The **Heinrich Pette Institute** – Leibniz-Institute for Experimental Virology (HPI), is committed to research on the biology of different human viruses as well as the pathogenesis of viral diseases. The HPI runs the Technology Platform for Microscopy and Image Analysis (TP MIA), at which novel light and electron microscopy technologies are developed and are applied for world-class research in virology.

The HPI offers:

1 PhD position

to develop the next generation of two-photon excitation (TPE) microscopes.

In cooperation with Prof. Sebastian Karpf (University of Lübeck), we will build novel TPE microscopes based on the SLIDE technology (Karpf et al., Nat Comm 2020), which are capable of ultrafast imaging (several kHz framerates) and are optimized for operation in biosafety level 3 (BSL3) laboratories. This highly interdisciplinary project is fully funded for three years through a Leibniz Competition Transfer Grant and includes many cooperation partners from academia and industry from the fields of virology, optical microscopy, and laser physics.

The successful candidate will be responsible for developing the user interface of the microscope, and to implement and test novel adaptive imaging modes of the microscope. The PhD project will be carried out in close coordination with a second PhD project, which focusses on the development and integration of the hardware components of the microscope.

We seek exceptional, highly motivated candidates holding a Master's degree in Physics, Photonics, Informatics, or Engineering Sciences for this project. Suitable candidates have experience in building or adapting optical microscopes. Experience in software development for optical microscopes and experience with TPE microscopy will be considered an asset.

We offer the opportunity to be part of the exciting endeavor to develop novel microscopy technology in order to see details of viral infection processes that no one has seen before in an extremely stimulating and interdisciplinary work environment. Starting date of the project is February 2022 or later. Salary will be according to German TV-AVH (salary agreement for public service employees). The HPI is an international research institute with English as the working language. For further questions on the project, please contact: roland.thuenauer@leibniz-hpi.de

Please send your application by 31st January 2022, late applications may be considered until the position is filled. Please send your electronic application including a letter of motivation indicating your possible starting date, scientific CV, two letters of reference and certificates in a single PDF to: personalabteilung@leibniz-hpi.de

The HPI promotes the professional equality between all genders. Handicapped applicants with equal qualifications will be given preferential treatment.

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