

**The Ohio State University Medical Center
Dorothy M. Davis Heart and Lung Research Institute**

Membership Application

Applicant's Name: _____

Faculty Rank/Title: _____

Department: _____ Telephone: _____

Address: _____

E-mail address: _____

Type of Membership Requested:

_____ Investigator

_____ National/International Scholar

_____ Associate Investigator

_____ Scholar

_____ Member

_____ Distinguished Scholar

Briefly outline your role with regard to the DHLRI mission. Describe the focus of your research or other scholarly activities and explain how they support the DHLRI mission.

My research is focused upon understanding mechanisms of ischemia-reperfusion injury related to the vasculature and cardiomyocyte biology.

One aspect of the laboratory is focused upon dissection of the phenomenon of ischemic preconditioning. Specifically, we are studying the role of knockout of KATP channel activity on the susceptibility to ischemia-reperfusion injury. We have observed and reported that female mice lacking KATP channel activity display increased calcium loading. Via several OSU collaborators, we are examining the mechanisms responsible for this sexual dimorphism.

The second aspect of the laboratory is examining the contribution of platelet activity to ischemia-reperfusion injury and thrombosis. Specifically, cardioprotective molecules involved in the production of adenosine are expressed on platelets. We are examining the effect of knock out and overexpression of these molecules in a model of ischemia-reperfusion injury and thrombosis. Additionally, we will examine acute coronary patient samples for evidence of polymorphisms that might occur in the genes for these proteins.

DHLRI Membership Application

Please specify your primary, secondary and tertiary affiliation with one of the following thematic programs:

- Inflammation, Fibrosis & Immune Function Primary Secondary Tertiary

- Ischemia & Metabolism Primary Secondary Tertiary

- Myocyte Biology Primary Secondary Tertiary

- Regenerative Medicine Primary Secondary Tertiary

Please provide a profile of your currently funded research.

Title of Project	Funding Agency	Full Grant Period	Total Award Amount

PLEASE INCLUDE A COPY OF YOUR CV AND BIOSKETCH WITH YOUR APPLICATION

Submit to:
Kelly Bolt
110 DHLRI, 473 W. 12th Ave., Columbus, Ohio 43210
kelly.bolt@osumc.edu