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**Research Position: In-vitro Modeling of Cardiovascular Blood Flow**

*Depts. of Cardiology and Radiology, Northwestern University, Chicago, IL, USA*

**Post-Doctoral Fellow / Lab technician / In-vitro Lab Manager for Cardiovascular Imaging Research:** The Departments of Cardiology and Radiology at Northwestern University’s Chicago campus have open positions for a post-doctoral fellow, lab technician, or in-vitro lab manager focused on cardiovascular imaging research.

The position is in an active translational research environment blending clinical studies with advanced cardiovascular imaging research techniques, including state-of-the art 2D/3D echocardiography and magnetic resonance imaging (MRI). The research projects bridge Cardiology and Radiology, focusing on in-vitro modeling of blood flow characteristics in cardiovascular disease (such as aortic valve disease or mitral insufficiency). The project includes the design of patient specific in-vitro models (including 3D printing of vascular geometries) as well as conducting in-vitro imaging experiments using 2D and 3D Doppler echocardiography and 4D flow MRI. The object is to develop a flexible and unique experimental framework to better understand cardiovascular physiology, develop new quantitative approaches to imaging in valvular heart disease, and enable the rapid evaluation of medical devices, such as percutaneous valves, etc.

**Qualifications:** The applicant should have an advanced degree (BS, MS, or PhD) in physics, engineering, medical imaging, or a related field. Successful candidates will have a track record of prior work with ‘hands-on’ experimental techniques and lab management experience. Additional expertise in cardiovascular imaging, image analysis, Labview and Matlab is desirable.

**Environment, Cardiology:** The Center for Valvular Heart Disease in the Bluhm Cardiovascular Institute of Northwestern University is a rapidly growing collaborative endeavor of clinical, imaging, and interventional cardiologists, cardiothoracic surgeons, and basic and engineering scientists. Clinical and research echocardiography can be conducted using the latest GE E95 platform, with multiple options for off-line analysis. A new hybrid OR/cath lab allows on-going novel trials in percutaneous mitral valve replacement and tricuspid valve repair, among others.

**Environment, Radiology:** The MR research group at Northwestern University is multidisciplinary, including MR physicists, engineers, and cardiovascular diagnostic and interventional radiologists. Additional expertise spans the fields of informatics, computer science, biostatistics, cardiology, neuroradiology, and cardiac surgery, among others. The Center for Translational Imaging, an imaging core facility at Northwestern University’s Chicago campus, houses two MR systems (1.5T Aera and 3T Skyra) fully dedicated to cardiovascular imaging research.

Please email curriculum vitae to: alex.barker@northwestern.edu

[http://www.cti.northwestern.edu/](http://www.cti.northwestern.edu/)

*Northwestern University is an Equal Opportunity, Affirmative Action employer. Members of historically underrepresented groups are strongly encouraged to apply.*