



Partha Dutta, DVM, PhD  
Assistant Professor of Medicine  
1720.1 BST  
200 Lothrop Street  
Pittsburgh, PA 15213



October 20, 2017

Dear Josh,

I am happy to collaborate with you on your project “Spatially controlled Nox2 inhibition for the targeted treatment of reperfusion injury in myocardial infarction.” Effective treatment of ischemia-reperfusion injury remains a major unsolved program for biomedical research, and your proposed approach represents a novel and promising idea.

As you know, I have worked extensively on developing novel approaches to reduce inflammation and injury in myocardial infarction (MI), and thus my group has substantial experience with a mouse model of MI that has led to eight articles in the past five years (*Sci. Transl. Med.* **2016**; *Arterioscler., Thromb., Vasc. Biol.* **2016**; *Circulation* **2015** and **2013**, *Cell Stem Cell* **2015**, *J. Am. Coll. Cardiol.* **2014**, *Circ. Res.* **2014**, and *Nature* **2012**) and a review (*Arterioscler., Thromb., Vasc. Biol.* **2015**). We routinely generate histology and cardiac imaging data, and my group will be happy to help you complete these experiments for your proposed research. One of my post-doctoral fellows, Sathish Vasamsetti, PhD, will train you to help you complete your proposed animal experiments. Further, we will be happy to facilitate your echocardiography and PV loop experiments in collaboration with the Vascular Medicine Institute (VMI) Small Animal Hemodynamics Core, which has a full-time animal surgical specialist, MD/PhD-level research associate, biomedical engineer, and MD-level director/coordinator who are happy to help. As you complete these experiments, you will also benefit from the expertise of the VMI’s Animal Phenotyping Facility, which has plenty of experience with surgical models of ischemia-reperfusion. Our combined expertise will facilitate completion of your cell culture experiments in Aim 1 and animal experiments in Aim 2.

I look forward to working with you on this collaboration, which is exciting but also highly feasible given that you already have already prepared and demonstrated H<sub>2</sub>O<sub>2</sub>-responsive activation of a model Nox2 inhibitor. As you know, my lab is a mere 10-minute walk away, and you are welcome to stop by my office whenever you would like to discuss progress or find solutions to road blocks. I am also happy to participate in conference calls with the team of mentors you have assembled to help you as you complete this project. Please feel free to get in touch at any time if you have any questions about mouse models of MI, myocardial inflammation, and treatment approaches.

Sincerely,

Partha Dutta, DVM, PhD  
Assistant Professor of Medicine  
Vascular Medicine Institute  
Department of Medicine  
Division of Cardiology  
University of Pittsburgh

P.S.—I am glad to see that you are pursuing a career at the intersection of chemical biology and vascular biology. Chemical biology approaches have enabled researchers in vascular biology to develop fascinating new probes (such as our click chemistry-based <sup>18</sup>F-FXIII probe that takes advantage of the tetrazine-*trans*-cyclooctene reaction in *Circulation* **2013**). I think this is an excellent area for someone to pursue dual-degree training and I am looking forward to seeing how your career unfolds!