

## Postdoc – “Natural diversity in grass stomatal anatomy and function”



The research group “Stomatal Biology” is welcoming applications for a **post-doctoral position** (2 + 1 years). Our research group investigates how grasses and succulents form “breathing pores” or stomata on leaves and how different stomatal forms contribute to gas exchange physiology. For more information, please visit <https://raissiglab.org/>.

**We are looking** for a postdoc with a completed PhD in biology (or equivalent) interested in phenotyping a natural diversity panel of the wild grass *Brachypodium distachyon* for differences in stomatal anatomy and function (e.g. [Nunes et al. \(2022\) QPB](#) or [Nunes et al. \(2023\) Curr Biol](#)). Experience in quantitative (plant) phenotyping, (plant) genetics, light microscopy, and computational image analysis is required. Furthermore, experience in genome-wide association studies, plant physiology, plant development and modelling is a plus.

**The project** is funded by the [Oeschger Centre for Climate Change Research](#) and is in collaboration with Prof. Beni Stocker (GIUB, UniBe), Prof. Christelle Robert (IPS, UniBe) and Dr. Anne Roulin (Agroscope). It will explore the phenotypic space of stomatal anatomy and function in 330 fully sequenced accessions of the wild model grass *Brachypodium distachyon* ([Minadakis et al. 2023](#)) in different temperatures. This dataset will then be used to identify genetic players regulating stomatal anatomy and function using GWA studies and determine accession-specific phenotypic plasticity (with A. Roulin). Furthermore, we will model photosynthesis and water use based on these anatomical parameters to predict water-stress-resilience (with B. Stocker). In the final phase, we will test different genotypes in future climate scenarios (with C. Robert).

**We offer** a vibrant and inclusive research environment that strives to answer fundamental questions in plant development and physiology of grasses and succulents (see our [lab mission statement](#)). We offer state-of-the-art research infrastructure at the Institute of Plant Sciences in Bern, Switzerland (<http://www.ips.unibe.ch/>). We are also affiliated with the Microscope Imaging Center ([www.mic.unibe.ch](http://www.mic.unibe.ch)) and the Oeschger Centre for Climate Change Research ([www.oeschger.unibe.ch](http://www.oeschger.unibe.ch)).

**To apply**, please send a single pdf including a motivation letter, a CV, and the names of at least two referees to [michael.raissig@unibe.ch](mailto:michael.raissig@unibe.ch). The start date of the position is flexible. We start reviewing applications on September 16<sup>th</sup>, 2024, until the position is filled.