Postdoctoral Fellow, Cardiac Aging

Position Description:

We are seeking a highly motivated Postdoctoral Fellow to join the Preclinical Imaging laboratory at Calico to investigate molecular mechanisms controlling age-related diastolic dysfunction and its contribution to heart failure with preserved ejection fraction (HFP EF). You will be joining a multidisciplinary team of biologists, physicists and computational scientists using advanced imaging techniques (MRI, ultrasound, bioluminescence), animal models, RNA/DNA sequence data and large-scale human data sets to explore the biology of diastolic dysfunction and aging. Key aspects of this project include the development of imaging strategies to quantify diastolic dysfunction, characterization of animal models, genome wide association analyses, and conceptual integration of human and animal data to generate hypotheses for experimental validation. Calico provides a stimulating and collaborative working environment focused on fundamental discovery research and a commitment to translate scientific advances to realize their therapeutic potential.

Responsibilities:

- Implementation and optimization of HFP EF imaging biomarkers
- Development of HFP EF animal models
- Perform genome wide association analyses
- Plan and analyze RNA sequencing experiments
- Integrate different data sources and communicating scientific findings through publications and conferences

Position requirements:

- PhD in cardiovascular biology, biomedical Engineering or related field
- Good programming skills (MATLAB, Python, R)
- Prior experience with rodent imaging and handling
- Good writing, presentation, and communication skills
- Strong interest in cardiovascular aging

Nice to haves:

- Experience with Bruker MRI systems
- Expertise in cardiac imaging (MRI, ultrasound)
- Expertise in developing disease models in animals
- Experience with immunofluorescence
- Experience applying statistical analysis to address biological problems
- Familiarity with computer vision and machine learning techniques
Calico Postdoctoral Fellowship Program

Calico's Postdoctoral Fellowship Program pairs recent PhD graduates with internal expertise to conduct fundamental and innovative research and investigate meaningful scientific questions aligned with our mission to understand the biology of human aging and develop interventions for age-related diseases. Postdoctoral Fellows at Calico receive mentorship and support to develop independent research programs to enable the next stage of their careers. In addition to direct mentorship from their host laboratories, Postdoctoral Fellows benefit from collaboration with diverse scientists across Calico's Research and Technology groups and are encouraged and supported to communicate their findings through high-impact, peer-reviewed scientific journals and conferences.

Program Features

- Fully integrated into Calico's labs and community, Postdoctoral Fellows pursue new research directions with devoted resources for innovative and potentially high-risk research and bring new personalities, ideas, technology and perspectives to Calico.
- Calico's program is a fixed-term educational assignment for individuals who have recently completed their PhD degrees, have had a meaningful first author paper accepted for publication, and have made important contributions to science in their area.
- While postdocs will focus on their own project(s), mutually agreed to in principle and prior to making the decision to join the mentor's lab, the expectation is that they all contribute to furthering our understanding of aging and age-related diseases.
- Postdoc assignments are up to four years in length. It is expected that the postdoc will receive regular feedback and guidance from their mentor in addition to participating in a more formal annual review process to discuss project progress, individual performance, and career coaching.
- Our postdoc projects are expected to yield work that can be submitted for publication in a timely fashion upon completion and are intended to train people to become independent investigators in an academic or industry setting upon successful completion of the assignment.
- Calico postdocs join a community of other Postdoctoral Fellows who regularly engage with members of Calico's scientific community, including senior leadership, through a variety of professional and career development opportunities.

Online Posting: https://www.calicolabs.com/careers?gh_jid=5889199002