Faculty position (open rank) in
Molecular Imaging / Contrast Agent Development

The Advanced Imaging Research Center (AIRC) at the UT Southwestern Medical Center in Dallas / Texas / USA invites applications for an **open rank (Assistant, Associate or Full Professor depending on qualification) tenure-track faculty position** in the field of molecular imaging / contrast agent development.

Potential topics include but are not limited to (I) novel MRI contrast agents; (II) novel PET contrast agents with a focus on brain applications; (III) novel optical or optoacoustic contrast agents; (IV) multimodal PET-MRI or optical-MRI contrast agents; (V) theranostic agents; (VI) molecular imaging of inflammation; (VII) molecular imaging of cancer; (VIII) molecular imaging of neurodegenerative disorders; (IX) cross-validation of molecular imaging readouts against ex vivo methods (NMR, mass spectroscopy, optical and electron microscopy, biochemical assays) to enhance the physiological interpretation of imaging contrasts.

Since its creation in 2005, the AIRC has established a track record of excellence in metabolic imaging including the development of MRI contrast agents, a hyperpolarization program, magnetic resonance spectroscopy as well as the investigation of tissue extracts by NMR after ^{13}C labelled isotope infusion. Due to the recent establishment of the O'Donnell Brain Institute at UTSW and to better support an active clinical and basic science neuroimaging community at UTSW, UTD and UTA we aim to develop a strong MRI neuroimaging methodology expertise to complement the existing focus. UTSW has an international reputation in clinical and basic science excellence. There have been six Nobel Prize recipients since 1985.

AIRC provides access to human and preclinical MRI scanners to faculty and students at the three University of Texas academic institutions in north Texas to advance human imaging studies and translational research in animals. The AIRC currently consists of 12 primary faculty and more than 20 secondary or adjunct faculty and will expand by about 5 primary faculty in near future. AIRC is equipped with three human research-only 3T MR scanners (Philips Ingenia, Siemens Prisma, GE 750w), one human 7T MR scanner (Philips, first DDAS 7T system worldwide, software R5.9, parallel transmission fully integrated, state-of-the art neuroimaging scan protocols, enhanced multinuclear capability), three state-of-the art small animal MR scanners (Bruker 3T with HP capability, Bruker 7T with PET insert, 9.4T with rat and mouse brain cryo-coils and strong gradients), two hyperpolarization setups (Spin Aligner for preclinical and SpinLab for human application), 3 NMR spectrometers (Bruker) and a large chemistry lab for contrast agent development. The human and preclinical MRI and NMR facilities inside the AIRC recently underwent renovation and comprehensive hardware and software upgrades and are at the latest state-of-the-art. The nearby Radiology Department offers access to a cyclotron and hot chemistry labs for producing radiotracers, small animal and human PET/CT and SPECT/CT scanners, bioluminescence and fluorescence imaging for rodents and a highly focused ultra-sound (HIFU) system integrated with pre-clinical MRI. The installation of integrated human PET-MRI and MRI-HIFU systems (Radiology) and two integrated MR-LINAC (Radiation Oncology) were completed recently.

Applicants for this position should have a strong scientific record of accomplishment in either contrast agent development or application of molecular imaging in preclinical or clinical studies, which is supported by respective publications and extramural funding. The research focus of the candidate should be the development of novel contrast agents and/or the integration and application of multi-modal molecular imaging methods. Knowledge of either contrast agent chemistry and/or molecular imaging methodology / instrumentation is required. Applicants should have a degree in chemistry, biomedical engineering, biology, physiology, physics, electrical engineering, computer science or related fields. Experience in supervising graduate students and/or postdoctoral researchers is preferred. Faculty are expected to develop an independent, extramurally-funded research program and actively engage with clinical and basic research faculty across campus to apply the latest molecular imaging technologies to probe basic physiology and investigate small animal disease models or to translate molecular imaging into human studies.

The position is available immediately and the search is going to continue until a suitable candidate is found. The rank (Assistant/Associate/Full Professor), is dependent on qualifications, previous experience and record of accomplishment of the candidate. The offer will include an attractive start-up package and a highly competitive salary.

UT Southwestern Medical Center is an Equal Opportunity/Affirmative Action Employer. Women, minorities, veterans and individuals with disabilities are encouraged to apply.

Applications should include a letter of interest, a curriculum vitae, a list of publications (peer-reviewed original articles; review articles; book chapters; conference contributions; patents; other), a list of grants (please clearly distinguish grants as PI, as Co-PI and as person funded by the grant); a list of supervised students (Bachelor, Master, PhD) and postdoctoral researchers; a comprehensive summary of past research experience and future research interests (max 4 pages); PhD and Master certificates and respective transcripts; PDF copies of 5 most important publications and three references (contact details only).

All materials should be sent **electronically as a single PDF** file to Anke Henning, Director, Advanced Imaging Research Center, UT Southwestern Medical Center, Dallas, Texas, US: Anke.Henning@UTSouthwestern.edu and uploaded to the UTSW Talent Acquisition system: https://jobs.utsouthwestern.edu/job/16792682/molecular-imaging-faculty-advanced-imaging-research-center-dallas-tx/.