

Research Associate

Department of Biomedical Engineering
Charlottesville, Virginia, United States of America
R0076909

A Postdoctoral Research Associate position in cardiac MRI is available in the Biomedical Engineering Department at the University of Virginia (UVA) in Charlottesville, Virginia. The Research Associate will focus on preclinical MRI applied in mouse models of heart disease. Research will include the application of cardiac MRI to test mechanistic and therapeutic hypotheses in disease models, and/or the development of new MRI methods (pulse sequences and image reconstruction techniques). Current and planned areas of hypothesis-driven research are in obesity-related metabolic heart disease. The development of novel MRI methods would be in the context of imaging myocardial perfusion, oxidative stress and cardiovascular function, and would include accelerated acquisition and reconstruction methods and methods for reducing motion-related artifacts due to breathing. The successful candidate will work in the lab of Professor Frederick H. Epstein, PhD, Commonwealth Professor of Biomedical Engineering and Professor of Radiology and Medical Imaging, and will collaborate with Drs. Matthew Wolf, M.D. and Amit Patel, M.D., both of whom are academic cardiologists with expertise in cardiac MRI and heart failure.

Postdoctoral employment is temporary and is normally limited to an individual who has been awarded a Ph.D. or equivalent doctorate within the previous five years and who will be involved in full-time research or scholarship at the University. Employment as a Postdoctoral Research Associate is viewed as training and is preparatory for a full-time academic or research career, is supervised by a senior scholar, and allows the appointee to publish the results of his/her research or scholarship during the training period.

Candidates must have a Ph.D. or an equivalent degree in biomedical engineering or a related field, or an M.D. degree with research experience. Ideal candidates will have experience in preclinical imaging. Experience with handling mice, skills in histology and tissue analysis, and expertise in the pathophysiology of heart disease are also desirable. Proficiency in C, C++, MATLAB, and Python programming, as well as experience with MRI physics and pulse sequence programming (preferably on Bruker systems) would be ideal. Candidates are expected to have good communication skills, both written and oral.

The University of Virginia is a public research university located in central Virginia, 45 minutes from the scenic Blue Ridge Mountains and 2.5 hours from Washington, D.C. Cardiac imaging research at UVA, spanning from preclinical to clinical studies, is a major focus of four units, including Cardiology, Radiology, the Cardiovascular Research Center, and Biomedical Engineering.

Physical Demands

This is primarily a sedentary job involving extensive use of desktop computers. The job does occasionally require traveling some distance to attend meetings, and programs.

The anticipated hiring range is \$62,000–\$68,000, commensurate with education and experience, and will be consistent with NIH guidelines for postdocs.

This is an exempt-level, benefited position. Learn more about [UVA benefits](#).

This is a restricted position, which is dependent on funding and is contingent upon funding availability. This position has a term limit of 1 year after which reappointment will depend on department need and funding. Funding is available for 2 years, with possibility for reappointment based on department need.

This position is based in Charlottesville, VA, and must be performed fully on-site.

To learn more about UVA and in the Charlottesville area, visit [UVA Life](#) and [Embark CVA](#).

Application review will begin after October 9, 2025.

Background checks and pre-employment health screenings will be conducted on all new hires prior to employment.

How to Apply

Please apply [online](#), by searching for requisition number R0076909. Complete an application with the following documents:

- Resume
- Cover Letter
- Contact information for three references

Upload all materials into the resume submission field. You can submit multiple documents into this one field or combine them into one PDF. Applications without all required documents will not receive full consideration.

Internal applicants: Apply through your Workday profile by searching “Find Jobs.”

For questions about the application process, please contact Jessica Russo, Senior Recruiter, sxv9zv@virginia.edu.

The University of Virginia is an equal opportunity employer. All interested persons are encouraged to apply, including veterans and individuals with disabilities. Click [here](#) to read more about UVA's commitment to non-discrimination and equal opportunity employment.