ARO 2023 Travel Awardee Booklet



ARO 2023 MIDWINTER MEETING TRAVEL AWARD RECIPIENTS

DON HENDERSON TRAVEL AWARD RECIPIENTS



Nesrine Benkafadar, Pharm.D., Ph.D.

Nesrine Benkafadar is a postdoctoral fellow in Dr. Stefan Heller's laboratory in the Otolaryngology – Head & Neck Surgery Department and the Institute for Stem Cell Biology and Regenerative Medicine at Stanford University. Previously, Nesrine obtained a Pharm.D. from the University of Constantine in Algeria. Driven by an interest in science, she decided to initiate herself into the world of fundamental and applied research in France by joining the Institute for Neurosciences of Montpellier, where she completed a master's

degree in Industrial Pharmacy and obtained her Ph.D. in Biology and Health in Dr. Jing Wang and Jean-Luc Puel's laboratory. Nesrine established a functional interaction between oxidative stress, DNA damage, and cell aging in the inner ear. She mastered molecular and cellular biology approaches to identify signaling pathways associated with DNA damage on in vitro cochlear explants and in vivo on neonatal and adult mouse models. She also utilized her pharmacological knowledge targeting key steps of signaling pathways using specific inhibitors for hearing protection. After graduating with honors, Nesrine decided to explore other horizons while remaining in the field of hearing by joining Dr. Stefan Heller's laboratory to acquire new experiences, new ways of working and thinking, and to learn new techniques. Her work focuses on the characterization of the series of events that trigger and execute cochlear hair cell regeneration in birds after ototoxic damage and to translate the findings into mice for therapeutic exploitation. Nesrine is building a career as an emerging auditory scientist in the field, having been mentored by some of the leaders in the field. She has a passion for one day finding better treatments for hearing loss and helping the most vulnerable populations because not hearing separates people and leads to social withdrawal and depression.



Sharon Feng, B.A., B.S.

Sharon Feng is a MD/MS student at Columbia University planning to apply into otolaryngology. Her research interests include microneedle-mediated intracochlear delivery and the impact of social media in otolaryngology. She grew up in San Diego, CA and received her B.A. in molecular and cell biology & B.S. in business administration from UC Berkeley. In her free time, she enjoys climbing, baking, and crochet & knitting.





Tyreek Jenkins, B.S.

Tyreek is a second-year Ph.D. student in the Molecular and Cellular Biology and Pathobiology Program at the Medical University of South Carolina (MUSC). He graduated with honors in 2021 from the University of South Carolina with a bachelor of science in biomedical engineering and a minor in chemistry. During Tyreek's undergraduate training, he participated in a summer research fellowship at MUSC in Dr. Hainan Lang's laboratory, whose research focus is on pathophysiological alterations of the peripheral auditory nerve and cochlear

lateral wall in age-related hearing loss (ARHL). During the fellowship, he studied blood vessel atrophy and macrophage dysfunction within the cochlear lateral wall using an ARHL mouse model. Over the course of the study Tyreek performed auditory functional assessments via auditory electrophysiology and analysis of macrophage and blood vessel alterations using quantitative immunohistochemistry and super-resolution imaging. Findings from his work indicated increased macrophage activity as an early pathophysiological alteration. Upon completion of his undergraduate training, Tyreek joined Dr. Lang's laboratory to continue investigating aberrant cellular alterations of the stria vascularis in ARHL. Currently, Tyreek's primary research focus is understanding how altered bioenergetics of mitochondrial metabolism in the stria vascularis leads to inflammation in ARHL. In part of his doctoral training, Tyreek participated in the 2022 Biology of the Inner Ear: Experimental and Analytical Approaches course at the Marine Biological Laboratory to strengthen his knowledge base and expand proficiency of skills needed for hearing research. Outside of his academic pursuits, Tyreek enjoys playing golf and exploring the coast of Charleston.



Kimberly Yurasits, Au.D. Student

Kimberly Yurasits is a third-year audiology student at the University of Pittsburgh. She is currently working under Aravindakshan Parthasarathy studying how the peripheral and central auditory system interact with various forms of hearing loss by recording evoked potentials on both animal models and human clinical participants. She hopes this will help with diagnosis of hearing loss disorders in

the future as well as provide measures for researching the effectiveness of therapies. She plans to continue to explore how different electrophysiological measures can lead to a deeper understanding of the neural effects of hearing loss as she approaches graduation for her clinical program and prepares for a career as a research audiologist.



ARO 2022 TRAVEL AWARDEES



Julia Abitbol, Ph.D.

Julia M. Abitbol is a third-year Postdoctoral fellow in the department of Otolaryngology-Head & Neck Surgery at Stanford University in Dr. Alan Cheng's lab. She completed her PhD in the department of Anatomy and Cell Biology at the University of Western Ontario in Canada. Her current research focuses on understanding the mechanisms of supporting cell regeneration after damage in the neonatal mouse cochlea with the aim of discovering regenerative therapies for treating hearing loss.



Evelyn Aviles, Ph.D.

My career goal is to contribute to deciphering the molecular mechanisms as a developmental neurobiologist in the field of neural circuit formation in my home country, Chile. My passion for science and interest in becoming an independent researcher made me search for new challenges abroad. I did my PhD in Dr. Esther Stoeckli's laboratory in Zurich, where I continued to investigate neural circuit formation focusing on axon guidance. Then, I looked for a new host institution for my

postdoctoral training. Dr. Lisa Goodrich's laboratory at Harvard Medical School offers me a unique opportunity to keep working on developmental neurobiology while focusing on different aspects of neural circuit formation, namely dendrite development, cell migration and axon guidance in different systems. My work in Dr. Goodrich's laboratory deals with the role of the atypical cadherin Fat3 and its role on neuronal morphogenesis, and synapse formation and localization in the context of neural tissue. Most of my time in the Goodrich lab I have studied the role of Fat3 in the retina and how it affects vision. However, recently I became interested in understanding whether this interesting protein also plays a role in the development of the inner ear. I am eager to apply the knowledge that we already have about Fat3 signaling into the analysis of the formation of the ribbon synapse between inner hair cells and spiral ganglion neurons.





Lauren Barbush, M.S.

I am pursuing my MS in Biomedical Sciences at Creighton University and graduated from Creighton University in 2022 with my BS in Biology and Applied Ethics. I have been working in Creighton's Translational Hearing Center for the past two years; first as an undergraduate student, and now as a master's student. The focus of my research has been testing piperlongumine and quinoxaline derivatives as drug therapies for noiseinduced hearing loss (NIHL). I've seen first-hand how hearing loss can

affect a person's quality of life: for three years, I was a Certified Nursing Assistant at a nursing home, where the majority of my residents were affected by some form of hearing loss. Nursing home residents are already highly susceptible to depression and isolation, but hearing loss worsens this as it obstructs their ability to interact with the world. Finding a drug therapy for NIHL is an international effort whose success will improve the quality of life for billions of people around the world.



Isle Bastille, Ph.D.

Isle Bastille did her Ph.D in Lisa Goodrich's lab at Harvard Medical School. She studied genetic regulation of synaptic heterogeneity in SGNs.



Ghazaleh Behnammanesh, M.S.

My name is Ghazaleh Behnammanesh a 4th year PhD candidate in Pharmacology and Therapeutics at the University of Florida. My educational background includes Bachelor of Science in Pharmaceutical Sciences from the University of Nottingham and Master of Sciences in Medical Pharmacology and Physiology from the University of Missouri. My current research is investigating the function of myosin 15 isoforms in mechanotransduction and hearing. My career goal is working with

regenerative medicine or small molecule for treatment of hearing loss. Alongside research, I enjoy gardening, spending time with my parrot, and reading poem.





Nir Ben-Schlomo, M.D.

I grew up in California the son of two Israeli parents. I completed my undergraduate studies at the University of California, Berkeley, receiving my Bachelor of Arts in Peace and Conflict Studies. Afterwards I underwent training at the Medical School for International Health at the Ben Gurion University of the Negev, Israel. Before my final year of medical school, I spent a year at the Brigham and Women's Hospital as a research fellow

investigating the potential for utilizing augmented reality for intraoperative guidance. Currently I am a PGY-3 resident at the University of Iowa in the NIH-sponsored T-32 research track. My research is concentrated on improving hearing outcomes in cochlear implant patients. My present focus explores strategies to minimize the intracochlear inflammatory response that develops after cochlear implantation utilizing an ultra-low fouling zwitterionic hydrogel coating.



Katelyn Berg, Au.D.

Katelyn Berg is a Ph.D. candidate under the mentorship of René Gifford, Ph.D. in the Department of Hearing and Speech Sciences at Vanderbilt University. Previously, she completed her Au.D. at Vanderbilt University and her B.A. in Music and Psychology from St. Olaf College. While completing her Ph.D. program, Dr. Berg continues to serve patients with cochlear implants clinically at the Vanderbilt Bill Wilkerson Center. Her research during her Au.D. program focused on investigating the number of channels available to cochlear implant (CI) recipients depending on

various individual and device factors. Dr. Berg's ongoing dissertation focuses on characterizing the effects of channel interaction on pitch discrimination and measuring the degree of image-based electrode selection benefit for CI-mediated pitch discrimination. Study results will be a first step towards improving CI recipients' music-related outcomes and quality of life. Dr. Berg's long-term research interests include investigating ways to improve speech recognition, music perception, and music appreciation for individuals with hearing loss and developing evidence-based practices for optimizing CI technology.





Amanda Ciani Bertingeri, B.A.

My name is Amanda Ciani Berlingeri. I received my B.A. in Linguistics from the University of Puerto Rico Mayagüez. I am currently a PhD student at the University of Washington in the Department of Speech and Hearing Sciences. I am performing graduate research training under the mentorship of Dr. Jennifer Stone, with support from Dr. Jim Phillips, at the Virginia Merrill Bloedel Hearing Research Center, and Dr. KC Lee, my co-

advisor. My training concentrates on understanding the biology of sensory epithelia in the inner ear, with a focus on the vestibular sensory organs. My research applies genetics and cellular biology to gain insights into the development and regenerative capacities of the vestibular periphery. Throughout my training, I have tested the requirement for two transcription factors - Sox2 and Atoh1 - during regeneration of vestibular hair cells in adult mice after damage. My study on Sox2 has been published in Hearing Research 2022. The results of my Atoh1 study are currently being written up for publication. I am now investigating the molecular features and functions of type I and II vestibular hair cells in mice using RNA-sequencing and ablation studies, which are critical to understand as we seek to stimulate regeneration of vestibular hair cells in mammals. Sensorineural vestibular disorders affect a wide range of people and are an unfortunate side-effect of some pharmaceuticals. I am hopeful that the research I am doing will identify new ways to treat vestibular disorders and guide inner ear research to new places.



Melia Bonomo, Ph.D.

Dr. Melia Bonomo is an NIH National Library of Medicine Biomedical Informatics & Data Science postdoctoral fellow in Dr. Robert Raphael's lab at Rice University. She received her Ph.D. in Applied Physics in the Department of Physics and Astronomy at Rice in 2020. She also received an M.S. in Applied Physics and University Certificate in Teaching & Learning from Rice and was awarded the 2021 Center for Teaching Excellence Graduate Teaching Award for Independent Instruction. She graduated from Dickinson

College (Carlisle, PA) in 2013 with a B.S. with honors in Physics and a minor in Italian. She was awarded the Kenneth L. Cashdollar Prize in Physics and the Northeast Conference on the Teaching of Foreign Languages Award for Italian. Dr. Bonomo's overarching research agenda takes a complex systems approach to study a variety of biological phenomena, from immunology to cognition to neural prosthetics. Her current work with Dr. Raphael, in collaboration with Dr. Santiago Segarra at Rice, seeks to build a graph model of sound encoding in the cochlea that can be applied to improve music processing in cochlear implants.





Megan Bradley, B.S.

My name is Megan Bradley, and I am from San Angelo, Texas. I graduated from Baylor University in Waco, Texas, with a Bachelor of Science in biochemistry. Currently, I am a second-year medical student at the University of Texas Medical Branch at Galveston, John Sealy School of Medicine. While I have not chosen a specialty to pursue, I am hopeful engaging in academic research experiences will help determine if research is something I want to integrate into a future career in medicine. The ARO

MidWinter meeting is the first conference I will attend, and I am excited to not only present my work but also to have the opportunity to learn about current advances in the field of Otolaryngology. I am so grateful to be chosen as a recipient of the travel award, in order to have the ability to completely engage in the ARO MidWinter Meeting and take full advantage of this experience.



Daniel Bronson, Ph.D.

I am a postdoctoral research fellow in the laboratory of Dr. Radha Kalluri in the Department of Otolaryngology at the University of Southern California Keck School of Medicine. My work explores the role of the vestibular efferents in shaping how sensory information is encoded in this system. I apply in vitro electrophysiology and immunochemistry to probe how these modulatory inputs affect the firing patterns of vestibular afferents and, in turn, how they integrate sensory information

from hair cells. My academic journey towards the inner ear began in the startle circuit of teleost fish. I received my Ph.D. in Psychology from the City University of New York, where I studied the physiology of the goldfish startle escape response in the laboratory of Dr. Thomas Preuss. I explored the cellular mechanisms of sensorimotor gating by recording the sound-evoked activity of the neurons that that initiate the startle response. Completion of this work motivated me to seek postdoctoral training where I could learn patch-clamp recording and study how similar modulatory inputs affect complex ion channel interactions in neurons of the inner ear. My work focuses on two ion channels that are critical in the control spike-timing in vestibular afferents: low-voltage activated potassium channels and hyperpolarization-activated cyclic-nucleotide gated (HCN) channels. I recently received an F32 fellowship to examine how the vestibular efferents influence spike timing by modulating these two channels. I hope to one day build my own lab to study efferent interactions in the inner ear.





Sarah Buchholz, M.Sc.

Sarah Buchholz is a young neuroscientist in the field of binaural hearing under cochlear implant stimulation. After completing her studies in biology in Ulm with an excellent grade, she started her PhD in august 2020 in the neurobiological research lab of Dr. Nicole Roßkothen-Kuhl at the ENT-clinic in Freiburg. Her project addresses impaired binaural hearing with cochlear implants. With 18 national and international conference contributions, one peer-reviewed publication and one

preprint she already drew some attention to her research. Her scientific contributions to the field of Auditory Neuroscience have already been honored with the 2022 poster prize of the German Society for Audiology and in 2022 she acquired one of the travel grants from the German Neuroscience Society. In the last years, she started to build up her expertise in acute and chronic cochlear implantation of mammals, electrophysiological measurements from the auditory midbrain, and behavioral studies to investigate the performance of bilateral cochlear implant users for binaural hearing.



death after hair cell loss.

Adrianna Caro, B.S.

Adrianna Caro received her bachelor's degree in Animal Science from the University of California, Davis. She is currently a PhD candidate working in the lab of Dr. Steven Green at the University of Iowa. Her current research is focused on the role of the immune response in the death of spiral ganglion neurons after aminoglycoside-induced inner ear hair cell loss. Her current research goals include determining whether it is specifically the adaptive immune system that is responsible for spiral ganglion neuron



Luis Cassinotti, Ph.D.

After obtaining my PhD in Biochemistry from the University of Buenos Aires, Argentina, in 2018, I joined the laboratory of Dr. Gabriel Corfas at the Kresge Hearing Research Institute, University of Michigan Medical School, as a postdoctoral fellow. Since then, I am preparing myself for a career as an inner ear neuroscientist. This is my fifth participation in the Annual MidWinter Meeting of the Association for Research in Otolaryngology and my current research focuses on peripheral myelin disorders and the mechanisms of hidden hearing loss.





So-Young Chang, Ph.D.

The name of the detailed institution has changed depending on the research funding, but I have been conducting research at the same place (Dankook University in South Korea) for 17 years from January 2006 to the present. I have mainly been engaged in basic research on noise-induced hearing loss and drug-induced hearing loss for more than 10 years, and I am an experienced researcher with the skills to analyze experimental results and solve problems in inner ear research.



Chenggang Chen, Ph.D.

Chenggang received his doctorate in neuroscience from Tsinghua University in China. During his PhD he built a two-photon microscope and developed a method to image the neurons in the inferior colliculus of running mice. He also traced the whole brain inputs of excitatory and inhibitory neurons in the inferior colliculus using rabies virus. He is currently a postdoctoral fellow in the department of biomedical engineering at Johns Hopkins University. He is studying sound localization in the cortex of marmoset monkeys using imaging, electrophysiological,

behavioral, and computational methods. His recent work was funded by the Kavli Foundation. In addition to his research, he is an author in the Biomedical Odyssey Blog of Johns Hopkins Medicine, a mentorship program coordinator in spARO steering committee, and a volunteer in soQuiet, a 501(c)(3) nonprofit that offers advocacy, support, and resources for people who suffer from misophonia.



Joseph Chin, B.S.

Joseph is an MD-PhD student at the University of Iowa. He is currently doing his doctoral training at the Molecular Otolaryngology and Renal Research Laboratories under the mentorship of Dr. Richard Smith. His research investigates the hidden heritability of hearing loss. He is interested in identifying pathogenic variants that are not being recognized as pathogenic in current genetic tests and workflows. He ultimately wants to become a physician scientist that develops a combination of new diagnostic tools and treatments to make patient care better and more efficient.





Nam-Hyun Cho, Ph.D.

Dr. Nam Hyun Cho received his Ph.D. from the School of Electrical Engineering and Computer Science at Kyungpook National University, South Korea. Currently, he is a research associate at Harvard Medical School (HMS) and Massachusetts Eye and Ear (MEE). He has designed, led, and performed multiple projects using optical imaging systems. His expertise and experiences span many fields, including biomedical engineering, electrical and computer engineering, and neuroscience. At HMS and MEE, he is

working on an auditory biomechanics and neuroscience project, developing an image-registration algorithm and a method to enable sub-nanometer vibrometry using optical coherence tomography technology. His long-term goal is to develop real-time optic-based measurement systems to better understand the underlying micromechanics of the auditory sensory system with a wide frequency range of normal hearing and acoustic trauma. He plans to further apply these systems to characterize the functional consequences of pathologic structural changes. This will be important for the future goal of developing the next generation of assistive hearing devices.



Shaylyn Clancy, M.S.

I am currently a fourth year PhD candidate in Dr. Xiaowei Lu's lab in the department of Cell Biology at the University of Virginia. My research focuses on understanding what guides type II spiral ganglion neuron afferents to find their targets in the cochlea. These axons make a striking 90 degree turn toward the base of the cochlea before they innervate their target cells, but it

is unknown what is regulating this turning behavior. During my time in the Lu lab, I have characterized the axon turning behavior in several different mutant mouse lines in order to clarify the pathways that allow this interesting innervation pattern to take place. Overall, I hope my research will lead to a better understanding of auditory development and general axon guidance mechanisms. Outside of lab, I am cofounder of Queer in Medical Sciences at UVA, music director for a STEM graduate student a cappella group, and a volunteer copy editor and reviewer for the Journal of Emerging Investigators, a scientific journal and mentorship program for middle and high schoolers.





Kameron Clayton, Ph.D.

Kameron Clayton is a research fellow in the Department of Otolarygology -Head and Neck Surgery at Harvard Medical school. He received his undergraduate degrees in music performance and neuroscience at Boston University. At BU, he got his first taste of research working on auditory psychophysics with Gerald Kidd and Jayaganesh Swaminathan. His behavioral work on cocktail party listening in auditory experts (musicians) left him wanting to understand the neural circuit basis of active listening. As

a PhD student in the SHBT program at Harvard, his working in Daniel Polley's lab showed that auditory corticothalamic neurons, key players in columnar gain control, became active hundreds of ms before orofacial movements and received inputs from the basal ganglia. In his current position, Kameron hopes to uncover neural circuit mechanisms that could inspire new strategies to treat auditory hyperactivity disorders such as tinnitus and hyperacusis by using cortical plasticity, endogenous neuromodulators, and cochlear gene therapies.



Mo Cui (Eric), M.A.

I am currently a Ph.D. student in the department of psychology at the University of Toronto and Rotman Research Institute at Baycrest. I am primarily interested to understand the impact of hearing loss on perceptual and cognitive functions in older adults with normal and abnormal agerelated cognitive changes, using a combination of behavioral, self-report, and physiological measures (eye-tracking and EEG). For my Ph.D. research program, I am exploring the mediation effects of age-related hearing loss on the connection between visual perception and memory in older adults. I am

a research trainee and a member of the Team 17 (Intervention at Sensory-Cognitive Interface) of the Canadian Consortium on Neurodegeneration in Aging (CCNA), where I support several ongoing national intervention studies investigating its effects on reducing negative self-perceptions of aging, hearing abilities, and hearing aids in older adults with either normal or mildly impaired cognitive abilities. I am also a research assistant and project statistician at Sonova, a global hearing aids manufacturer, supporting both validation and exploratory research of hearing aids, such as the perceptual and cognitive benefits of hearing aids. Through my interdisciplinary research experience, I become even more fascinated by the auditory system and its complex connections with other perceptual and cognitive systems in the aging population.





Pedro De-La-Torre, Ph.D.

Pedro De la Torre Márquez (Pedro De-la-Torre) received his B.Sc. in Chemistry from Universidad del Atlántico (Colombia) in 2011 and his Ph.D in Applied Sciences from Universidad de Talca (Chile) in 2015. Pedro's skills combine different approaches from chemical biology, structural bioinformatics, and biophysics. His work involves the rational design, synthesis, and evaluation of heterocyclic compounds as potential Anti-Alzheimer agents, and the study of ligand-protein and protein-protein interactions using various experimental and

computational approaches. In September of 2019, Dr. De-la-Torre completed his first postdoctoral training as a Pelotonia researcher in the laboratory of Dr. Marcos Sotomayor at The Ohio State University, where he used X-ray crystallography and a variety of experimental and computational tools to discover the structure-function relationships in macromolecular complexes involved in hair-cell mechanotransduction (tip-link proteins) and cancer. Then, he joined the laboratory of Dr. Artur Indzhykulian at Massachusetts Eye and Ear — Harvard Medical School to continue his postdoctoral training working on the rational design and structural characterization of miniaturized PCDH15 and CDH23 proteins to restore hearing and vision in animal models using adeno-associated vectors (AAV). Additionally, Dr. De-la-Torre studies the function of PKHD1L1, a large biomolecule that forms the surface coat on hair-cell stereocilia bundles. Currently, Dr. De-la-Torre is a Research Scientist working under the advice of Dr. Indzhykulian and focus his efforts of the rational design of mini-genes and proteins to treat Usher Syndrome disease.



Artem Diuba, Ph.D.

After completing his Ph.D. in Biophysics from Moscow State University, Russia, Artem DIUBA moved as a PostDoc to the Institut for Neurosciences of Montpellier, France. He studies the effects of excitotoxicity on the auditory nerve fibers. His interests include peripheral and cerebral sound coding and how it is impacted by hearing pathology.





Christin Ealer, B.A.

Christin Ealer graduated from Dartmouth College in June 2022 with majors in Philosophy and Psychology. She is currently working with Dr. Jay Buckey as a Research Assistant for the Space Medicine Innovations Lab at Dartmouth-Hitchcock Medical Center. Her research focuses on the neurocognitive and auditory profiles of people living with HIV.



Christina Elling, B.S.

I received my BS in Genetics from the University of Georgia in 2015 and am currently a doctoral candidate in the Human Medical Genetics and Genomics PhD Program at the University of Colorado Anschutz Medical Campus. My doctoral research focuses on identifying and characterizing genetic variants that co-segregate with otitis media (OM; i.e., ear infection/inflammation) in human cohorts and studying the impacts of

these variants on host mucosal environments and microbiotas related to OM both in human samples as well as a genetic mouse model. As a researcher, I aspire to apply my expertise in both bench and computational research to contribute to the advancement of biomedical genetics research that has the potential to be clinically informative and positively impact patient care.



Victoria Figarola, B.S.

Victoria Figarola is a Ph.D. student in BME at CMU working under Dr. Shinn-Cunningham. She received her B.S. in Biomedical Engineering from the University of Rochester. While at the U of R, she worked in an Auditory Neuroscience lab, understanding how individuals detect tones-in-noise (TIN). She is interested in how individuals attend to different characteristics of sound, and how it is encoded in the brain using neuroimaging techniques; as well as, neurological disorders related to the audio-visual systems. Outside of the lab,

Victoria enjoys cooking, reading, traveling, and yoga.





Charlotte Garcia, Ph.D.

Charlotte Garcia is a Postdoctoral Research Associate at the MRC Cognition & Brain Sciences Unit in Bob Carlyon's laboratory. The associateship is funded through a multi-centre collaborative Wellcome Trust grant between the CBU, KU Lueven (Jan Wouters) and UC-Irvine (John Middlebrooks), that focuses on using objective measurements to investigate spectral and temporal limitations of hearing via electrical stimulation through a cochlear implant. She completed her PhD in the same institution, funded by the W.

D. Armstrong Trust for projects focused on the application of engineering in medicine and jointly supervised by Dr. Bob Carlyon, Professor Manohar Bance, and Dr. Richard Turner. Her PhD research entailed the development and validation of an objective tool for estimating patient-specific patterns of neural activation patterns in cochlear implant users called the Panoramic ECAP (PECAP) method whose ultimate aim is to improve speech perception in poor-performing cochlear implant users. She is highly interested in translational research, and so in addition to developing a rapid, clinically-viable implementation of the PECAP method to apply in clinic, participates regularly in the Hearing Implant Device Optimisation (HIDO) Clinic at Addenbrookes Hospital. Her research interests also include pitch and music perception in hearing impaired listeners using various auditory technology platforms. She holds a B.S. in Biomedical Engineering and a B.A. in Music Theory & Cognition from Northwestern University (Chicago, USA), and prior to joining the MRC-CBU she worked as a Biomedical Engineer in the healthcare industry developing and implementing multivariate process control systems for radio-frequency welding processes.



Nastaran Gholami, Ph.D. Student

Nastaran Gholami is a First-year Ph.D. student in Bioengineering at the University of Utah. She graduated with a bachelor's in mechanical engineering from the University of Guilan, Iran. She worked as an undergraduate research assistant in the Biomimetics Engineering Group in Iran and then joined Dr. Richard Rabbitt's lab at the University of Utah as a graduate research assistant working on biophysics and biomechanics of the inner ear. She was awarded a graduate assistantship for her Ph.D. studies at the University of Utah and received

a full scholarship from the Ministry of Science, Research and Technology of Iran for her Bachelor's. She is primarily interested in the application of mechanics in human health and hopes to have a contribution in this area. She has worked on a paper titled "A Simple Model for Mechanical Activation and Compound Action Potential Generation by the Utricle in Response to Sound and Vibration" under the supervision of Dr. Rabbitt during her first year of Ph.D. studies. Nastaran is also currently Outreach Co-Chair for



Graduate Women in Biomedical Engineering, a female-led student organization at the University of Utah.



Courtney Glavin, Au.D.

Courtney Glavin, Au.D. is a clinical audiologist and scientist-in-training. She is currently a Ph.D. candidate at Northwestern University working with Dr. Sumitrajit Dhar. Her research focuses on the early detection and diagnosis of cochlear age-related hearing loss as well as on the mechanisms of auditory aging. To that end, her dissertation explores the impact of aging on cochlear biomechanics and otoacoustic emissions (OAEs). She received both a B.S. and an Au.D. at Northwestern University. Prior to returning to

Northwestern, she completed a clinical externship at the University of Pittsburgh Medical Center and worked in R&D in the hearing aid industry. Her clinical and professional experiences motivated her to pursue a Ph.D., with the aim of serving those with hearing loss in a broader way through a career in translational research.



Leslie Gonzales, B.A.

Leslie Gonzales received her bachelor's degree from Lake Forest College, where she majored in Neuroscience and Psychology, and conducted addiction research through a behavioral neuroscience lens. Leslie is a current second year graduate student at the University of Rochester in the Neuroscience Graduate Program. Her research in Dr. Ken Henry's lab focuses on cochlear synaptopathy, a common cochlear pathology hypothesized to

produce perceptual deficits in noise known as hidden hearing loss. Her project addresses the important gap in the literature of whether synaptic damage changes encoding of sound in surviving fibers and if the damage is selective for particular subpopulation of afferents. Ultimately the focus of her PhD research is to investigate the effects of cochlear synaptopathy on single-auditory-nerve-fibers' physiological responses to sound in an animal model. In the future she plans to become a professor at a small liberal arts college. As a Latinx/Hispanic woman, becoming a professor at such an institution is significant for not only her career, but for developing further inclusion in faculty positions and serving as a positive role model for others who also identify with a traditionally underrepresented group.

Kaley Graves, B.A.

No picture or professional bio submitted.





Mukund Madhav Goyal, M.S.

Mukund is a PhD Candidate in Dept. of Chemical & Biomolecular Eng. & Dept. of Otolaryngology – Head, Neck & Surgery. Trained as a Chemical Eng. with applications in Nanotechnology, he is actively working on the "Transport of Super-paramagnetic Iron Oxide Nanoparticles (SPIONs) as drug delivery vehicles across Guinea Pig Round Window Membrane for treatment of hearing loss." Mukund has found the permeability of RWM for SPIONs and

the effective diffusion of nanoparticles across GP RWM based on hydrodynamic size and polymer weight. He is now extending his research to model the effect of the Alternating Current Magnetic field on the transport of SPIONs across GP RWM. This model will be useful for the rational design of SPIONs as drug carriers across the RWM. His project has also won Discovery Award 2020 at JHU for innovative multidisciplinary research to advance the start of art for the treatment of sensorineural hearing loss. Mukund has also worked on developing a novel aerosol-based biosensor and aptamer-based chemistry, leading to 2 patent (pending) applications. He also has 2 publications with multiple in preparation. Mukund is passionate about improving diversity representation in STEM and has helped organize DEI Collective 2021 & 2022 at JHU, leading to 120+ internships/job offers to students. Mukund also served as Director (Pro Bono) Consulting at JH Graduate Consulting Club & has mentored 7 undergraduate students as a study consultant at Office of Academic Advising, JHU to help them excel in academics by overcoming academic, and social challenges.



Varun Goyal, Ph.D.

I am Varun Goyal, Ph.D. candidate at the University of Michigan, Ann Arbor. I am working on cochlear mechanics to understand the functioning and role of hair cells in mammalian hearing. I earned my bachelor's and masters from the Indian Institute of Technology Madras (IITM) in India from the department of mechanical engineering specializing in engineering design. With the knowledge of dynamics and vibrations combined with the biological functions of the ear, I am hypothesizing

mechanisms and designing numerical models that will potentially answer many incomprehensible phenomena observed through experiments. I aim to help the community interpret how the ear functions and improve the current state of hearing prostheses. In the past, I have worked on projects involving fluid dynamics, cold spray technology for material coating, carbon emission reduction from HVACs, and combustion at various research institutions/industries in India, Japan, Singapore, and Germany. My primary goal has always been to create a social impact with the projects I participate in, and I want to do the same as a Ph.D. student. I am a very enthusiastic researcher and strive to keep it up. Besides research, I devote some time towards service like cleaning the parks for natural area



preservation and volunteering for the K-12 events to teach children elementary science while sharing my experiences.



Samantha Hauser, Au.D.

Samantha Hauser is a PhD student in the Department of Speech, Language, and Hearing Sciences at Purdue University. She completed her undergraduate education in biology at the University of Chicago in 2013. Samantha received her Doctorate of Audiology (AuD) from Vanderbilt University in 2018 after her 4th year externship at Yale University Hearing and Balance Center. She worked for three years as a clinical audiologist in Connecticut before joining the labs of Dr. Michael Heinz and Dr. Hari

Bharadwaj at Purdue. Samantha is interested in precision diagnostics for sensorineural hearing loss that can be used to individualize hearing loss treatment. Her research uses a cross-species approach to study non-invasive assays of peripheral dysfunction and their relationship to speech-in-noise perception.



Melissa Hazen, M.Sc., Aud.

Melissa Hazen is a clinical audiologist at SickKids Hospital specializing in pediatric vestibular assessments. She is currently a PhD candidate at the University of Toronto studying the developmental effects of concurrent vestibular and auditory impairments in children.



Morgan Hess, M.S.

Morgan Hess is a Ph.D. student in the lab of Prof. Dr. Marlies Knipper at the University of Tuebingen. Her interest in hearing began in adolescence, when she learned American Sign Language and became highly involved in the Deaf community. In her undergraduate degree in Experimental Psychology at the University of South Carolina, she pursued research in the multisensory integration of auditory cues in the visual cortex. During her master's degree

at the University of Tuebingen, she developed a passion about the ways in which auditory processes affect cognition and, conversely, the ways in which cognition affect auditory processes. Understanding this link is critical to unravel the enigmatic correlation between hearing loss and cognitive decline, clinically relevant for future treatment perspectives of diseases such as dementia. She now continues to



pursue this passion in her Ph.D. research within the context of processes affecting cognition, such as autism spectrum disorder, stress disorders, and aging.



Aaron Hodges, M.A.

Aaron Hodges is a 2nd year master's student at Stanford University studying music, science, and technology in the Center for Computer Research in Music and Acoustics (CCRMA). He conducts research in Prof. Takako Fujioka's Neuromusic lab focusing on EEG analysis and using somatosensory stimulation to enhance music perception. He has presented his work at various conferences such as CIAP 2021, Music and Cochlear Implant (CI)

Symposium 2021, Music and Hearing Health Workshop 2022, and ASA Winter Conference 2022. His research team at CCRMA received the 2022 GRAMMY Museum Grant for their project on empathetic listening and recruiting audio engineers to mix music for individual preferences of CI users. During his time at CCRMA, Aaron has created at portfolio of creative compositions in electronic music and worked with embedded systems to create electronic instruments. After completing his master's, he hopes to work towards applying to a MD/PhD program and continue exploring the intersection between music and science. Aaron's hobbies include dancing, playing oboe, and writing music.



Ishwar Hosamani, M.Sc.

Ishwar V. Hosamani is a PhD candidate in the Genetics and Genomics program at Baylor College of Medicine, Houston. He has a B.Eng. in biotechnology from India and a M.Sc. in experimental oncology from University of Alberta, Canada. He has also worked as a research tech in a genomics core facility and has experience in NGS library prep and data analysis. He is currently working on deciphering the role of BMP signaling in cochlear patterning during inner ear

development using conditional BMPR1A knock-in mouse models under the guidance of Dr. Andrew Groves at BCM.





Kuu Ikaheimo, M.S.

I am a PhD student driven by my interest in neuroscience and the biology of sensory systems, with five years of experience working with the mammalian cochlea. I was centrally involved in discovering that a neurotrophic ER-resident protein, MANF, has a role in the maintenance of outer hair cell viability and cochlear neural hearing function. I contributed to characterizing the cellular, metabolic stress response of the cochlear lateral wall to loud noise and age-related chronic stress. Most recently, I found how MANF is specifically involved

in the maintenance of outer hair cell stereocilia and inner hair cell ribbon synapses, together with added insight into the underlying genetics and evidence of sensorineural hearing loss in a MANF-deficient patient case. I strive for quality, meticulous basic research with the goal of incrementing our understanding of sensory and neural functions and the maintenance of said functions. Via the maintenance aspect, I aim to incorporate translational significance to my research—so far; the projects I have been involved with have contributed to our understanding of cell-level mechanisms of hearing loss. My relevant skills include measuring sensory performance in rodents, field-electrophysiology, sensory and neural tissue histology, 3D-superresolution light imaging techniques and electron microscopical imaging techniques in biological samples, and appropriate data analysis and image-processing software use. My current preferred approach is to examine sensory cells by their cell-physiological state and the state of their microenvironment, and to correlate and model these with sensory functionality and viability in the face of cellular stress and disease.



Valerie Ingalls, B.A.

Valerie Ingalls is a first-year PhD student in the Department of Communication Sciences and Disorders at the University of Iowa. She received her Bachelor's degree with honors in Psychology from St. Olaf College. Her undergraduate research work in auditory perception and cochlear implants inspired her to pursue hearing science as a graduate student. Valerie currently works with Dr. Ishan Bhatt in the Audiogenomics Lab. The lab studies genetic correlates of tinnitus and

other perceptual disorders. She is interested in applying epidemiological and genomic analysis to tinnitus and other areas in hearing science, and he hopes to both provide new insight into the origins of hearing disorders as well as to open up new avenues for treatment.





Manon Jaffredo, Ph.D.

Manon Jaffredo, Ph.D. is a Research Scientist for SATT Aquitaine (Bordeaux, France) in biotechnology field. She graduated from University of Bordeaux in 2021 with a Ph.D. in cellular biology, physiology and pathophysiology. She is specialized in in-vivo experiments on rodents, laser-assisted bioprinting, and cell culture. Her expertise includes rodent surgery, in-vitro functional assays, and the development of innovative research tools.



Diane Jung, B.S.

Diane Jung, B.S., is a medical student at Johns Hopkins School of Medicine and is currently on a research year supported by the Dean's Year of Research funding. Previously she graduated from Harvard College where she studied Human Developmental and Regenerative Biology and went on to work on projects that involved single cell RNA sequencing of the developing brain in Dr. Arnold Kriegstein's lab at UCSF. She currently studies Meniere's Disease, temporal bone histopathology, and the history

and ethics of medicine with Dr. Bryan Ward and Dr. Amanda Lauer.



Jihyun Kim, Ph.D.

As a postdoctoral associate in Dr. Kelvin Kwan's lab at Rutgers University, my research focuses on the epigenetic function of chromodomain helicase binding protein 4 (CHD4) in developing spiral ganglion neurons and auditory hair cells. My previous academic and research experience as a master's and Ph.D. student provided me with a broad background in molecular and cell biology, with specific training in neuroscience and glia biology. As a master's student at Sejong University in South Korea, I

identified novel genes associated with human disease and studied their function in fruit flies. After a stint at the University of Pennsylvania, where I investigated epigenetic regulation in differentiating macrophage cells, I entered the Ph.D. program at Rutgers University, Newark. Throughout my Ph.D. training, I sought to understand cellular and molecular mechanisms associated with demyelinating disorders. This included demyelination of neurons after traumatic brain injury and in Charcot Marie Tooth disease. These studies resulted in several first and co-authorship publications. As a postdoctoral associate, I am currently dissecting the epigenetic landscape changes after CHD4 loss to understand the pathogenesis of hearing loss in patients with Sifrim-Hitz-Weiss syndrome. To accomplish this, I am using



both stem cell and mouse animal models to elucidate the epigenetic alterations. By leveraging my expertise from previous research experiences, I will clarify disease mechanisms of Sifrim-Hitz-Weiss syndrome and will apply these fundamental findings for hearing restoration.



Yehree Kim, M.D., Ph.D.

My name is Yehree Kim, MD, PhD. I am an otolaryngologist currently working at Seoul National University Bundang Hospital in South Korea. I am a clinicianscientist, and my clinical and research interest is in genetic hearing loss and habilitation of hearing loss with cochlear implantation. Our team (led by Dr Byung Yoon Choi, MD, PhD) tries to find both genetic and nongenetic causes of hearing loss in patients and to relate the cause of hearing loss to outcome of cochlear implantation. In the laboratory, we have multiple ongoing projects

related to NLRP3 and autoinflammatory hearing loss, OTOF and GREB1L.



Yun Ji Kim, B.A.

Yun Ji Kim is a fourth-year medical student at the Keck School of Medicine of the University of Southern California. Previously, she graduated from the University of San Diego with a B.A. in Biochemistry. She is currently a trainee in the inaugural cohort of the Clinical-Scientist Training Program and a Dean's Research Scholar. She is spending the year studying mechanisms of mammalian inner ear self-renewal and differentiation under the guidance of Dr. Ksenia Gnedeva. Next year, she will be applying

for residency in otolaryngology – head and neck surgery and hopes to pursue a career in academic medicine. Outside of the lab and hospital, Yun Ji enjoys weightlifting, traveling, scuba diving, and cooking.



Panagiota Kitsopoulos, B.S.

I am a third year Ph.D. student in the mechanical engineering (ME) department at the University of Michigan in Ann Arbor (UofM). My research is focused on the development of a completely implantable auditory prosthesis within the middle ear that can ultimately improve current hearing loss treatments (hearing aids and cochlear implants). I completed my bachelor's degree in mechanical engineering with a subspecialty in biomedical engineering at Case Western Reserve University

in Cleveland, Ohio in 2020 and worked for two summers at the Pacific Northwest National Laboratory as a Department of Energy SULI intern, where I received my first publication. I am a Rackham Merit Fellow



and an NIH Hearing, Balance, and Chemical Senses Predoctoral Trainee. At UofM, I am co-leading the Diversity, Equity, and Inclusion student and postdoc group (ME DEI Alliance) and am working as a Graduate Student Society of Women Engineers (GradSWE) officer promoting inclusivity and support in the graduate student community.



Elouise Alexandra Koops, Ph.D.

What fascinates me is the incredible plasticity of our brain in response to injury or sensory deprivation. This plasticity is certainly an impressive feat in the adult or elderly human brain. Results from my work have identified functional and structural brain correlates specific to hearing loss by distinguishing them from the changes to the brain induced by tinnitus, hyperacusis, or aging. It is challenging to extract these correlates due to the intricate relation between age-related and specific sensory-related changes to

peripheral and central auditory systems. Especially since aging and age-related pathology changes are often widespread, affecting both the structure and function of many brain regions, whereas the changes reflecting tinnitus and hyperacusis may be much more subtle. The larger age-related changes may thus obscure or confound the findings on tinnitus and hyperacusis, especially in the elderly and in the presence of age-related hearing loss. To get a better understanding of age-related changes in the brain, both in normal aging and in age-related pathology, I am currently investigating molecular and structural brain changes in aging and Alzheimer's disease. My current post-doctoral position trains me in advanced neuroimaging techniques to adequately investigate small brainstem and midbrain nuclei in-vivo. My aim is to ensure that future work will more comprehensively take age-related and pathological changes into account when investigating auditory conditions in an elderly population and, additionally, to characterize the small subcortical auditory nuclei in-vivo in humans to test leading hypotheses on hearing loss, tinnitus, and hyperacusis derived from animal models.



Torri Lee, B.S.

Torri Lee is a third-year medical student at Geisel School of Medicine interested in pursuing a career in Otolaryngology. As an undergraduate at Dartmouth College, she studied neuroscience and studio art, hoping to combine creativity and innovation with her interest in medicine. The artistry of surgery in combination with patient-facing care are aspects of Otolaryngology that drew her to the specialty. As a Native American member of the Bois Forte Band of Ojibwe, Torri is also passionate about

the way that healthcare access and delivery affect patient care in underrepresented communities. Under the supervision of Dr. James Saunders, her current research focuses on methods to provide



hearing services to underserved, underrepresented populations. She looks forward to using her research to increase global healthcare access in Otolaryngology.



Xiayi Liao, M.S.

Xiayi received her bachelor's and master's degree at Zhejiang University, China. She is now a fourth-year graduate student at Indiana University-Purdue University, Indianapolis. She is working in the Perrin Lab, interested in sensory auditory cell development and function. Xiayi's ongoing project is to investigate how the stereocilia, the functional units of the auditory system, build up their dimensions by incorporating more actin. She is going to present a poster - "A Novel Population of Short

Actin Filaments at Stereocilia Tips Contribute to Stereocilia Widening" at the meeting.



Wei-Ching Lin, M.S.

Wei-Ching Lin is a Ph.D. student in Mechanical Engineering at the University of Rochester. She completed undergraduate studies and master work at National Taiwan University and received her BS and MS degrees in Physics. She began doctoral studies at University of Rochester in 2021 and received a MS from the same university in 2022. For her doctoral research, she is pursuing experimental work on cochlear micromechanics under the supervision of Dr. Jong-Hoon Nam.



Liman Liu, Ph.D.

Liman Liu is an associate researcher and currently works in Dr. Hong-Bo Zhao's lab in Yale University. She earned her Ph.D degree in Fudan University, where she started her hearing research learning in Dr. Huawei Li's lab. And now her projects mainly focus on the role of gap function (Cx26 and Cx30) on inner ear development and hearing loss, including cognitive and noise-induced hearing loss. Further, she also

studies the underlying mechanisms of hearing loss primarily focusing on cochlear synapse degeneration and efferent innervation.





Emilia Luca, Ph.D.

Emilia is a Research Associate in Dr. Alain Dabdoub's Hearing & Balance Regeneration Lab at Sunnybrook Research Institute, Toronto, Canada and an ARO member since 2018. Dr. Luca earned a Master's degree cum laude in Proteomics and Functional Genomics and a PhD from the Catholic University of the Sacred Heart of Rome. Emilia is a collaborative researcher leading the human omic projects in the Dabdoub lab. The aim is to discover human gene regulatory networks and epigenetic switches

that could be used as therapeutic targets for ameliorating hearing and balance disorders. Using highthroughput sequencing technologies and bioinformatic pipelines, the lab recently discovered novel inner ear genes that, when integrated with epigenomic and spatial transcriptomic data, will pave the way for designing biological solutions in regenerating human inner ear cells, including sensory cells. This transformative research will be essential for tackling this highly unmet medical need. Emilia recently received the best talk award for Early Career Researchers at the Australasian Auditory Neuroscience Workshop. Since 2018 she has been leading scientific outreach activities as co-founder and chair of AIRIcerca Toronto Chapter. Emilia's long-term goal is to build a translational research program to implement regenerative medicine strategies for people with inner ear disorders caused by sensory cell loss.



Hannah Martin, B.A.

I have always been particularly interested in ion channels, whose dynamic activity is critical to rapid and nuanced cellular communication. As an undergraduate researcher in Dr. Yong Yu's lab at St. John's University (Queens, NY), I used biochemistry and electrophysiology to study the structure and function of ion channel complexes formed by members of the Transient Receptor Potential Polycystins (TRPP) family. In Dr. Erika Piedras-Renteria's lab at Loyola University Medical Center (Maywood, IL), I used FRET imaging to investigate the physical

interactions between calcium channels and trafficking partners associated with the actin cytoskeleton. After these projects, I wanted to look one step further, at how ion channel assemblies shape signal transmission. I received my B.A. in Biology and Chemistry from St. John's University and then joined the Neurobiology Ph.D. program at the University of Chicago. In Dr. Ruth Anne Eatock's lab, I quickly became fascinated by the vestibular inner ear. Hair cells foster beautiful biophysical mechanisms, and furthermore the vestibular inner ear is an accessible sensory structure that allows us to directly relate physiology to sensorimotor function. For my thesis project, I investigate how different voltage-gated potassium channels (1) tune the receptor potential relative to the naturalistic, expected range of head motions, (2) impact the nature of synaptic transmission between type I hair cells and calyx terminals,



and (3) support specific vestibulomotor behaviors. After my PhD, I intend to research how ion channel assemblies and sensory structures have specific adaptations to support effective motor behaviors.



Jack Martin, M.Sc.

I started my scientific career in 2013 when I undertook a BSc in Biomedicine at Birkbeck University of London. In 2016, I moved across London to King's college where I did a MSc in Neuroscience at the IoPPN. It was here that I first became interested in signaling pathways in disease, particularly neurodegeneration, when I worked on Wnt signaling in Alzheimer's disease. Since 2018 I have been undertaking my PhD in the lab of Profs Sally Dawson and Jonathan Gale at the UCL

Ear Institute. Here I have been working on the stress granule pathway in cisplatin ototoxicity and have identified a possible role for stress granule dysfunction in the development of cisplatin induced hearing loss, as well as two possible novel targets for therapeutics. I am also interested in the possibility that stress granule dysfunction may be an underlying common cause in age-related hearing loss and dementia. My future research will focus on exploring the potential of the therapeutic targets I have identified to prevent cisplatin-induced hearing loss.



Eduardo Martinez, B.A.

Eduardo Martinez is a 4th-year medical student and Dean's Research Scholar at the USC Keck School of Medicine, and a graduate of Johns Hopkins University (2016) where he studied Chemistry and Psychology. He is pursuing a residency in Otolaryngology-Head and Neck Surgery, which prompted his interest in the field of Neurotology. He is conducting research on the mechanisms underlying the development of Endolymphatic Hydrops in the lab of Dr. John Oghalai.





Melinda McPherson, Ph.D.

Dr. Malinda J. McPherson is currently a Postdoctoral Associate in the UC San Diego Vision and Memory Lab. She received her Ph.D. in 2022 from the Harvard/MIT Speech and Hearing Bioscience and Technology program, where she worked with Josh McDermott. She was funded by a National Institutes of Health F31 grant and the NSF Graduate Research Fellowship Program. She has received the Weintraub Graduate Student Award from Fred Hutch and was named to the 2022 Forbes "30 Under

30" list in science. As a Churchill Scholar, she completed her MPhil at the University of Cambridge Centre for Music and Science. She holds a Bachelor's degree in Cognitive Science from Johns Hopkins University.



Vincente Medel, Ph.D.

Vicente is a neuroscientist with a system-level perspective of brain function, working to understand the mechanisms of conscious perception and attention using multimodal brain imaging in health and disease. He obtained his degree in philosophy at the Universidad de Chile and his Master's and Ph.D. in Neuroscience at the Pontificia Universidad Católica de Chile. He also worked as a Postdoctoral Researcher at Universidad de Chile and in the Brain and Mind Centre at The University of Sydney. His work integrates mechanistic theories of

conscious perception and their modulation in pathologies, such as Tinnitus. Vicente's research integrates different physiological signals to understand their contributions to brain structure and function. To address this, he combines structural and functional MRI, electrophysiology, auditory measures, pupil diameter, and computational modeling.



Andreea Micula, Ph.D.

I am a researcher within the area of Cognitive Hearing Science. Through my work, I hope to shed light on the relationship between hearing and cognition with the ultimate purpose of improving the quality of life for people with hearing loss. I am particularly interested in investigating methods that facilitate the quantification of cognitive resource allocation during communication. My goal is to further develop the



research skills that I have gained during my PhD and post-doctoral work, especially in terms of methodological study design and statistical analysis methods.



Ilaria Montano, M.Sc.

Ilaria is a final-year PhD Student in Neuroscience at the University of Sussex, in the hearing and balance laboratory of Prof. Guy P. Richardson. Ilaria obtained B.Sc. in Health Biotechnology at the University of Naples Federico II, and international master's degree (M.Sc.) in Neuroscience at the University of Trieste, Italy. During her studies, she grew interested in human sensory systems and developed an appreciation for working with rodent models. She, therefore, decided to move to the UK to start her PhD in inner ear

research under the co-mentorship of Prof. Guy P. Richardson, Prof. Corne Kros and Dr. Emma Kenyon. Ilaria is currently investigating the vestibular system, and specifically how the lack of ZPLD1 (Zona pellucida-like domain 1) affects the structure, function and durability of the cupula, an integral extracellular membrane of the vestibular system in the inner ear that enables effective balance. Impairment of the cupula has also been linked to dizziness and loss of vestibular function. Ilaria is also aiming to characterise the phenotypic traits associated with the lack of ZPLD1 in aging zebrafish and mouse models. In pursuing her research, she is drawing from a variety of techniques and approaches, including machine learning (e.g., DeepLabCut), histochemistry and confocal microscopy. A strong believer in collaborative problem-solving research, Ilaria is proud to be part of the 2023 ARO MidWinter Meeting and to contribute, grain by grain, to expand the knowledge in the hearing and vestibular field.



Peter Moon, M.S.

Peter Moon is a fourth-year medical student at Stanford University School of Medicine and an aspiring academic otolaryngologist. In medical school, he developed an interest in otolaryngology and clinical research. To pursue these interests, he enrolled in a master's program in epidemiology and clinical research after his third-year of medical school and also took part in several clinical electives in otolaryngology. During this time, he also took part in research projects in the field under the guidance of mentors including Drs. Alan Cheng and Iram Ahmad. He is interested in studying imaging biomarkers and using big data to

conduct outcomes research in otolaryngology.





Takisha Morancy, B.A.

Takisha Morancy is a fourth-year medical student at SUNY Downstate Health Sciences University. Her research interests encompass an array of topics. She has worked on facial nerve reconstruction, facial nerve monitoring and has worked on a book chapter. She has also done epidemiologic work on emergency department presentations of auricular hematomas and vaccine beliefs in patients with chronic kidney disease. Takisha has received a grant to support her research and she continues to work closely with her mentors on new projects while expanding on the

topics she has contributed to.



Charles Morgan, B.S.

Charles is a graduate student in the Department of Neuroscience at The Johns Hopkins University School of Medicine. A member of the lab of Dr. Angelika Doetzlhofer, he uses basic biology and computational genomic methods to study cochlear hair cell development and regeneration in mice, with the goal of translating results into regenerative medicine strategies to treat hearing loss in humans. He was recently awarded an F31 National Research Service Award

fellowship from the NIDCD to investigate transcription factors involved in cochlear supporting cell development and plasticity. He received a BS in Biology and Music from Cornell University in 2020. Outside of the lab, he enjoys hiking, downhill skiing, and spending time with his German shepherd Daisy.



Rebecca Norris, Ph.D.

Rebecca Norris is a postdoctoral researcher in Auditory Neuroscience at the Ear Institute at University College London. Her current work in the laboratory of Professor Jennifer Bizley focuses on multi-sensory integration, specifically examining how integrating visual information into auditory processing helps improve listening. Prior to coming to UCL, Rebecca completed a PhD in Neuroscience at the University of Melbourne, and a BSc in Biological Sciences with first class Honours from

the University of Auckland, New Zealand.





Dorothy Pan, M.D., Ph.D.

Dorothy W. Pan, MD, PhD, is a resident physician at Keck Hospital and LA County Hospital with the Caruso Department of Otolaryngology – Head and Neck Surgery at the University of Southern California. She embarked on her journey to become a physician scientist in 2010 when she received her Bachelor of Science with Honors in Chemistry from Stanford University and was elected to Phi Beta Kappa. Dorothy defended her PhD in Chemistry at Caltech in 2016, where she worked with Mark E. Davis creating nanoparticles for targeted cancer therapy. She completed the USC-Caltech MD/PhD

program in 2018 when she earned her MD from the University of Southern California. Dorothy is currently working in John Oghalai's lab exploring using optical coherence tomography to study nanoparticle drug delivery to the inner ear in mice, a project for which she received an American Otological Society Fellowship Grant.



Etienne Peres, M.S.

ENT resident at the Public Hospitals of Paris (APHP) and doing research in gene therapy for inner ear at the Institut de l'Audition - Pasteur.



Kathryn G. Powers, B.S.

Kathryn Powers is a third-year graduate student in the Molecular and Cellular Biology Program at the University of Washington (Seattle, WA). Before starting her graduate work, Kathryn gained research experience working as an undergraduate research assistant in the Blackburn lab at Trinity College (Hartford, CT). She studied the mobilization of yolk nutrients to the developing reptilian embryo and how this process compares to the well-studied avian pattern. She presented her findings at the 2016

International Congress of Vertebrate Morphology, and her research earned her two first-authorships and two co-authorships. After graduating summa cum laude with a B.S. in Biochemistry and Biology, Kathryn joined the Eipper-Mains lab at the University of Connecticut Health Center to begin her career



in molecular and cellular biology as a research technician. The lab work focused on peptidylglycine alpha-amidating monooxygenase, an enzyme critical for rendering many peptides (e.g., NPY and oxytocin) biologically active through amidation. Her work in the Eipper-Mains lab resulted in two firstauthorships and one co-authorship. Eager to integrate her passions for development and neuroscience in her graduate research, Kathryn joined the Bermingham-McDonogh lab at the University of Washington. Her research focuses on the signals critical for directing the precise patterning of sensory cells within the developing mammalian cochlea. Her current project involves a mouse model designed to undergo conditional deletion of Ebf1 (Early B cell factor 1) in the developing inner ear. Her preliminary results suggest that Ebf1 is a critical regulator of cochlear development.



Xufeng Qiu, Ph.D.

Dr. Xufeng Qiu obtained his Ph.D. in Neurobiology from the University of Chinese Academy of Sciences, where he investigated the molecular mechanism of synaptic transmission and kinetics of synaptic vesicle recycling at Calyx of Held synapses. After that, he joined Dr. Uli Mueller lab as a postdoctoral fellow at Johns Hopkins University. His research has been focused on the Mechano-Electrical Transduction (MET) channel of the cochlear hair cells. With Molecular/ cellular strategy and physiological

patch-clamping recording, Dr. Qiu studied the detailed function of proteins involved in hair cell MET machinery and aimed to explore the molecular and structural mechanisms of mechanotransduction and its gating mechanism. His research interests also extend to neural circuits of the auditory system, including how mechanotransduction regulates neuronal differentiation and innervation during development and how efferent inputs affect sound perception.



Gunnar Quass, Ph.D.

I studied integrative neuroscience in Magdeburg, Germany, before getting my PhD in Auditory Sciences at the Hannover Medical School in Germany in 2019. In my graduate studies, I developed a strong interest for neuroprostheses and worked on electric midbrain stimulation in mice in the context of the human auditory midbrain implant. During my first postdoctoral assignment in the lab of Prof. Andrej Kral at the Hannover Medical School, funded by the William Demant Foundation, I investigated

the effects of different cochlear implant stimulus parameters with regards to the spread of excitation in a rodent model. I then moved to Ann Arbor, Michigan, USA, to investigate non-auditory activity in the non-lemniscal inferior colliculus in the Kresge Hearing Research Institute in the lab of Prof. Apostolides. My primary methods are 2-photon Ca2+ imaging and electrophysiology in behaving animals. In the



future, I would like to combine my experience in cochlear implants with investigations in central and cortical processing in behaving animals, to improve hearing rehabilitation in cochlear implant patients.



Muhammad Taifur Rahman, M.D., Ph.D.

I am a physician-scientist focused on auditory neuroimmunology. My medical degree was from Dhaka Medical College, Bangladesh. My PhD from University of Iowa was focused on role of inflammation in auditory neuron (spiral ganglion neuron) degeneration following deafening. As a postdoctoral fellow, I continued working on auditory neuroimmune interactions with three major focuses. First, discovery of immune cells (e.g., dendritic cells) and lymphatic

vascular network in auditory system. Second, to utilize new gathered knowledge of basic science in translational research, primarily cochlear implantation. In a macrophage reporter mouse model, we have observed that dexamethasone eluting cochlear implants suppress foreign body response following cochlear implantations. This work is now going to clinical trial. Third, to identify the role of neuroimmune interactions in auditory system in determining cognitive functions and behavior. We have recently started working on auditory functions in Alzheimer's disease mice models. As graduate student, my research was recognized with best poster, best oral presentation, best paper awards, and travel grants from Association of Research in Otolaryngology, Society of Toxicology, American College of Toxicology, and multiple fellowships from the University of Iowa. Recently, I have received postdoctoral National Research Service Award from NIH (F32) and postdoctoral fellowship from American Otological Society. Meanwhile, with support from my current mentor, I have developed a structured training system for undergraduate and medical students. In future, my plan is to determine the implications of auditory neuroimmune interactions in the field of neurodegenerative disorders of central nervous system and neuropsychiatric disorders.



Lauren Ralston, Au.D.

Lauren Ralston completed her Bachelor's Degree (B.S.) and Doctorate of Audiology (Au.D.) at the University of Texas at Austin. She is a Ph.D. Student in the Department of Speech, Language, and Hearing Sciences under the mentorship of Julia Campbell, Ph.D., Au.D. Lauren works parttime as a clinical audiologist in a neurotology office. She enjoys making meaningful connections with her patients through providing evidence-

based practice. Her research interests include the cortical representation of sound, as well as how the brain reorganizes in disorders such as tinnitus and hearing loss.





Katherine Regalado, A.B.

Katherine Regalado is a second-year PhD student at the University of Southern California's Neuroscience Graduate Program in the lab of Dr. Radha Kalluri. Her research interests center around understanding how sensory neurons develop into diverse populations capable of representing sensory information using different encoding mechanisms. Her current work focuses on the diverse firing patterns of vestibular afferent neurons. Prior to joining USC, she was a research assistant with Dr. Mark Emerson at the City College of New York, where she studied the molecular

mechanisms involved in the development in the vertebrate retina, and with Dr. Natalie Brito at New York University, where she studied how environmental factors influenced language acquisition in bilingual (Spanish-English) and monolingual infants. Before embarking on a career in research, Katherine was a program officer in the Early Childhood and Youth portfolio at the Robin Hood Foundation, a poverty-fighting nonprofit in New York City. She has a bachelor's degree in Hispanic Studies from Brown University.



Justine Renauld, Ph.D.

Dr. Renauld received her Ph.D. from the University of Liege (Belgium) in 2017 for her work on the development of the cytoskeleton in the supporting cells of the organ of Corti. She is now completing her postdoctoral training in the laboratory of Dr. Martín Basch at Case Western Reserve University in Cleveland. Her current work is focused on the development of a cell therapy to replace the missing intermediate cells in congenital strial deafness syndromes such as Waardenburg syndrome.



Hector Rincon, M.Sc.

I am Héctor Rincón, a third year PhD student at the Neurosciences Institute of Castilla y León (INCYL), which belongs to the University of Salamanca, under the tutelage of Professor Enrique Saldaña. As a psychology graduate, I have always been interested in higher processes, especially attention and perception. Joining the auditory neuroanatomy laboratory at INCYL meant coming into direct contact with the morphological substrate of these higher processes, which has fascinated me ever since. In our laboratory we use

neuroanatomical tracers that allow us to study how different auditory centers of the central nervous



system are connected to each other; knowing the structure and connections of a nucleus is critical to understand its function. My research is focused on studying some projections from lower nuclei of the auditory pathway to higher centers. In the future I would love to apply morphological techniques to better understand the substrate of attention and sound perception in the thalamus and auditory cortex.



Katelyn Robillard, M.D., Ph.D.

Katelyn Robillard is a first-year resident in the Department of Otolaryngology Head and Neck Surgery at Louisiana State University Health Sciences Center. Her research focuses on genetic strategies to treat Acadian Usher syndrome, which disproportionately affects the local patient population. Over the past six years, she has worked with Dr. Jennifer Lentz in the Neuroscience Center of Excellence to develop gene replacement and gene editing products that improve sensory deficits resulting from the Ush1c c.216G>A mutation. She delivered AAV-Ush1c vectors to the murine retina with successful targeting of

photoreceptor cells and subsequent increases in full-length Ush1c transcript expression. Additionally, she engineered multiple CRISPR-based systems that successfully target and edit the 216A mutation at both the gene and transcript levels, in vitro. Katelyn now aims to deliver these CRISPR products to the inner ear to improve auditory and vestibular functions in USH1C mice.



Marie Valerie Roche, M.S.

My name is Marie Valerie Roche, I am a PhD student at the University of Miami working in Dr. Xue Zhong Liu's Laboratory, in the Biochemistry and Molecular Biology department. I was born and raised in Haiti. I received my undergraduate degree in Biology at Saint Thomas University and obtained a master's degree in Biochemistry at the University of Miami. My masters research project focused on understanding the role of XPC proteins and Myosin in DNA Damage Responses, precisely in Nucleotide Excision Repair.

During aging there is a continuous accumulation of epigenetic changes which might lead to several agerelated pathologies. Currently, as a predoctoral student my research goals are to understand the involvement of epigenetics mechanism in hearing loss. Epigenetics changes are caused by modification of genetic expression rather than alteration of DNA sequence, building on that premise, a main aim is to greatly to my career development as an independent researcher in the hearing and deafness field.





Solymar Rolon-Martinez, M.S.

Solymar is a Ph.D. Candidate in the Neuroscience Graduate Group at the University of Pennsylvania conducting her thesis work in the lab of Dr. Maria N. Geffen. She is interested in studying how inhibitory-excitatory interactions within the auditory thalamus shape thalamic responses to auditory stimuli. She uses an array of novel techniques, including in-vivo electrophysiology, optogenetics, neuroanatomy and computational methods to probe her questions on thalamic inhibition. During her graduate training at Penn, she has been awarded an NIH-NIDCD NRSA

F31 grant and was appointed as a T32-Systems & Integrative (SIB) Training Grant Fellow. Solymar was born and raised in Fajardo, Puerto Rico. She earned her Bachelor of Science degree in Biomedical Sciences at the InterAmerican University of Puerto Rico-Metropolitan Campus and completed a Master of Science degree in Anatomy and Neurobiology at the University of Puerto Rico-Medical Sciences Campus. Outside of the lab, Solymar can be found reading at her favorite coffee shop in Philly or at the park, attempting to visit all the used bookstores around the city, taking walks all around, listening to music while trying out new recipes, or learning a new song on the piano.



Kevin Rose, B.S.

Kevin Rose obtained his bachelor's degree in health sciences from the University of Cincinnati in 2012. He joined Dr. Hertzano's lab at the University of Maryland, Baltimore as a graduate student in July 2018 to undertake a project that involves both wet lab and bioinformatic techniques. His current research project focuses on the otic mesenchyme specific transcription factor, Pou3f4. With techniques such as scRNA-seq, scATAC-seq, and CUT&RUN, he is

unraveling the gene regulatory network downstream of Pou3f4, leading to novel deafness genes.



Mark Saddler, B.S.

PhD candidate in MIT's Laboratory for Computational Audition developing machine learning models of human hearing. I am interested in how our ears and environment shape auditory perception and my research focuses on pitch perception, hearing loss, and audio enhancement via deep learning.





Benjamin Schuster, M.S.

Benjamin received a B.S in Neurobiology & Physiology from the University of Maryland, College Park, and a M.S in Forensic Medicine from the University of Maryland, Baltimore. As a research assistant in the laboratory of Dr. Ronna Hertzano, he investigates sex-differences in auditory physiology and estrogenic protection from noise-induced hearing loss. In addition, Benjamin tests candidate therapeutics in a mouse model of noiseinduced hearing loss.



Tobia Sebastiano Nava, M.S. graduating from ETH Zürich with a bachelor's degree in mechanical engineering, I went to KTH in Stockholm to do my master's in engineering design. It was during those two years that I rediscovered my passion for biology and mechanics. Working as a research assistant in biomechanics next to my studies allowed me to fully emerge myself into the world of biomedical engineering. I did a project related to gate analysis and EMG data processing, as well as developmental bone growth and how to promote and inhibit it. To pursue my interest further, I

also did my master's degree project at the University of Cambridge in surgical micro-drilling for

After osteoarthritis. To deepen my understanding and skills further, I started a PhD in Engineering focusing on Eustachian tube mechanics and developed a new method to assess the functioning of the Eustachian tube. Now in my third year of my PhD, I focus on translating my results to the clinics by conducting a patient study.



Matthew Sergison, B.S.

Matthew is a 3rd year PhD candidate at the University of Colorado Anschutz Medical Campus working in the lab of Dr. Daniel Tollin. Matthew's primary research interest looks at the neural circuitry of the auditory brainstem that encodes sound location. He is specifically interested in how aging leads to degeneration and dysfunction of these pathways, and how this may underlie hearing deficits seen in conditions such as hidden hearing loss. Matthew uses

a number of different techniques in his research, such as in vivo and non-invasive electrophysiology, animal behavior, and immunohistochemistry. Matthew received his Bachelor of Science degree in neuroscience from the University of Pittsburgh, and previously worked as a research technician at the University of Pennsylvania before starting graduate school.





Ilkem Sevgili, MRes, B.Sc.

Ilkem is a PhD student in Clinical Neurosciences at the University of Cambridge. She is currently working on building a cochlea-on-a-chip model. Using this model, her ultimate goal is to discover therapeutics to prevent or treat hearing loss and optimize cochlear implant stimulation parameters for a better patient experience. Before starting her PhD, Ilkem completed her master's (MRes) in Bioengineering at Imperial College London (Distinction)

and BSc (Honours) in Molecular Biology and Genetics at Gebze Technical University, Turkiye. She was awarded the top student prize for her MRes and BSc degrees.



Christopher Shults, M.S.

Chris Shults is a third year PhD student in the Molecular Medicine program at the University of Maryland, Baltimore. He attended Johns Hopkins School of Public Health and obtained a master's degree in biochemistry and molecular biology. Before completing his master's degree, he served as a high school science teacher in Baltimore City. He received his bachelor's degrees in chemistry and biology from Tennessee Tech University. Chris joined the Hertzano lab in 2021 to study the IKZF2 pathway using a

combination of wet lab and bioinformatics.



Ben Silver, B.Sc., MBBS, MRCS, DOHNS

ENT registrar at Great Ormand Street Hospital and PhD candidate at UCL Ear Institute.





Anjali Sinha, M.S.

I am a graduate student in the Department of Neuroscience, at University of Rochester Medical Center. I received my Bachelor of Engineering in Biotechnology from PES University, India and received my M.S. in Neuroscience from University at Buffalo, NY. My thesis work, under the supervision of Dr. J. Chris Holt, focuses on understanding the role of muscarinic acetylcholine receptor signaling in vestibular efferent to afferent

cross-talk and how it affects vestibular function and behavior in mammals. I use pharmacology, in vivo electrophysiology, genetic tools, VsEP and various behavioral measurements to explore the effects of activation of vestibular efferent neurons in mammals.



Andrew Sivaprakasam, B.S.

Andrew is a current MD/PhD student at the Indiana University School of Medicine and Purdue University Weldon School of Biomedical Engineering. Under the mentorship of Drs. Michael Heinz and Hari Bharadwaj, Andrew is currently interested in investigating the consequences of sensorineural hearing loss related to place and time coding of pitch by the auditory periphery. As a future physician-scientist, he hopes to continue applying engineering, computational modeling, and even music, to better understand

the brain and improve medical care. Andrew also enjoys photography, running, and playing the violin and piano.



Amy Stahl, Au.D.

Amy N. Stahl received her Au.D. from Vanderbilt University School of Medicine in May 2021. She is now a 2nd year Ph.D. student in Vanderbilt University's Neuroscience Graduate Program. Upon graduation, Amy would like to pursue an industry career emphasizing her experience as a clinicianscientist.





Peng Sun, Ph.D.

Peng received his PhD degree in Electrical and Computer Engineering from the University of Macau (UM) — Southern University of Science and Technology (SUSTech) joint PhD Program. Peng's PhD thesis focused on behavioral assays for evaluating the hearing/balance function in zebrafish larvae. In Oct 2021, Peng joined the Lab of Dr. Nicolson at Stanford University as a postdoctoral scholar. For a deeper understanding of the mechanism of hearing/balance, Peng is currently exploring the role of the

Tmc1/2 proteins in the inner ear hair cells of zebrafish.



Cathy Sung, Ph.D.

I received my undergraduate degree in Microbiology from Iowa State University in 2007. My early research experience in a Microbiology/Biochemistry laboratory as an undergraduate research assistant helped discover my interest in science and research, specifically studying the pathogenesis of infectious diseases. Following graduation, I joined the Ph.D Program in Microbiology at University of Alabama at Birmingham, where I joined Dr. William Britt's laboratory to study the

biology of Cytomegalovirus (CMV). My projects were focused on how congenital CMV infection cause neurological damage and sensorineural hearing loss. My graduate work understanding the mechanisms of CMV-induced sensorineural hearing loss inspired me to seek postdoctoral positions in the field of auditory science. In 2019, I joined Dr. Lisa Cunningham's laboratory at The National Institute on Deafness and Other Communication Disorders (NIDCD) as a postdoctoral fellow to study the role of macrophages in relation to sensory hair cell death and survival in the clinically relevant mouse model of cisplatin-induced ototoxicity.



Matsya Thulasiram, B. Sc.

Matsya Thulasiram is a PhD candidate at the University of Toronto in Dr. Alain Dabdoub's Hearing and Balance Regeneration Lab. Music and dance have always been integral to Matsya's life, and so she developed a passion for hearing and the science behind it from a young age. She entered graduate school with her mind set on studying hearing regeneration. Matsya's PhD research investigates the regenerative properties of the inner ear cochlear battery, the stria vascularis, to



develop biological therapies for ameliorating hearing loss. She received the Canada Doctoral Graduate Scholarship from the Canadian Institutes of Health Research to fund her graduate work. Matsya attended the Biology of the Inner Ear course in August 2022 to further build her foundation in auditory neuroscience. She has also taken on a leadership position with the student and post-doc chapter of ARO (spARO) to organize the Science Communications Workshop and the Young Investigator Award Luncheon for ARO 2023. After completing her PhD, Matsya plans to pursue post-doc opportunities, and her career aim is to establish a biomedical research laboratory in auditory science.



Luan Tonelli, Ph.D.

Luan Tonelli, PhD, is a neuroscientist interested in developing cutting-edge research and screening processes to improve brain health outcomes using several different tools (EEG, FFRs, MRI) that combine translational medicine and exercise science. As a Postdoctoral Research Associate in the ABR LAB in the Department of Speech, Language, and Hearing Sciences at UConn, Dr. Tonelli investigates the neural representation of bilingualism in the auditory system and the interplay between bilingualism and auditory system aging



Gunseli Wallace, B.S.E., M.S.E.

Gunseli Wallace is a 6th year Fellow in the Medical Scientist Training Program (MSTP; MD/PhD) at the University of Michigan. She received her Bachelors of Science in Engineering in Chemical Engineering (2016) and a Masters of Science in Engineering in Biomedical Engineering (2017) from the University of Michigan. She has been working on her doctoral thesis with Dr. Gabriel Corfas focused on understanding inner ear metabolism. After her completion of the MSTP program, she is interested in applying for

residency programs in Otolaryngology with the end goal of becoming a surgeon-scientist.



Nicholas Waring, B.S.

Nicholas Waring is a fourth-year medical student in the Columbia-Bassett program at Columbia University Vagelos College of Physicians & Surgeons. He plans to apply to otolaryngology residency in 2023-2024. He is currently working with Dr. Elizabeth Olson on a project using sheep as a large-animal model to test a novel implantable microphone for totally implantable hearing prosthetics, in collaboration Dr. Heidi Nakajima at Massachusetts



Eye and Ear and Dr. Jeffrey Lang at MIT. He graduated from Georgetown University with a Bachelor of Science in mathematics.



Gabrielle Watson, Au.D.

Gabrielle Watson has been an implant audiologist at the University of Michigan Medicine's Hearing Rehabilitation Center since September 2019. She provides diagnostic and rehabilitative services for implantable devices to patients of all ages. She also works as a Research Audiologist at Kresge Hearing Research Institute under PI: Dr. Bryan Pfingst and has interests in evoked potentials and cochlear health following cochlear implantation. She received her BA, MA, and AuD from University of Iowa. She completed her

Leadership Education in Neurodevelopmental Disabilities (LEND) Externship at Oregon Health Science University.



Wei Wei, M.D., Ph.D.

Dr. Wei Wei received her Ph.D. and medical degree in otolaryngology from China Medical University. She joined Prof. Zheng-Yi Chen's lab at Eaton-Peabody Laboratories in Massachusetts Eye and Ear Infirmary, Harvard Medical School as a joint PhD student in 2019. Currently, she is a postdoctoral fellow at the Chen Laboratory developing genome editing therapies for genetic hearing loss. Another focus of Dr. Wei's work is to develop new approaches to regenerate hair cells in mature mammalian

inner ear. Dr. Wei's long-term research goals are to apply her research to develop novel treatment options for patients with genetic and acquired hearing loss.



Brian Sheng Yep Yeo, M.B., B.S.

Brian Yeo is a senior medical student at the Yong Loo Lin School of Medicine of the National University of Singapore. Brian has a strong passion for Otolaryngology and hopes to commit his time and knowledge to help better the lives of those with ear, nose, and throat conditions in the future. Under the guidance of leading Otolaryngologists in Singapore such as A/Prof Toh Song Tar, Head Consultant at the Department of

Otolaryngology at Singapore General Hospital, A/Prof Loh Woei Shyang, Head Consultant at the Department of Otolaryngology at National University Hospital Singapore and A/Prof Raymond Ngo, Head Consultant at the Department of Otolaryngology at Ng Teng Fong General Hospital Singapore,



Brian embarked on a variety of research projects, to tackle various questions in different aspects of the specialty. Besides having published in leading international journals such as JAMA Otolaryngology-Head & Neck Surgery and JAMA Neurology, Brian's research has also been featured in worldwide media channels such as Forbes, CNN and The Independent. Outside his academic pursuits, Brian is passionate about photography, graphic design and floorball.



Mary Caroline Yuk, M.Sc.

Mary Caroline Yuk received a B.S. in Interdisciplinary Studies with a concentration on Neuroscience. She has graduated from University of Oxford with a MSc in Neuroscience.



Razanne Rafat Zaghioul

Razanne Zaghloul is a senior Biomedical Engineering student at Wayne State University. She is currently researching the mechanical properties of the organ of Corti in mice using the novel Brillouin microscopy technology. As a BME student, she studied the dynamic properties of the lower body to design and build a lower body exoskeleton. Upon graduation, she plans to advance her studies by pursuing an MD/PhD degree. A passion for community involvement has placed her in the leadership of many

organizations, as the president of Blessing Box Global, a community food pantry organization, the community service officer for Tau Beta Pi: The Engineering Honor Society, as well as the vice president of the creative writing club.



Wang Zheng, Ph.D.

Wang Zheng, Ph.D., is a postdoctoral research fellow in the laboratories of Holt/Geleoc at Boston Children's Hospital. His primary research interests are the structure and function of ion channel proteins, with a focus on mechanosensitive ion channels. He obtained his PhD degree at University of Alberta, Canada, during which he investigated function and regulation of polycystic kidney disease 2 (PKD2) ion channel that is mutated in human

autosomal dominant PKD (ADPKD). He then joined Slav Bagriantsev lab at Yale University and studied



biophysics of mechanosensitive Piezo channels, which are implicated in a wide range of physiological processes involving mechanotransduction, including sense of touch, blood pressure regulation and interception. He next moved to Holt/Geleoc lab in Boston and his current research is focused on structure and function of mechanotransduction channels TMC1 and TMEM63s in sensory hair cells of inner ear. His research works were published in high-profile journals, including Nature Communications, Science Advances, PNAS, eLife, Cell reports etc.



Maggie Zink, B.S., B.A.

Maggie Zink is a current PhD student in the Communication Science and Disorders Program at the University of Pittsburgh. Maggie comes to Pittsburgh from a postbaccalaureate position in the Peelle Lab at Washington University in St. Louis School of Medicine after completing degrees in Neuroscience and Opera Performance at Saint Louis University. Her research is focused on investigating the role of hidden and overt hearing loss and cognitive-

communication disorders in cognitive effort, and associated fatigue, in speech perception. More broadly, Maggie seeks to better understand the relationship between cognitive and perceptual decline.

