

Ph.D. Researcher in Radiation Biology

The Department of Radiation Oncology at the Medical University Vienna offers 2 two-year positions (1.1.2012 - 31.12.2013) for Ph.D. students in radiation biology. The positions are linked to a recently awarded research grant to establish a Christian Doppler Laboratory for "Medical Radiation Research for Radiation Oncology" (Project leader: Assoc. Prof. Dietmar GEORG). After favourable external evaluation of the activities an extension of contract is possible.

The radiation biology research to be carried will focus on translational normal tissue radiobiology in close cooperation with the existing clinical research groups on normal tissue side effects (bladder, rectum for prostate and gynaecological cancer; oral mucosa for head-and-neck tumours) after advanced photon and/or brachytherapy, in near future also for ion beams. It will particularly address the identification and validation of objective markers for the classification and quantification of normal tissue side effects and characterization of early indicators for the clinical manifestation of (late) complications of radio-oncological treatment, including modern normal tissue bio-imaging. In addition, research on tumour biology to study the correlation between hypoxia, revascularisation and tumour metabolism is envisaged. Strong collaboration with Prof. Dr. Wolfgang Dörr (Medical Faculty/University Hospital Carl Gustav Carus, Technological University Dresden, Germany), Visiting-Professor at the Medical University Vienna, is foreseen. The post-doc researcher is requested to guide and co-supervise Ph.D. students.

Qualifications: Graduation (M.Sc. or M.D.) in a relevant field of medical or natural sciences (e. g. biology, physiology, biochemistry, radiation oncology, or a related field). Experience in animal studies, medical imaging and statistical analysis is an asset.

Interested applicants should forward their curriculum vitae and bibliography to:

Assoc. Prof. Dietmar Georg, Division Medical Radiation Physics, Department of Radiotherapy, Medical University Vienna, Währinger Gürtel 18-20, A-1090 Vienna, Austria.

e-mail: Dietmar.georg@meduniwien.ac.at or Dietmar.Georg@akhwien.at

Application Deadline: 31.October 2011

Background information Christian Doppler Laboratory for "Medical Radiation Research for Radiation Oncology":

In total, about 10 full time researchers (post-doc plus Ph.D. research associates in medicine, biology, medical physics) will be employed through a research grant from the Christian Doppler Research Association (www.cdg.ac.at). Existing research groups at the Department of Radiotherapy and the collaborating Departments of Radiology, Nuclear Medicine and the Center of Medical Physics and Biomedical Engineering at the Medical University Vienna will support the establishment of a Christian Doppler Laboratory.

The multi-disciplinary research activities encompass technology development, pre-clinical studies as well as clinical studies related to the following topics/research modules: (1) Multimodality and functional imaging for response assessment, (2) Image Guided Adaptive Radiation Therapy, (3) Normal Tissue and Tumour Radiobiology, and (4) Ion Beam Therapy.

Researchers of the Christian Doppler Laboratory will have access to all facilities at the Department of Radiotherapy and the collaborating Departments (Radiology, Nuclear Medicine and the Center of Medical Physics and Biomedical Engineering) at the Medical University Vienna: Linear accelerators with IGRT option, afterloading systems treatment planning systems for advanced photon and ion beam therapy as well as brachytherapy, PET-CT, high field MR, CT, etc. The Medical University is currently establishing a small animal imaging lab (MRI, micro-PET CT, US, optical imaging systems) as joint research platform, which will be operational soon.

Funding was awarded for two years (2012-2013). Prolongation after 2013 is possible but will depend on the evaluation/external review of the research outcome of the Christian Doppler Laboratory for "Medical Radiation Research for Radiation Oncology".