

Two 2-year 100% Postdoc positions in comparative speciation (epi)genomics

Unravel the (epi-) genomic architecture of chromosomal fusion and fission in holocentric species

Holocentric chromosomes that lack centromeres have repeatedly evolved in both animals and plants. Their unique chromosomal architecture may promote large-scale rearrangements through chromosomal fusion and fission and eventually promote speciation (Lucek *et al.* 2022 Trends Ecol Evol). However, often only some species groups undergo massive chromosomal diversification while others do not. This project aims to resolve the (epi-) genomic architecture of chromosomal fusion and fission across the two best studied holocentric groups with one postdoc position primarily being dedicated to Lepidoptera and the other to sedges of the genus *Carex*. Research on *Carex* is in close collaboration with Prof. Marcial Escudero (University of Seville, Spain) and Dr. André Marques (Max Planck Institute for Plant Breeding Research, Cologne, Germany).

For both Lepidoptera and *Carex* you will employ comparative genomic methods using existing chromosome-scale genome assemblies and generate additional genomes. You will annotate genomes and generate and analyse the epigenomic landscape. The goal is also to establish a macroevolutionary perspective of chromosomal rearrangements for speciation. The prospective candidates will join the group of Kay Lucek that is funded through a Swiss National Science Foundation (SNSF) Eccellenza fellowship and be part of the Biodiversity Genomics laboratory (www.biodiversity-genomics.ch) at the University of Neuchâtel in Switzerland.

Your profile: Enthusiastic, self-driven, responsible, collaborative and highly-motivated; excellent communication and interpersonal skills in verbal and written English; a strong work ethic. The ideal candidate brings strong conceptual thinking together with profound genomic and/or bioinformatic skills. Applicants should have a PhD degree in evolutionary biology, (epi-)genomics, bioinformatics, or close related fields.

We offer you: Two cutting-edge, two-year positions fully funded by the SNSF and the Fondation Pierre Mercier pour la science, based at the Institute of Biology, University of Neuchâtel, Switzerland. The Institute offers a vibrant and interdisciplinary research environment, combining a broad spectrum of research activities in life sciences, including evolutionary genetics, conservation, ecology and microbial biology. Salary and social benefits are provided according to University of Neuchâtel rules. Neuchâtel is an enchanting historic Swiss city, well connected and offering a broad range of cultural and recreational activities.

Starting date: The anticipated starting date is the 1st of March or April 2023, with some flexibility.

Application: Motivated applicants should submit (1) a one-page letter describing yourself, your career goals, and your preferred project outlining your match, (2) a CV describing your education, publications, and relevant work experience, (3) copies of masters/diploma and if already available PhD transcripts, as well as (4) contact information of two references. The application deadline is 5th of January 2023. Please, send all the information in a single (!) PDF to Prof. Dr. Kay Lucek (kay.lucek@unine.ch). If you have any further questions, please contact me using the same email address.

