

Table 2
Participating Faculty Members
(Alphabetically by Faculty Member)

	Name/Degree(s)	Rank	Primary and Secondary Appointment(s)	Role in Program	Research Interest
1	Bruce J Gantz, MD	Professor	Otolaryngology— Head and Neck Surgery (Neurosurgery)	Director/ Trainer	Bone Resorption in Chronic Otitis Media, Biochemistry of Otosclerosis, Morphology of Sudden Hearing Loss, Collagen Breakdown, Cochlear Implants, Electrical Stimulation of Central Auditory System, Facial Nerve
2	Paul J Abbas, PhD	Professor	Communication Sciences and Disorders, (Otolaryngology—Head and Neck Surgery, Neuroscience)	Trainer	Physiology of the auditory system, particularly related to electrical stimulation and cochlear implants.
3	Michael A Apicella, MD	Professor	Microbiology (Internal Medicine, Immunology Program, Molecular and Cell Biology Program)	Trainer	Understanding the factors involved in the pathogenesis of human pathogenic <i>Neisseria</i> and non-typeable <i>Haemophilus influenzae</i> infections in order to develop methods to inhibit these infectious processes either by vaccination or chemotherapy. These organisms are strict human pathogens and cause considerable disease worldwide. His research combines state of the art methodologies in molecular biology, cell biology, bioinformatics and macromolecular chemistry to study mechanisms involved in bacterial pathogenesis.
4	Botond Banfi, MD, PhD	Associate Professor	Anatomy and Cell Biology, (Internal Medicine, Otolaryngology—Head and Neck Surgery)	Trainer	Combine forward genetic, bioinformatic, and cell biological approaches to identify and characterize genes that are required for the development and survival of sensory hair cells in the inner ear.

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5	Carolyn J Brown, PhD	Professor	Communication Sciences and Disorder (Otolaryngology—Head and Neck Surgery)	Trainer	Cochlear Implants, Auditory Electrophysiology and Audiology. Clinical applications for electrically evoked auditory potentials.
6	Kevin Campbell, PhD	Professor	Molecular Physiology and Biophysics	Trainer	Understanding the molecular pathogenesis of various forms of muscular dystrophy, and developing therapeutic strategies to treat muscular dystrophy
7	Eugene Chang, MD	Assistant Professor	Otolaryngology—Head and Neck Surgery	Trainer	The role of ion transport in craniofacial and sinus development and disease
8	Robert Cornell, PhD	Associate Professor	Anatomy and Cell Biology	Trainer	
9	Beverly Davidson, PhD	Professor	Internal Medicine (Physiology and Biophysics, Neurology) Roy J. Carver Chair in Biomedical Research, Vice Chair, Department of Internal Medicine; Director, Gene Transfer Vector Core; Associate Director, Center for Gene Therapy	Trainer	Inherited genetic diseases that cause central nervous system dysfunction; Identification of mutations that cause cell death or loss of function, and development of novel molecular therapies for treating these diseases.
10	Frederick E Domann, PhD	Professor	Radiation Oncology (Free Radical & Radiation Biology, Molecular & Cellular Biology, MSTP)	Trainer	Epigenetic mechanisms including DNA methylation and histone modifications that cause aberrant gene expression in human diseases.
11	Mark Dyken, MD	Associate Professor	Neurology	Trainer	Sleep; obstructive sleep apnea and stroke/critical care illness and Down syndrome, narcolepsy, parasomnias, therapies for persistent sleepiness in apnea well treated using CPAP, and therapies for restless legs syndrome.
12	Daniel Eberl, PhD	Professor	Biology (Genetics;	Trainer	Genetic models of auditory development

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			Neuroscience; MSTP)		and function. Generation and maintenance of endolymph-like compartments
13	John Engelhardt, PhD	Professor	Anatomy and Cell Biology	Trainer	The development of gene therapies for inherited and environmentally induced diseases
14	Gerry Funk, MD	Professor	Otolaryngology— Head and Neck Surgery	Trainer	Self-reported health status assessment in head and neck oncology patients. Clinical outcome studies in the head and neck oncology patient population. Psychosocial parameters in head and neck cancer patients. Long-term outcomes in head and neck cancer patients. Prediction of survival using self-reported health assessment in head and neck cancer patients.
15	Kay (Kate) Gfeller, PhD	Professor	School of Music Communication Sciences & Disorders	Trainer	Music perception, enjoyment, and training of cochlear implant and hearing aid recipients
16	Prabhat Goswami, PhD	Professor	Radiation Oncology and Free Radical Biology		Dr. Goswami's laboratory is pursuing mechanistic understanding of the role intracellular redox-state plays in regulating the mammalian cell cycle, and the establishment of a link between ROS-signaling and other aspects of intracellular signaling networks. Additional research interest includes investigating the possible role of intracellular redox environment in wound healing, radiosensitivity, radiation-induced cell cycle checkpoint pathways, and post-transcriptional gene regulation.
17	Steven Green, PhD	Professor	Biology (Otolaryngology, Neuroscience, Molecular and Cellular Biology, MSTP)	Trainer	Control of neuronal survival by afferent input in the cochlea; synaptogenesis and synapse regeneration in the cochlea; neuronal consequences of

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					acoustic trauma
18	Jeremy Greenlee, MD	Associate Professor	Neurosurgery, (Otolaryngology—Head and Neck Surgery)	Trainer	Neural mechanisms of vocal motor control; Outcomes of endonasal skull base surgery
19	Marlan R Hansen, MD	Professor	Otolaryngology—Head and Neck Surgery	Trainer	Auditory nerve regeneration, Human and animal studies of cochlear implantation, Molecular basis of vestibular schwannoma tumorigenesis and radiosensitivity.
20	Michael Henry, PhD	Associate Professor	Physiology	Trainer	Cell-matrix interactions and epithelial to mesenchymal transition in cancer metastasis.
21	Matthew Howard, MD	Professor	Neurosurgery	Trainer	Medically intractable epilepsy; Electrophysiologic investigations are carried out to examine normal brain functions, with a particular emphasis on brain systems involved in hearing, speech, vocalization and emotion.
22	Amy Lee, PhD	Associate Professor	Physiology	Trainer	Molecular physiology of inner hair cell synapses
23	John R Manak, PhD	Associate Professor	Biology (Pediatrics)	Trainer	Genetics and genomics of human disease, with a focus on birth defects
24	Jose M Manaligod, MD	Associate Professor	Otolaryngology—Head and Neck Surgery	Trainer	Molecular biology of inner ear and tracheal development
25	Bob McMurray, PhD	Associate Professor	Psychology and Communication Disorders	Trainer	Research Interests: Speech perception and word recognition in normal and impaired populations; phonological development and early word learning; connectionist and dynamical systems approaches to language and development. Cognitive neuroscience of speech perception.
26	Jeffrey C Murray, MD	Professor	Pediatrics, Biological Sciences	Trainer	Genetic research relating to birth

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			(Dows Institute of Dental Research, Dept. of Preventive Medicine, International Programs)		defects involving cleft lip/palate and prematurity.
27	Jacob J Oleson, PhD	Associate Professor	Biostatistics	Biostatistician	Statistical methods and analysis in all areas of cochlear implant research.
28	Val C Sheffield, MD, PhD	Professor	Pediatrics-primary appointment HHMI-primary appointment (Ophthalmology-secondary) Division of Medical Genetics (Director)	Trainer	Identifying and understanding the function of genes that cause a variety of human disorders including inherited eye diseases. Molecular genetics of monogenic disorders that have phenotypic overlap with common complex diseases including obesity and hypertension.
29	Richard JH Smith, MD	Professor	Otolaryngology—Head and Neck Surgery; Pediatrics; Internal Medicine, Division of Nephrology	Co-Director	Human genetics of deafness and two rare kidney diseases, MPGNII/DDD and aHUS
30	J Bruce Tomblin, PhD	Professor	Communication Sciences and Disorders (Otolaryngology—Head and Neck Surgery)	Trainer	Communication and educational outcomes of children with hearing impairment. Genetics of specific language impairment (SLI)
31	James C Torner, MD	Professor	Epidemiology (Surgery and Neurosurgery)	Trainer	Statistical epidemiology, neuroepidemiology, prognostic studies and acute and preventive clinical trials
32	Lubomir P Turek, MD	Professor	Pathology	Trainer	Pathogenesis, epidemiology and diagnostic and prognostic markers of head and neck cancer
33	Richard S Tyler, PhD	Professor	Otolaryngology—Head and Neck Surgery (Communication Sciences and Disorders)	Trainer	Bilateral hearing, auditory spatial hearing training' Cochlear Implants and Tinnitus (evaluation, clinical trials, treatments)

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34	Douglas Van Daele, MD	Associate Professor	Otolaryngology— Head and Neck Surgery	Trainer	Clinical and basic science aspects of voice, speech and swallowing physiology. Cortical control and brainstem integration of laryngeal centers. Muscle fiber type expression in the larynx and changes with denervation and radiation treatments
35	Robert Wallace, MD	Professor	Epidemiology	Trainer	Population studies on elder health at the national level, and hearing and speech data analysis with respect to impact on other human functions and health outcomes, the cost of ENT care for older persons, and the exploration of selected risk factors for the common ENT conditions
36	Michael Welsh, MD	Professor	Internal Medicine (Neuroscience, MSTP)	Trainer	Role of localized pH reductions and acid sensing ion channels on central and peripheral neuron function