



ACTIVITY REPORT

International Wolfsberg Meeting on Molecular Radiation Biology and Oncology

Last June I attended the 16th International Wolfsberg meeting on Molecular Radiation Biology/Oncology, for which I was awarded with the PIANOFORTE travel grant as part of the PIANOFORTE Mobility Program for early career researchers. This meeting took place on June 17 to 19th 2023 in the Hurdalsjøen Hotel, Oslo (Norway), and is part of the Wolfsberg meeting series, which started in 1997. This meeting series of multidisciplinary congresses are considered top international meetings in the field of radiation. The meeting hosted keynote speakers which are world-leading experts on the fields of radiation biology as well as radiation oncology, together with invited lectures and poster presentations regarding cutting-edge research in the field of applied radiation biology.

The meeting was divided in four topics, each discussed for half a day: DNA repair, Intra- and inter-cellular signaling, Microenvironment, and Novel Therapies and Biomarkers. The first day was focused on DNA repair, with an opening lecture from Scott Lowe, an expert in the field focusing on tumor suppressor genes, followed by Alessandro Sartori, who gave a lecture about double strand breaks repair in cancer. Afterwards, there was a poster presentation session as well as proffered paper talks, ending with a social event, which offered the opportunity to talk to other colleagues in a more informal setting. The second day was focused on cell signaling and microenvironment. The morning session started with two lectures about the role of oxygen as a signaling molecule as well as the paper of DNA breaks in genotoxic stress, given by Sonia Rocha and Claus Sorensen, respectively. After lunch, the program continued with a lecture given by Ester Hammond about hypoxia and DNA damage, and a lecture about the role of cancer-associated fibroblasts in cancer treatment by Arne Ostmann. This was followed by proffered paper talks and poster presentations, during which I had the opportunity to present my work as I was selected to deliver a poster presentation. My research is focused on the prevention of radiation-induced adverse effects in the normal tissue, especially within the thorax. I am studying the mechanisms underlying the toxicities induced by radiotherapy in lung cancer patients, with a special focus on the lung tissue and the immune system. This conference was therefore a perfect fit for me, as it offered me the possibility to expand my knowledge in radiation biology and radioprotection, and learn about the latest advances and techniques in the radiotherapy field. Last, Fernanda Herrera, who focuses on immune resistance and radiotherapy, and Pierre Montay-Gruel, an expert in FLASH radiotherapy, gave lectures about novel therapies and biomarkers during the last day.

Overall, my attendance to this meeting offered me the possibility to share my research with the scientific community, as well as receive feedback and new insights from experts in the radio-oncology field. I could discuss my findings, but also the strengths and areas for improvement of my project, as well as improve my future experimental approach and the translational value of the project. I was able to expand my scientific network and get in touch with research leaders and pharmaceutical companies' CEOs, which may lead to potential future collaborations. This helped me to grow as a PhD student, but also aid in developing and strengthening my future career as a research scientist. For this, I would like to thank the PIANOFORTE committee for giving me this award and subsequently the opportunity to attend this international meeting.

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