

## Postdoctoral fellowship @ Johns Hopkins University Center for Hearing and Balance

The Lauer and Vincent labs have an open position for a postdoctoral fellow to investigate cochlear synapse physiology in mammals. Environmental factors such as noise exposure and ototoxic substances are known to damage hair cells, auditory nerve fibers and ultimately ribbon synapses, as well as changing the auditory efferent synapses. Mammals have limited regenerative mechanisms therefore such damage ultimately leads to various degrees of hearing loss and abnormal auditory information processing. Projects focus on the use of different approaches (*in vitro*, *ex vivo* and *in vivo*) in order to understand synaptic dysfunction, promote ribbon synapse repair/regeneration, prevent synaptic damage and ultimately to develop therapeutic strategies

We use an array of techniques to investigate the functional properties of damaged and regenerated/repared synapses, including cell culture techniques; cellular physiology/patch clamp, optogenetic stimulation, confocal and multiphoton calcium imaging, voltage sensor imaging; anatomy (immunohistochemistry, confocal microscopy). The ideal candidate will have experience in one or more of these techniques and a working knowledge of the auditory system. **Experienced electrophysiologists are especially encouraged to apply.**

In addition to experimental techniques, postdocs will receive training in dissemination of research, grantsmanship and grant writing, research integrity, managing collaborations, peer review, and other aspects relevant to professional development. Postdoctoral fellows receive a stipend and benefits consistent with current university policies:

<https://www.hopkinsmedicine.org/som/offices/pda>.

Applicants should have a Ph.D. or equivalent degree in neuroscience, biology, physiology, or related field. Initial appointment will be for one year with possible extension based on performance and availability of funding. Postdocs are part of our large and highly collaborative Center for Hearing and Balance, comprised of members from Otolaryngology-HNS, Neuroscience, Biomedical Engineering, and Psychological and Brain Science departments. Our group is very collegial and collaborative, and our labs include members from across the career spectrum. We collaborate with clinicians and scientists from departments across the university.

Interested candidates should submit a CV and cover letter to Philippe Vincent [pvincen3@jhmi.edu](mailto:pvincen3@jhmi.edu) and Amanda Lauer [alauer2@jhmi.edu](mailto:alauer2@jhmi.edu). For more information about the labs, the center, and postdoctoral affairs at Johns Hopkins, please visit:

<https://www.lauerlab.com/>

<https://neuroscience.jhu.edu/research/faculty/152>

<https://glowatzkilab.com/>

<https://neuroscience.jhu.edu/research/faculty/32>

<http://jhu-chb.org/>