As part of Better Hearing and Speech Month, we would like to share an update on the speech-language pathology, diagnostic audiology, hearing aid, and cochlear implant programs at IU and Riley Hospitals, as well as to discuss a few special projects that are in progress within our division.

Representatives from speech-language pathology, diagnostic audiology, hearing aid, and cochlear implant programs recently gave several presentations at the Indiana Speech-Language-Hearing Association (ISHA) convention in Indianapolis, on March 26 and 27, 2009. The diagnostic audiology team is currently authoring a chapter for inclusion in a pediatric audiology textbook. The following information is intended to provide a more in-depth glimpse at Audiology and Speech-Language Pathology.

**Diagnostic Audiology**

The diagnostic audiologists at IU and Riley Hospitals have many responsibilities ranging the entire spectrum of audiologic practice. The team works diligently to promote early diagnosis and intervention of hearing loss in infants referred from the Universal Newborn Hearing Screening program. The audiologists collectively see hundreds of these infants each year, and are proud that very few of these infants are ever lost to follow-up thanks to the efforts of not only the audiologists, but our excellent support staff. These evaluations are typically an Auditory Brainstem Response (ABR) evaluation, either with or without the aid of sedation, or in the operating room under anesthesia. As one of the few centers in the state offering ABR testing with sedation, our services are in high demand!

The diagnostic audiology team is also responsible for evaluating hearing and balance for the department’s ENT physicians. These evaluations range from a simple behavioral test of hearing to a complex set of tests designed to evaluate the portion of the ear responsible for balance.

The diagnostic audiology team receives hundreds of outside referrals each year for audiologic evaluations on older children and adults, and makes every effort to see these patients in a timely manner. The team also works very closely with many departments throughout the hospital, as well as throughout the entire state of Indiana, to provide the best possible care to those in need of our services. Within our hospital system, these departments/clinics include: Hematology/Oncology (for evaluating children at risk for hearing loss due to the type of chemotherapy they are receiving), Cranio-Facial Clinic, Developmental Pediatrics, and Pulmonary. We also work closely with state programs such as the Early Hearing Detection and Intervention (EHDI) program, Indiana First Steps, and the Indiana Lions Clubs.

**Speech-Language Pathology**

The speech pathologists at IU and Riley work with many services, including developmental pediatrics, pulmonology, GI, plastics, surgery, psychiatry, general pediatrics, radiology, and ENT. Inpatient SLPS, in both the adult and pediatric hospitals, spend most of their time and energy with dysphagic patients, performing videoflouroscopic swallow studies (VFSS) as well as bedside swallow evaluations and following-up for appropriate treatments and/or diet modifications. Inpatients may also be seen by speech therapists for communication needs, Passy Muir
Speaking Valve use, and patient/family education.

The outpatient therapists work with a diverse population, including children with autism, Down syndrome, voice and resonance disorders, hearing impairments/cochlear implants, dysfluency, apraxia, feeding issues and those in need of alternative forms of communication. Adult patients may be seen for aphasia therapy, cognitive rehabilitation, voice disorders, TEP maintenance, or dysphagia treatments.

Our therapists are also interested in participating in active research studies, and are currently involved in a project designed to standardize the perceptual assessment of patients presenting with VPI.

The SLPs at IU and Riley work hard to develop expertise in a variety of specialty areas so that we can meet the unique needs of our patients. We enjoy working closely with physicians, nurses, dieticians, OTs, PTs, and other service providers to give the best possible care to every patient and family that we treat.

Cochlear Implant Program

The IUMC Cochlear Implant Program consists of a team of professionals who are committed to serving those with severe to profound hearing loss. The team currently serves over 1500 patients who have received or are in the process of being evaluated for cochlear implant technology. Clinically, the team consists of 2 surgeons, 6 audiologists, and a speech language pathologist who all work together to ensure that each patient receives the best possible care. Each patient is evaluated pre-operatively to determine eligibility for the implant procedure. Once candidacy is determined, the patient and his/her family is counseled extensively regarding the minimum expected benefits, surgery and associated risks, current technology, and rehabilitative needs that are associated with implantation. Surgeons ensure that the electrode array is placed appropriately within the cochlea. Following surgery, frequent mapping or programming is required to optimize electrical stimulation of the auditory nerve. Aural rehabilitation is provided to ensure that each patient learns to use the new auditory signal. In addition to these primary clinical services, the Cochlear Implant Team must also work closely with other departments and professionals as many of the patients experience other developmental and medical needs.

The Cochlear Implant Team not only ensures that each patient receives the best possible clinical care, but they also actively participate in ongoing clinical research to evaluate and establish efficacy for new technologies. Recent clinical trial participation includes the following: Investigation of the Medel Electric-Acoustic Stimulation; Investigation of the Cochlear Hybrid Device; Investigation of Advanced Bionic’s HiFidelity 120 Technology in Adults; and Bilateral Implantation in Children using the Medel Combi 40+ device.

The Cochlear Implant Team also includes an on-site research program. The physicians, psychologists, linguist, and speech language pathologists that work in the DeVault Otologic Research Laboratory and the Infant Language Laboratory continue to examine the various behavioral outcomes of cochlear implantation in infants, children, and adults. Research activities in the laboratories are supported primarily by several grants from NIDCD of the NIH, with substantial support also coming from various other public and private agencies, as well as individual gifts and bequests.

With a longstanding history of quality care and a large patient population including those varying in age (6-months to 92-years), varying in hearing history (pre-, peri-, and post-lingual), varying in communication modalities, and varying in developmental level and cognitive function, the experience and expertise provided by our implant team is invaluable. The IUMC Cochlear Implant Team receives frequent referrals from other programs for patient evaluation and consultation and continues to serve patients not only in Indiana, but in many other states, as well.

In recent months, the website for the Cochlear Implant Program has been completed. More information about our program for both professionals and patients can be accessed here:

www.medicine.iu.edu/CochlearImplantProgram

Submitted by: Monica Burch
## Employee News

### Anniversaries
- **Doris Ladd**—40 years
- **Becky Colson**—15 years
- **Becky Wiley**—10 years

### New Employees
- **Julia Sayer**—Dr. Moore's nurse
- **Linda Lee**—Hearing Aid Insurance Specialist
- **Maria Kondaurova**—Research
- **Ann Kalberer**—Cochlear Implant team
- **Atsushi Shimomura**—Scientist in Hashino lab
- **Tammy Paal**—Dr. Moore’s secretary
- **Lindsay Stickens**—Research
- **Julie Raash**—Billing

### Little Arrivals
- **Katherine Jayne Landrum** was born on November 9, 2008 to Angie and Shayne Landrum. She weighed 7lb. 5oz.
- **Bryan and Becky McRae** welcomed baby girl, **Julia Lynn** on December 17, 2008. She weighed 6lb. 14 oz.
- **Taylor Lynn Hillman** was born on January 10, 2009 to John and Heather Hillman. She weighed 8lbs. 2.5oz.
- **Mark and Bente Royer** welcomed **Graham Mitchell Royer** on March 3, 2009. He weighed 7lbs. 10 oz.

### Kudos
- **Gloria Nelson** received the Bronze Performance Award from Clarian Health.
- **Beth Rethmeier** received a letter of appreciation from a clinic patient.

### Locks of Love
- **Sara Tinter** donated her hair to **Locks of Love**, an organization that provides hairpieces to financially disadvantaged children under 18 suffering from long-term medical hair loss.

### Publications

## Posters & Presentations

- **Influence of Psychiatric Disorders on the Predictive Value of the Reflux Symptom Index**, Sam Oyer, medical student/Dr. Halum, podium presentation, COSM.
- **Neurotoxins for Prevention of Laryngeal Synkinesis After Recurrent Laryngeal Nerve Injury**, Bryan McRae/Dr. Halum, podium presentation, COSM.
- **The Relationship of Restech PH Probe Results with Laryngopharyngeal Reflux Symptomatology and Examination Findings**, Lauren Anderson/Sam Oyer/Dr. Halum, podium presentation, COSM.
- **Voice Impairment Following Calcium Hydroxyapatite(HA) Injection**, Jonathan Ting/Dr. Halum, poster presentation, COSM.
- **Management of a Laryngeal Injection Needle Impacted in the Paraglottic Space**, Jonathan Ting/Dr. Halum, poster presentation, COSM.
- **Spoken Prosody and Music Production in Children with Cochlear Implants**, Tonya Bergeson/Matthew Kuhns/Steven Chin, poster, Society for Research in Child Development Meeting.
- **Audiology Clinical Education Partnership: Purdue University, Indiana University School of Medicine and Clarian Health Partners, Kathy Corbin, audiologist/Jennifer Simpson, audiology faculty liaison from Purdue University, poster, 2008 ASHA Convention.**

We hope to have this displayed in the Riley Research hallway soon.
The 5K will begin at 9 a.m. and the 2.3 mile Fitness Walk will begin at 9:10 a.m. There will be a FREE kids fun run as well!

The Post Race Party will begin at 11 a.m. and will include food, music, games and fellowship! Awards will be given to the top race finishers and the top fundraisers. Contact Kristin Vincent at 4-6619 for more information.

You can register for the event at: www.talkwalkrun.net.

Contributions for the newsletter should be submitted to Jane Adamson, RR 132 or email jaadamso@iupui.edu.