Münchner Physik-Kolloquium Sommer 2018

When physics meets medicine: Targeted radionuclide therapy of cancer for precision oncology

Prof. Dr. Richard Baum, *Zentralklinik Bad Berka*

Monday, 11 June 2018, 17:15 h
Hörsaal 2, Physik-Department der TUM, Garching

Precision medicine is defined as treatments targeted to the needs of individual patients on the basis of genetic, biomarker, phenotypic, or psychosocial characteristics that distinguish a given patient from other patients with similar clinical presentations. Inherent in this definition is the goal of improving clinical outcomes for individual patients and minimizing unnecessary side effects for those less likely to have a response to a particular treatment.

Over the past decade, the use of Gallium-68 labeled somatostatin receptor (SSTR) PET/CT imaging followed by Lutetium-177 labeled SSTR-agonist (DOTATATE or DOTATOC) for peptide receptor radionuclide therapy (PRRT) has demonstrated remarkable success in the management of neuroendocrine neoplasms. Highly promising advances are being made in the management of advanced stage, progressive treatment refractory prostate cancer by applying the principle of theranostics (integration of diagnostics and therapeutics in the individualized management of disease).

Rapid progress is being made in the development of several radiometals potentially useful for theranostics. Matched pairs of radionuclides are being developed from the same element with comparable half-lives, to allow preparation of chemically identical radiopharmaceuticals for diagnostic and therapeutic purposes.

Student event: Meet the speaker

*We invite you to a **student-only** discussion-round with Prof. Dr. Richard Baum before his Munich Physics Colloquium talk.*

Be curious and feel free to ask any question.

Monday, 11 June 2018, 16:00 h
Seminar room PH 3076 (upper floor), Physik-Department der TUM, James-Franck-Straße 1, Garching