

Postdoctoral Research Associate –Cardiac mitochondrial Ca²⁺ handling

Lillehei Heart Institute, Department of Medicine, University of Minnesota, Minneapolis MN

Postdoctoral position is available in the laboratory of Dr. Jin O-Uchi at the Lillehei Heart Institute, Department of Medicine, University of Minnesota (UMN), Minneapolis MN (<https://www.heart.umn.edu/>). O-Uchi lab is seeking one highly motivated postdoctoral fellow with an interest in cardiac ion channel physiology and mitochondrial biology. Our research aims to explore the detailed mechanism underlying the cardiac excitation and contraction/metabolism coupling by Ca²⁺ ion in the normal and disease hearts. Specifically, we are investigating the significance of adrenergic signaling in heart and its regulation of cardiac ion channel/transporters. The research projects at O-Uchi lab are currently supported by, NIH/NHLBI, AHA, and other private foundations.

The interdisciplinary LHI is home to scientists, physician-scientists and students investigating molecular mechanisms of cardiac disease, with focal areas in cardiac regenerative medicine, cardiac hypertrophy and failure, ischemia/reperfusion, arrhythmias and sudden cardiac death.

Applicants will be expected to study the role of adrenergic signaling on mitochondrial Ca²⁺ influx mechanism in the normal and disease hearts using novel mitochondria-targeted biosensors for Ca²⁺, ATP, and ROS measurements. The candidate will have unique opportunities to carry out interdisciplinary researches, which cover cardiac physiology, molecular biology and ion channel biophysics to address biologically and clinically significant questions. Multidisciplinary techniques such as gene transfer, Western blot, patch clamping and confocal imaging are routinely applied to isolated cardiac mitochondria, single live cells, tissues, and *in vivo* preparations.

Candidates should have a PhD and/or MD degree and postdoctoral/predoctoral research training in cardiac physiology and/or mitochondrial biology. It is preferred that the applicants have experience in cardiac electrophysiology, Ca²⁺ imaging, confocal microscopy, and *in vivo* cardiovascular disease models. Additional qualifications include excellent interpersonal and communication skills, including the ability to publish in English language peer-reviewed journals. The salary will be based on years of experience, commensurate with UMN guidelines

Interested applicants should apply online via the Employment System at the University of Minnesota by following the steps below:

1-go to U of MN Employment website: <https://humanresources.umn.edu/jobs>

2-under External Applicant option click the link titled, "search and apply for current openings"

3-enter Job opening id # 328645

4-change the "Jobs Posted Within" option to "Anytime." Click search.

Please include a letter of interest, CV, the names and contacts of at least three references, and reprints of relevant publications. Review of applications will commence immediately, and will continue until the position is filled. University of Minnesota is an equal opportunity and affirmative action employer

Additional information for PI and O-Uchi lab is available at:

<https://www.dom.umn.edu/bio/cardiovascular/jin-o-uchi>

<https://experts.umn.edu/en/persons/jin-o-uchi>

<https://www.ncbi.nlm.nih.gov/myncbi/browse/collection/54538621/?sort=date&direction=ascending>