

## 24th International Workshop on Radiation Imaging Detectors



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Type: **Invited speaker**

### **INVITED: Proton therapy centers in Norway**

*Monday, June 26, 2023 9:00 AM (30 minutes)*

Proton therapy is a type of radiation therapy that causes less treatment-related toxicity than standard X-ray therapy and will be offered to Norwegian cancer patients during 2024. The proton therapy units in Oslo and Bergen will have a unique infrastructure for clinical and preclinical research and, when fully operational, will offer treatment to around 850 patients each year. It is a goal to include 75% of patients in clinical studies. This is to strengthen the evidence around proton therapy and further develop this treatment. The clinical studies will largely be carried out as multi-centre studies, and require national and international collaboration. A National proton and radiation therapy register is under development, and will be a central supplement to the clinical studies and also data mining for artificial intelligence. The preparation of the clinical studies will be interdisciplinary with the involvement of various professionals from clinics, basic research, universities and colleges. Preclinical research will include translational research with experimental combination therapy, mathematical modelling of proton transport and biological response, artificial intelligence, and technological innovations such as proton-FLASH.

With the coming proton therapy units in Oslo and Bergen, Norwegian researchers will be able to carry out high-quality clinical and interdisciplinary research that is expected to lead to better, evidence-based treatment. The talk will present some research opportunities at the two centers, with emphasis on translational research and technological developments.

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