

# **LEND Pediatric Audiology Training Awards**

## **LEND Directors Meeting, Spring 2009**

### **Overview**

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The LEND Pediatric Audiology Training Awards provide supplemental funding for six LEND programs to expand and augment their pediatric audiology training efforts. The competition and supplemental awards to the six LEND programs were made possible through a contract to AUCD from the MCHB.

Each awardee will receive approximately \$65,000 per year for 3 years to increase the number of short and long term pediatric audiology trainees, and to expand didactic content and augment clinical experiences in infant/pediatric audiology. Funded programs will develop new or adapt existing curricula for use in an accredited graduate level audiology training program. Listed alphabetically by state, the six awardees are:

- JFK Partners at the University of Colorado-Denver, Aurora, CO;
- Children's National Medical Center, Washington, DC;
- Center for Development and Learning at the University of North Carolina at Chapel Hill, Chapel Hill, NC;
- The UCLID Center at the University of Pittsburgh; Pittsburgh, PA;
- Mid-Tennessee Interdisciplinary Instruction in Neurodevelopmental Disorders at the Vanderbilt Kennedy Center, Nashville, TN; and
- Utah Regional Leadership Education in Neurodevelopmental Disabilities (URLEND) at the University of Utah, Salt Lake City, UT.

### **JFK Partners at the University of Colorado-Denver, Aurora**

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The primary goal of the CoLEND program is to advance the knowledge and skills of the full range of child health professionals to improve health care delivery systems for children and youth with hearing loss. CoLEND and the University of Colorado Audiology training program have articulated three programmatic goals:

1. Creating a Pediatric Audiology Fellowship for a fourth year clinical audiology doctoral student,
2. Creating Pediatric Audiology Trainees by recruiting three practicing clinical audiologists per year from communities outside of the Denver metropolitan area,
3. Enhancing the knowledge base of other disciplines in the arena of pediatric hearing disorders and treatment.

This project will significantly improve both the access and the quality of audiology services for the underserved families in Colorado by providing training to existing licensed audiologists in the state who reside outside of the Denver metropolitan area and training Pediatric Audiology Fellows, who currently receive a general audiology education. The Audiology Fellows and Trainees will have access to the resources available in the currently funded Colorado LEND (Co-LEND) program at JFK Partners.

The current multidisciplinary fellows and trainees in the Co-LEND program will also receive the benefits of interaction, collaboration and didactic lectures from the audiology staff and faculty. The current Co-LEND activities of interdisciplinary training and leadership will be expanded to train pediatric audiologists and to increase the knowledge and skills of other LEND trainees to include support to children with hearing loss. Many children with hearing loss have other disabilities and special health care needs and by creating a culture of collaboration between multidisciplinary specialists, this project will have a lasting impact on the provision of services and attitudes of the participating students and professionals. Other LEND sites will have access to the material created by this project creating the opportunity to impact services nationally.

### **Children's National Medical Center, Washington, DC**

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Our strategy is to produce interdisciplinary professionals well-informed about audiology practices in DC LEND disciplines with a strong emphasis on pediatric audiology. There is a balance of academic, clinical and community/dissemination opportunities. We are set to begin this training at the start of the grant period by enhancing the audiology training for our existing Tier 1 LEND trainees. We will also begin immediate recruitment of Tier 2 audiology trainees with entrance of this group by August 2009. The end result will be to make all LEND trainees well aware of childhood hearing loss and its related disorders so it is incorporated into their professional practice within the field of developmental disabilities and to competently prepare audiology trainees to become specialists in pediatric audiology and leaders in their field. The approaches include:

- All AUD DC LEND trainees will receive enhanced training in pediatric audiology.
- Developing an innovative 2 track system for trainees, with an AUD emphasis tier; this group will receive a more intensive program and have a greater commitment of time to the LEND program. The requirements for these students will include educational site visits, workshops and teaching experiences within the D/HH community.
- Providing a family centered approach through home visits by LEND trainees to families who are D/HH both to understand family issues of care and hearing loss management as well as to provide intervention strategies trainees have learned through school programs.
- Increase cultural competency through the extensive program that is already part of DC LEND but with an additional emphasis on individuals who are D/HH and/or racially-ethnically diverse.
- DC LEND trainees will teach classes about topics in hearing loss, hearing conservation, and deaf culture to students in primary, secondary, and higher educational settings.
- Participating in LEND continuing education programs provided to the community, including to DC school nurses, health care practitioners (e.g. the 600 pediatricians who are part of the CNMC Network), and the public.

## **Center for Development and Learning at the University of North Carolina at Chapel Hill, Chapel Hill, NC**

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The LEND grant at UNC is designed to provide audiology trainees with the knowledge base and clinical skills needed to engage in screening for hearing loss, diagnosis of auditory disorders, and delivery of evidence-based interventions for young children with hearing loss and their families. Participants are second year graduate students in our AuD program whose career goals focus on early hearing detection and intervention (EHDI). Their specific activities include:

1. a year of specialized practicum at three different UNC sites where pediatric audiology services are provided (The Center for Development and Learning; UNC Hospitals; and Carolina Children's Communicative Disorders Center);
2. participation in a series of interdisciplinary workshops delivered in cooperation with UNC's Maternal and Child Health Consortium (the workshops focus on personal leadership style, conflict resolution, cultural competence, and family-professional collaboration);
3. participation in a weekly interdisciplinary seminar;
4. a clinical research or community service project on a topic related to hearing in children; and
5. interaction with students and faculty from our MCH-funded leadership grant in Communication Disorders (T-83) and counterparts at Vanderbilt and Utah State University.

In 2009, this collaboration brought LEND and MCH-funded students together from several universities at the national EHDI conference in Dallas, Texas. This AUCD/MCH collaboration will continue annually. Beginning in Fall 2009, we will partner with Vanderbilt and Utah State to deliver a series of video teleconferences on issues related to pediatric audiology and hearing in children. In addition to the above activities, LEND audiology trainees at UNC participate in an annual conference hosted by UNC. In the odd years the conference is a statewide meeting of EHDI programs and service providers; in the even years it is our Biennial Pediatric Audiology Symposium.

## **Mid-Tennessee Interdisciplinary Instruction in Neurodevelopmental Disorders at the Vanderbilt Kennedy Center, Nashville, TN**

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Vanderbilt University

The primary purpose of this project is to expand and enhance our pediatric audiology training within the LEND/MIND program. We plan to focus our efforts on preparation of highly competent professionals at Vanderbilt University (VU) and at the other selected LEND programs to meet the **underserved needs** of infants, young children, and adolescents with hearing loss. This project will meet several goals that are consistent with the mission and goals of AUCD/MCHB.

Primary Goals:

Specialty Track Pre-Service audiology training with an emphasis in EHDI

- Recruit racial/ethnic minorities - In an effort to intensify recruitment of minorities, VU will host a fall open house for regional university and college seniors and

graduate students majoring in communication sciences and disorders; this includes two predominantly African-American institutions (i.e., Tennessee State University, Fisk University). Program advertisements will also be included in the Black American Collegian, a career and self development magazine distributed to over 800 campuses across the U.S.

- Maymester – Maymester is designed to provide our Specialty Track trainees in audiology a unique opportunity for a 3-week intensive practicum working with deaf and hard-of-hearing children in educational or medical settings (e.g., pediatric audiology clinic, cochlear implant program, etc.). Currently, the DHSS has contracts with approximately 25 sites throughout the U.S. for placement of our trainees.
- Training in the Center for Experiential Learning and Assessment (CELA) at Vanderbilt. CELA is an exciting and highly innovative instructional environment in a new 11,000-square-foot facility in the heart of Vanderbilt University Medical Center. This environment allows for the enhancement of problem-based learning – an instructional technique known to be especially effective in the development of diagnostic skills in medical environments (Tharpe & Biswas, 1997). CELA’s “sick” people are artful simulation or trained employees paid to portray patients and to critique students. Simulation as an adjunct to medical instruction and problem-based learning was born in the 1960s and CELA provides state-of-the-art experiential learning. In anticipation of this funding opportunity, Dr. Tharpe has discussed several preliminary ideas with the director of the CELA such as using “standardized” patients to portray parents receiving the diagnosis of hearing loss for their child from our audiology trainees. For example, our trainees would provide “counseling” in a real-life way and receive feedback from the standardized patients and from instructors prior to counseling “real” families.

#### Partnership with other MCHB/LEND audiology training programs

- Mentoring opportunities among all MCHB/LEND programs
- Pre- and post-EHDI Convention meetings with all MCHB/LEND audiology trainees
- Video teleconferences and web-based educational programs accessible to all LEND/MCHB trainees across the U.S. The project faculty at Vanderbilt, UNC, and USU have agreed to develop and disseminate these programs on EHDI-related issues.

#### Excellence in Continuing Education and Research in EHDI Principles

- Involve trainees in the development and presentation of educational programs for Tennessee Department of Health (Title V) personnel
- Enroll trainees in LEND multidisciplinary research projects
- Enroll trainees in the NIH T-35 Research training at VU.

## **Utah Regional Leadership Education in Neurodevelopmental Disabilities (URLEND) at the University of Utah, Salt Lake City, UT**

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The Infant Pediatric Audiology project (IPA) is designed to increase the number of pediatric audiologists who are serving children with special health care needs and their families. By integrating this initiative with the existing URLEND interdisciplinary training program, two important value added components will be realized. First, pediatric audiology trainees will be gaining important leadership skills and an understanding of the systems that provide services to children with special health care needs (CSHCN) and their families. These skills will enable them to be effective change agents in improving the EHDI system that, by design and necessity, functions as a part of the CSCHN system in every state. Second, other URLEND trainees will be exposed to more information about early childhood hearing loss and the associated services so that they become more effective partners in delivering the interdisciplinary services needed by these children and their families.

With the receipt and implementation of this grant, the URLEND program will be able to significantly increase the number of appropriately trained pediatric audiologists who have the requisite skills for diagnostic assessments, appropriate hearing aid fitting and management, and provide family support in Utah and the intermountain west. At least 15 pediatric audiologists will successfully complete the URLEND-IPA long-term training program. In addition, the other 20 URLEND long-term interdisciplinary trainees each year will benefit from the enhanced / expanded didactic seminars relevant to infant audiology. All trainees will have increased clinical opportunities to serve on teams with the audiology trainees, leading to better understanding of the complexities of diagnostic assessment and early intervention for infants and young children with permanent hearing loss (PHL). The expanded knowledge and skills of all of the URLEND long-term trainees will benefit the infants and young children with neurodevelopmental and related disabilities and children with special health care needs (NDRD/CSHCN) and their families through best-practice audiological services and programs.

There are several key benefits that the Audiology Supplement will bring to the URLEND program in addition to those mentioned previously. URLEND can establish new relationships with clinical sites across the state including the Intermountain Health Care facilities in Utah Valley, the Logan Regional Hospital, the University of Utah Medical Center, the University of Utah Department of Communicative Disorders, and an expanded relationship with Primary Childrens Medical Center in Salt Lake City. The Audiology Supplement will also provide the venue for an expanded relationship with NCHAM and the innovative Sound Beginnings program. Additionally, several other states have agreed, if funded, to share collaborative activities that will offer breadth and depth to the curriculum as well as link Audiology trainees in LEND programs across the country.

**The UCLID Center at the University of Pittsburgh; Pittsburgh, PA**

The primary goal of this grant is to train 2-3 audiology students during their 4<sup>th</sup> year of graduate training in a pediatric audiology clinical facility (Children's Hospital of Pittsburgh of UPMC), while participating in the UCLID-LEND [University, Community, Leaders, and Individuals with Disabilities(UCLID)] Program affiliated with the University of Pittsburgh and Children's Hospital of Pittsburgh of UPMC. Our grant will provide support to 4<sup>th</sup>-year audiology students who are doing their clinical 4<sup>th</sup> year in a pediatric audiology facility. Simultaneously these students will complete a traineeship in the UCLID-LEND. Their participation in the UCLID-LEND will require that, in addition to the requirement to working in Audiology Clinic at Children's Hospital, that they participate in the UCLID-LEND multidisciplinary clinic that is specifically geared to children with a range of disabilities and participate in all other learning activities required of the UCLID-LEND trainees (e.g., classes, seminars and/or lectures).

A secondary goal is to have a reciprocal learning experience for all fellows and trainees involved in the UCLID-LEND. We plan to educate all LEND trainees to have a greater appreciation of pediatric audiology, the Early Hearing Detection and Intervention (EHDI) system, and the needs of children who do not pass the newborn hearing screen and who may have a hearing loss. This training will be done using case-based learning modules. During our first year of funding, the case-base learning modules will be critiqued by the UCLID-LEND trainees and faculty and revised so that they can widely distributed to any and all LEND programs who wish to use them.

The third goal is to educate faculty from other universities who have audiology training programs on pediatric audiology curriculum. This will be accomplished using a teaching symposium that is conducted at the University of Pittsburgh Department of Communication Science and Disorders in the School of Health and Rehabilitation Sciences. The topic of the symposium for 2011 is Teaching Pediatric Audiology. Our conference will be discussing the pediatric patient from screening through diagnosis and the follow-up throughout the school age years. Immersed in this will be an emphasis on the multidisciplinary nature of care that is required to see that the child has a successful outcome, and attention to cross-cultural issues and underserved populations. This "think-tank" conference will host authorities from pediatric/educational audiology, SLP, and education to focus on issues, needs, and treatment options (state-of-the-science).