia Wassman (Laboratoire de Biologie du développement, UMR7622, France)

« Cyclin A2 is required for the first meiotic division in mouse oocytes »

20:05-20:15

Discussion

20:15- 20:30

Raphaël Mercier (INRA SGAP, Versailles, France)

« Turning meiosis into mitosis »

20:30-20:40

Discussion

21:00

Banquet

Day 5 (Wednesday September 23)

Morning :

7:00-9:00

Breakfast

(check out time: 10:00)

9:00-12:00

Session 8 : Genome evolution, chair Yasushi Hiraoka (Osaka University, Japan)

9:00-9:20

Sam Schoenmakers (Erasmus University Medical Center, Rotterdam, Netherlands)

« Meiotic silencing of sex chromosomes in the female avian germline »

9:20-9:30

Discussion

9:30-9:45

Jesus Page (Departamento de Biología, Universidad Autónoma de Madrid, Spain)

« Synapsis and transcriptional activity during mammalian meiosis: a comparative perspective »

9:45-9:55

Discussion

9:55-10:10

Aracely Lutes (Stowers Institute for Medical Research, Kansas City, USA)

« The Mechanism of Meiosis in the Parthenogenetic Lizard *Aspidoscelis neomexicana* »

10:10-10:20

Discussion

10:20-10:50

Coffee break

10:50-11:05

Simon Myers (University of Oxford, UK)

« Recent human hotspot turnover reflects both *cis* and *trans* evolution »

11:05-11:15

Discussion

11:15-11:30

Graham Coop (University of California, Davis, USA)

« Broad-scale recombination patterns underlying proper disjunction in humans »

11:30-11:40

Discussion

11:40-11:55

Laurent Duret (CNRS - Université Lyon 1, France)

« Biased gene conversion and the evolution of human genomic landscapes »

11:55-12:05

Discussion

12:30-13:30

Lunch

Afternoon :

14:00

Departure to Avignon (TGV) or Marseille Airport