

Announcement:

The Systemsbiology Research group at the Institute of Infection Medicine and Hospital Hygiene at Jena University Hospital invites applications for a

PhD Student/Postdoc Position (m/f/d) in bioinformatics

in full-time initially limited to 3 (PhD student) or 2 (Postdoc) years, with the option to extend.

We aim to develop strategies for pandemic preparedness to combat viral infections within the Antivirus Pandemic PrEpAredness pLatform (APPEAL), which is going to be a new EU funded project of an interdisciplinary research team at all levels comprising 13 European partners. The recent corona pandemic caused a public health threat worldwide and we want to be prepared for the next potential viral pandemic. Virus directed treatment is limited as viruses adapt to changing environmental conditions. Hence, employing host-directed antiviral therapy to disrupt the virus' life cycle is of great importance.

We will (1) develop machine learning models for identifying druggable host dependency factors from multi-omics data, (2) study protein interactions and gene regulation at the molecular level employing network analyses, and (3) integrate these data elucidating host proteins being essential for the virus' life cycle suiting as drug targets for treatment.

Genome wide and targeted host factor screenings followed by microscopic imaging will be performed by cooperation partners. Outcomes from this data followed by our analyses will be validated *in vitro* and *in vivo* using emerging and re-emerging viruses with pandemic potential as listed by the WHO and Influenza.

Your application should be a single PDF file comprising a statement of purpose explaining your motivation for working with us and your relevant experience (one page), CV, transcripts (unofficial documents are sufficient), if you have, a list of publications, and contact information of two references. Please submit your application with the subject line "APPEAL Application" to rainer.koenig@uni-jena.de. We look forward to reading from you! Do not hesitate to contact Prof. Rainer König with any questions you may have.

Webpage: <https://www.uniklinikum-jena.de/infektionsmedizin/Forschung/Modelling.html>