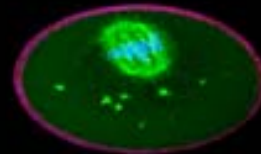


25.07.2006.

Diploma/Master/MD

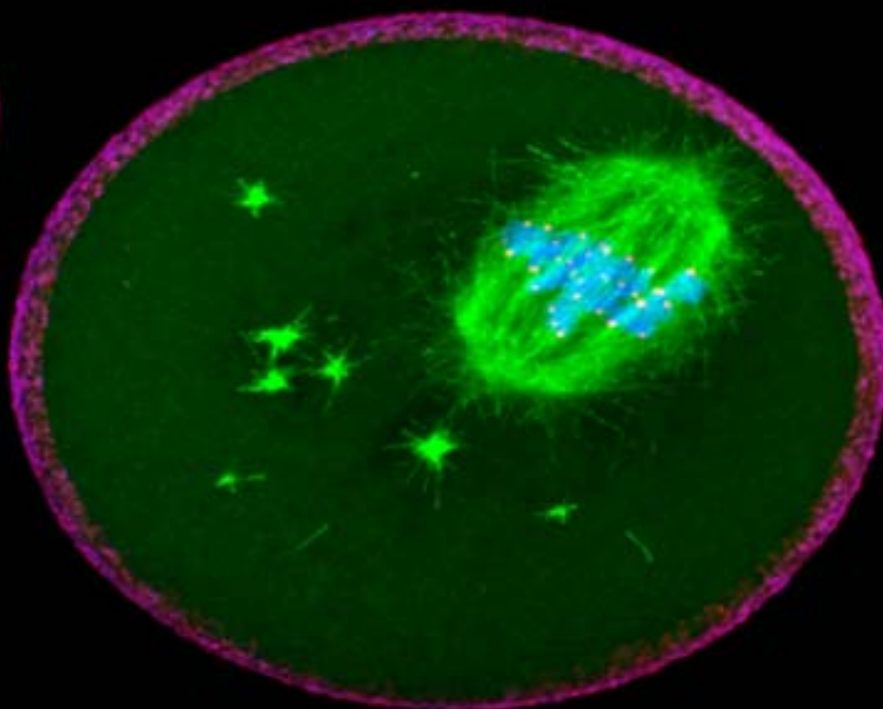
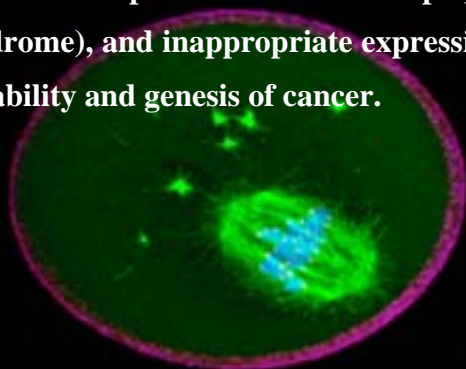
in the Mammalian Meiosis Group, MTZ , Dresden



We are looking for students, who are interested in carrying out their Diploma/Master/MD Thesis work in the field of mammalian meiosis.



Meiosis and gametogenesis are among the most ancient developmental processes widespread among eukaryotes. By generating haploid gametes from diploid mother-cells, meiosis forms the basis of sexual reproduction. Our aim is to better understand the molecular basis of chromosome number reduction during meiosis. Understanding the mechanisms that ensure the generation of haploid gametes has very important implications. For example, meiotic defects lead to aneuploidy in humans (e.g.: Down's syndrome), and inappropriate expression of meiotic genes in somatic cells might contribute to genome instability and genesis of cancer.



In a large scale functional genomic screen we have identified several novel meiosis specific genes that are currently being investigated. The students will be involved in analyzing the function of identified meiotic genes. They will also have the opportunity to participate in an improved larger scale genomics screen for novel meiotic proteins. The work will involve gene expression profiling and cloning novel meiotic genes, raising antibodies against candidate proteins, localization studies in mice and in cell culture, and biochemical/functional analysis of the most interesting proteins.

Contact Dr. Attila Tóth with questions regarding projects.

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