PhD student (f/m/x)

As a modern maximum-care hospital with a capacity of approximately 1,540 beds, the University Hospital of Cologne is dedicated to the practice of innovative academic medical excellence. At the Faculty of Medicine 1,800 scientists are engaged in research, ranging from basic sciences to clinical application, as well as teaching and health care. Together with the University Hospital Cologne the faculty maintains 58 clinics, research institutes and centres. 3,400 students study in this dynamic and innovative environment. The Faculty of Medicine and the University Hospital Cologne are embedded in the scientifically highly active Rhine region. They have strong contacts to and alliances with the surrounding universities and non-university research institutions guaranteeing scientific excellence in research and teaching.

The Computational Biology of Ageing group is seeking applications for a part-time (25h/week) PhD student (f/m/x) to be employed under a limited-time. The position is limited to 3 years according third-party funding to the Law (WissZeitVG).

As part of the recent growth in computational biology capability at the University of Cologne and the associated University Hospital the Computational Biology of Ageing group has been established. Led by Dr. Philipp Antczak this groups aims to expand the data integration, predictive/statistical modelling, and network biology techniques to applied clinical applications. With a combined background of environmental and medical fields the group has strong ties with regulatory organisations, such as the OECD, as well as several medical institutions including the UK’s 100,000 Genome project delivered by Genomics England or the Estonian Genome Centre. One of the groups main approaches is the integration of data across multiple datasets to improve our understanding of the underlying biological processes. As part of the group you will become an expert in dealing with large datasets and analysing them, identifying novel biomarkers of disease or ageing processes, or even trying to understand the impact of environmental stress on human biology.

Your responsibilities will include:

- Development of computational biological approaches surrounding human cohort OMIC analyses in the context of ageing and stress
- Advancements of data integration techniques combining multiple OMICS and associated metadata
- Application of predictive models in clinical settings for improved patient stratification and welfare
- Interaction with leading ageing and stress biology researchers in an international setting

Minimum qualifications:
Masters or undergraduate degree  

- In a biological or medical field with strong drive to learning computational biology approaches  
- In a computer science relevant field with a strong drive to learn to understand biological processes  
- In a combined course such as medical informatics, computational biology, or bioinformatics  

- Knowledge, competence, or strong drive to learn to understand biological processes in the context of ageing and stress  
- Eager to learn and hard working  
- Good spoken and written English

**We offer:**  
The opportunity to apply state-of-the-art computational biology approaches to human cohorts and understanding of the biological concepts underlying stress and ageing processes. The available datasets contain millions of features across thousands of patient samples and belong to one of the largest datasets currently internationally available. Predictive modelling and the advancement of data integration techniques will allow us to establish this new understanding. The outcomes could have stark implications on patient stratification and welfare in clinical settings as well as have impact on regulatory organisations in medical and environmental fields, such as the OECD, to improve our understanding of the impact of human actions.

- An excellent translational and clinical research environment  
- Access to high quality datasets at one of the largest University Hospitals in Germany  
- Interaction in a strong national and international Network for Bioinformatics and Stress and Ageing biology

Your salary will be based on TV-L.

Applications from female candidates are expressly welcome and will be given priority in the event of equal suitability, competence and professional performance.

People with disabilities are welcome to apply and will be treated preferentially in the event of equal suitability and qualification.

Please E-Mail address enquiries to philipp.antczak@uk-koeln.de.

Further information is available on the internet at [here](https://backend.jobs-uk-koeln.de/hr_frontend/job/tmp_html/jobad1601.html?delCache... 31.08.2020).
We prefer online applications, but you also have the opportunity to apply via regular mail by **20 September 2020** quoting the reference number **00001889** to

**Universitätsklinikum Köln AÖR**  
**PA 29**  
**Geschäftsbereich Personal**  
**Job-ID: 00001889**  
50937 Köln