Mayo Clinic

Rochester, MN

Senior Research Fellow - 7 Tesla Body MR Imaging

We seek a highly motivated PhD physics researcher with expertise in MR imaging to join the laboratory of Dr Andrew Fagan Ph.D. at Mayo Clinic’s flagship campus in Rochester, Minnesota. The focus of this position is on the development of techniques for imaging hydrogen and deuterium in the body at 7T for early stage cancer detection, using a novel commercially-built dual-tuned 1H-2H array coil with:

* 1H - 8Tx/32Rx
* 2H – 8 transceiver loop array

In 2017, the Mayo Clinic Rochester installed the first FDA-cleared 7 Tesla MRI scanner in North America (Terra, Siemens) and has been performing routine clinical diagnostic imaging on patients since early 2018. In 2021 we installed a second 7T Terra scanner at our campus in Jacksonville, Florida. Both 7 Tesla scanners have 50% dedicated research time and we are highly interested in expanding imaging applications beyond the brain and knee, currently the only anatomical areas used for routine clinical imaging. We will accept delivery of a custom-designed dual-tuned 1H/2H body array coil to allow us image in the torso/abdomen/pelvis areas, and are excited to begin working with this innovative technology. We are specifically seeking an individual to work collaboratively with physics and clinical colleagues to develop and optimize body imaging techniques and evaluate their effectiveness in small-scale pilot clinical studies.

The successful candidate will be appointed at the Research Fellow, Senior Research Fellow or Research Associate level, commensurate with experience. Research and Senior Research Fellow positions at Mayo Clinic are temporary positions intended to provide training and education in research, while Research Associate positions are designed to prepare individuals for an independent program or faculty position at Mayo Clinic or elsewhere. Candidates with more than 6 years of postdoctoral research experience will also be considered, for appointment at the Research Scientist level. Qualified individuals will demonstrate the potential for research as evidenced by their training and peer-reviewed publications and should become competitive for national research grants. Proof of English language proficiency (oral and written) is required.

This full-time appointment is available immediately and for a duration of up to 3 years.

Mayo Clinic is located in the heart of downtown Rochester, Minnesota, a vibrant, multicultural, friendly city that provides a highly livable environment for more than 34,000 Mayo staff and students. The city is consistently ranked among the best places to live in the United States because of its affordable cost of living, healthy lifestyle, excellent school systems and exceptionally high quality of life. Mayo Clinic Rochester is home to a vibrant MRI research community working on research systems at 1.5T, 3T and 7T. We have vendor scientists based full-time on campus to provide scientific support, including a dedicated 7T Siemens scientist and we have close interactions with the Siemens ultra-high field teams in USA and Germany.

Please send your CV with contact details for 3 referees and a cover letter to describe your background, personal qualifications, research interests, and motivation for applying to Andrew Fagan at fagan.andrew@mayo.edu. Please include “Postdoc Application for 7 Tesla Body Imaging” in the
subject line of your email.

APPLY URL
https://ars2.equest.com/?response_id=76c9731e630f92c9a3af6bb6d400565c