POSTDOCTORAL SCHOLAR in Neurosciences- Electrophysiology

Stanford University School of Medicine Department of Otolaryngology

The laboratories of Anthony Ricci and Nicolas Grillet are recruiting a postdoctoral fellow to work on common projects focusing on the molecular mechanisms of sound detection. The hair cells of the inner ear have a mechanotransduction organelle, the hair bundle that is sensitive to minuscule motion. We analyze deaf mutant mice to investigate the role of the mutated genes in sound detection.


The Grillet lab has expertise in molecular and cellular aspects of the hair bundle function (Grillet et al., Neuron, 2009; Wu & Grillet et al., Nature Neuroscience, 2017). The lab utilizes fluorescence and electronic microscopy to localize at high-resolution the proteins of the hair bundle. We also use injectoporation and viral transfection methods to challenge and rescue phenotypes in the hair cells (Xiong et al., Nature Protocol 2012). We look for protein interactors using biochemistry and yeast-2H methods, and finally we generate mutant mice with CRISPR/Cas9 gene editing or homologous recombination. (http://grilletlab.stanford.edu/).

The candidate will use electrophysiologic and optical techniques to characterize the phenotypes from mutant mice with suspected hair bundle defects. We are seeking recent graduates with a PhD in neuroscience, biophysics, physiology, or other relevant field. Experience with electrophysiological recordings is required.

The teams are multidisciplinary, using molecular and cellular biology, electrophysiology, biochemistry, electronic microscopy, biophysics and mouse genetics. The candidate will be co-mentored by Dr. Ricci and Dr. Grillet.

We are expecting high motivation and ability to work independently as well as part of the team.

To apply, please include a CV and a cover letter describing your previous work and career goals, putative starting date and the contact information for three references to aricci@stanford.edu and ngrillet@stanford.edu.