

# GSI - SEMINAR

Im Hörsaal, SB1 Raum 1.201

Darmstadt, Planckstraße 1

Donnerstag, den 2. Juli 2015, 15:00 Uhr

**Prof. Dr. Jürgen Debus**

UNIVERSITÄTSKLINIKUM HEIDELBERG

HIT (HEIDELBERGER IONENSTRAHL-THERAPIEZENTRUM)

## **Proton and ion therapy in the clinic: News and views from the Heidelberg Ion Therapy Center (HIT)**

The basic research and the successful technical development of the technology of ion therapy at GSI was the corner stone for the implementation of proton and heavy ion therapy in Germany. More than a decade later, in 2009 the Heidelberg Ion Therapy Center (HIT) started to treat patients on a regular basis and is operational on a 24/7 schedule. The rotating gantry for treatment with heavy ions is unique in the world. Furthermore, HIT is the first hospital-based treatment facility at a clinic in Europe where patients can be treated with protons as well as with various heavy ions. This makes it possible to perform a reasonable number of comparative clinical studies on a variety of tumor entities. For certain tumor diseases, where conventional radiation therapy is unsuccessful radiotherapy with carbon ions is already recognized as the first choice and thus as a standard method. Ongoing as well as future studies will determine whether proton or heavy ion radiation will lead to better outcomes for the patients. It will be studied which heavy ions – helium, carbon or oxygen ions – are most effective for various tumors. First promising results from the clinics will be reported in this talk and future plans and visions to further improve the effectiveness of ion therapy will be discussed.

Einladender: Gerhard Kraft

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