

MAYosis 2023

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MAYosis 2023 Program

MAYosis 2023 website:

<http://meiosis.cornell.edu/mayosis2023/index.html>

REGISTER FOR MAYosis 2023:

Registration is entirely free for all five weeks of 2023 season. Please register using the link below:

https://ucdavis.zoom.us/meeting/register/tJcvf-usrz0uH9DZSgG_08btTPReXzmGcLu

Thursday, May 4, 2023: 10AM EDT (7AM PDT)

Moderators: Sean Burgess, Bruce Draper, Ivan Olaya (UC Davis)

10:00-10:12 EDT: Ethan Greenblatt, University of British Columbia, Canada
Cytoplasmic aging drives oocyte meiotic instability

10:17-10:29 EDT: Ana Rita Rodrigues Neves, European Molecular Biology Laboratory, Heidelberg, Germany
The hidden function of the C-terminus of SYP-4 in crossover regulation in *C. elegans* meiosis.

10:34-10:49 EDT: Keynote speaker: Jean-René Huynh, College de France, CNRS, INSERM, France
When does meiosis start in *Drosophila*?

10:59-11:11 EDT: Gang Cheng, National Institutes of Health, USA
Coordinated loading and unloading of cohesins define the mitotic-to-meiotic chromatin reorganization

11:16-11:28 EDT: Alexandre Webster, Max Planck Institute for Multidisciplinary Sciences, Germany
An engineered cohesion system reduces errors in aged mammalian eggs

11:33-11:45 EDT: Mercedes Carro, Cornell University, USA
Argonaute-small RNA (AGO-smRNA) interactions drive sex chromosome silencing during meiosis

Thursday, May 11, 2023: 10AM EDT (7AM PDT)

Moderators: Neil Hunter, Regina Bohn (UC Davis)

10:00-10:12 EDT: Leah Rosin, National Institutes of Health, USA

Oligopaint FISH in the holocentric pantry moth *Plodia interpunctella* reveals cruciform-like metaphase I bivalents resulting from multiple crossovers

10:17-10:29 EDT: Yasuhiro Fujiwara, University of Tokyo, IQB, Japan
SETX is a safeguard against transcription-coupled DNA damage during meiotic prophase

10:34-10:46 EDT: Jing He, Tsinghua University, China
3D genome remodeling and homologous pairing during meiotic prophase of oogenesis and spermatogenesis

10:51-11:06 EDT: Keynote speaker: Corentin Bouuaert, Louvain Institute, Belgium
Evolutionary conservation of the structure and function of meiotic Rec114-Mei4 and Mer2 complexes

11:16-11:28 EDT: Bhumil Patel, University of California, Santa Cruz, USA
Meiotic control of crossovers via PCH-2

11:33-11:45 EDT: Stacey Hanlon, University of Connecticut, USA
Suppression of B chromosome meiotic drive in *D. melanogaster*

Thursday, May 18, 2023: 10AM EDT (7AM PDT)
Moderators: JoAnne Engebrecht, Wenzhe Li (UC Davis)

10:00-10:12 EDT: Gurusaran Manickam, University of Edinburgh, UK
MEILB2-BRME1 adopts a clamp-like architecture upon dimerisation through its interaction with BRCA2 in meiotic homologous recombination

10:17-10:32 EDT: Keynote speaker: Sarah Zanders, Stowers Institute for Medical Research, USA
Evolutionary persistence of genetic parasites

10:42-10:54 EDT: Soonjoung Kim, Yonsei University College of Medicine, South Korea
Critical roles of the MRE11-RAD50-NBS1 complex in starting and completing DNA end resection in mouse meiosis

10:59-11:11 EDT: Stefanie Redemann, University of Virginia, USA
Microtubule reorganization during female meiosis in *C. elegans*

11:16-11:28 EDT: Tadasu Nozaki, Harvard University, USA
Meiotic chromosomes pair via recombination-mediated rapid homolog juxtaposition

11:33-11:48 EDT: Keynote speaker: Monique Zetka, McGill University, Canada
PLK-2 regulates chromosome encounters to promote homolog pairing

Thursday, May 25, 2023: 10AM EDT (7AM PDT)
Moderators: Francis McNally, Luca Comai, Kanae Masuda (UC Davis)

10:00-10:12 EDT: Joanna Majka, Institute of Experimental Botany of the Czech Academy of Sciences, Czech

Non-Mendelian inheritance of parental chromosomes in interspecific plant hybrids

10:17-10:29 EDT: Ahmed Balboula, University of Missouri, USA

Initial spindle positioning at the oocyte center is a strategy to avoid erroneous chromosome segregation in mice

10:34-10:46 EDT: Kizuku Kamei, Nagoya university, Japan

Rapid chromosome movement in meiocytes follows synaptonemal complex formation and chromosome bouquet resolution in medaka (*Oryzias latipes*)

10:51-11:03 EDT: Nathan Palmer, Max Perutz Laboratories, Vienna, Austria

Regulation of meiotic crossing over by the chromatin remodeling enzyme CHD1

11:08-11:23 EDT: Keynote speaker: Kelly Dawe, University of Georgia, USA

Transmission of neochromosomes driven by synthetic centromeres

11:33-11:45 EDT: Chenshu Liu, University of California, Berkeley, USA

Gamete quality control in *C. elegans* depends on a mechanosensitive checkpoint acting at the nuclear envelope

Thursday, June 1, 2023: 10AM EDT (7AM PDT)

Moderators: Satoshi Namekawa, Richard Schultz, Jasmine Esparza (UC Davis)

10:00-10:15 EDT: Keynote speaker: Katsuhiko Hayashi, Osaka University, Japan

Development of culture systems that reproduce gametogenesis in mice

10:25-10:37 EDT: Marion Peuch, IJPB - INRAE Versailles, France

Identification of the first synaptonemal complex central element proteins in plants

10:42-10:54 EDT: Masaru Ito, Institute for Protein Research, Osaka University, Japan

FIGNL1 AAA+ ATPase remodels RAD51 and DMC1 filaments during premeiotic DNA replication and meiotic recombination

10:59-11:11 EDT: Lena Skrutl, ETH Zurich, Switzerland

Mix, Match & Synapse, Pericentromeric satellite DNA repeats are required for complete synapsis of homologous chromosomes in *Drosophila*

11:16-11:28 EDT: Daniel Shaw, University of Georgia (currently at University of Montana), USA

Single-cell gene expression of spermatogenesis reveals evolution of post-meiotic gene repression and activation of amplicons on the threespine stickleback fish Y chromosome

11:33-11:45 EDT: Cori Cahoon, University of Oregon, USA

Sexually dimorphic regulation of the synaptonemal complex