



EINLADUNG

zum

VERA - SEMINAR

von

Eugen B. HUG

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**Particle Therapy:
From Niche Existence to Clinical Practice**

Proton and Carbon Ion Therapy as highly specialized radiotherapy began in the 50s in research laboratories in the USA and Europe. In 1991 the first hospital based proton center was opened in California. The advent of faster and smaller facilities heralded an exponential growth. Presently worldwide 68 centers are operational, >180.000 patients have been treated, approximately 85% with protons and 15% with carbon ions. Established indications are tumors of the skull base and spine, eye tumors, prostate cancer and pediatric malignancies. Over the last decade clinical indications are rapidly expanding to notably include H&N (head & neck) cancer, lung cancer, breast cancer, but also pancreatic cancer.

A major qualitative step was the introduction of active spot scanning technology – replacing passive scattering as beam delivery technique. Spot scanning poses high demands on software, on hardware as well as imaging integration.

The MedAustron Ion Therapy Center in Wiener Neustadt is a multi-ion therapy facility. Proton treatments started in 12/2016 with carbon ions to follow in 2019. Evidence of medical effectiveness of particle therapy for major disease groups will be provided and the opportunities - but also present limitations - discussed.

Donnerstag, 18. Oktober 2018, 16:30 Uhr

**1090 Wien, Währinger Str. 17, "Kavalierstrakt",
1. Stock, Victor-Franz-Hess Hörsaal**