Postdoctoral Scholar for the Study of Gene Regulatory Networks Controlling Cardiac Rhythm, Function, and Disease: Chicago, IL, United States

What are the genomic principals of the gene regulatory networks that control cardiac rhythm and function in the adult heart? How do perturbation of these networks cause arrhythmias or heart failure? Can we define pathologic networks specific to disease and intervene to improve cardiac rhythm or heart function?

Applications are invited for postdoctoral positions for research and training in the Moskowitz laboratory at The University of Chicago to investigate these questions (http://moskowitzlab.uchicago.edu/index.html). We seek a motivated and well-trained individual to join a NIH funded investigation of the gene regulatory networks controlling heart rhythm and arrhythmias (https://elifesciences.org/articles/31683 and https://stm.sciencemag.org/content/8/354/354ra115). We have pioneered a novel approach for identification of functional enhancers and associated long non-coding RNAs (lncRNAs). We will investigate the gene regulatory networks controlling cardiac rhythm and function, and define the molecular mechanisms underlying cardiac arrhythmias and heart failure that result from network dysfunction. These novel approaches are applicable to human genetics, transcriptional regulation, and RNA biology, and will impact cardiovascular genetics and human molecular genetics more broadly. The laboratory integrates genomics, bioinformatics, molecular biology, mouse genetics, human genetics, and embryonic stem cell differentiations to investigate basic principles of gene regulation in the context of the adult heart.

Our laboratory is affiliated with the Departments of Pediatrics, Pathology, and Human Genetics, the Institute for Genomics and Systems Biology (http://www.igsb.org), and graduate programs in both Development, Regeneration and Stem Cell Biology (https://drsb.uchicago.edu) and Genetics, Genomics and Systems Biology (https://ggsb.uchicago.edu). We are located in the Knapp Center at the University of Chicago.

Highly motivated candidates with a recent PhD in developmental biology, molecular biology, genetics, pathology, cardiology or related fields and with at least one first author paper in an English language journal are encouraged to apply. Experience with genomics, molecular biology, mouse genetics, and/or bioinformatics is sought. Molecular biology skills are essential. Please send a letter describing research experience/interest, CV, and contact information for three references electronically to: cpaez@peds.bsd.uchicago.edu.

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