The mission of the Berlin Institute of Health at Charité (BIH) is medical translation: transferring biomedical research findings into novel approaches to personalized prediction, prevention, diagnostics and therapies 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. Since 2021 the BIH has been integrated into Charité as its so-called third pillar.

For the Research Group Computational Medicine starting from **May 1st 2024 limited until Febuary 28th 2029** we are looking for a

PostDoc in 'Artificial Intelligence in Genomics for Drug Discovery' (f/m/d)
in full-time or part-time (min. 30,00h/week)

This role will be part of a prestigious ERC Starting Grant - 'GenDrug' - funded by the European Union. The successful candidate will lead the development of AI-powered data integration strategies for genetically informed drug target discovery that build the foundation for an open access community platform to find new treatments for common but understudied diseases. The post is initially limited to five years, but extension is intended contingent on funding. The BIH group is affiliated with the Precision Healthcare University Research Insitute at the Queen Mary University of London, UK, to empower ethnic diversity in research. Close working with and visits to this institution are encouraged as a part of this role. We are a curiosity-driven, competitive international team of diverse researcher, in which the candidate is expected to lead high profile scientific publications, represent the team in national and international collaborations, and contribute to the supervision of junior researchers.

What you can expect:

- Integration of different types of 'omic' data for causal interference and prioritization of drug tar-gets and disease mechanisms
- Implementation of a genetically informed knowledge graphs that synthesize results from large-scale genetic association studies with the cellular context of drug targets
- Development and application of deep learning (DL)-based algorithm for 1) drug-disease link prediction (e.g., graph neural networks) and/or 2) mining of electronic health records from millions of patients to emulate clinical trials
- Development of an open access web application, e.g., interactive gene-drug-diseae-network, to disseminate findings to a wide clinical audience
- Preparation of scientific publications
- Training and co-supervision of Master or PhD students within the group in molecular epidemiolo-gy/deep learning techniques

What you bring along:

- Completed Ph.D. in Data Science (deep learning), genetic epidemiology, clinical pharmacology, or a closely related discipline, with a proven track record to write and publish scientific articles
- Extensive, demonstrable experience in several of the following areas: 1) Application of DL-techniques to genetic or clinical questions, including drug target identification
  2) Genome-scale association analyses using whole-genome or whole-exome sequencing data,
  3) Development of open access web platforms, or
  4) pharmacogenomics
- Extensive, demonstrable experience with principal programming languages in HPC or cloud enviroments (e.g. R or Python)
- Aptitude for biological inference and clinical translation
- Desirable, useful skills and experience: Protein structural modelling, pharmacogenetics, drug target validation, Bayesian statistics, Mendelian ran-domisation, cloud computing services, electronic health record linkage
- Speaking and writing in English fluently

What we offer you:

- A varied job in a forward-looking research institute
- Remuneration up to TVöD VKA-K E13, taking into account personal requirements
- Additional benefits customary in the public sector (including annual special payment, company pension scheme (VBL), capital-forming benefits)
- Flexible working hours and the option of working remote
- 30 vacation days per year (with a five-day week)
- Various support offers to balance work and family life (childcare, cooperation with voiio)
- Very good training and further education opportunities
- Mobile citizens' office on site
- Corporate benefits (travel, leisure, shopping, etc.), Charité Gympass, bicycle leasing or abonnement (JobRad, mylo)
- Very easily accessible and attractive workplace at Rahel-Hirsch-Center (Luisenstr.65, 10117 Berlin)

We welcome applications from people with diverse backgrounds, regardless of gender, nationality, ethnic and social origin, religion and ideology, disability, age, sexual orientation and identity. Applications from women are expressly encouraged. Severely disabled and equivalent applicants will be given special consideration if they have the same qualifications and suitability.
We believe that diverse teams representing a wide range of experiences, perspectives and backgrounds enrich our research and work.

Please submit your application via the **BIH career portal** (https://jobs.bihealth.org/) with a letter of motivation, CV and relevant work and degree certificates by **May 6th 2024**, quoting the reference number **BIH-34.24**.

If you have any technical questions about the job posting, please contact **Dr. Maik Pietzner** (maik.pietzner@bih-charite.de).

Note: If you have a foreign degree, please submit proof of recognition of your degree in Germany with your application. The proof can be obtained via the anabin database. Please note that it may be necessary to obtain a certificate assessment from the ZAB. You can find more information at: https://www.kmk.org/zab/central-office-for-foreign-education.html

Proof of measles immunity / measles vaccination is a prerequisite for employment for those born after 1970.
You can find more information on the BIH at https://www.bihealth.org/en/