

## PhD student Virology/Bioinformatics - 100%

The Institute for Infectious Diseases performs tasks in teaching and research as well as in diagnostic microbiology in the fields of virology, bacteriology, mycology, parasitology and serological infection clarification. It is the only university institute in Switzerland that combines all microbiological specialties in the field of clinical microbiology under one roof.

The **Experimental Virology research group** at the **Institute for Infectious Diseases (IFIK)** works on viral zoonoses and host – pathogen interactions in the respiratory epithelium of humans and animals. The **Virus Genomics/Bioinformatics research group** at the **Institute of Virology and Immunology (IVI)** uses next generation sequencing technologies and computational methods to study host and viral genomics of viral zoonoses. Within the One Health framework and funded by the newly established **Multidisciplinary Center for Infectious Diseases (MCID)** at the **University of Bern** (<https://tinyurl.com/MCIDswIAV>), our research groups are offering an exciting, interdisciplinary position for one PhD student.

**Project:** Influenza viruses can infect multiple species, including humans, pigs, and various domestic and wild birds. Pigs are particularly important for interspecies transmission since they can serve as “mixing vessels” for generating novel pandemic human influenza A viruses (IAV). During this project, we will monitor and characterize IAV circulating in pig and human populations and combine genomic, epidemiological, and microbiological data to investigate IAV evolution, transmission, and biological and clinical phenotypes in humans and pigs. Under the co-supervision of PD Dr. Ronald Dijkman and Dr. Jenna Kelly, the PhD student will monitor and characterize IAV lineages circulating in pigs and humans and help create a novel biological and computational workflow that can be used to generate a comprehensive risk profile for these viruses and increase preparedness to future viral threats. The project will be performed at the **Institute for Infectious Diseases (IFIK)** and the **Institute of Virology and Immunology (IVI)** in close collaboration with clinicians at the veterinary and human medicine faculties at the University of Bern.

**We are looking for** a highly motivated student with a strong interest in emerging viruses, next-generation sequencing, and bioinformatics who would like to work in a multidisciplinary One Health environment. Experience in molecular biology, virology, and next-generation sequencing (wet and/or dry lab experience) is advantageous. The position requires an MSc in bioinformatics, molecular biology (minor in bioinformatics), or a related field. Fluent spoken and written English are prerequisites for this position.

**We offer** a young and enthusiastic research group, an inspiring research environment, and state-of-the-art research facilities in the attractive working location of Bern, Switzerland. The remuneration is in accordance with the regulations of the Swiss National Science Foundation (SNSF), for 3 years. The PhD student will be enrolled in the Graduate School of Cellular and Biomedical Sciences (<http://www.gcb.unibe.ch>) at the University of Bern.

### The position is available from 1 May 2023

**How to apply:** Please send your application, including a motivation letter, CV, copies of diplomas and references (letters / contact information of three references) as a single file by email to: [hr-ifik@ifik.unibe.ch](mailto:hr-ifik@ifik.unibe.ch). For questions regarding the project, please contact PD Dr. Ronald Dijkman ([ronald.dijkman@ifik.unibe.ch](mailto:ronald.dijkman@ifik.unibe.ch)) or Dr. Jenna Kelly ([jenna.kelly@vetsuisse.unibe.ch](mailto:jenna.kelly@vetsuisse.unibe.ch)). Applications will be accepted until the vacancy is filled.