PhD project available:

"Mechanisms of genome integrity in the germline"

Research Areas:
Germline Stem Cells, DNA damage, Epigenetics, Mouse Genetics

Principal Investigator:
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Research Project:

MCPH1/BRIT1 is hypothesized to be a guardian of "genomic integrity", since it is involved in DNA damage signaling, repair, and tumor suppression. Moreover, MCPH1 regulates the balance of symmetric and asymmetric cell divisions in distinct cell types. Interestingly, MCPH1 recruits chromatin remodeling complexes to genomic sites where local chromatin relaxation is needed, e.g. during DNA damage repair.

In order to guarantee the survival of a species proper transmission of not only genetic but also epigenetic information through germ cells is absolutely critical. Thus, mechanisms regulating the genomic integrity of germ line stem cells require our special attention. We are interested in the function of MCPH1 during germ cell development and germ line stem cell fate decisions in young as well as in ageing mice.

Different mouse models and stem cell culture systems will be used in combination with *in vitro* state-of-the-art technologies to elucidate the physiological consequences of MCPH1 ablation during gametogenesis.

The research project will be done in collaboration with Prof. Dr. Zhao-Qi Wang, Leibniz Institute on Aging - Fritz Lipmann Institute (FLI), Jena.

Requirements:

We desire a highly motivated candidate with a Master's degree (or equivalent) in Biochemistry or Biology. Experience in lab work (cell biology-, biochemistry-, or molecular biology-oriented) and good communications skills in English are required. The candidate should be able to perform both, team-oriented as well as independent work.

We offer:

The CMB is embedded in the outstanding scientific environment of the Beutenberg Campus providing state-of-the-art research facilities and a highly integrative network of life science groups. We offer a multifaceted research project with excellent facilities, and a place in a committed team with strong scientific collaborations.

Applications:

Please acquaint yourself with the research of the participating groups and with the LGSA application guideline on our website (http://www.leibniz-fli.de/career-development/graduates/), fill in the application form, arrange the reference letters and send it electronically to the LGSA and to Dr. Maren Godmann.