



Postdoctoral Fellowship in Image-guided Ultrasound Therapeutics
Department of Internal Medicine
Division of Cardiovascular Health and Disease
University of Cincinnati
Cincinnati, Ohio

An extramurally-funded postdoctoral position in the Image-guided Ultrasound Therapeutics Laboratories is available to develop ultrasound-mediated therapeutic delivery to treat arterial disease and to develop passive cavitation imaging to monitor the therapeutic delivery. The overall goal of the project is to develop targeted, echogenic agents with therapeutic loading that would be ultrasonically triggered by a catheter in arteries to improve blood flow. Passive and active ultrasound imaging approaches will be implemented to monitor theragnostic agents and provide feedback for optimization of therapeutic delivery. These research programs involve both *in vitro* and *in vivo* animal studies. The postdoctoral fellows will collaborate with basic scientists and clinicians.

The postdoctoral fellow will perform *in vitro* studies to provide important new information and assist in the development of a Boston Scientific EkoSonic endovascular system to improve blood flow after stent deployment in the coronaries and peripheral arteries. The fellow will use B-Mode and passive cavitation imaging (PCI) on a GPU to create a real-time feedback system for optimal drug delivery. The fellow will develop PCI and B-mode imaging algorithms for a standard clinical linear array (for use in peripheral arteries) and phased-array (for use in coronary arteries).

A Ph.D. in biomedical engineering, electrical engineering, physics, or another related discipline and strong experience in experimental biomedical ultrasound or acoustic imaging are preferred. The position will have an initial appointment of one year and is renewable for a second year. The University of Cincinnati offers a competitive salary and benefits structure, in addition to career building activities and mentoring for future work in academia and industry.

Applications or questions regarding the position should be directed to Christy K. Holland, PhD and Kevin J. Haworth, PhD. Applications should include a cover letter, curriculum vita and references.

Christy K. Holland, PhD
Professor
Scientific Director, Heart, Lung, and Vascular Institute
Editor in Chief, *Ultrasound in Medicine and Biology*
Christy.Holland@uc.edu

Kevin J. Haworth, PhD
Associate Professor
Kevin.Haworth@uc.edu

Internal Medicine, Division of Cardiovascular Health and Disease
And Biomedical Engineering Department

<http://www.ultrasound.uc.edu>