The Leibniz Institute on Aging - Fritz Lipmann Institute e.V. (FLI) is a research institute, which has the objective of understanding the molecular mechanisms of aging. Thereby we would like to contribute to healthy aging in humans. Various animal models (e.g. mice and fish) help us to generate relevant knowledge on the causes and the mechanisms of age-associated diseases and to investigate new therapeutic approaches. Scientists from many different nations conduct research at FLI.

The Ori Research Group of the Leibniz Institute on Aging – Fritz-Lipmann-Institute e.V. in Jena offers a

Master’s thesis project in Stem Cell Aging

The Ori research group uses proteomic technologies to identify factors influencing the regenerative capacity of stem cells during aging. In preliminary studies using mouse as a model organism, we have identified candidate proteins that we plan to test using in vitro regeneration assays based on primary cell culture in combination with CRISPR/Cas9 and RNAi technologies. The project will be focused on the functional investigation of one or more of these candidates.

During the thesis project, you will receive training in:

- Isolation of murine primary cells by FACS
- 2D and 3D culture of primary cells
- CRISPR/Cas9 and RNAi technologies
- Western Blot
- qRT-PCR
- Immunofluorescence staining
- Microscopy
- Sample preparation for mass spectrometry

The project can be divided into specialization module and thesis project module.

We are looking for a motivated student who likes to work on a cell biological project that requires knowledge in biology, biochemistry, biotechnology or related disciplines. The ideal candidate should have strong teamwork and excellent oral and written communication skills (fluency in English is required). Experience with mammalian cell culture is highly desirable.

Candidates are encouraged to send their application (in English) including CV, a short description of research experience and interests, and the contact details of one reference as soon as possible per e-mail to: claudia.mueller@leibniz-fli.de

Further information can be found at: http://www.leibniz-fli.de/research/research-groups/ori/