Assistant Professorship: Support for SNSF Starting Grant in Precision Medicine and Clinical Data Science

Department of Quantitative Biomedicine (UZH)

100%, Zurich, fixed-term

The Department of Quantitative Biomedicine (DQBM) at the University of Zurich invites applications for a research position within the framework of an SNSF starting grant, allowing applicants to request a budget of up to CHF 1.8 million (about $ 2.0 million) for a period of five years. We are seeking highly qualified candidates with expertise in data science, bioinformatics, or medical informatics, who are eager to drive innovative research at the intersection of computational biology and clinical practice. The selected candidate will collaborate closely with clinical entities, such as the Institute of Medical Microbiology (IMM) or the Clinic for Medical Oncology and Hematology (MOH), depending on the project focus. Association with a clinical entity is possible.

Institutional and project background:

The DQBM leads research and education at the interface of biomedical research, biotechnology, and computational biology, laying the foundation for next-generation precision medicine. The department focuses on integrating data science into clinical research, leveraging advanced molecular analysis, digital biomarkers, and computational tools to enhance patient care through machine learning and data-driven methodologies. Additionally, the DQBM currently plans to establish a new platform to improve networking between research and teaching in the areas of Medical AI and Digital Health in the Zurich region.

In recent years, vast amounts of clinical and diagnostic data have been collected across various institutes. This position offers a unique opportunity for candidates to explore this data, uncover valuable insights, and develop methods that provide real-world applications in clinical decision-making and diagnostics. The role involves working with large clinical datasets, employing machine learning, AI, and advanced bioinformatics approaches to create new tools and strategies for improving patient outcomes.

Job description:

The incoming Assistant Professor will be embedded at the DQBM, involved in the planned Medical AI and Digital Health Network, and is expected to work on innovative projects that apply computational methods to clinical datasets. The primary objective is to create added value from existing data, generating insights for clinical practice. The position will involve close collaboration with clinical partners to ensure that the computational models developed are relevant and applicable in a healthcare context. Engagement in the newly planned Medical AI and Digital Health platform

We are looking for a candidate who can lead independent research while also fostering collaborations between data scientists, clinicians, and other stakeholders. The position provides an excellent platform for building a research career at the cutting edge of biomedical data science and precision medicine.

Your profile:

We seek candidates who demonstrate excellence and innovation. Ideal candidates must:

- Meet the eligibility criteria for SNSF starting grants

- Have significant post-PhD research experience with a strong track record of research outputs (as indicated e.g., by original research published in top tier community conferences or journals) that go beyond their doctoral work, show mobility, and push the boundaries of the field.

- Possess expertise in data science, bioinformatics, or medical informatics, particularly in areas such as:

    o Machine learning for clinical data analysis

    o Predictive modeling for patient outcomes

    o Digital biomarkers and their applications in clinical practice

    o AI-driven diagnostic methods

    o Bioinformatics approaches to clinical and genomic data interpretation

- Show a commitment to interdisciplinary collaboration and the ability to work closely with clinical teams.

Your workplace & What We Offer:

The University of Zurich (UZH) is Switzerland's largest educational institution with a storied history dating back to 1833. As a pioneering university founded by a democratic political system, UZH holds membership in prestigious networks like the "League of European Research Universities" (LERU) and "Universitas 21" (U21). This stature is further highlighted by our twelve Nobel Laureates.

With seven faculties offering a broad academic spectrum and over 28,000 students, our commitment extends beyond academia. UZH actively shares knowledge through public-access museums, libraries, and accessible research presentations. Joining our ranks means integrating into an environment of distinguished excellence, impacting not only the Canton of Zurich but also Switzerland at large.

We Value Diversity:

The University of Zurich is inclusive and stands firm on equal opportunity and fostering an environment where its members are respected and valued. We especially encourage applications from female scientists.

Curious? So are we!

Please apply online with:

- A comprehensive resume, publications list, and a highlight of your three most significant achievements.
- A research statement, not only outlining past works but also sketching a vision and future research directions (not exceeding 2 pages).
- A teaching and mentorship statement (limited to 1 page).
- A motivation letter that outlines and describes areas for potential collaborations with researchers and diagnostic units at the institute

For clarifications or queries, please reach out to Prof. Michael Krauthammer (Director of the DQBM, michael.krauthammer@uzh.ch). Applications are welcomed until **November 15th, 2024**. Please submit your full application to Simon Albertini (simon.albertini@uzh.ch).

The promising candidates will be invited for online interviews in **November 2024** and the final decision will be communicated in **December 2024**. The call for SNSF starting grant applications opens on **October 15th**, with the deadline set for **January 15, 2025**. The anticipated start date will be early 2026.