

The mission of the Berlin Institute of Health (BIH) is medical translation: transferring biomedical research findings into novel approaches to personalized prediction, prevention, diagnostics and therapy and, conversely, using clinical observations to develop new research ideas. The aim is to deliver relevant medical benefits to patients and the population at large. The BIH is also committed to establishing a comprehensive translational ecosystem as translational research area at Charité – one that places emphasis on a system-wide understanding of health and disease and that promotes change in the biomedical research culture. The BIH is funded 90 percent by the Federal Ministry of Education and Research (BMBF) and 10 percent by the State of Berlin. The two founding institutions, Charité – Universitätsmedizin Berlin and Max Delbrück Center for Molecular Medicine in the Helmholtz Association (MDC), were independent member entities within the BIH until 2020. As of 2021, the BIH has been integrated into Charité as the so-called third pillar; the MDC is privileged partner of the BIH.

The BIH is **immediately** looking for a

Postdoctoral researcher in Computational Biology and Data Science

We are seeking a highly motivated post-doctoral fellow with a background in computational biology/data science to join the team of Dr. Leif S. Ludwig, centrally located at the Berlin Institute of Medical Systems Biology (BIMSB) in Berlin-Mitte, Germany. The lab is part of the new Focus Area 'Single Cell Approaches for Personalized Medicine' and specializes in the development of single cell multi-omic technologies and their application in stem cell & leukemia research in hematology/oncology and mitochondrial genome biology. The successful applicant will work closely with an international, interdisciplinary, and highly collaborative group, including clinicians, biologists and computational biologists across the BIMSB/MDC & BIH/Charité community, providing a range of opportunities to learn new skills. The ideal candidate has a strong computational/ analytical background, experience with single cell genomics data analysis and the ability to integrate and work within a team of scientists.

Your responsibilities:

The general responsibilities will include, but are not limited to, the following activities:

- Processing, quality control and analysis of high-dimensional single cell multi-omics data from clinical and biological samples in an integrated manner (e.g. transcriptome, accessible chromatin, protein expression, somatic nuclear and mitochondrial mutations),
- Assess, integrate and develop new methodologies related to single cell multi-omics data analyses,
- Identify cell types and cell programs among heterogeneous cell populations,
- Identify genomic features such as gene expression and mutational signatures characteristic of disease samples,
- Document progress, communicate and present analyses to group, institute members and collaborators verbally and in writing,
- Work with members of the group and collaborators as well as independently with respect to experimental design, data analysis, visualization and interpretation.

Requirements:

- We are looking for a motivated computational biologist / data scientist who is well organized, creative and excited by new challenges.
- Excellent communications skills and a working knowledge of English are essential (lab and institute language is English),
- PhD or equivalent in a quantitative discipline (e.g. computational biology, computer science, statistics, mathematics, physics). Candidates with a MSc, or MD and significant experience in computational analyses will also be considered for the position,
- Experience in working independently in several of the above-mentioned responsibilities using respective tools (e.g. Seurat, Scanpy) is desirable,
- Experience with big data management, statistical analysis and data summary visualization is desirable
- Background in statistics and statistical models,
- Strong self-motivation, organizational skills and ability to lead and develop scientific projects,
- Scientific curiosity, analytical thinking and interest in contributing to projects,

- Keen interest in learning new skills, research techniques, data processing and analysis/interpretation of results,
- Ability to work in a team of young scientists, to be flexible, and flourish in a fast-paced environment,
- Strong communication and interpersonal skills, ability to work and collaborate effectively with expert individuals of different backgrounds in a multidisciplinary team.

We offer:

- A collaborative research environment that encourages and supports scientific curiosity, innovation, and development of its team members
- Remuneration according to E13 TVöD VKA-K: The grouping takes into consideration the qualifications and the personal circumstances of the candidate
- Appointment duration: initially until 31.10.2023 with the possibility of extension
- Family - friendly, flexible working hours

We live diversity!

BIH strongly encourages qualified women to apply. Severely disabled applicants and those with equal status will be given preferential consideration in cases of equal suitability.

Please send applications as a single pdf file, including cover letter (max. 2 pages) indicating past, current and future research interests, potential starting date, a curriculum vitae, publication list, names and contact information of up to three references.

Please submit your application via the BIH Career portal <https://jobs.bihealth.org> by **15.08.2021**, quoting the **reference number BIH-66.21**. We are looking forward to hear from you!

You can find more information about us and BIH at

www.bihealth.org
www.bihealth.org/en/research/focus-areas/single-cell-technologies
www.mdc-berlin.de/Ludwig
www.bihealth.org/en/research/research-group/stem-cell-dynamics-mitochondrial-genomics/