

Job Advertisement

Postdoctoral researcher (m/f/d)

Salary Group E 13 TV-L

ZB MED – Information Centre for Life Sciences (www.zbmed.de) is looking for a **Postdoctoral researcher, pay grades 13 TV-L** in the research group of Prof. Dr. Konrad Förstner for three years. The position is offered on a full-time basis only.

As an information infrastructure in Germany and Europe, ZB MED is the central partner for the life sciences: from medicine and biodiversity to environmental protection. The Institute emerged from a library. Based on the literature holdings and accesses, databases and research data, ZB MED supports researchers in obtaining new information and findings - both locally in Cologne and Bonn and nationwide. ZB MED offers digital value-added services via the semantic-based search portal LIVIVO and the Open Access publication portal PUBLISSO. Another key activity is the teaching of information and data competence. ZB MED conducts its own application-oriented research with data science methods in the life sciences and pursues the goal of gaining new insights and developing offers for life science research. The researchers at ZB MED aggregate, use and combine heterogeneous data, information and literature, thereby enabling new research approaches. The focus is on semantic-based methods, automated processes, text and data mining. One of the central priorities of ZB MED is the promotion of Open Science with all its facets, such as FAIR and Open Data, Open Access and Open Source. The Information Centre is a foundation under public law.

The project DIASpora will be conducted in collaboration with the Leibniz-Institute DSMZ German Collection of Microorganisms and Cell Cultures GmbH and TIB – Leibniz Information Centre for Science and Technology and University Library-. The project aims to establish an interdisciplinary novel approach to link and synthesize information for microorganisms. New, tailored user-centric workflows will be established combining state-of-the-art methods from genomics and data science. Extraction of phenotypic data from the microbiological literature will be achieved by large-scale machine learning approach that will be trained through the participation of in house microbiologist curators of our project partner DSMZ. All data recovered within the project will be hosted by the BacDive database after transformation into a machine-readable format. The Bacterial Diversity Metadatabase (BacDive; bacdiv.dsmz.de) has been developed as the world's largest database of standardized prokaryotic phenotypic data and currently offers data on 81,827 strains. The database is part of the German bioinformatics network de.NBI as well as the European network ELIXIR.



Your responsibility:

- ▶ The main tasks of the holder of the position will be the development of machine learning / deep learning based solutions for the extraction of knowledge from scientific literature and creation of predictive tools for the analysis of bacterial genomes.
- ▶ For this you will work in an interdisciplinary, international research team.
- ▶ Present your research results at international conferences.

Your professional qualification and your personal competences:

- ▶ PhD in computer science, data science, bioinformatics or comparable disciplines
- ▶ Profound background in the development of machine learning, text mining solutions and genomics.
- ▶ Strong programming skills ideally in Python
- ▶ Microbiology knowledge is beneficial
- ▶ Solid communication skills (working language is English)
- ▶ Enjoy learning new technologies and working in an interdisciplinary team

We offer:

- ▶ An exciting, dynamic and collegial environment in the life and information sciences where you can bring in your ideas and visions.
- ▶ A strong, international and well connected research program
- ▶ Good conditions for the reconciliation of private and working life, e.g. very flexible working hours
- ▶ Additional pensions
- ▶ Modern equipped workplaces
- ▶ Sports and health offers
- ▶ Job ticket

ZB MED's employment policy is designed to promote a wide diversity of backgrounds and skill sets. In cases where two or more applicants are ranked equally, and one has a disability, preference shall be given to the applicant with a disability. Applications from women are expressly encouraged. In accordance with North Rhine Westphalia's legislation on equal opportunities, the female candidate will be preferred in the case of equal qualification, suitability and aptitude for the position and in the absence of any other outweighing factors. Equal opportunities are an integral part of ZB MED's organisational and HR development policies. ZB MED has received the TOTAL E-QUALITY award on multiple occasions in recognition of its efforts to promote gender equality.



Have we piqued your interest? Questions regarding the position can be sent Prof. Dr. Konrad Förstner (foerstner@zbmed.de).

Applications with the relevant documents exclusively online (max 20 pages in one file) to verwaltung@zbmed.de are requested until May 03th 2020 to

Direktion

ZB MED – Information Centre for Life Sciences

Zeichen: Info 06/20

Gleueler Str. 60, 50931 Cologne (Köln)

Germany

