
The 184th iCeMS SEMINAR

Fri 12 Jun 2015
14:00-15:00

Modulation and Governance of Homologous Recombination during Meiosis

Lecturer: **Dr Alexander Lorenz**

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Venue: 2nd Floor Seminar Room (#A207)
iCeMS Main Building (#77), Kyoto University

Meiosis is a specialized type of cell division employed to halve the genetic material of a diploid parental cell to produce haploid gametes. Remarkably, correct segregation of chromosomes in meiosis requires the deliberate formation of double-stranded DNA breaks followed by repair through a process called homologous recombination. Recombination establishes physical connections between maternal and paternal chromosomes that guide their proper segregation, and promotes reciprocal exchange of maternal and paternal genetic information, thus sustaining genetic diversity and providing a driving force for evolution. Careful regulation of this complex process is imperative to ensure the required number of physical links between the correct partner chromosomes, and that all breaks are mended. Currently, my research focuses on how meiotic recombination decisions are made and regulated, and on how meiotic recombination processes are integrated into the meiosis-specific chromosome axis.

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