



MEDICAL IMAGING CLUSTER
MEDICAL UNIVERSITY OF VIENNA

20th April 2022, 4 pm

MIC Tea Time Pre-clinical Ion Beam Research – current status and future activities at MedAustron

Online event
Register at mic@meduniwien.ac.at

www.cluster.meduniwien.ac.at/mic



Dietmar Georg

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received his MSc and PhD in physics at the Technical University of Vienna, Austria. After a four-year research position at the University of Leuven, Belgium, he returned to Vienna in 2000 and became Head of Medical Radiation Physics at the Department of Radiation Oncology, Medical University of Vienna. In 2014 he was appointed as full professor of Medical Radiation Physics and Oncotechnology.

Cancer therapy has experienced a rapid surge in the use of protons and carbon ions over high-energy photons. Yet despite the widespread therapeutical use, research activities on proton and carbon ions have prioritized the fields of physics and technology development while largely ignoring pre-clinical and clinical research.

In his talk he will give an overview of the current status of ion beam therapy and motivate the building up of infrastructure for pre-clinical ion beam research. Current research on cellular models will be briefly reviewed. Next, he will provide an overview of ongoing projects and in-house developments to establish animal research with ion beams. These range from X-ray reference irradiations and animal irradiations with ions based on an image guided workflow, including multiparametric imaging for response assessment or micro-CT for treatment planning.

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This event will be approved by the Austrian
Medical Chamber with 1 DFP-Point.