

SFB Meiosis Monthly Meeting

December 13, 2022, 05:00 pm, ZOOM-talk:

<https://univieenna.zoom.us/j/64123711158?pwd=dXV2bXJzWUNIZnpsaXpObGtIcWpSUTo9>

Meeting ID: 641 2371 1158 / Passcode: 960570



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Cohesin and Chromosome Segregation in Oocytes: a Goldilocks scenario

Abstract

Chromosome segregation is compromised in eggs from women of both early and advanced maternal ages. Deficient sister-chromatid cohesion is an underlying cause of segregation errors in eggs from older females but the cause of missegregation in the eggs of young women is unknown. We show that oocytes from juvenile mice show severe chromosome lagging and missegregation during the first meiotic division due to an excess of cohesion. By contrast, oocytes from adult mice have demonstrably weaker cohesion and lagging and missegregation are rare, indicating that sexual maturation is associated with weakening of cohesion to optimize oocyte chromosome segregation. Effects of genetics and environmental factors on cohesin dynamics will also be discussed.

Host: Franz Klein