Scientist (Postdoc) as Medical Scientist
focusing on MR-based metabolic imaging
(MR-Spectroscopy, CEST)

with high interest in translational cancer research for initially 3 years / Call No.: tba

The Mildred Scheel Career Center (Mildred-Scheel-Nachwuchszentrum, MSNZ) Frankfurt is a joint institution of the Faculty of Medicine of the Goethe University, the University Hospital Frankfurt, the University Cancer Center (UCT) Frankfurt-Marburg and the Frankfurt Cancer Institute (FCI). The MSNZ Frankfurt is one of five sites in Germany, which is funded by the German Cancer Aid within the frame of the research program “Mildred-Scheel-Nachwuchszentren”. The MSNZ offers an excellence program for Medical Scientists (scientists with a life science background or physicians working exclusively in science) aiming at a long-term perspective in university medicine with high scientific expectations. The MSNZ funds are intended to be used for the own position and for the own scientific projects to support the development into an independent group leader. More information can be found at www.msnz-frankfurt.com.

The position is offered at the Institute of Neuroradiology (Prof. Dr. Elke Hattingen, Dr. Ulrich Pilatus). Research projects will be conducted primarily at the close-by Brain Imaging Center (BIC), a collaborative research center created by the Goethe-University Frankfurt, the Ernst-Strüngmann Institute, and the Max-Planck-Institute. The BIC is a place of interdisciplinary research and intellectual exchange with weekly project presentation meetings and discussions.

Project description:
The Institute of Neuroradiology specializes in advanced MR imaging methods to evaluate different biological features related to diagnosis and targeted treatment. While focusing on patients with brain tumors also neurological disorders are studied. Over the past years, the Institute started to reach out to other oncologic subspecialties, transferring expertise to various tumor entities. One important current project aims at adding $^1$H/$^31$P-MRS in vivo metabolic profiling as a novel molecular level to the multi-omics assessment of lymphoma (superficial lymph nodes) to identify disease subtypes and predictive biomarkers. The successful candidate should participate in this project by implementation and optimization of the required MRS sequences. We are looking for someone dedicated to establishing project specific MRS (and CEST) methods as well as standardized post-processing and data quantification. There will be full support by other researchers of the Institute of Neuroradiology and BIC, including the methodological research group “MR Core Structure” that promotes the creation of novel data acquisition and analysis techniques. While following up on his/her own research interests, the Medical Scientist can get involved in several ongoing translational projects taking advantage of the close interdisciplinary cooperation between the Institute of Neuroradiology, Neurology and Neurosurgery. The Comprehensive Cancer Center-Consortium Frankfurt-Marburg is internationally well connected and ensures accessibility of many study patients.

We expect
- University degree in medicine or life science or physics and PhD or MD or MD-PhD with outstanding scientific credentials and postdoc experience
- publications in high-ranking international scientific journals
- expertise in cancer research and/or MR (especially MRS) imaging technologies
- a competitive research proposal within the outlined project
• strong interest in promoting your scientific qualifications and developing into an independent group leader
• broad experience in the management of scientific projects
• high level of motivation and communication skills

Other
• Governmental regulations require a valid proof of measles immunity or vaccination

We offer
• development of a personal scientific profile with the help of an internal mentor
• integration into the FCI, the University Cancer Center (UCT) Frankfurt-Marburg and the DKTK
• access to scientific infrastructure including two state-of-the-art 3T MR scanners with an advanced multi-nuclear Spectroscopy application dedicated for research only at the BIC and in the near future to an additional 7T MRI scanner at the new site of the BIC (Co-BIC)
• support by the methodological research group "MR Core Structure" at the BIC that promotes the creation of novel data acquisition and analysis techniques
• excellent basic research closely linked to translational and clinical aspects in close cooperation with clinical scientists
• opportunity for a research stay at a national or international research institution
• participation in further training and qualification programs of the MSNZ such as personal "soft" skills and career development
• a diverse and challenging task in an outstanding scientific and international environment
• the „Uni-Strolche“ – our day nursery (reserved places for MSNZ personnel)
• Part-time possibilities (the position is divisible)

Are you interested!

We are looking forward to your application! Further information on the FCI and its research program can be found at http://fci.health. An overview of the MSNZ is available at www.msnz-frankfurt.com. More information on the Institute of Neuroradiology can be found here, additional information on the Brain Imaging Center (BIC) are available at https://www.uni-frankfurt.de/50884672/Brain_Imaging_Center. For question on the Institute of Neuroradiology please contact Prof. Dr. Elke Hattingen (phone: +49 69 6301-5463), for more information on the Brain Imaging Center please contact Dr. Ulrich Pilatus (phone: +49 69 6301-83822)

For further information on the Mildred Scheel Career Center, please contact Prof. Christian Brandts (phone: + 49 69 6301-87334) or Dr. Tinka Haydn (phone: +49 69 6301-7251, email: msnz@kgu.de).

Please use the application form only for your application and submit your request together with a letter of motivation electronically by October 4, 2021 via the career portal (details at www.msnz-frankfurt.com).

Women are underrepresented in these positions at the University Hospital Frankfurt. Therefore, we highly appreciate applications of women. Applicants with handicap will be preferred if personal and professional skills are the same.