3rd Annual Tom Davidson Memorial Conference
Friday October 2, 2015
8:00am-4:30pm
Holiday Inn World’s Fair Park, Knoxville, TN

Keynote Speaker: Peggy Nelson, Ph.D.

Peggy Nelson is the immediate past department chair and professor of audiology in the Department of Speech-Language-Hearing Sciences at the University of Minnesota. She is currently the founding director of the University of Minnesota’s Center for Applied and Translational Sensory Science: catss.umn.edu. She will oversee interdisciplinary research in vision, hearing, balance, and tinnitus.

She has been a clinical audiologist for 30 years. She has a PhD from the University of Kansas and completed post-doctoral work at Gallaudet University and the University of Maryland. Her research focuses on hearing loss and the problems of understanding speech in noise by a variety of populations, including children in schools, hard-of-hearing listeners, hearing aid users, and cochlear implant listeners.

She serves on the State of Minnesota Early Hearing Detection and Intervention Advisory Council. She is vice-president for research and scholarship for the Council of Academic Programs in Communication Sciences and Disorders. She has served on executive boards of the American Speech-Language-Hearing Association and the Acoustical Society of America, both large national associations. She is a Fellow of both societies.

From the Field to the Lab and Back Again

Course Description:
Part 1: Adults
This portion of the course will cover issues related to adult listening in background noise. Topics will progress from issues that arise in the clinic, moving to the laboratory to test realistic listening situations in research environments, and then taking the discussion back into the clinical realm. Topics will include adults with hearing loss and their spectral and temporal processing consequences, effects of different types of noise and degrees of hearing loss, and individual differences in processing and sensory aid needs.

Part 2: Children
The second portion of the course will focus on "real" listening for young children: classroom noise, group situations, hearing loss and sensory aids. It will cover current data on childhood listening and learning, learning environments, neurophysiologic development of children’s auditory areas, and their application to sensory aids and classroom solutions.

Course Objectives:
Part 1: Participants will be able to understand individual differences in processing and preference among adult listeners with hearing loss, and their need for custom amplification solutions for listening in noisy environments.

Part 2: Participants will identify ways in which children’s listening is different from that of adults, and will be able to apply specialized intervention approaches that are customized to children’s needs.
Featured Speaker: James Lewis, Ph.D.

James Lewis, Ph.D. is an assistant professor in the Department of Audiology and Speech Pathology at the University of Tennessee Health Science Center. His research interests are in middle-ear and cochlear mechanics. Prior to joining the department, James was a post-doctoral fellow in the Human Sensory Physiology Laboratory and the Communication Engineering Laboratory at Boys Town National Research Hospital in Omaha, NE. His post-doctoral research was funded, in part, by an individual F32 grant from the National Institutes of Health. James earned a PhD in Speech and Hearing Science from the University of Iowa in 2013. He is also an ASHA-certified audiologist and received his AuD from the University of Iowa in 2010. James’ undergraduate training was in Biomedical Engineering, also at the University of Iowa.

**Objective Estimation of Sound Transmission from the Ear Canal to the Cochlea.**

**Course Description:** Recent work has demonstrated the sensitivity of several wideband acoustic immittance measures, i.e. power reflectance and absorbance, to a variety of pathologies affecting the middle ear including perforation of the eardrum, disarticulation of the ossicles, and fixation of the ossicles, among others. However, although the sensitivity of these measures to different middle-ear pathologies is high at the group level, inter-subject variability limits their use in individual ears. There is evidence that combining power reflectance with the air-bone-gap accounts for a significant portion of the inter-subject variability, and permits differential diagnosis of middle-ear pathology in individual ears. Whereas the reflectance and absorbance describe sound transmission from the ear canal to the middle ear, the air-bone-gap also includes transmission through the middle ear to the cochlea. In living humans, measurement of sound transmission through the middle ear has been limited to behavioral techniques (the air-bone-gap) due to the invasive nature of alternative objective techniques. The research detailed in this course will describe recent efforts to objectively and non-invasively estimate sound transmission through the middle ear to the cochlea, in living humans. Such a measure is desirable as it may provide a quicker alternative to conventional audiology, does not require patient participation, and may facilitate differential diagnosis of middle-ear pathology in individual ears.

**Course Objectives:**

1. Become familiar with the terms “power reflectance” and “absorbance” and understand what each term describes.
2. Understand potential limitations of power reflectance and absorbance when attempting to use either measure to diagnose middle-ear pathology in individual ears.
3. Become familiar with the term “middle-ear efficiency” and understand what this term describes.

Featured Speaker: Kathleen Faulkner, Ph.D.

Kathleen Faulkner, Ph.D., is an assistant professor in the Department of Audiology and Speech Pathology and director of the Cochlear Implant Research Laboratory at the University of Tennessee Health Sciences Center. Katie’s background as a clinical audiologist has motivated her research questions, which focus on exploring ways to improve outcome and benefit for adults and children who use cochlear implants.

**Individual Differences in High-Variability Speech Recognition: Some New Findings Using PRESTO in Clinical and Non-clinical Populations.**

**Course Description:** Everyday, real-world speech recognition requires that listeners rapidly adapt to multiple talkers and diverse listening conditions. Previous studies have shown that these conditions impose significant perceptual and cognitive load on basic speech recognition processes, and that several foundational cognitive and perceptual skills underlie individual differences in speech recognition. High-variability listening conditions may be difficult for several clinical populations, such as hearing-impaired aging adults and cochlear implant (CI) listeners. This presentation will include a review of speech recognition findings in several clinical and non-clinical populations using PRESTO, a new high-variability sentence recognition test. These results provide new insights into the combination of listener factors, such as language experience, perception, and cognitive skills, which underlie the robust recognition of speech in real-world listening conditions. Researchers and clinicians must consider the factors that can influence speech understanding and choose tasks and materials that best fit the needs of their patients.

**Course Objectives:**

1. To describe the differences between conventional low-variability and high-variability sentence recognition testing materials
2. To determine the advantages and limitations of these sentence recognition tests in the clinical setting
3. To determine which patients would benefit from additional high-variability sentence recognition testing, and the potential role of these tests in clinical care
Agenda

7:30-8:00  Registration, Breakfast, and Vendor Exhibits
8:00-8:15  Welcome and Introductions
Recognition of Dr. Jim Thelin, Professor Emeritus

8:30-10:30  Peggy Nelson, Ph.D.  From the Field to the Lab, Listening in realistic situations
10:30-10:45  Break and Vendor Exhibits
10:45-11:45  James Lewis, Ph.D.  Objective Estimation of Sound Transmission from the Ear Canal to the Cochlea
11:45-12:00  Break and Vendor Exhibits
12:00-1:00  Lunch

1:00-2:00  Kathleen Faulkner, Ph.D.  Individual Differences in High-Variability Speech Recognition New Findings Using PRESTO in Clinical and Non-clinical Populations
2:00-3:00  Peggy Nelson, Ph.D.  Children and classrooms: complicated listening situations
3:00-3:15  Break and Vendor Exhibits
3:15-4:15  Children and classrooms: complicated listening situations (continued)
4:15-4:30  Questions and Answers

This course is offered for 0.6 ASHA CEU
(Intermediate level, Professional area)
2nd Annual Tom Davidson Memorial Conference Registration
October 2, 2015
Holiday Inn World’s Fair Park
525 Henley Street
Knoxville, TN 37902

Registration
Name: _____________________________ Address*: _______________________________
Business: ___________________________ Phone: ________________________________
                                               _______________________________
Email: _______________________________ Email: __________________________________________________________________________
Credit Card Type: _________________ Number: _______________________________
Exp. Date: _________________ Security Code:__________
(*Full mailing address is needed to process CC payment)

Tom Davidson Memorial Conference: Friday, October 2, 2015
☐ Professional $150 (Includes lunch)
☐ Professional After Sept 17th $170 (Includes lunch)
☐ UTHSC Faculty/Student $20 (Includes lunch)
☐ UTHSC Faculty/Student $0 (Lunch not included)

Total Amount Due: ____________

Cancellation Policy: Your registration, minus a $25 processing fee, will be refunded if it is necessary for you to cancel before Sept.23rd. No refunds will be made after that time. Substitutions are welcome with prior notice.

Payment Options
1. Mail this registration form with check (payable to UT ASP) to: 578 South Stadium Hall
   Knoxville, TN 37996-0740
   Attn: Karen Poland

2. Fax: 865-974-1539 Attn: Karen Poland

3. Call: 865-974-0697 Karen Poland

Accommodations
To book a room at the discounted conference rate at the Holiday Inn World’s Fair Park, call (865)522-2800 (www.holidayinnworldsfairpark.com) and reference group code: TDC