Division Data Summary

<table>
<thead>
<tr>
<th>Research and Training Details</th>
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<tbody>
<tr>
<td>Number of Faculty</td>
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<tr>
<td>Number of Joint Appointment Faculty</td>
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<td>Number of Support Personnel</td>
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<tr>
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<td>Direct Annual Industry Support</td>
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<td>Peer Reviewed Publications</td>
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<table>
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<tr>
<th>Clinical Activities and Training</th>
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<tbody>
<tr>
<td>Number of Clinical Fellows</td>
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<tr>
<td>Number of Other Students</td>
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<tr>
<td>Inpatient Encounters</td>
<td>542</td>
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<tr>
<td>Outpatient Encounters</td>
<td>45,873</td>
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Significant Publications


Parental stressors change over time with respect to the time of diagnosis of hearing impairment. This phenomenon was observed irrespective of the age of diagnosis of hearing loss. As professionals serving families of children with hearing loss, we should be aware of changing stressors over time and identify the appropriate support services for families to meet those changing needs. By addressing those evolving stressors, the families' ability to support and improve the outcomes for their children who are deaf or hard of hearing may be enhanced.

FGF18 provided both directional and proliferative cues to chondrocytes in the developing upper respiratory tract. FGF18 exerted this effect on developing chondrocytes by up-regulating Sox9 expression.


Children with additional disabilities make progress in auditory skills, but may not develop higher auditory skills of identification and comprehension within the first 6 months after implantation. Categorizing children according to a cognitive developmental quotient may provide more predictive ability than does categorizing them by disability type.

Division Highlights

Saima Riazuddin

During FY09, Dr. Riazuddin characterized a nonsyndromic deafness gene known as BSND. BSND has been reported as a disease gene for a severe variant of barter syndrome that combines renal salt loss with sensorineural deafness. In this study we have shown the functional consequences of p.I12T differ from BSND mutations that cause renal failure and deafness in Bartter syndrome.

Ravi Elluru

Dr. Ravi Elluru earned high honors from The Triological Society with the Edmund Prince Fowler Award. This award was given to him for his thesis “Fibroblast Growth Factor 18 Provides Directional and Proliferative Cues to Developing Upper Respiratory Tract Cartilage. Revered as one of the most prestigious awards, Edmund Prince Fowler, Sr., MD, was the president of The Triological Society in 1932. He was considered a giant in otology and was an advocate for the hard of hearing. In his honor, the Edmund Fowler Award was established in 1971, given each year for the best in thesis research. Dr. Elluru was inducted into The Triological Society as an Active Fellow in May 2009 at The Triological Society's 112th Annual COSM Meeting in Phoenix.

Division Collaboration

Collaboration with Pediatric Radiology
Collaborating Faculty: Scott Holland, PhD
Working on NIH funded study (RO1-DC07186) using fMRI to predict outcome from cochlear implants in infants.

Collaboration with Bioinformatics
Collaborating Faculty: Bruce Aronow, PhD
Working to validate a diagnostic micro-array gene chip for detection of genetic causes of pediatric hearing loss.

Collaboration with Speech Pathology
Collaborating Faculty: Lisa Kelchner, Barbara Weinrich, Susan Brehm
Collaborative effort to analyze outcomes of pediatric voice following laryngotracheal reconstruction.

Faculty Members

Robin T. Cotton, MD, Professor; Director, Department of Pediatric Otolaryngology; Director, Aerodigestive and Sleep Center;
Ellis M. Arjmand, MD, PhD, Associate Professor; Director, Ear and Hearing Center
David K. Brown, PhD, Assistant Professor; Director, Audiological Research Lab
Daniel I. Choo, MD, Associate Professor
Alessandro deAlarcon, MD, Assistant Professor; Director, Voice Clinic
Ravindhra G. Elluru, MD, PhD, Assistant Professor
John H. Greinwald Jr., MD, Associate Professor
Charles M. Myer III, MD, Professor; Director, Pediatric Otolaryngology Residency Program
Saima Riazuddin, PhD, Assistant Professor; Director, Laboratory of Molecular Genetics
Michael J. Rutter, MD, Associate Professor
Sally R. Shott, MD, Professor
Joint Appointment Faculty Members

Zubair Ahmed, PhD, Assistant Professor
Ophthalmology
Genetics

Jareen Meinzen-Derr, MPH, PhD, Assistant Professor
Biostatistics & Epidemiology
Epidemiology

Trainees
- Jeremy Prager, MD, PGY-VI, Washington University School of Medicine (St. Louis)
- Evan Propst, MD, MSc, FRCSC, PGY-VI, University of Toronto
- Marlene Soma, BSc(Med) MBBS, FRACS, PGY-VI, University of New South Wales
- Matthew Bromwich, MD, FRCS(c), PGY-VII, Queen's University School of Medicine (Kingston, Canada)
- J. Matthew Dickson, MD, FRCS(c), PGY-VII, University of British Columbia (Vancouver, Canada)
- Christopher Wootten, MD, PGY-VII, Baylor College of Medicine

Significant Accomplishments

Cincinnati Children's Hearing Aid Trust (CCHAT)
The Cincinnati Children's Hearing Aid Trust's vision is to offer the gift of hearing to as many Ohio children as possible. The primary goal is to provide Ohio children, from birth to age three, with their first set of hearing aids for free. CCHAT has partnered with the Ohio Department of Health (ODH), the Bureau of Early Intervention Services (BEIS), the Bureau for Children with Medical Handicaps (BCMH), the Regional Infant Hearing Programs (RIHP), Phonak and Oticon, as well as individual sponsors, to make this goal come to life and start helping hundreds of children. Early hearing intervention in children with confirmed hearing loss is critical, yet the financial challenges associated with obtaining hearing aids can be burdensome. CCHAT and its partners are devoted to helping families overcome obstacles and alleviate the stressors associated with hearing loss.

Laboratory of Molecular Genetics
The division of Pediatric Otolaryngology successfully recruited Dr. Saima Riazzudin to direct the Pediatric Otolaryngology Laboratory of Molecular Genetics. Dr. Riazzuddin is a well-published, rising star in the field. Her research has largely focused on the identification and characterization of human genetic mutations that cause hereditary hearing loss. Her research will continue to identify novel genes related to deafness as well as examine the function of these genes at a cellular and organ level.

Given our departmental emphasis on hearing and deafness as well as the departmental mission to advance the understanding and management of hearing disorders, Dr. Riazzuddin's research on the molecular basis for hereditary hearing loss presents a very congruous program to bring into Otolaryngology. The long term benefits to the Department of Otolaryngology will be to establish a robust and self-sustaining research program that will be extremely competitive for extramural funding and establish our department as a scientific center for excellence to compliment our existing clinical centers of excellence.

Communication Sciences Research Center (CSRC)
The Communication Sciences Research Center (CSRC), a collaborative research program involving Pediatric Otolaryngology, Audiology, and Speech-Language Pathology, was established in 2009. The program will be directed by Scott Holland, PhD, McLaurin Scholar and Professor of Radiology. The CSRC is designed to promote interdisciplinary research into the causes and treatment of communicative disorders in children, and to integrate and coordinate the research activities of faculty members in the participating divisions. Building on a strong foundation of clinical and laboratory research in Otolaryngology, Audiology, and Speech-Language Pathology, two additional faculty members in the fields of hearing science and speech/voice science are being recruited.

Division Publications


Grants, Contracts, and Industry Agreements

### Grant and Contract Awards

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<th>Project Title</th>
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<td>A Preclinical Trail of Intratympanic Antivirals for CMV</td>
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### Current Year Direct Receipts

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