



## Image analysis expert

The laboratory of Prof. Prisca Liberali at the Friedrich Miescher Institute (FMI) provides a world-class research environment for applying image-based systems biology to investigate fundamental cell biological and developmental questions in 3D model systems such as organoids. The laboratory is a leader in the development of single-cell image-based quantification methods, combining high-content confocal imaging with light-sheet live imaging and single-cell genomic tools. The laboratory seeks an enthusiastic and highly motivated individual for the development of computational image analysis workflows of high-content microscopy images. The candidate will contribute to a cutting-edge image processing platform to process biomedical image data and includes machine learning tools and interactive visualization. The position will be partially funded by the Chan Zuckerberg Initiative (CZI) grants and will be initially for three years.

### Responsibilities:

The candidate will be responsible for the development and application of image processing, analysis, and visualization tools/workflows for microscopy imaging data. The role will involve development of image analysis algorithms and workflows, creative problem-solving, and dynamic interaction with the research team. The candidate will work closely with lab members – molecular biologists, physicists, and engineers – to analyse volumetric multichannel data, develop image processing scripts for microscope images or neural network-based segmentations, and provide visualization and quantification solutions. The candidate will drive development of novel analysis algorithms, and assist members with existing workflows via technical help and programming support. The candidate will also aid in integrating analysis workflows into a cutting-edge, cross-institutional image processing platform for biomedical image analysis. This position will include interaction with external companies for software development, and the candidate will be supported by the *FMI Facility for Advanced Imaging and Microscopy (FAIM)* and the *IT group* for high-performance computing needs.

### Qualifications:

We are looking for a highly motivated, communicative, and skilled individual experienced in Python programming and biomedical image analysis. Prior experience with microscopy data and visualization of multidimensional image datasets is preferred. The candidate should have practical experience in deploying state-of-the-art software. The candidate should be willing to work independently to tackle technical challenges while being part of a dynamic and multidisciplinary team and enjoy interacting with a diverse group of researchers. Given the large dataset volumes, expertise in high-performance batch processing and workflow management is beneficial but not required.

The ideal candidate should be fluent in Python and preferably also in one additional programming language (R, Java, C++) and can easily adapt to heterogeneous computing environments.

A Master's degree in computer science, applied mathematics, physics or an appropriate engineering discipline is required, however depending on the level of technical experience, other technical degrees may also be taken into consideration.

### Language requirements:

English

### Application:

Please submit your application including cover letter, CV, three references, and a statement on short- and long-term professional goals by **February 25, 2022**, via [www.fmi.ch/opening](http://www.fmi.ch/opening).

### Information:

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