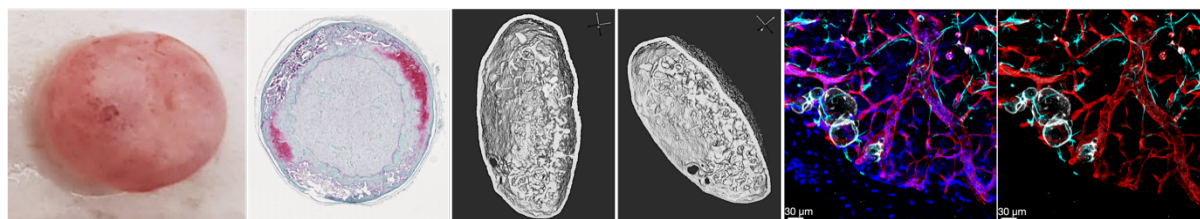




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The Grigoryan Lab (Stem Cell Niche & Aging Research Group) at the Institute of Molecular Medicine, Ulm University invites highly motivated and qualified students to apply for 2 open PhD positions in the ERC-2024-STG funded Project 1101165141-MANAGE HSC.

Ulm University is a young research university with over 10.000 students in medicine and STEM subjects and is ranked one of the top 20 universities in Germany. The Institute of Molecular Medicine is home to leading experts in the field of Aging and Stem Cell research.

The Stem Cell Niche & Aging Research Group comprises a young, bright and ambitious team and is seeking talented and highly motivated candidates for:

PhD positions in the field of human hematopoietic stem cells, bone marrow microenvironment and aging.

Project description

The project seeks to understand the effects of aged bone marrow microenvironment (BME) on the function of hematopoietic stem cells (HSCs) in humans.

Aging of the hematopoietic system is associated with impaired immune response, anaemia and increased frequency of myeloid malignancies. Therefore, understanding the factors that cause impairments in the hematopoietic system with age is of great importance. The hematopoietic system is maintained by HSCs. The BME, where HSCs reside, is a major regulator of HSC function, and an aged BME likely contributes to a decline in the function of HSCs. Thus, using an advanced aging-centred model of human BME, the project aims to investigate age-associated changes in human BME and its consequences on human HSC function. The ultimate goal of the project will be to identify novel possibilities to improve the function of HSCs in aged BME, thus attenuating impaired hematopoiesis in the elderly.

Type of employment: Temporary positions (4 years), TV-L (EG 13) 65% contract

Start of employment: 15.01.2025, or by agreement

Contact: Jun. Prof. Dr. Ani Grigoryan, (Email: ani-1.grigoryan@uni-ulm.de)

Application deadline: 17.11.2024

What we offer

We offer an excellent research environment with a great collaborative community of experts in stem cell, aging and regeneration in a young and vibrant international working group. Students will have access to state-of-the-art equipment and core facilities necessary for the project. There will be excellent training and further development opportunities from the Stem Cell Niche & Aging Research Group and the Institute of Molecular Medicine in addition to the International Graduate School program of the University of Ulm, where students will be enrolled.

Your Profile

- Master's degree in biological sciences (Biology, Biochemistry, Cell/Molecular Biology, Molecular Medicine) or related study programs, with a CGPA of 2.0 or better according to the German ranking system.
- Strong background in Cell and Molecular Biology. Prior working experience with mesenchymal cells, hematopoietic stem cells and aging will be an advantage.
- Willingness to perform *in vivo* mouse experiments.
- Good English Language proficiency (written and spoken).
- Good planning and organisational skills and ability to work independently.
- Good skills in RNA-sequencing data analysis and high motivation to further develop these skills will be advantageous.
- Basic knowledge of R and/or Python will be an advantage.

How to apply

Interested candidates that meet the above criteria are kindly requested to submit their applications (in English only) per email, complete with the following documents in PDF format.

- Curriculum Vitae
- Cover letter
- Two reference letters
- Proof of English Language proficiency
- Master's Degree Certificate with Transcript of Records.

Incomplete applications will not be considered for further processing.

Send your application to Jun. Prof. Dr. Ani Grigoryan (Email address: ani-1.grigoryan@uni-ulm.de)

For more information on the advanced model of human BME, please read:

A. Grigoryan *et al.*, Engineering human mini-bones for the standardized modeling of healthy hematopoiesis, leukemia, and solid tumor metastasis. *Sci Transl Med* **14**, eabm6391 (2022).

Do not hesitate to contact me for further information or questions about the content of the project.