Postdoctoral Position for Computational Pathology and Medical Machine Learning (m/f/d)

The Computational Pathology Lab at the Technical University of Munich (TUM), TUM School of Computation, Information and Technology (CIT) and TUM School of Medicine and Health is offering a 2y-4y postdoctoral full-time position in medical machine learning.

The Computational Pathology Lab (https://schuefflerlab.org) at the Technical University of Munich (TUM) is looking for a talented **postdoctoral researcher (f/m/d)** to deepen their expertise and interest in **machine learning for medical image analysis** and built their early scientific career.

About us

TUM's new Computational Pathology and Medical Machine Learning lab (*2021) develops methods of machine learning (ML) and artificial intelligence (AI) for the analysis of digital pathology images and related medical data in order to detect, segment and quantify diseases such as cancer. Further applications are the discovery of new biomarkers and the prognosis of outcome for patients. For modeling, we use both public and proprietary clinical and research data and generate our own repository of digital pathology images.

A further focus of our lab is the improvement of digital pathology workflows and integrations in complex hospital systems to foster equivalency, efficiency and adoption of digital pathology.

Our lab is located in the heart of Munich at the Klinikum Rechts der Isar (MRI), and is affiliated with the TUM School of Computation, Information and Technology (https://www.cit.tum.de/), the TUM School of Medicine and Health (https://www.mh.tum.de/), and the Munich Data Science Institute (https://www.mdsi.tum.de/).

The Position

- Plan, develop and test novel computational models for the analysis of digital pathology image data.

- Collaborate with pathologists and other domain experts.

- Opportunity to work on your own ideas and collaborative projects. E.g., possible open projects in our group include AI for tumor bud detection, or multimodal AI for improved patient care and others.

- Opportunity to build a collaborative scientific carrier in computer science and medical data analysis at a German top-ranked university.

- Help to acquire, mentor and teach students (e.g., PhD, MSc, BSc, seminar series or others).

- Aim for apply for funding sources (DGF, BMBF, Bavarian and TUM funding) to strengthen your carrier.

- 2-years full-time, with option to extend (max 4y).

Prof. Dr. Peter Schüffler · Trogerstraße 18 · 81675 Munich, Germany · https://schuefflerlab.org
TUM School of Computation (CIT) · TUM School of Medicine and Health · Munich Data Science Institute (MDSI)

Requirements

- A PhD or equivalent and a solid background in a technical field such as computer science, bioinformatics, mathematics, computational life sciences or related.

- Profound knowledge in machine learning, preferably deep learning for image data.

- A strong publication history, including but not limited to conferences such as MICCAI, NeurIPS, ISBI, ICCV, ICML, ECCV, or others.

- Fluent familiarity with at least one coding language for ML or data analysis (e.g. Python, R, …).

- Familiarity to work on a Linux computing cluster (HPC).

- Preferably experience in working with large medical image data.

- Vivid interest in the analysis of microscopy images or similar medical image data.

- Vivid Interest in interdisciplinary research, closely working together with pathologists, medical experts, computer scientists and other researchers.

- Independent and pro-active work method (support and mentorship will of course be provided).
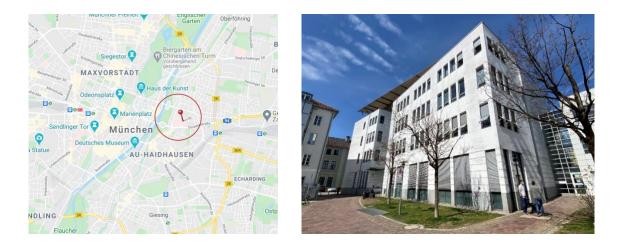
We Offer

- A new lab in which you can contribute to shape the lab culture from the beginning.

- Opportunity to follow your own research interests, as well as to co-mentor students and make an academic career profile.

- State-of-the art research in high-impact areas such as cancer research and patient care, in an exciting, interdisciplinary field.

- Rich environment of groups for medical image analysis, medical data analysis, cBio, Radiology, nuclear medicine, molecular pathology, bioinformatics, and more.

- Opportunity to participate and offer projects for TUM hackathon (https://hack.tum.de/), MDSI Data Innovation lab (https://www.mdsi.tum.de/en/di-lab/tum-di-lab/), and TUM-AI (https://www.tum-ai.com/). No must, but fun!

- Modern technical equipment (Digital Slide Scanners, PCs, Computing Cluster, …).

- Flexible work-conditions according to your individual needs.

- Workplace in the middle of Munich.

- Compensation according to TV-L

- TUM's benefits for employees (https://www.tum.de/en/about-tum/working-at-tum/services-for-employees/).

Application

If you are interested to join us, please send us your application with CV, publication list and short motivation letter via e-mail to peter.schueffler@tum.de.

TUM is an equal opportunity employer. TUM aims to increase the proportion of women, therefore, we particularly encourage applications from women.

The position is suitable for the employment of people with severe disabilities. In cases of substantially equal qualifications, skills, and professional performance, candidates with severe disabilities will be given preferential consideration.

Data Protection Information: As part of your application for a position at the Technical University of Munich (TUM), you submit personal data. Please note our privacy policy in accordance with Art. 13 General Data Protection Regulation (DSGVO).

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