

This report is supposed to be published on the MIRAI website in order to publicize MIRAI activities and outcomes as a funded project by SJSF.

FY2024 Scandinavia-Japan Sasakawa Foundation
MIRAI Global Challenges Winter School
Participation Report

Name of participant	OscarJuez
University	OIST
Department (Graduate School, Faculty)	Plant Epigenetics Unit
Major (keywords)	Epigenetics/Epigenomics
Link to your researcher profile (if any)	linkedin.com/in/oscarjuez

1. What is the purpose of your participation in the Winter School?

My participation in the Winter School was driven by a desire to improve my understanding of interdisciplinary approaches to global challenges, particularly in the context of EU-Japan collaboration. By engaging with researchers and leaders in diverse fields, I aimed to explore innovative strategies for sustainable development, particularly to apply my PhD work on epigenetic markers of stress in plants, while also fostering meaningful professional connections. The program provided a unique platform to bridge academic and practical perspectives, enriching my understanding of how collaborative frameworks can address pressing societal issues.

2. What did you gain from participating in the Winter School (so to say, key takeaways)? What did you feel was good about participating? Please include the reasons.

The Winter School was an intellectually transformative experience that broadened my horizons in multiple ways. One of the most interesting takeaways was gaining an understanding of the interplay between policies and global collaboration, particularly through lectures that connected theoretical concepts to real-world applications. The sessions on sustainability, cultural diplomacy, and innovation left me with an appreciation for the importance of interdisciplinary approaches.

On a personal level, the program encouraged me to rethink how I present my research. By focusing on storytelling and emphasizing the societal implications of my work, I found it much easier to engage a diverse audience. This shift not only strengthened my communication

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skills but also reinforced the broader relevance of my research. The experience was rewarding because of the connections I formed with participants from diverse fields and backgrounds, fostering a shared purpose in tackling global challenges.

3. How would you like to make use of the outcomes and networks you gained at the Winter School in your research activities in the future? Please describe specifically, and, in particular, please let us know any initiatives you would like to try in MIRAI.

The insights and networks I gained during the program will play an important role in shaping future collaborations. For instance, the discussions on digitalization and cultural industries sparked ideas about integrating computational visualization into my studies of plant biology, which I plan to pursue as an innovative approach to data representation. Furthermore, the connections I established with fellow participants and mentors will help me collaborate on interdisciplinary projects that align with my research goals, particularly in sustainability and digital innovation.

In the context of MIRAI, I envision initiating collaborative workshops that merge biology with digital tools, building on the ideas exchanged during the Winter School. I also hope to explore opportunities for joint research projects. The program has equipped me with both the confidence and the tools to adapt my research to global contexts and foster meaningful collaborations across disciplines.

4. Please feel free to share your ideas on how to make MIRAI more interdisciplinary and function as a platform to promote the development and exchange of young researchers (e.g., what opportunities and initiatives would further accelerate exchange).

To make MIRAI more interdisciplinary and impactful, I believe it would benefit from creating more structured opportunities for collaboration, such as themed workshops or project-based exchanges that encourage participants to develop tangible outcomes. For example, interdisciplinary hackathons or short-term residencies could allow researchers from diverse fields to create solutions to common challenges.

In addition, expanding mentorship programs to connect researchers with both academic and industry experts could help translate innovative ideas into projects. MIRAI could also benefit from fostering continuity through follow-up events, such as a summer school in Okinawa at OIST, enabling participants to deepen connections and updates on collaborative initiatives.