



Contribution ID: 609 Contribution code: THPM080

Type: Poster Presentation

Establishment of the new particle therapy Research Center (PARTREC) at UMCG Groningen

Thursday 11 May 2023 16:30 (2 hours)

After 25 years of successful research in the nuclear and radiation physics domain, the KVI-CART research center in Groningen is upgraded and re-established as the PARTicle Therapy REsearch Center (PARTREC). Using the superconducting cyclotron AGOR and being embedded within the University Medical Center Groningen, it operates in close collaboration with the Groningen Proton Therapy Center. PARTREC uniquely combines radiation physics, medical physics, biology and radiotherapy research with an R&D program to improve hadron therapy technology and advanced radiation therapy for cancer. A number of further upgrades, scheduled for completion in 2023, will establish a wide range of irradiation modalities, such as pencil beam scanning, shoot-through with high energy protons and SOBPs for protons, helium and carbon ions. Delivery of spatial fractionation (GRID) and dose rates over 300 Gy/s (FLASH) are envisioned. In addition, PARTREC delivers a variety of ion beams and infrastructure for radiation hardness experiments conducted by scientific and commercial communities, and nuclear science research in collaboration with the Faculty of Science and Engineering of the University of Groningen.

Funding Agency

Footnotes

I have read and accept the Privacy Policy Statement

Yes

Primary author: GERBERSHAGEN, Alexander (Particle Therapy Research Center)

Co-authors: BARAZZUOL, Lara (University Medical Center Groningen); BRANDENBURG, Sytze (Particle Therapy Research Center); COPPES, Rob (Particle Therapy Research Center); DENDOOVEN, Peter (State University of Groningen); GOETHEM, Marc-Jan (University Medical Center Groningen); VAN DER GRAAF, Emiel (Particle Therapy Research Center); JONES, Brian (Particle Therapy Research Center); VAN LUIJK, Peter (Particle Therapy Research Center); SCHIPPERS, Jacobus (Paul Scherrer Institut); BOTH, Stefan (Particle Therapy Research Center)

Presenter: GERBERSHAGEN, Alexander (Particle Therapy Research Center)

Session Classification: Thursday Poster Session

Track Classification: MC8: Applications of Accelerators, Technology Transfer and Industrial Relations and Outreach: MC8.U01: Medical Applications