

The Institute for Biomedical Engineering – Cell Biology, RWTH Aachen University Medical School is offering a position for a

## PhD Student in Bioinformatics / Molecular Biology (m/f/d)

The position is supported by the German Research Foundation (DFG) within a research project on “Genome Wide Analysis of Epigenetic Changes in Aging”. The position is initially funded for three years with the option for extension. The salary is based on the German public service salary scale (TV-L 65% E13).

Human aging is linked to characteristic DNA methylation changes. The heterogeneity of epigenetic aging within a sample is largely unknown and the association with chromatin accessibility or the histone code remains also unclear. Here, we aim for an urgently needed Reference Epigenome of Aging. This will facilitate a range of studies including the investigation of neighboring CpGs to explore the underlying age-related mechanism. It will also enable to estimate the heterogeneity in cellular aging. The project will utilize a wide range of techniques including whole genome bisulfite sequencing (WGBS), open chromatin sequencing (ATAC-seq), single cell ATAC-seq, single cell RNA-seq, ChIP-seq, and methyl-ATAC-seq. It is a collaborative project together with the groups of Prof. Dr. Ivan Costa (<http://costalab.org>) and Prof. Dr. Alexander Meissner (<https://www.molgen.mpg.de/Alexander-Meissner>). The primary tasks are preparation of samples for the different sequencing methods, support in data analysis, and site-specific analysis of DNA methylation patterns. Please find further information on our group under: <https://www.ukaachen.de/kliniken-institute/institut-fuer-zellbiologie/institute/division-of-stem-cell-biology-and-cellular-engineering/>

### We are looking for:

A motivated and ambitious scientist with a strong background in molecular biology and/or bioinformatics. You should have experience sample preparation and data handling of NGS data and some knowledge in the programming language R. Experience in DNA isolation, PCR, ChIP and basic skills in cell biology would be advantageous. You should hold a very good master. Willingness for teamwork is a prerequisite. We offer a highly interactive and well-equipped environment in an international team (all English speaking), with excellent partners, a broad spectrum of methods and a highly relevant research topic.

This advertisement is addressed to all genders. The RWTH Aachen University Hospital promotes equal opportunities and diversity. Applications from women are expressly encouraged and will be given priority in accordance with the gender equality law. Employment below the weekly working hours specified above is generally possible. Severely disabled people will be given priority if they are equally qualified.

**Your application** should be sent by Email to [wwagner@ukaachen.de](mailto:wwagner@ukaachen.de) until May 7<sup>th</sup> 2021. Please enclose a cover letter, which specifically emphasizes your interest in this project (in English), CV with publication list, contacts of two references, and copies of the most important certificates.

If you have further questions, please contact Prof. Dr. Dr. Wolfgang Wagner,  
E-Mail: [wwagner@ukaachen.de](mailto:wwagner@ukaachen.de).

We are looking forward to your application.