PIANOFORTE Travel Grant Activity Report

Summary of the Work Performed

During my participation in the European Radiation Protection Week (ERPW 2026) in Berlin, Germany, I delivered an oral presentation in the scientific session **S3.2 – Nuclear Medicine & Theranostics** on 7 October 2026. The presentation was titled **"Setting up an in-house TL based environmental dose monitoring system for the NM department at a major public hospital".**

The research focused on establishing and validating an in-house thermoluminescent environmental dose monitoring system for use within a Nuclear Medicine Department. The work included radionuclide-specific calibration and validation of thermoluminescent dosimeters, theoretical dose calculations, and comparison with calibrated real-time dosimetry. The proposed system enables faster local access to environmental monitoring results, supporting timely radiation protection interventions while reducing delays associated with external dosimeter processing. Presenting this work within the Nuclear Medicine & Theranostics session also provided an opportunity to discuss its practical application with researchers working in internal dosimetry, occupational exposure, radionuclide therapy, and radiation protection in Nuclear Medicine.

Participation in ERPW 2026 also broadened my knowledge of current developments in radiation protection. Particularly relevant topics included crisis and emergency preparedness, radiation protection dosimetry, ALARA and LNT, environmental monitoring, nuclear security, and emerging technologies. These sessions helped expand my understanding of radiation protection beyond the clinical setting and highlighted its wider links with emergency response, environmental protection, and policy. The conference also provided valuable opportunities to exchange ideas, receive feedback, and network with researchers and early-career professionals from across Europe.

Impact on Knowledge, Skills, and Professional Development

This mobility strengthened my scientific communication skills and provided valuable experience in presenting research to an international audience. Discussions surrounding my presentation also provided useful perspectives on environmental dosimetry and monitoring strategies. The scientific programme broadened my knowledge of both medical and non-medical radiation protection and provided a wider understanding of current European research priorities. The experience will support my continued professional development in Nuclear Medicine and radiation protection, while also contributing to the dissemination of knowledge and good practice within my institution in Malta.

Conclusion

Participation in ERPW 2026 provided an important opportunity to present my research, receive expert feedback, broaden my knowledge, and engage with the European radiation protection community. The mobility contributed to my academic development, professional visibility, and competence building, and was well aligned with the objectives of the PIANOFORTE Mobility Programme in supporting early-career development, knowledge exchange, and international collaboration.

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