



MR RESEARCH FACULTY

REQUISITION # 75461

POSITION BASICS

Type of Position	TENURE-TRACK
Advertising Ends on:	Extended Until Position is Filled
Advertising Started on:	Friday, December 20th, 2024
College:	Carver College of Medicine
Department:	Radiology

SALARY

Salary:	Commensurate
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POSITION DETAILS

Full/Part Time Status:	Negotiable
Position Description:	Department of Radiology

Roy J. and Lucille A. Carver College of Medicine

The University of Iowa

MR Research Facility Faculty Member Position Available

The Roy J. and Lucille A. Carver College of Medicine Department of Radiology is currently recruiting for an Assistant, Associate, or Full Professor Tenure Track within the Department of Radiology with a focus on magnetic resonance (MR) research.

The primary function of this position is to develop a MR imaging research program within the MR Research Facility (MRRF). The University of Iowa's MRRF offers unique high-performance world class MRI systems for conducting MR research. This position may focus on technology development, translational research, or support collaborative research projects. The University of Iowa is a highly collaborative institution with strong ties between the MRRF and several departments across campus including Radiology, Biomedical Engineering, Electrical and Computer Engineering, Psychiatry, Psychological and Brain Sciences, Neurology, Neurosurgery, Internal Medicine, and Radiation Oncology. The MRRF is a core University of Iowa facility and currently supports more than 40 NIH funded projects and is supported by 8 MR scientists. Furthermore, the MRRF has strong industry partnerships in support of the advanced imaging equipment. Finally, the MRRF is highly integrated within the Holden Comprehensive Cancer Center, Iowa Development and Disability Research Center (HawkIDDRC), Iowa Clinical and Translational Science Award

Areas of interest for this position include but are not limited to the following areas:

- 1) Development of high performance diffusion imaging methods and other approaches to study tissue microstructure
- 2) Development of techniques for assessing glymphatic flow
- 3) Coil development for proton and multi-nuclear imaging applications
- 3) Development of quantitative imaging approaches
- 4) Cardiovascular imaging
- 5) Development of advanced imaging applications
- 6) Develop new collaborative projects leveraging the high performance MR neuroimaging hardware capabilities to encourage translational clinical research

In addition, this position will be expected to help mentor graduate students, post-docs, and work effectively within the team of MR faculty and scientists within the department by participating in grant and manuscript preparation to support ongoing and future projects. The incumbent is expected to work in a fast-paced research environment with diverse team of investigators, students, and staff members.

The University of Iowa has a world class MR facility, which includes:

- 3T GE MAGNUS head only scanner with a high performance gradient system (GMax = 300 mT/m, Slew Rate = 750 T/m/s)
- 3T GE Premier whole body scanner with multi-nuclear capabilities
- GE Signa 7T whole body scanner with parallel transmit and multi-nuclear capabilities
- ¹²⁹Xe Polarean HPX Hyperpolarizer

- The facility is currently upgrading its small animal 7T MR scanner

In addition, several other instruments are or will soon be available within the hospital

- Elekta Unity MRI Guided LINAC
- Siemens Skyra, Vida, and Aera scanners
- 0.55T Siemens Free Max (September 2024)
- Next generation Siemens Biograph mMR PET/MRI (June 2025)

For more information, please see: <https://medicine.uiowa.edu/radiology/>

Applicable background checks will be conducted.

Successful candidates will be required to self-disclose any misconduct history or pending research misconduct investigation including but not limited to sexual misconduct in prior employment and provide a related release and will be subject to a criminal background and credential check.

The University of Iowa is an equal opportunity/affirmative action employer. All qualified applicants are encouraged to apply and will receive consideration for employment free from discrimination on the basis of race, creed, color, religion, national origin, age, sex, pregnancy (including childbirth and related conditions), disability, genetic information, status as a U.S. veteran, service in the U.S. military, sexual orientation, gender identity, or associational preferences.

About the University of Iowa:

The university is located along the picturesque Iowa River in Iowa City, a city of some 77,000 people (170,000+ in the metro area) regularly ranked as one of the nation's best places to live. Iowa City is less than four hours from Chicago and within five hours of Minneapolis, St. Louis, and Kansas City, readily accessible via interstate highways and a regional airport 20 minutes away. Iowa City is an attractive, family-friendly, college town with abundant local and world-class cultural, theatrical and musical events, top ranked public schools, and outdoor recreational attractions. The Iowa City area is often ranked as one of the most livable communities in the nation (Livability.com). To learn more about our great community visit <https://livability.com/ia/iowa-city>, <https://www.thinkiowacity.com/> and <https://vimeo.com/148167202>.

Education Requirement: A Ph.D. / M.D. / or M.D. and Ph.D. in an engineering or scientific field such as Biomedical Engineering, Electrical Engineering, Medical Physics, Chemistry, Physics, or Computer Science is required.

Required Qualifications:

1. Training in MR physics and image acquisition.
2. At least 3 years of experience with medical image analysis.
3. Excellent verbal and written communication skills.
4. Demonstrated strong analytical and data analysis skills.
5. At least 3 years of experience with MRI pulse sequence development.
6. Experience with scripting languages (e.g. Python) for the development of image analysis pipelines.
7. Prior experience as a first author on peer-reviewed publications

Desirable Qualifications:

1. Prior postdoctoral training in MR imaging/spectroscopy or hardware development.
2. Prior success with grant applications.
3. Knowledge of pulse programming environments such as GE EPIC or Siemens IDEA.
4. Prior experience with ultra-high field MR imaging.
5. Prior experience with cluster computing.
6. Prior experience with MR reconstruction.
7. Demonstrated knowledge of effective strategies for working with faculty, staff, and students from a variety of backgrounds and perspectives.

ONLINE APPLICATION REQUIRED DOCUMENTS

Curriculum Vitae
Name and Contact Information of References
Letter of Interest
Number of References: 3

To start the Online Application process for this position, click the "Apply for This Position" button located below the Contact Information.

CONTACT INFORMATION

Contact: [Ashley M Fitzpatrick - ashley-fitzpatrick@uiowa.edu](mailto:ashley-fitzpatrick@uiowa.edu)
Cmed-Radiology
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3984 JPP BLB
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Phone: 319-356-2188
Department URL: <https://medicine.uiowa.edu/radiology/>

The University of Iowa is an equal opportunity/affirmative action employer. All qualified applicants are encouraged to apply and will receive consideration for employment free from discrimination on the basis of race, creed, color, religion, national origin, age, sex, pregnancy (including childbirth and related conditions), disability, genetic information, status as a U.S. veteran, service in the U.S. military, sexual orientation, gender identity, or associational preferences. The University also affirms its

commitment to providing equal opportunities and equal access to University facilities. Women and Minorities are encouraged to apply for all employment vacancies. For additional information on nondiscrimination policies, contact the Coordinator of Title IX and Section 504, and the ADA in [The Office of Civil Rights Compliance](#), 319/335-0705 (voice) or 319/335-0697 (text), The University of Iowa, 202 Jessup Hall, Iowa City, Iowa, 52242-1316.

Persons with disabilities may contact University Human Resources/Faculty and Staff Disability Services, (319) 335-2660 or fsds@uiowa.edu, to inquire or discuss accommodation needs.

Prospective employees may review the University Campus Security Policy and the latest annual crime statistics by contacting the [Department of Public Safety](#) at 319/335-5022.



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Iowa City, Iowa 52242

 [319-335-3500](tel:319-335-3500)

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