

Assistant/Associate/Professor MRI Research Faculty
All Ranks
Tenure-Tenure Track or Non-Tenure Track

The University of Missouri – Columbia is expanding and adding to its research faculty. The Department of Radiology has an opening for an MRI research faculty, all ranks, all tracks. At MU we have a 7T MRI (Terra, Siemens) located in our NextGen Precision Health Institute adjacent to the University Hospital. Also located in the NextGen Precision Health Institute, the Department of Radiology has a 3T MRI (Vida, Siemens) and PET/CT (Biograph, Siemens). The imaging facility at NextGen serves clinical patients, human research subjects and large animal research subjects, and there is dedicated time and space for research. In addition, the radiology department has three 3T and four 1.5T MRI scanners (5 Siemens, 2 GE). MU has a Master Research agreement with Siemens and two on-site Siemens engineers.

We are actively growing our MRI research program. We have on-going, highly successful research in developing novel strategies and hardware for overcoming the challenges of B_0 and RF inhomogeneity at ultra-high field. Other 7T work at UM focuses on spectroscopy, spectroscopic imaging, perfusion and fMRI. Specific areas of application include research and clinical neuroimaging in addiction, aging, dementia and brain tumors. In addition, we have successful research programs in hyperpolarized gas MRI and novel reconstruction methods for cardiac MRI. Candidates with strong technical MRI or MRS backgrounds and/or interest in clinical or research applications of MRI or MRS are encouraged to apply. Experience with high-field MRI is desirable but not required. Those with a track record of extramural funding may be considered for [MizzouForward](#), which offers a broader interaction with the Mizzou research community and expedites your application through our review and recruitment processes.

Available equipment and resources at the 7T NextGen Precision Health MR system: The 7T Terra is a 60cm bore FDA approved system equipped with XR Connectome level gradients up to 80mT/m and 200T/m/s slew rates on each axis. The system is switchable between single (8kW peak) and 8 channel parallel transmit (8x2kW) modes and has available the Nova ^1H 1x32, 8x32 head coils and the research mode multi-nuclear option enabling ^{13}C , ^{23}Na , ^{31}P , ^{19}F , ^7Li , ^{17}O and ^{129}Xe . All neuro research studies are performed with the decoupled transceiver arrays (^1H 8x2, 8x1, 16x1, and $^{31}\text{P}/^1\text{H}$ dual transceiver 8x1, Resonance Research Inc.). On the Siemens system, passive and active shimming are implemented with 1st and 2nd order shims, in addition to four 3rd order shims. A very high order shim insert VHOS-380-18S (Resonance Research Inc., equipped with all 3rd, eight 4th and two 5th order terms) and two 32 channel MXD 5A/channel shim power supplies are routinely used with all spectroscopy and EPI acquisitions. With high accuracy field mapping and shimming, whole brain static shimming typically achieves better than 25 to 35Hz standard deviation.

Standard physiological monitoring includes ECG, pulse, respiratory monitoring with triggering enabled user controls. The system is equipped with a fMRI paradigm presentation system for functional studies using Avotec Silent Vision and audio systems.

Join MU and enjoy the support of the chair and the institution as you grow your research program. Faculty rank and start-up funding will be commensurate with credentials and experience.

MU is one of the few institutions in the country with colleges of medicine, veterinary medicine, agriculture, engineering, nursing and health professions on one campus. At MU's comprehensive academic medical center, scientists join clinicians in producing lifesaving discoveries and delivering them

to patients through a far-reaching network of hospitals, clinics, and telehealth sites. MU has more than 280 degree programs, 34,255 students and 250,000 alumni. The School of Medicine's more than 650 faculty physicians and scientists educate more than 1,000 medical students, residents, fellows and other students seeking advanced degrees.

MU is located in picturesque Columbia, Missouri a lovely small, university town in mid-Missouri near the Missouri river valley where the Ozark Mountains meet the plains. Enjoy the fine dining, cultural activities, division 1 sports teams, educational opportunities, relatively low cost of living, pleasant climate and varied outdoor recreational activities. The region is home to numerous parks and boasts an extensive trail network. Convenient to both St Louis and Kansas City, Columbia provides the best of small town living.

Required: PhD

To be considered for this position, please copy the url into your browser and apply:
<https://muschoolofmedicinecareers.applytojob.com/apply/PDcE8zGEPb/MRI-Research-Faculty?source=RSNA+Posting>