Postdoctoral Fellow in Cardiovascular Physiology at University of California, San Diego

Title of the Position:
Postdoctoral Fellow in Cardiovascular Physiology

Summary of the Position:
The cardiovascular research laboratory of Dr. Ayako Makino at the University of California, San Diego, seeks a postdoctoral fellow who is highly motivated, creative, and devoted to the project goals. One postdoctoral position in cardiovascular physiology is immediately available in our lab. The area of our research focuses on the vascular complication in diabetes, in particular cell-cell communication in endothelial cells, pericytes, and smooth muscle cells, calcium handling in the endoplasmic reticulum and mitochondria, and post-transcriptional regulation of genes related to coronary microvascular disease in diabetes.

Duties and Responsibilities:
1. Perform physiological experiments in mice
   1.1 Isometric tension measurements in mouse distal coronary and pulmonary arteries using a wire myograph
   1.2 Evaluation of cardiac function using Millar system (e.g., LVSP, RVSP, dP/dt, EF)
   1.3 Measurement of coronary flow reserve using an ultrasound system
   1.4 Making a cardiac ischemia/reperfusion model in mice
2. Isolate vascular endothelial/smooth muscle cells from mouse heart and lung
3. Perform fluorescence microscopy experiments to measure Ca²⁺ and ROS concentration in cytoplasm and mitochondria
4. Conduct basic molecular biological experiments (e.g., Western Blot, PCR, qPCR)
5. Design and implement research protocols and conduct experiments
6. Data acquisition and analysis, grant and manuscript preparation, and presentation of findings at weekly lab meetings
7. Coordinate with other investigators for lab research, including maintaining transgenic mouse colony, cleaning the laboratory, managing the lab research record (including methodological approaches and animal protocols), and maintaining primary cells with an aseptic technique

Qualifications and Experience:
The successful candidate must have a Ph.D. in biomedical sciences, M.D., or equivalent degree. Three or more years of relevant experience in a research environment are required.

Salary/Stipend
According to UCSD standards/regulations

Special Instructions to Applicant:
The applicants should send a C.V., a letter of interest, and the names and contact information of three references to amakino@ucsd.edu. For more information about Dr. Makino’s research, please visit https://profiles.ucsd.edu/ayako.makino.

All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, or status as a protected veteran.