

PhD student computational biology / bioinformatics (m/f/d)

Description

PhD student computational biology / bioinformatics (m/f/d) (fulltime)

The position will be hosted at the Institute of Human Genetics, in the workgroup "Regulatory Genomics" of Prof. Martin Kircher. The bioinformatics group performs research in the fields of sequence analysis, data mining, machine learning and functional genomics (<https://kircherlab.github.io/>). Our research focuses on computational approaches of identifying functionally relevant genetic changes in disease and adaptation as well as developing more sensitive methods in diagnostics (especially exome, genome and cell-free DNA sequencing). For example, we devise computational approaches (e.g. CADD, CADD-SV, ReMM) to score and identify functional genetic changes in the human genome through Massively Parallel Reporter Assays and genome perturbation. Understanding how gene regulation is encoded in our genomes across development and the diversity of cell-types is one of our fundamental research questions.

Start in our team

The position is immediately available. The full-time contract will be issued for 3 years with the prospect of extension to finish the thesis work and preparation of related publications.

We offer:

- A collaborative research environment that encourages and supports scientific curiosity, innovation, and development of its team members
- Training in computational biology and independent research, as well as receiving guidance on PhD requirements and thesis work
- Career development and collaboration with internal and external partners
- Participation in international meetings and scientific conferences
- Salary based full-time payment on the German E13 TV-L scale, if terms and conditions under collective bargaining law are fulfilled. This for example also includes 30 paid vacation days per year.
- Flexible working hours and a family-friendly environment

Your responsibilities:

- Work on cutting-edge projects using state-of-the-art technology and gain insights into the sequence encoding of molecular function and its relation to disease as well as epigenetic and 3D genome annotations
- Develop deep neural nets or classical machine learning models that integrate sequence features and molecular measures
- Develop or improve methods to infer disease and regulatory mechanisms and develop data standards as well as prepare data for analysis or

Hiring organization

Candidate-1st

Employment Type

Full-time

Beginning of employment

asap

Job Location

Lübeck, Schleswig-Holstein, DE, 23538

Working Hours

40

Base Salary

euro USD 40K - 74K *

Date posted

May 17, 2024

computational modeling

- Analyze high-throughput sequencing data and develop custom computational tools,
- Apply and improve methods for model interpretation, and actively contribute to the lab, institute and international collaborations

Requirements:

- Master degree or equivalent in bioinformatics, computational biology or similar, alternatively in computer sciences with experience in molecular biology and large-scale data analysis
- Basic knowledge of molecular biology, gene regulation and epigenetics as well as deep understanding of sequence analysis, statistical concepts and machine learning
- Highly skilled in a programming language such as Python, R, C++, or Java and intermediate skills in a statistical modeling or analysis environment like R or Python scipy/scikit learn
- Prior experience with Unix and bash scripting, previous exposure to HPC environments is an advantage
- Exposure to reproducible work and FAIR principles
- Highly motivated to expand knowledge and develop innovative approaches as well as diligent, goal-oriented and independent work attitude
- Team-oriented with interdisciplinary communication skills and very good English language skills

We are looking forward to your application. Please submit your application until 05.06.2024, indicating your earliest possible starting date as well as the reference number 24264.

If you have any questions, do not hesitate to contact Prof. Martin Kircher: martin.kircher@uksh.de

We live diversity and strongly encourage qualified female scientists to apply. UKSH and the University of Lübeck aim to increase the number of women among faculty and staff. Applications from people with an immigrant background who meet the hiring requirements are encouraged. Disabled candidates who are equally qualified will receive preference.

How the process will look like

Your teammates will gather all requirements within our organization. Then, once priority has been discussed, you will decide as a team on the best solutions and architecture to meet these needs. In continuous increments and continuous communication between the team and stakeholders, you're part of making data play an even more important (and understood) part withing Brand New Day.

Job Benefits

USD 40K – 74K *