LS05-009 - Faithful meiotic chromosome segregation in Caenorhabditis elegans

Zusammenfassung

Meiosis is the specialized cell division that is essential for the generation of haploid germ cells. It not only compensates for the doubling of chromosome number after fertilization but also generates genetic diversity by reciprocal exchange of paternal and maternal chromosome portions. Defects in the meiotic cell division lead to unfaithful chromosome segregation and are thus the major cause for miscarriages and birth defects.

We use the genetic model system C. elegans to identify genes that are essential for proper meiotic prophase cell cycle progression and faithful meiotic chromosome segregation. Characterization of the encoded factors, their interaction partners and identification of mammalian (human) homologues will be the aim of this project. Ultimately, a better understanding of genetic risk factors for compromised fertility and birth defects due to chromosomal mal-segregation will be achieved.

Keywords:
meiosis, chromosome segregation, homologue recognition, cytology, C.elegans

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Weiterführende Links zu den beteiligten Personen und zum Projekt finden Sie unter
https://www.wwtf.at/funding/programmes/ls/LS05-009/