Postdoc in Machine Learning for Sequence Analysis (m/f/d)

The Klaus Tschira Institute for Integrative Computational Cardiology / Internal Medicine III offers a full-time position for a postdoctoral researcher.

The Klaus Tschira Institute for Integrative Cardiology is active in three thematic areas. First: RNA maturation and processing. In particular, the development and physiology of the heart require strict control of RNA biology. Our laboratory has succeeded in publishing numerous software solutions for the investigation of the complex RNA world. Secondly, we have established the field of systems cardiology for in vitro and in vivo models of heart failure. Thirdly, we build a bridge into the field of clinical data science through the HiGHmed Consortium, as part of the German Medical Informatics Initiative. At this point, our AI work in the field of unstructured German texts from cardiological settings should be mentioned in particular. Further information is available at www.dieterichlab.org

The position is initially limited to 2 years with option if further extension. The salary is paid according to the German TV-L system (the salary agreement for public service employees). The position is also suitable for part-time employment. Starting date is as soon as possible.

Tasks

You will implement existing and develop new computational methods for the analysis and interpretation of sequencing data and contribute to at least one of our research areas:

- Direct RNA sequencing data: RNA modification detection
- Single Cell RNA sequencing data: Hybrid approaches on the ONT platform
- Predictive Machine Learning Models for RNA biology (Splicing, Translation, NMD)

Required Qualifications

The ideal candidates will have a PhD or equivalent in Bioinformatics, Data Science, Machine Learning or a related discipline. You offer solid expertise in handling high-throughput data sets and are fully competent in managing the underlying statistical challenges. Moreover, you are happy to work in a highly interdisciplinary team. A proven competence in scripting/programming (i.e. at least two out of C/C++, R, Python, Java) is essential. Other relevant qualifications include a good understanding of RNA Biology.

What we offer

The Dieterich Lab (www.dieterichlab.org) offers a stimulating, diverse and international research environment. We are embedded in a vibrant community of cardiovascular research labs and collaborate with many experimentally or theoretically oriented labs in the Heidelberg area. Our computer cluster consists of 26 dedicated computing nodes with main memory of up to one terabyte, which is needed for genome assembly or parallel analysis of large OMICS data sets, for example. In addition, the computer cluster has been equipped with dedicated servers that accommodates NVIDIA GPUs (Graphics Processing Units) for up-to-date machine learning approaches.
Additionally we offer:

- Target-oriented individual further education and training opportunities
- Targeted training on the job
- Ticket for public transport
- Possibility of child care (crèche and kindergarten) as well as subsidy for holiday care for school children
- Active health promotion
- Company pension scheme
- Access to the university library and other university facilities (e.g. university sports)

Contact & Application
Please do not hesitate to contact us via e-mail: sekretariat.dieterich@med.uni-heidelberg.de if you have any further questions.

Interested?

Please upload a covering letter/supporting statement, including a brief statement of research interests, CV and the details of two referees as part of your online application until December 15th, 2020.

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