

## Widening Country Inspiration Story

“Find a balance between novelty and practicality in your research project idea”

**Name of the fellow:** Shane Amadeus Fiorenza

**Country of the host:** Croatia

**Project Acronym:** TRIPOLES

**Project start and end date:** 1.10.2024 – 30.09.2026

**Type of MSCA, Horizon Europe:** Postdoctoral Fellowship



### What is your project about?

The TRIPOLES project aims to characterise and understand the physical mechanisms involved in aberrant mitotic spindle structures often found in cancer cells. Healthy cells divide by assembling a bipolar mitotic spindle, but malfunctions in this process can result in multipolar spindles that cause uncontrolled genetic inheritance in daughter cells. Relatively little is known about how multipolar spindles function, so the goal of this project is to shed light on them through theory and experiment.

### Why is your project important for society?

By characterising the mechanisms involved in multipolar spindles, we will gain a better understanding of how cancer cells function and how treatments can better target them. We will also gain fundamental insight into what makes healthy cells transition to unhealthy spindle architectures, potentially paving the way for more effective early detection and prevention methods.

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

This project will use a large-scale computational simulation that facilitates

direct visualisation of mitosis. We will use animated movies that incorporate real simulation data to garner public interest and excitement at outreach events. Furthermore, the code developed for this project will be open source, allowing others to freely use it for their own projects.

### Why did you choose a widening country as a host?

Based on the science alone, Croatia was an ideal location to carry out this project. Nenad Pavin and Iva Tolić are experts in the mitotic spindle field, and their collaboration has resulted in many new discoveries over the last decade. Beyond this, however, I was quite excited to move to Croatia and experience a different culture after growing up in the United States. Furthermore, Croatia had just joined the Schengen area, which would let me easily move through the EU and explore even more.

### How did you find your host organisation?

I first met Nenad Pavin at a mitotic spindle conference he was hosting in Dubrovnik, Croatia. We discussed potential project ideas, and his scientific goals seemed to align with mine. I also spoke with his students about the atmosphere of the group to ensure that it would be a good fit.

### What kind of support did you get?

I wrote my application while still living in the United States, so I received feedback from my host institution via email and zoom meetings. I unfortunately was not aware of National contact points (NCPs) at the time of writing my application, but I have found them to be extremely helpful and enthusiastic in my communications since project submission, so I would recommend that potential applicants fully utilise them. For me, the most useful materials were the [unofficial MSCA Postdoctoral Fellowships handbook](#) and successful applications that I found online. The handbook clarified the expectations of each section, and the past applications provided concrete examples of best practices that helped me better understand how to organise my own proposal.

### What tips can you give other researchers who would like to apply for MSCA?

First and foremost, get excited about it! Regardless of the outcome, applying for the MSCA will develop your grant writing skills and organise your research ideas, and enthusiasm for the process will help you write a better proposal. When looking for a potential host, prioritise science over country and do not be afraid to send an email asking if they would be interested, even if no job openings are posted. Finally, find a balance between novelty and

practicality in your research project idea.

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.

