

Widening Country Inspiration Story

“It is important to balance ambition and feasibility!”

Name of the fellow: Magdalena Bohutínská

Country of the host: Czechia

Project Acronym: CONstrainCONverge

Project start and end date: 1.09.2022 – 31.08.2025

Type of MSCA, Horizon Europe: Postdoctoral Fellowship



What is your project about and why is the topic important for science advancement?

Have you ever thought about the incredible ability of organisms to adapt to the changing environment? It's fascinating to witness how different species can independently develop similar adaptations to overcome similar challenges. And that's what I'm exploring in my MSCA project: the process of repeated adaptation in nature.

Why is this research important?

By unravelling the mechanisms behind why and how different species adapt in similar ways, we can improve our ability to predict evolutionary outcomes. It's a simple yet powerful concept - if a process is repeatable, it should also be predictable.

I'm particularly interested in the extent to which different species use the same genes to adapt. If they do, then these genes should be somehow special. Perhaps they're the most efficient at overcoming a particular environmental challenge, or perhaps they cause the least amount of disruption while doing so.

To dig deeper into these possibilities, I'm working under Prof. Katie Peichel at the University of Bern and Dr. Clement Lafon Placette at Charles University, Prague. I'm utilizing a combination of genomic, transcriptomic, and experimental approaches in a model system of repeated adaptation

undergone by plants in response to a challenging alpine environment.

Why is your project important for the society?

Studying the ability of organisms to adapt to environmental challenges is a fascinating field of research in itself. However, in this MSCA project, we take this a step further by investigating the genetic basis of these adaptations and exploring their predictability. Our work satisfies scientific curiosity while also having the potential for real-world applications in areas such as climate change and drug resistance.

What communication and public engagement measures do you have you foreseen?

The project is currently in the early stages of research, so I am mostly communicating and collaborating with science colleagues in Switzerland and beyond.

In the near future, I plan to also reach the general public by writing a popular science text on the topic of repeated adaptations to novel environments. To ensure that my work reaches a large and diverse audience, I plan to collaborate with local science communicators in both Switzerland and Czechia, and utilize social media platforms to promote my writing.

Why did you choose a widening country as a host? Czechia is my home country, and I like the academic environment there, especially in the field of biology: the enthusiasm for nature exploration and science is inspiring, and I have been fortunate to be a part of this community.

By applying for a global fellowship from a Czech institution I wanted to contribute to increasing the prestige of Czech science, while getting much needed experience abroad, in my case in the University of Bern, Switzerland.

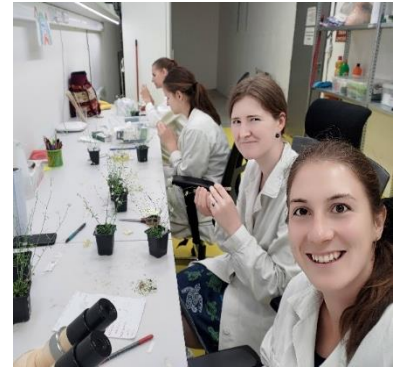
Through this experience, I hope to enhance my skills and knowledge and bring fresh insights, research ideas and collaboration opportunities to my home country.

What kind of support did you get?

The preparation of proposal was made possible thanks to a variety of resources and support systems. I greatly benefited from dedicated seminars that were organized by both the Czech and Swiss national contact points. These seminars, together with the MSCA NCP handbook, provided valuable insights into the application writing process and helped me understand the key components of a successful proposal. I further had the support of friends who were previously awarded an MSCA fellowship and were willing to share their successful applications. Finally, I received valuable feedback from my supervisors, team, and grant offices.

What tips can you give other researchers who would like to apply for MSCA? Like with many other grant applications, the most important part is to have an interesting, innovative and, if possible, interdisciplinary research project. It's important to balance ambition and feasibility.

Look for a group that will provide you with opportunities to learn and grow while also allowing you to make meaningful contributions to their research.



Writing an MSCA application may require a different approach than other grant applications you may have written before. Be prepared for more 'business vocabulary' and a strong focus on aspects like career development, societal impact, and knowledge dissemination.

More information on the project:



The Marie Skłodowska-Curie Actions (MSCA) support researchers at all stage of their career across all disciplines. The MSCA also support cooperation between industry and academia and provide innovative trainings and career developments.

The MSCA Postdoctoral Fellowships (PF) enable talented researchers to work on project in Europe and beyond. They aim at enhancing the innovative potential of postdoctoral researchers through advanced trainings, international and intersectoral mobility.

The MSCA-NET project is the MSCA NCP project to facilitate the transnational cooperation to achieve a consistent and harmonised level of NCP support. The scientific community can also profit from our project to support their MSCA application.

