HelmholtzZentrum münchen
German Research Center for Environmental Health

As German Research Center for Environmental Health, Helmholtz Zentrum München pursues the goal of developing personalized medical approaches for the prevention and therapy of major common diseases such as diabetes mellitus, allergies and lung diseases. To achieve this, it investigates the interaction of genetics, environmental factors and lifestyle.

The Institute of Computational Biology is globally recognised for innovations in data analysis and modelling of biological systems and diseases, anchored at the Helmholtz Centre Munich and the Technical University Munich.

For our new junior research group "Systems Biomedicine & Pharmacogenomics" headed by Dr. Michael Menden we are currently looking for a

Postdoctoral fellow (f/m/diverse) in "Computational method development for drug high-throughput screens" 2018/0565

Job Description

The Postdoctoral fellow will focus on studying drug mechanisms for type 2 diabetes with drug high-throughput screens. Those screens are either complimented with deep molecular characterisation, or gene expression is measured pre- and post-treatment. For this, the fellow will develop innovative methods to explore high-throughput drug screens to derive biomarkers of glucose uptake and study the impact on metabolism of a large drug portfolio, which ultimately will pave the way for personalised medicine in type 2 diabetes.

The aim of the project involves:

- Apply and adapt machine learning and biostatistical methods to the genetic landscape of drug high-throughput screens to predict glucose uptake and investigate impacts on metabolism
- Exploring drug repositioning opportunity of

Our Offer

At the Helmholtz Zentrum München, you can contribute together with leading researchers to the investigation of the development, prevention and treatment of environmental diseases such as diabetes, chronic lung diseases and allergies. In order to further promote your professional development, we offer extensive and targeted research training and career programmes. We support the reconciliation between work and private life with flexible working time models, occupational health management, day care facility for children, a childcare subsidy, Elder Care, as well as other counseling and support services.

Remuneration and benefits are in accordance with the collective agreement for the public service (TV EntgO Bund).

The position is (initially) limited to two years.

diabetes drugs in cancer and deriving biomarkers of sensitivity for those drugs
- Exploring adverse effects of cancer treatments, which impact the metabolism and glucose uptake, which may reveal new mode-of-actions for type 2 diabetes drugs

Your Qualifications

- Ph.D. in Bioinformatics, Biostatistics, Physics or equivalent with interest in diabetes, cancer biology and early drug development. Alternatively a Ph.D. in Biotechnology, Biology or equivalent with significant experience and interest in Bioinformatics / Biostatistics
- Excellent programming skills in R, Python and C/C++
- Excellent academic record
- Excellent understanding of at least one: diabetes or cancer biology
- Scientific curiosity, commitment to scientific excellence and ability to work independently
- Highly motivated to work in a young and multi-disciplinary, collaborative environment including academic and industrial partners
- Excellent communication and presentation skills, including experience in communicating across discipline boundaries
- Fluency in spoken and written English

The following skills are considered advantageous:

- Experience in machine learning or multivariate statistics
- Knowledge of early drug development
- Working in a Linux environment, with experience of shell scripting, cluster or cloud computing

The activity involves special knowledge and experience specific to own scientific skills.

As a holder of the Total E-Quality Award, we promote equality of opportunity. In order to increase the proportion of women in management positions, we would be pleased to receive corresponding applications. Qualified applicants with physical disabilities will be given preference.

We are looking forward to receiving your comprehensive online application (Cover letter, CV, certificates, contact details of 2 referees) as a single PDF document until January 15th 2019.

Apply now

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