



## PhD Position (f/m/d)

as part of the Graduate School *Infection* of the Leibniz Center Infection (LCI)

Project title: ***Analyzing the structural conservation of LASV proteins to identify novel antiviral targets***

The Leibniz Center Infection (LCI) is a strategic alliance of the North German Leibniz Institutes Bernhard Nocht Institute for Tropical Medicine (BNITM), Research Center Borstel – Leibniz Lung Center (FZB) and the Leibniz Institute of Virology (LIV). The LCI focuses on global infections and links the complementary research of the three Leibniz institutes: tropical and emerging infections at BNITM, bacterial infections of the lung at FZB and viral diseases at LIV. The alliance provides a three-year structured graduate program on *Infection*.

The [LIV](#) focuses on human pathogenic viruses with the aim of understanding viral diseases and developing novel therapeutic approaches. The LIV offers one doctoral position in collaboration with Dr. Maria Rosenthal ([BNITM](#)):

### ***“Analyzing the structural conservation of LASV proteins to identify novel antiviral targets”***

Main Supervisor: Prof. Dr. Maya Topf  
(Research Department *Integrative Virology*, [https://www.cssb-hamburg.de/research/research\\_groups/topf\\_group/index\\_eng.html](https://www.cssb-hamburg.de/research/research_groups/topf_group/index_eng.html))

The Topf group employs and develops computational tools to study viral protein-protein interaction networks and perform structural modelling of protein complexes. The Rosenthal Lab uses structural biology, biochemistry and virology methods to investigate bunyavirus genome replication and transcription.

The joint PhD project between the labs aims at the integration of diverse data sources, including sequencing, protein-protein interactions, and 3D structural data, to investigate Lassa virus proteins. By combining this information with cell-based and *in vitro* mutagenesis studies, we will assess the functional relevance of certain regions to facilitate the identification of potential druggable pockets.

We seek exceptional, highly motivated candidates holding a Master degree in natural or life sciences for this project. Suitable candidates have experience in computational biology. Expertise in virology, biophysics, and data analysis will be considered an asset.

We offer the opportunity to perform cutting-edge research in an extremely stimulating work environment equipped with state-of-the-art technology. The Topf lab is located at the Centre for Structural Systems Biology ([CSSB](#)), which provides state-of-the-art facilities and expertise for structural biology studies and have access to the Maxwell Cluster at DESY as well as in-house GPU computers. The Rosenthal lab is located at BNITM and provides expertise in structural virology as well as *in vitro* biochemical and cell-based assay systems. An association of the Rosenthal lab with both CSSB and the Fraunhofer Institute for Translational Medicine and Pharmacology grants further access to high-end infrastructure and expertise for assay development and drug discovery.

The position is initially funded for 3 years. Payment and social benefits will be in accordance with the regulations of the German TV-AVH (salary agreement for public service employees). CSSB, LIV and BNITM are international research institutes

with English as the working language. For further information, please visit the websites of [CSSB](#), [LIV](#) and [BNITM](#), or contact Prof. Dr. Maya Topf ([maya.topf@leibniz-liv.de](mailto:maya.topf@leibniz-liv.de)).

Starting date will be summer 2023 or later. The application should include a letter of motivation, CV and two names of references. Please state your earliest possible starting date.

We look forward to receiving your complete and informative application in English language by **June 22, 2023** preferably by email as single pdf-file (not exceeding 5 MB) to the Human Resources of LIV ([personalabteilung@leibniz-liv.de](mailto:personalabteilung@leibniz-liv.de)). Late applications may be considered until the position is filled.

For project related questions, please contact: [maya.topf@leibniz-liv.de](mailto:maya.topf@leibniz-liv.de).

The LIV promotes the professional equality between all genders. Severely disabled persons will be given preferential consideration in case of otherwise equal suitability, qualification and professional performance



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