The Cluster of Excellence Physics of Life (PoL) offers a shared project position in the Core Facility Tailored Smart Microscopy and the Core Facility Bio-image Analysis as

**Research Associate in Microscopy and Bio-Image Data Science (m/f/x)**
(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting as soon as possible. The position is initially limited until December 31, 2025. The period of employment is governed by § 2 (2) Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG). Balancing family and career is an important issue. The position is equally suitable for candidates seeking part-time employment. Please indicate your request in your application.

The Cluster of Excellence PoL ([https://physics-of-life.tu-dresden.de/en](https://physics-of-life.tu-dresden.de/en)) is an interdisciplinary research center for biology, biophysics and computer science, which is funded by the German Research Foundation (DFG) and offers a wide range of support structures. You will be associated with the Core Facilities Tailored Smart Microscopy (TSM) and Bio-image Analysis (BiA) at PoL and work as bridge-builder in a highly interdisciplinary environment. The joint mission of both groups is to leverage smart-microscopy approaches to streamline post-processing of large amounts of acquired image data and to facilitate on-the-fly data processing. Projects are typically conducted in small interdisciplinary teams. Like all TSM and BiA Core Facilities members, you know how to work independently, you take initiative when necessary, you are a team player, and are comfortable with leading a project team. Knowledge exchange is a crucial factor for you, especially when working in teams that span multiple technology development and research groups and multiple disciplines.

**Tasks:** Your work will focus on developing and maintaining research-project driven automated workflows which include the following key elements:

- implementation of tailored complex imaging protocols (mainly for live imaging on spinning disk and light sheet microscopes);
- on-the-fly data processing including real-time feedback into workflows;
- advanced post-processing of large image data using GPU-acceleration and high performance computing.

For this you will work closely together with microscopists, biologists, bio-image analysts and research software engineers at PoL and on the DRESDEN-concept network.

**Requirements:**

- university and PhD degree (or equivalent) in physics, biology, engineering, computer science, mathematics, natural science, or alternatively university degree (MSc or Diploma) plus three years of work experience in any of the mentioned fields;
- proven sound experience in using advanced light microscopes;
- experience in using image analysis software such as Python, ImageJ Macro, Fiji, Napari, dask, scikit-image;
- strong analytical and quantitative reasoning;
- affinity towards practically relevant challenges and solutions;
- English communication skills (B2).
- Experience in open-source software development and in biological physics, wet-lab biology, computational biology, or systems biology is a plus.

**What we offer**

We offer an interdisciplinary and international research environment of high standing and visibility with challenging mid-term projects on diverse research topics. You will be part of the PoL community, the Dresden Campus, and our extensive international network. We offer the opportunity to work on
novel approaches integrating microscopy and image data science, combined with the possibility to
develop your academic or professional career. We provide the possibility to acquire project
management skills, team leading skills, and teaching skills. Employment conditions include a
comprehensive package with full social benefits, and remuneration according to the State Tariff for
Civil Servants (TV-L).

We invite applications from open-minded candidates who value knowledge sharing and building
bridges between disciplines. We encourage scientists to apply who do not yet have deep expert
knowledge in biomedical image data science yet but strive to acquire that knowledge and skills.
Applications from women are particularly welcome. The same applies
to people with disabilities.

Please submit your comprehensive application, including a cover letter
explaining your motivation to apply for this position, a CV including a list
of your publications and/or open-source projects and a copy of the certificate of your highest
academic degree until **March 2, 2022** (stamped arrival date applies), preferably via the TU Dresden
SecureMail Portal [https://securemail.tu-dresden.de](https://securemail.tu-dresden.de) by sending it as a single pdf document to
**bert.nitzsche@tu-dresden.de** (subject line ‘Research Associate in Microscopy / Bio-Image Data
Science’) or by mail to: **TU Dresden, Exzellenzcluster Physik des Lebens, z. H. Herrn Dr. Bert
Nitzsche, Arnoldstrasse 18, 01307 Dresden**. Please submit copies only, as your application will not
be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

**Reference to data protection:** Your data protection rights, the purpose for which your data will be processed,
as well as further information about data protection is available to you on the website: [https://tu-
dresden.de/karriere/datenschutzhinweis](https://tu-dresden.de/karriere/datenschutzhinweis).