

EULAR Research Interview Series

EULAR's Scientific Training Grant Helps Slovenian Master Student Develop Critical Research Skills in Experimental Rheumatology

Interview with Nadja Ižanc about the benefits of EULAR's training grant, the importance of mentors, and advice for other applicants. She is a master's student in the Department of Rheumatology at the University Medical Centre Ljubljana in Slovenia. Her thesis is focused on synovial biomarkers for precision medicine to help people with rheumatoid arthritis (RA) who do not respond adequately to therapy.

EULAR: With EULAR's training grant, you could join the Centre of Experimental Rheumatology at the University Hospital Zurich, Switzerland. How did the exchange help you develop your research skills and project?

The training grant allowed me to broaden my knowledge of experimental rheumatology considerably. Not only was I able to join a very experienced and diverse research team of Dr. Frank-Bertoncelj, but I also developed research skills in experimental design, data interpretation, and critical methodologies like single-cell RNA sequencing (scRNA-seq), the basics of bioinformatics analysis, immunohistology, and standard methods of molecular biology. This broad skillset prepared me well for continuing my career at my Slovenian home institution.

The team in Zürich introduced me to rheumatology research in general, advanced equipment like a Chromium Controller, and methodologies I would need to carry out the project. I learned important methods like how to dissociate the synovium into single-cell suspensions, assess the cell quality, and process the single-cell suspensions for scRNA-seq. At the University of Ljubljana, we recently obtained a Chromium Controller as well. Now, I have the opportunity to transfer what I learned about scRNA-seq analysis of complex human tissues back to my home institution and train others. I'm currently writing up the data for my Master's thesis and co-authoring a scientific paper about the project.

Besides the experimental skills, I developed my network outside the local research community in Slovenia and learned a lot about scientific communication and presentation skills. During the weekly lab meetings, lab members, including myself, presented their project progress reports. Due to the COVID-19 pandemic, these meetings took place online. Being part of these open discussions and hearing the questions and comments was very insightful. It helped me to develop my analytical thinking across different research topics.

EULAR: How important were your mentors to the success of your training grant application and project?

My mentors were critical to the success of my research. As a young researcher, you don't have all the skills developed yet. You need help with implementing your ideas to start a research project. My Slovenian mentor, assistant professor Dr. Saša Čučnik, introduced me to my mentor in Switzerland. Without her support, it would have been difficult to identify groups that have expertise in my field of interest and accept international students. My Swiss mentor, Dr. Mojca Frank Bertoncelj, guided me closely through the experiments, experimental design, analytical thinking, and data interpretation. She also was the one who pointed me toward the EULAR Scientific Training Grant, which was an excellent fit for me.

EULAR: Looking ahead, where do you see yourself in the future?

I want to pursue a Ph.D. thesis in rheumatology and contribute to rheumatology research in Slovenia. If a PhD student position in Slovenia is not immediately available, I might go abroad for some time. But it is important for me to give back to my community, so I hope to build a future for myself here in Slovenia and support other young researchers.

EULAR: Do you have any advice for other applicants?

The application form itself is straightforward and well-structured. I suggest starting the application process early to allow for enough time to find the right mentor and with the writing process to involve the mentor in the

review. Without Dr. Frank-Bertoncelj's help, it would have been difficult for me to write a competitive application. Even though I was familiar with the topic, she helped me frame the background and significance of the project, which carries a lot of weight in an application.

EULAR: Finally, in 2020, EULAR launched its Virtual Research Centre to support research that improves the lives of people with rheumatic and musculoskeletal diseases. The centre does this by providing research resources, infrastructure, services, and training. Do you have suggestions on how EULAR could improve its Scientific Training Program and RMD research support more broadly?

This is a great program that more young researchers like biochemists and biotechnicians from fields connected to rheumatology need to know about. I noticed that there is little guidance on reporting the outcomes of the training grant. When I wrote my report, some instructions would have been helpful. For example, I was unsure about the level of detail I should provide and how many pages were required. In the end, I reviewed my report with my mentor and handed it in, and it was accepted.

I think EULAR could offer help with finding potential mentors and connecting past and future grantees who could exchange their training experiences. Young researchers are dependent on mentors, and it can be challenging to find one, especially if you do not have access to an existing network of established scientists in the field. As a master's student, it is important to have a mentor, who knows the local environment at the institution. Later as a Ph.D. student, it might also be helpful to have an international mentor who is an expert in the field.

Thinking more broadly, EULAR could make a real difference if it helped to develop local research opportunities. Not every European country has the means to invest in advanced research infrastructure. I think the desire to achieve ambitious research goals and be competitive in this field makes young people go abroad and seek opportunities in more research-driven environments. Therefore, exchange programs and training opportunities are an excellent opportunity for researchers who will then transfer their knowledge and experience to local institutes rather than permanently staying abroad.

Related links:

- More information about the EULAR Scientific Training Grant:
 - [Short-term \(1-3 weeks\)](#)
 - [Long-term \(1-6 months\)](#)
- More information about EULAR's [Virtual Research Centre \(VRC\)](#)