**Division Details**

**Division Data Summary**

<table>
<thead>
<tr>
<th>RESEARCH AND TRAINING DETAILS</th>
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<tbody>
<tr>
<td>Number of Faculty</td>
<td>11</td>
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<tr>
<td>Number of Joint Appointment Faculty</td>
<td>1</td>
</tr>
<tr>
<td>Number of Research Fellows</td>
<td>4</td>
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<tr>
<td>Number of Research Students</td>
<td>11</td>
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<tr>
<td>Number of Support Personnel</td>
<td>15</td>
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<tr>
<td>Direct Annual Grant Support</td>
<td>$1,024,141</td>
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<tr>
<td>Peer Reviewed Publications</td>
<td>48</td>
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</table>

**Division Photo**

Row 1: L Workman, J Schmit
Row 2: J Long, A Kummer, R Pickler, A Vinks, K Harpster, H Tubbs Cooley
Row 3: D Deliyski, A Dimitrijevic, S Holland

**Significant Accomplishments**

**Research Staff to Expand**

Rita Pickler, PhD, was named scientific director for nursing this year. She is focused on building research with the division by setting research priorities, hiring experienced and promising researchers, and partnering with other divisions and departments around shared research interests. Pickler has more than 25 years of experience studying care provided to preterm infants in the neonatal intensive care unit. Her work has been supported by three NIH-funded R01s and two NIH center grants as well as numerous foundation and organization funded projects. Her most recently completed randomized control trial confirmed the benefits of developmentally appropriate transitions to oral feeding by carefully assessing neurological readiness for this complex, life-sustaining activity, and by then offer experiences for infants to practice emerging feeding skills at every opportunity. Her intervention has been shown to shorten transitions from tube to oral feeding and to lead to earlier hospital discharge. Her current study involves providing a patterned feeding experience for preterm infants to improve short- and longer term neurodevelopment. Pickler also studies the effect of maternal wellbeing on pregnancy outcomes and the transition-to-home from the NICU.

**Revolutionary Hearing Test Studied Here**

People concerned about their hearing most frequently report difficulty hearing speech in challenging listening conditions, such as a noisy room. However, the standard test of hearing, the audiogram, does not predict well the ability to hear in those conditions. By developing new ‘speech-in-noise’ (SiN) tests of hearing, and by analyzing the results of an SiN hearing test in over 160,000 people, David Moore, PhD, and his colleagues have
Moore’s results highlight the close interaction between the ear and the brain in processing complex speech signals. They suggest further testing of simple skills, memory recall and reaction time, to help tailor hearing devices to individuals and to offer suitable advice on listening strategies. Audiograms, SiN tests, questions about hearing, and skills tests also can be delivered over the internet, which means people can complete the tests in the privacy and comfort of home. In the future, this also means that large numbers of people with mild but still significant hearing loss may be offered inexpensive hearing instruments through the internet without the need to be seen by a professional. The role of the audiologist may evolve to be a more specialized one, working with those who have more severe or unusual forms of hearing problems. This year, Moore and his team published seven peer-reviewed papers, two articles in professional society newsletters, two book chapters, and presented more than 10 international invited lectures. They also represented Cincinnati Children’s as part of an Auditory Cognitive Neuroscience Consortium that was awarded €1,000,000 by the European Union Erasmus Mundus for their partnership and mobility scheme.

Evaluating Post-Concussion Rehabilitation

Catherine Quatman-Yates, PT, DPT, PhD, is an Assistant Professor in the Division of Sports Medicine and a key member of the Cincinnati Children’s Division of Occupational and Physical Therapy and the Sports Medicine Biodynamics Center. In her first year as a faculty member, she completed two pilot grants that funded preliminary studies for her work in post-concussion diagnosis and rehabilitation for children and adolescents. The work from these grants culminated in several presentations at national scientific meetings, multiple manuscripts and a series of preliminary studies for her recently funded study entitled, “Clinical Detection of Post-Concussion Impairments in Children and Adolescents.” This study will explore the utility of complexity analysis measures applied to center-of-pressure trajectories as a biomarker for concussions. In addition, Quatman-Yates will pursue a rigorous didactic/mentorship program for the next two years, with support from a prestigious Patient Services Research Career Development grant that will provide her with advanced training in nonlinear dynamical systems times series analysis methods, grantsmanship, research methods associated with mild traumatic brain injury and clinical research design. These experiences will provide ongoing support for Quatman-Yates’ progress toward becoming an extramurally-funded clinical researcher.

Division Publications

2. Bailes AF, Succop P. Factors Associated With Physical Therapy Services Received for Individuals With Cerebral Palsy in an Outpatient Pediatric Medical Setting. *Physical Therapy.* 2012; 92:1411-8.
43. Tofani BF, Rineair SA, Gosdin CH, Pilcher PM, McGee S, Varadarajan KR, Schoettker PJ. Quality improvement project to reduce infiltration and extravasation events in a pediatric hospital. J

Faculty, Staff, and Trainees

Faculty Members

Nancy Daraiseh, PhD, Assistant Professor
Research Interests: Occupational health and safety; human factors; patient safety; health outcomes

Dimitar Deliyski, PhD, Associate Professor
Leadership: Associate Director
Research Interests: Voice and vocal cord research related to otolaryngology surgery

Andrew Dimitrijevic, PhD, Assistant Professor
Research Interests: Electroencephalogram related to cochlear implant patients

Scott Holland, PhD, Professor
Leadership: Director - Research in Patient Services
Research Interests: Advanced neuroimaging applications of MRI in pediatrics

Lisa Hunter, PhD, FAAA, Associate Professor
Leadership: Scientific Director Pediatric Audiology
Research Interests: Middle ear physiology; newborn hearing screening; childhood hearing loss diagnosis

Jill Kilanowski, PhD, APRN, CPNP, Assistant Professor
Research Interests: Community-based nursing research; health promotion

Denise Lagory, PharmD, Associate Professor
Leadership: Lead Pharmacist
Research Interests: Investigational pharmacy

David Moore, PhD, Professor
Leadership: Director - Communication Sciences Research Center
Research Interests: Psychoacoustic research and how it affects hearing

Rita Pickler, PhD, RN, PNP-BC, FAAN, Professor
Leadership: Scientific Director in Nursing
Research Interests: Preterm infant care; prematurity prevention; transition to home; biobehavioral research

Erin Redle, PhD, CCC-SLP, Assistant Professor
Leadership Coordinator Research Pediatrics Speech Pathology

Research Interests Research in Pediatric Speech Pathology

Heather Tubbs-Cooley, PhD, RN, Assistant Professor
  Research Interests Outcomes research; health services research; improvement / implementation science; nursing workforce research

Joint Appointment Faculty Members

Scott Holland, PhD, Professor (PNRC/Radiology)
  Research Interests Advanced neuroimaging applications of MRI in pediatrics

Trainees

Alaaeldin Elsayed, MD, AuD, Missouri State University, Springfield, MO
Cassie Wardlow, RN, MPA, MSW, MSN, University of Cincinnati, Cincinnati, OH
Caroline Morrison, RNII, MSN, CNL, Xavier University, Cincinnati, OH
Brittany Hand, , Ohio State University, Columbus, OH
Ashlee Schmitt, , Ohio State University, Columbus, OH
Dobrinka Georgieva, PhD, University of Bolgaria, Bolgaria
Stephanie Zacharias, AuD, PhD, University of Cincinnati, Cincinnati, OH
J'ai Watson, MS, University of Cincinnati, Cincinnati, OH
Yang-soo Yoon, PhD, House (Ear) Research Institute, Los Angeles, CA
Yingying Wang, , University of Cincinnati, Cincinnati, OH
Rola Farah, PhD, CCC-A, University of Cincinnati, Cincinnati, OH
Maria Golla, MSP, CCC-SLP, University of Cincinnati, Cincinnati, OH
Aniruddha Deshpande, AuD, University of Cincinnati, Cincinnati, OH
Shruti Balvati, AuD, University of Cincinnati, Cincinnati, OH
Tzipi Horowitz-Kraus, PhD, University of Haifa, Israel

Division Collaboration

Biostatistics & Epidemiology » Jareen Meinzen-Derr PhD
  Provide biostatistical data analysis with Dr. Lisa Hunter. Set up data management systems and provide biostatistical data analysis with Dr. Rita Pickler.

Center for Pediatric Voice Disorders » Alessandro de Alarcon, MD
  Serves as medical expert confirming findings, diagnosis and interpretation of any impact of surgical procedures on the larynx with Dr. Dimitar Deliyski.

DDBP » Susan Wiley, MD
  Assisting in data collection for sensory loss of deafness associated with additional disabilities with Dr. Lisa Hunter.

Gastroenterology, Hepatology, & Nutrition » James Heubi, MD
  Direct the lab that processes biological data obtained for study purposes with Dr. Denise Lagory.

Human Resources » Julia Abell
  Oversee Human Resources investigation database and the return on investment business interest study with Dr. William Lecher.
Neonatology » James Greenberg, MD
   Provide leadership to the team of neonatal specialists and support implementation of intervention with Dr. Rita Pickler.

Neonatology » Scott Wexelblatt, MD
   Assisting in evaluation of babies for sensory loss of deafness associated with additional disabilities with Dr. Lisa Hunter.

Neonatology & Pulmonary Biology » Suhas Kallapur, MD
   Assist with the collection, analysis and interpretation of biological data with Dr. Pita Pickler.

Otolaryngology » Daniel Choo, MD
   Member of CSRC Collaborative Effort

Otolaryngology » Saima Riazuddin, PhD
   Assisting in confirming findings, diagnosis and interpretation of any impact of surgical procedures on the larynx with Dr. Lisa Hunter.

Physical Medicine & Rehabilitation » Shari Wade, PhD
   Serves as a consultant on project with Dr. Dimitar Deliyski.

Otolaryngology; Pediatric Neuroimaging Research Consortium; Speech-Language Pathology » Ellis Arjmand, MD, Scott Holland, PhD, and Ann Kummer, PhD, CCC-SLP
   Member of CSRC Steering & Executive Committee

Grants, Contracts, and Industry Agreements

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<tr>
<th>Grant and Contract Awards</th>
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<tr>
<td><strong>BAILES, A</strong></td>
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<tr>
<td>Dosing Rehabilitation Services for Children with Cerebral Palsy</td>
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<td>American Physical Therapy Association (University of Hartford)</td>
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<td>Effects of Functional Electrical Stimulation Neuroprosthesis in Children with Hemiplegic Cerebral Palsy</td>
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<td>Pedal-with-Pete, Inc.</td>
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<td><strong>DELIYSKI, D</strong></td>
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<td>10th International Conference AQL2013 Advances in Quantitative Laryngology</td>
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<td>National Institutes of Health</td>
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<td>Access to Pediatric Voice Therapy: A Telehealth Solution</td>
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<td>Agency for Healthcare Research and Quality (University of Cincinnati)</td>
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<td>Wideband Clinical Diagnosis and Monitoring of Middle-Ear and Cochlear Function</td>
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<td>National Institutes of Health (Boys Town National Research Hospital)</td>
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<td>Project Title</td>
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<td>Hospital Based Regional Child Find - Help Me Grow</td>
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<td>Patterned Experience in Preterm Infants</td>
<td>Pickler, R</td>
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<td>ORSC Proposal for Project SEARCH Replication, Capacity Building, Sustainability and Improvement</td>
<td>Rutkowski, S</td>
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<td>Project SEARCH Training Institute Curriculum Development</td>
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<td>Transition Options in Postsecondary Settings for Students with Intellectual Disabilities</td>
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**Current Year Direct: $1,024,141**

**Total: $1,024,141**