

## PhD position: Population genomics of wild rodents and their microbes

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A funded PhD position is available for research on the genomic consequences of population isolation, speciation and hybridization and their feedback on associated microbes. This will contribute to answering fundamental questions such as: What is the importance of adaptive and neutral processes during evolutionary divergence? How tight is the association between microorganisms and their hosts? We will address this through analyses of existing and new genomic data sets of *Microtus* voles and their microbes. The project can be adjusted in part to your specific interests but I expect to build on our recent publications below. You will also have the opportunity to contribute to other projects in the group.

I am looking for a skilled, creative and highly-motivated candidate who is able to work independently and in a team. You must have a solid background in evolutionary biology, and practical experience with bioinformatics and population genomics. You should enjoy the processing and analysis of large genomic data sets. If you have no experience in this field, this is not the right project for you. Experience with molecular laboratory work or fieldwork on small mammals is a plus but not essential. A Master degree in a relevant field is required. The project may include short periods of fieldwork, so a valid driver's license is beneficial. Obtaining a PhD from the University of Bern will require the writing of several manuscripts for leading scientific journals.

The position is fully funded for three to four years with an anticipated starting date of March 2025. My group is part of the Institute of Ecology and Evolution with a stimulating, multi-national research community and excellent infrastructure. English is the working language. Some knowledge of German or French is beneficial for living in Switzerland but it is not essential for the PhD project.

Please send your application as a **single (!!!) pdf file** to Prof. Dr. Gerald Heckel [gerald.heckel@unibe.ch](mailto:gerald.heckel@unibe.ch). To be considered, the pdf must include a letter describing your particular skills and motivation for the project and which past research experience makes you a suitable candidate (max. 2 pages), the abstract of your Master thesis, a CV, and contact details of 2-3 referees. Review of applications will begin December 16 2024.

### References:

Labutin & Heckel 2024. Genome-wide support for incipient Tula hantavirus species within a single rodent host lineage. *Virus Evolution* 10:1-14.

Saxenhofer, Labutin, White, Heckel 2022. Host genetic factors associated with the range limit of a European hantavirus. *Molecular Ecology* 31:252-265.

Wang, Peischl, Heckel. 2023. Demographic history and genomic consequences of 10,000 generations of isolation in a wild mammal. *Current Biology* 33:2051-2062.

Wang & Heckel 2024. Genome-wide relaxation of selection and the evolution of the island syndrome in Orkney voles. *Genome Research* 34:851-862.