

Returning home: there and back again in Czechia



By Hana Polasek-Sedlackova

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Returning to Central Europe was appealing and challenging. Here, I reflect on my part in rebuilding a research career in Czechia and fostering a collaborative scientific community across the region.

I grew up in the Czech countryside, captivated by the natural world, curious about everything that grew, flew, crawled. I found joy in asking how life works. While at summer camp, I attended a lecture on molecular biology, and something clicked: the idea that relatively simple molecular principles explain the complexity of life and disease felt magical. This fascination led me to study biochemistry at Masaryk University. I loved the clarity and precision of biochemistry; there was something deeply satisfying about working with purified macromolecules in the controlled environment of a test tube. Yet, I missed biological complexity, I missed the cell. I remember when I first saw a dividing cell under a microscope. It was stunning and I could not look away. Watching life unfold in real time was breathtaking, and that moment has stayed with me since. It led me to pursue a PhD to study how cells replicate and repair their genomes.

But I was looking for more than good scientific training; I sought a collaborative and open-minded environment where researchers asked profound questions, encouraged each other to think creatively and had their ideas challenged. I found that at the University of Copenhagen, in the lab of Professor Jiri Lukas. It felt like a scientific mecca. I was surrounded by passionate researchers, cutting-edge technology and mentors who believed in collaboration over hierarchy. What I had dreamed of was real: I was doing the science I had hoped for, and I felt part of something that mattered. Simultaneously, I became aware of how intense academic life can be, with the pressure to publish, perform and plan the next steps. As I approached the end of my PhD, I faced a difficult choice:

should I stay abroad for postdoctoral training, or could I do something different? I wanted to continue in science while staying connected to my roots. My partner, now husband, was in Czechia, and the COVID-19 pandemic had reinforced the importance of being close to family. I wondered: could I return physically and professionally? Could I contribute to the scientific community that raised me?

In 2022, I returned to Czechia and launched my laboratory. The timing was complicated. Although the pandemic was easing, new disruptions emerged, including the war in Ukraine, the resulting energy crisis and growing economic uncertainty. I faced pressing questions: how would we renovate our lab space? When would we get access to key equipment? Could we meet the standards I had grown used to in Denmark? Would I find talented students and postdocs eager to grow together as a team? These challenges were real, but they also motivated me. So, I rolled up my sleeves. I coordinated the renovation of our lab, which gave me a deep understanding of its possibilities and limitations. I learnt how to deal with unexpected administrative obstacles. In Czechia, research purchases include a 21% VAT, increasing the cost of advanced instruments. Procurement is often handled through public tenders, introducing delays. Ordering lab supplies can take weeks longer than I was used to. I had to learn fast, adapt constantly and find creative solutions. We built relationships with suppliers, found local alternatives and slowly started shaping the environment we needed. In the process, I discovered something profound: an incredible sense of community. Czech researchers, technicians and company representatives are dedicated, often going the extra mile to help us maintain older equipment, find cost-effective alternatives, share critical resources when needed. I deeply appreciate their essential support.

Adjusting to cultural differences brought another challenge. Denmark's flat hierarchy and open feedback culture, which encourage discussion across levels, have shaped my approach to mentoring and collaboration.

In Czechia, institutional structures tend to be more formal, and providing feedback can be a delicate matter. Nevertheless, many colleagues are receptive and supportive, particularly when interactions are grounded in respect and collaboration. I see great potential in helping our academic culture evolve to become more inclusive, dialogue driven and globally connected. I am eager to contribute to this transformation. Today, I lead a growing young team deciphering molecular pathways that safeguard the human genome. With support from national and international agencies, we are building something meaningful. I see talent, energy and ideas in my group and institute every day. I see what Czech scientists are capable of.

Like other countries in Central and Eastern Europe, Czechia has long struggled with brain drain. Research infrastructure remains uneven. Funding is often fragmented. Scientists from our region are often underestimated on the global stage. But things are changing. Quality and ambition are growing here. More researchers are returning with international experience and a strong desire to give back. We are not simply participating, we are contributing—boldly, creatively and often with limited resources. I am frequently asked whether it was worth returning. I have never regretted my decision. I have been inspired by earlier scientists who returned to help build Czech research. I feel proud to continue that path. Even when work is difficult, I am grateful to be home, leading a passionate team, contributing to global science and helping to shape a more open and resilient scientific future in Czechia and across Central Europe.

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Published online: 7 August 2025

Competing interests

The author declares no competing interests.