

PHD STUDENT POSITION IN EVOLUTIONARY GENOMICS

The Laboratory of Evolutionary Genetics located at the University of Neuchâtel (Switzerland) invites applications for a fully funded PhD position with Prof. Daniel Croll.

The PhD project can be defined depending on the interests and strengths of the selected candidate. The broader theme of the PhD may include one or more of the following orientations matching the lab's current research directions:

- (1) **Understanding the genomic basis of rapid adaptation** to host plants, climate and agrochemicals. Fungal pathogens show extraordinary potential and large-scale genome sequencing offers unprecedented insights into underlying mechanisms.
- (2) **Tracking the expansion dynamics of transposable elements** across time scales. Both at the level of individual species and across large taxonomic groups, genomic datasets offer unprecedented opportunities to understand transposable elements trajectories and their consequences for the host genome.
- (3) **Cause and consequences of fungal genome plasticity**. High-quality pangenomes have been key to understand the rise of antifungal resistance and virulence. Expanding such pangenomes for more species, integrating epigenomics datasets and developing new tools for their in-depth analysis will yield many new insights into fungal evolution.
- (4) **Recapitulating evolutionary processes using DNA language models**. Adapting and developing LLMs has opened a multitude of new avenues to tackle exciting questions in evolutionary genomics.

Required qualifications: MSc degree in biology or related fields, strong interest in evolutionary genomics, bioinformatics and/or fungal biology.

We offer a very welcoming and interactive research environment with many opportunities for open discussions. Collaborations with researchers of diverse backgrounds internationally are encouraged. The University of Neuchâtel is centrally located in Switzerland with a wealth of cultural activities, a beautiful lakefront and views of the Swiss Alps.

Application: until 31 July 2027 (or until filled). Review of applications starts as soon as possible.

Starting date/duration: 1 October 2027 (or upon agreement). The initial duration of the PhD position is four years with the possibility for a 1-year extension.

Please send your application as a single PDF to daniel.croll@unine.ch including: a motivation letter (max 1 page), a CV, transcript records and contact details of 2-3 references (e.g. MSc supervisor, no letter is required at this stage). For more information about us visit our group website <https://pathogen-genomics.org> or contact Prof. Daniel Croll.

The University of Neuchâtel is committed to promoting equality of opportunity.