

Stellenausschreibung Nr. 2021_33

The Leibniz Centre for Photonics in Infection Research (LPI, <http://lpi-jena.de>) is a project of the National Roadmap for Research Infrastructures of the Federal Ministry of Education and Research (BMBF). As one of the supporting institutions of the LPI, the Leibniz Institute of Photonic Technologies (Leibniz-IPHT, <https://www.leibniz-ipht.de/>) is looking to recruit a

PhD Student

from January 1, 2022 for 3 years part time (65%).

The LPI is being established by a consortium of four supporting institutions ([Leibniz-HKI](#), [Leibniz-IPHT](#), [FSU Jena](#), [Universitätsklinikum Jena](#)) In future, it will combine photonic technologies with infection research and thus contribute to the development of new methods for diagnosis, monitoring and therapy for human medicine. Research results will be transferred to clinical practice along the entire value chain. The LPI's research programme is divided into basic technologies, in which the four supporting institutions jointly address various scientific and technological focal points in an interdisciplinary approach. As a user-open translational infrastructure, LPI makes newly developed demonstrators and methods available to external partners within the framework of joint projects.

The use of mid-IR lasers and novel detection principles enables, for the first time, cell screening applications using IR spectroscopy at the single cell level in aqueous media (<https://IR4future.de>). The goal of the position to be filled is to establish a mid-IR based imaging platform for high throughput cell assays. Starting points are a unique research infrastructure consisting of a Fourier transform infrared microscope with array detector, a quantum cascade laser-based infrared microscope, and an optical photothermal infrared microscope.

Your tasks:

- Characterization of IR-compatible substrates and model sample systems for various measurement configurations in transmission and reflection
- Construction and research of measurement chambers and high-throughput measurement routines for IR detection of cells
- Test of IR approach for cell screening applications

We expect:

- Diploma/Master's degree in natural (chemistry, physics or similar) or engineering sciences
- Solid knowledge in optics and spectroscopy as well as data analysis using Matlab, Python or R
- Basic knowledge in bio- and cell analytics
- Good command of written and spoken English

federführende Trägerinstitutionen:

unterstützt durch:

gefördert von:

We offer:

- Professional supervision in an international and interdisciplinary research team
- A family-friendly atmosphere with work-life balance as a central concern
- Support and further development of our employees

Salary is in accordance with the regulations of the TV-L. The Leibniz-IPHT aims to increase the proportion of women among its staff and strongly encourages qualified women to apply. Severely disabled persons will be given preferential consideration in case of equal suitability.

Further information:

Dr. Christoph Krafft | 03641 206 306 | christoph.krafft@leibniz-ipht.de

Prof. Dr. Jürgen Popp | 03641 206 301 | juergen.popp@leibniz-ipht.de

The application must be accompanied by a CV, certificates, personal motivation statement on how your knowledge and experience will benefit the project, contact information of two professional references and publication list and submit until **03.12.2021** with **Code 2021_33** preferably by e-mail as a pdf file via the Leibniz-IPHT personnel office:

Leibniz-Institut für Photonische Technologien Jena e.V.
Personalbüro
Albert-Einstein-Straße 9, 07745 Jena
Personal_Abtl@leibniz-ipht.de

Note on data protection: By submitting your application and the accompanying documents, you consent to the processing of your personal data in connection with the application process. You may revoke this consent in writing or electronically at any time without giving reasons. Please note, however, that a revocation of consent means that any application in progress can no longer be considered.

federführende Trägereinrichtungen:



unterstützt durch:



gefördert von:

