

# Postdoc position available: Innovative approaches to develop next generation broadly acting antivirals

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**Synopsis:** The SARS-CoV-2 pandemic and its devastating impact on mankind, considering not only the viral death toll but also the socioeconomic consequences of the pandemic, emphasizes the importance of conducting research in antiviral therapy. There is a constant threat of emerging and re-emerging viral pathogens that ultimately might have the potential to cause pandemics. Therefore, the development of broadly acting antivirals is a top priority to be prepared for future viral outbreaks. The Research Section Molecular Virology at the University Hospital Tübingen has several innovative developmental projects aiming to establish novel broadly acting antivirals. Our purpose is to identify and target either conserved viral structural elements or host cell pathways that are exploited by viruses for entry and replication.

**Objectives:** In previous work, from innovative compound screens and bioinformatic modeling, we have identified several promising hit candidates that show broad antiviral activity against a range of different viruses within virus families or even across them. The goal of the research project is, in a highly collaborative effort, to determine antiviral activity of the compounds against various human pathogenic viruses including DENV, Influenza A Virus, RSV, SARS-CoV-2 as primary targets and Ebola-trVLP, HCMV and HIV as secondary targets in relevant cell culture models and in *in vivo* surrogate systems. Your task will be to identify and validate target structures, investigate the compound mode of action, perform SAR-optimization, and carry out resistance as well as toxicity screenings.

**Study organization:** You will be embedded in a highly motivated team of Postdocs and PhD-students working in the field of antiviral research. We have collaborations with pharmaceutical chemists, bioinformaticians for *in silico* modeling and systems biology, structural biologists, and clinicians. Furthermore, we collaborate with several industrial partners with the ultimate goal to advance compounds into a clinical development stage.

**Your profile:** You are an extraordinarily motivated Postdoctoral scientist thrilled to be part of a highly translational project connecting fundamental virology methods, bioinformatic approaches and drug development. You have a collaborative vision of science; you are communicative, self-organized, and reliable. You have a strong interest or scientific background in virology, drug development, or related fields. Knowledge in biomolecular docking and bioinformatics are advantageous. Ideally, you have worked with BSL3 pathogens (for instance flaviviruses, coronaviruses, influenza, retroviruses). We consider these technical skills an asset, but not absolutely required.

## **Contact for inquiries and to send your application documents:**

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The position is available for two years with the possibility of extension. Applications will be screened on a rolling basis until the position is filled.



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