

Name: Artur A. Indzhykulian, MD, PhD

Location: Mass Eye and Ear, Boston, MA

Titles:

Assistant Professor, Department of Otolaryngology–Head and Neck Surgery, Harvard Medical School
Assistant Scientist, Eaton-Peabody Laboratories, Massachusetts Eye and Ear

Education/Training:

- MD – Dnipropetrovsk State Medical Academy, Ukraine
- PhD in Human Anatomy – Dnipropetrovsk State Medical Academy, Ukraine
- Postdoctoral Training:
 - o University of Kentucky, Auditory Neuroscience (Dr. Gregory I. Frolenkov)
 - o Harvard Medical School, Neurobiology (Dr. David P. Corey)

Prior service to ARO:

- Member since 2010
- spARO Mentor (2019–present)
- ARO Webinar and Podium Session Moderator (2021–2022, 2024)
- ARO Poster Blitz Judge (2021, 2022)
- ARO Membership Committee (2022–2025)
- ARO Program Committee (2023–present)

Research interests:

My research integrates molecular biology, structural biology, high-resolution 3D electron microscopy, and gene therapy to study hearing and balance. My lab focuses on the anatomy, function, and dysfunction of inner ear hair-cell stereocilia, sensory mechanotransduction in hair cells, and mitochondrial function in various cochlear cell types. We use mouse models, advanced electron microscopy techniques, and machine learning–based image analysis. Ongoing projects include rational protein engineering for gene therapy (e.g., mini-PCDH15), development of deep learning tools for segmentation and analysis of light and electron microscopy datasets, and targeting mitochondrial calcium regulation as a therapeutic strategy for acquired hearing loss.

Personal interests:

Outside the lab, I enjoy hiking, sailing, fishing, snowboarding, and traveling with my son. I also like cooking, fixing things around the house, and caring for my plants.

Statement of goals:

ARO has played a central role in my development as a scientist, mentor, and collaborator. Since joining in 2010, I've attended every ARO meeting and have been continually inspired by the Society's unique ability to bridge disciplines, promote innovation, and foster genuine community. As a spARO mentor, Membership Committee member, Program Committee member, and poster blitz judge, I've seen firsthand how essential inclusive leadership is to the health of our field.

If elected to the Nominating Committee, I will work to identify a broad and diverse pool of candidates—reflecting ARO's growing international footprint, its interdisciplinary spirit, and its deep commitment to mentorship and collaboration. As a relatively more junior candidate, I'm particularly passionate about amplifying the voices of early-career investigators and researchers from underrepresented backgrounds. It would be an honor to help shape ARO's future by supporting leadership that reflects both scientific excellence and the values that make our community so special.

Bio:

Dr. Artur Indzhykulian is an Assistant Professor at Harvard Medical School and Assistant Scientist at Massachusetts Eye and Ear. Originally trained in medicine and human anatomy in Ukraine, he completed his postdoctoral training in auditory neuroscience at the University of Kentucky and Harvard Medical School. His research integrates molecular and structural biology, gene therapy, and high-resolution 3D electron microscopy to study the anatomy and function of inner ear hair cells. His lab also develops deep learning–based tools for image analysis and develops therapeutic strategies for hereditary and acquired hearing loss. An active ARO

member since 2010, Dr. Indzhukulian has served as a spARO mentor, poster blitz judge, and member of the Membership and Program Committees. If elected to the Nominating Committee, he will work to identify a broad and diverse pool of candidates—reflecting ARO’s growing international footprint, its interdisciplinary spirit, and its deep commitment to mentorship and collaboration. As a relatively more junior candidate, he is particularly passionate about amplifying the voices of early-career investigators and researchers from underrepresented backgrounds.