

Ph.D. student Virology

100 %

Institute for Infectious Diseases (IFIK), University of Bern
The position is available from 1. November 2023

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

Within the IFIK, the Experimental Virology research group works on characterizing viral zoonoses and host–pathogen interactions in the respiratory epithelium of humans and animals pertinent to (re-)emerging viruses. Within the SNSF project Deciphering the interferon system in bats, our research group offers an exciting, interdisciplinary position for one Ph.D. student.

Project

Project: Our current understanding of how bats control and tolerate viruses, and in particular our knowledge of how their natural defense system – the innate immune system – responds to virus infections, remains largely unknown. While much scientific progress has been made in recent years, few model systems and molecular tools are available that enable detailed studies of virus infections in bats. In this research project, we will create new bat-specific molecular tools and use our advanced in vitro cell culture models of the bat respiratory epithelium to characterize the natural defense system of bats during virus infections. Since these models are comparable to those available for humans and other animals, we can compare the natural defense system of bats to humans and other animals to help us understand why and how bats control and tolerate emerging viruses better than other mammals. Within the project, the Ph.D. student will help to create a bat-specific molecular toolbox to determine the biological role of type I and III IFNs in bats and other mammals.

Requirements

We are looking for a passionate Ph.D. candidate interested in creating a new molecular toolbox to delineate fundamental host-pathogen interactions in the respiratory epithelium of mammals, and who would like to work with an international and multidisciplinary team. Experience in molecular biology, proteomics, cell culture, and/or virology is advantageous. The position requires an MSc in molecular life sciences or equivalent; fluent spoken and written English are prerequisites.

We offer

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 Swiss National Science Foundation (SNSF) regulations. The Ph.D. student will be enrolled in the Graduate School of Cellular and Biomedical Sciences (<http://www.gcb.unibe.ch>) at the University of Bern.

Application and contact

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 PDF** by email to: hr-ifik@ifik.unibe.ch.

For questions regarding the project, please contact PD Dr. Ronald Dijkman (ronald.dijkman@ifik.unibe.ch)
Applications will be accepted until the 15th of September 2023