

POST-DOCTORAL RESEARCH FELLOW IN CARDIOVASCULAR SCIENCE

An NIH post-doctoral research fellowship is available in Dr. Donald R. Menick's laboratory at the Medical University of South Carolina to study epigenetic regulation in cardiovascular disease. The main project will deal with examining the role of histone deacetylases (HDACs) in the regulation of macrophage phenotype and early resolution of inflammation in the post-MI heart. We and others have shown that treatment with HDAC inhibitors preserves LV function and myocardial remodeling in the post-MI heart. Our work shows that inhibition of HDACs result in the early recruitment of reparative macrophages in the post-MI heart and correlates with improved ventricular function and remodeling. Here we will use nanoparticle delivery of HDAC inhibitors to determine if targeted delivery of a class I HDAC inhibitor to inflammatory monocytes attenuates MI injury. We are also determining if treatment with a class I selective HDAC inhibitor in a model of chronic inflammation commonly seen in patients with atherosclerosis, results in reduced deleterious remodeling and preservation of ventricular function. Our objective is to test whether inhibition of class I HDACs in activated monocytes is sufficient to reprogram macrophage phenotype in the post-MI heart, reduce deleterious remodeling and preserve ventricular function. Our study has identified a very promising therapeutic opportunity to manage macrophage phenotype and enhance resolution of inflammation in the post-MI heart.

Applicants should have a doctorate in Biochemistry, Immunology, Molecular Biology, Cell Biology, Physiology, or a closely related discipline and be a US citizen or permanent resident eligible for NIH grant support. Successful applicants must have a strong publication record and excellent communication and laboratory skills. The fellow will be expected to participate in experimental design, data collection, analysis and interpretation, and preparation of oral and written scientific reports. The fellow will be a part of our NIH T32 program which provides a rich environment in training and career mentoring, with workshops and individualized mentoring team to maximize our trainees' success towards an independent research career. Salary is commensurate with experience according to NIH stipend levels. Please submit a cover letter describing research interests and experience, a curriculum vitae, and copies of recent research publications along with name, address and phone number of three references.

Direct all correspondence and recommendations to:

Donald R. Menick, PhD
Professor of Medicine, Director of Gazes Cardiac Institute
114 Doughty Street MSC773
Medical University of South Carolina
Charleston, South Carolina 29425
menickd@musc.edu