TRIUMF Advanced Rare Isotope Laboratory (ARIEL)

Contribution ID: **6** Type: **Contributed poster presentation**

Cancer research at ARIEL: FLASH radiotherapy and medical isotope production

ARIEL presents a new playground not only for nuclear physics, but also for medical applications of nuclear physics. ARIEL has the capability to produce photons for FLASH radiotherapy (RT), a capability currently available at only a few laboratories worldwide. In 2021, in vivo FLASH RT and conventional RT experiments were performed on mice using 10 MV photons at ARIEL.
Production of Ac-225, an isotope that has demonstrated remarkable results in clinical trials for treating metastatic prostate cancer, is planned as a by-product of proton beam delivery in ARIEL. The Ac-225 production process also produces several other isotopes of interest for medical applications.
ARIEL at TRIUMF presents a unique platform for a wide range of life sciences research. This poster highlights achievements to date, and outlines future capabilities for experiments at ARIEL contributing to the growing field of nuclear medicine.

Primary author: Dr DUNLING, Eleanor (TRIUMF)

Presenter: Dr DUNLING, Eleanor (TRIUMF)

Session Classification: Reception & Poster Session