

The **Rudolf-Buchheim-Institute of Pharmacology (Prof. Dr. Michael Kracht), Department of Medicine**, is inviting applications for a

**PhD position**  
(salary scale TV-H 13, 50 %)

The position is available from 01.09.2017 until the end of the project 31.12.2020. The project entitled "Phosphorylation-dependent regulation of the RNA metabolism in the host response to coronavirus infection" is part of the collaborative research center CRC1021 "RNA viruses: RNA metabolism, host response and pathogenesis" as a DFG research grant. The position is provided for a promotion within the framework of the Giessen Graduate Center for the Life Sciences.

**The project:**

Coronaviruses (CoV) viruses are very large RNA viruses that undergo a complex life cycle in the cytoplasm of infected cells. Little information is available how these viruses reprogram the host cell to support their own replication and to avoid antiviral responses. The central aim of the project is to understand mechanistically how CoV alter the host cell proteome to change its metabolism and to shut off antiviral pathways. These questions will be addressed using state-of-the art proteomics techniques to characterize the phospho-, acetyl- and ubiquityl proteomes of infected cells but also to find out if CoV proteins are modified themselves. To reveal the relevance of protein modifications Crispr-Cas9 technology will be used to mutate modification sites of deregulated signaling proteins by homology-directed repair and to study the functional consequences for the host cell and for viral replication. A specific focus will be on methods suitable for single cell analyses that have been established in our lab. These include in situ proximity ligation assays (PLA) for determining protein:protein interactions and RNA-FISH to detect expression of single mRNA molecules in virus-infected cells. For further reading see our recent publications in PLoS Pathogens (doi: 10.1371) and Molecular Cell (doi: 10.1016). The project is embedded within a highly active and experienced research group and provides multiple options for interactions and for acquiring a broad range of scientific skills.

**Your profile:**

You have successfully finished your university degree in medicine, biochemistry, biology or a related field. A strong interest in virus research, cell biology, molecular imaging techniques and molecular biology is welcome. We are looking for a highly committed and motivated person who enjoys socializing within a modern life science research team but who is also capable to develop an independent research profile.

The Justus Liebig University, Giessen seeks to support women in scientific research. Therefore we strongly encourage women to apply for the available position. As a family friendly institution of higher education, the Justus-Liebig-University of Giessen welcomes applicants with children.

Please send your application (no e-mail) stating the **application number 390/11841/11** with the usual documents until **04.08.2017** to **Prof. Dr. Michael Kracht, Rudolf-Buchheim-Institute of Pharmacology, Biomedical Research Center Seltersberg, Schubertstrasse 81, 35392 Giessen, Germany**. Applicants with disabilities but otherwise equal qualifications will be preferred. Please do not send originals documents as these will not be returned after end of the selection procedure.