

Neuroaudiology Newsletter

Writer/Editor:
Alyssa Everett, B.S.

Contributor/Supervisor:
Frank E. Musiek, Ph.D.

Publication Date:
November 1, 2016

Neuroaudiology Lab 2016

The University of Arizona's Neuroaudiology Lab has brought on some new faces! In addition, we were fortunate enough to welcome **Dr. Renata Filippini** back for a short time from São Paulo, Brazil! Below is our most current lab picture for 2016-2017. (pictured from left, top row: Liza Clark, Nicole Denny, Alyssa Everett, Renata Filippini, Lori Sommerfeld, and Diane Cheek. Bottom row: Frank Musiek, Andrew DeMarco, Barrett St. George, and Bryan Wong.)



CAPD Bootcamp 2017

Faculty: Frank Musiek, Ph.D., University of Arizona, Jane Baran, Ph.D. University of Massachusetts, Erick Gallun, Ph.D. Veterans Administration Hospital, Portland, Michael Webb, M.S., EAR- Central, Hereford, AZ

What: After a series of highly successful Boot Camps in the Northeast, the Neuroaudiology Lab at The University of Arizona is offering this special learning experience. This is an intense program that covers the major fundamental aspects of **CAPD**. There will be a well-conceived mix of "hands on" and lecture/discussion approaches to teaching the clinical aspects of CAPD. The overall focus will be on learning what is needed for a successful CAPD practice in today's environment. The enrollment, by design, will be small to allow direct and ready access to instructors to increase learning efficiency. We think the "boot camp" approach will provide an unparalleled learning experience.

When: January 5th and 6th, 2017

If you are interested in this program, please contact Cathy Fay at cfay@email.arizona.edu or Frank Musiek at fmusiek@email.arizona.edu. CEUs available

Saying Goodbye

Andrew DeMarco (pictured previously), a PhD student in Dr. Beeson's lab and a member of the Neuroaudiology lab has been studying hard at The University of Arizona in Speech Language and Hearing Sciences for the last 5 years. In one short week, he will be defending his dissertation done with Dr. Beeson, titled, *Neural Substrates of Phonological Processing in Chronic Aphasia from Stoke*. Deficits in phonology are among the most common and persistent impairments in aphasia after left-hemisphere stroke, and can have significant functional consequences for spoken and written language. While many individuals make considerable gains through spontaneous recovery and in response to behavioral treatment, the neural substrates supporting phonological performance in the absence of specialized language regions is poorly understood. To address this question, they used BOLD fMRI to measure regional brain activation in a case-series of individuals with aphasia after left MCA stroke during a phonological processing task. In the neuroaudiology lab, Andrew worked on the variance of anatomy along the human Sylvian fissure and the elucidation of the anatomy of the vertebro-basilar system. Andrew has contributed a lot of his knowledge and insight to colleagues and classmates and will be missed here in Tucson. He has accepted a Post-Doctorate position in the Cognitive Recovery Lab at Georgetown University Medical Center directed by Peter Turkeltaub, M.D., Ph.D. Good luck Andrew and we all look forward to reading your work as your career progresses!

New Publication!

Alyssa Everett, Nicole Denny, and Barrett St. George, audiology doctoral students at The University of Arizona and members of the Neuroaudiology Lab, received notification that their manuscript, *Anatomical Locus of the Angular Gyrus: Preliminary Findings*, will be published in the Journal of Hearing Science with an estimated publication date of December 11-17, 2016.

Historical Vignettes- J. Donald Harris



J. Donald Harris, also known to some as the "**Renaissance Man**", was an extremely influential figure whose work deeply affected the world of audiology. He graduated from the University of

Rochester with a Ph.D. in psychology and went on to become the head of the **Auditory Research Lab** at the Naval Submarine Medical

Did you know?....

Music can likely be used for Auditory Training (AT). Music AT has been shown to improve reading and pitch discrimination abilities in speech for young children (Moreno et al., 2009). Adult musicians show greater cortical responses to single piano notes compared to pure tones. In contrast, non-musicians show no difference in cortical activity between these two stimuli (Pantev et al., 1998). More work on how musical AT can be oriented in the clinic is needed but the potential remediation of this form of AT is impressive.

Research Laboratory in Groton, Connecticut. Harris retired from this venerable position in 1979, yet remained active and held appointments with the doctoral programs at the City University of New York and the University of Connecticut. At one point in his career, he also served as the Chief Editor of the *Journal of the American Auditory Society*, which today is known as *Ear and Hearing*.

During the breadth of his extensive career, Harris published over 160 articles, including books. The vast range of content, from **physiologic and psychological acoustics to audiology** and education, is a testament to his intellectual and scientific prowess. Some of his best-known earlier work involves examining the differential level of **intensity discrimination** and **frequency discrimination**. His later work reflected a combination of his two passions: psychoacoustics and humanities. The effects of hearing loss on the human condition intrigued Harris. His work regarding the results of **binaural hearing** and the **binaural amplification advantage** on speech intelligibility are still widely cited. One of his many great achievements was the creation of the *Journal of Auditory Research (JAR)*, which ran from 1960 to 1986. This esteemed journal was started and funded by J.D. Harris himself and was independent of any society or interest group. The *JAR* was an open-access forum that included a multitude of interdisciplinary research involving hearing. Harris firmly believed that making knowledge free and readily available to everyone would drive innovation and advance scientific research in the field of **hearing science**. With his guidance, the *JAR* became a highly esteemed journal and a successful model of research dissemination, which ultimately paved the way for future forums such as *Hearing Health and Technology Matters*.

Hearing Health and Technology Matters: Pathways

The Hearing Health and Technology Matters Pathways will be having a meeting at the American Academy of Audiology conference this spring—more details to come later!

In addition, Pathways is currently embarking on an endeavor headed by Cydney Fox to create a directory of Auditory Processing Providers across the United States. For anyone who is performing or knows of anyone performing **Auditory Processing Disorder evaluations** or therapy, please let Pathways know so you can be added to the directory by contacting Cydney Fox at cydneyfox@gmail.com.

Did you know?....

In a 1963 monograph (JSHD) and in his book 1973 (“Harris on Audiology”) the venerable J Donald Harris discusses the problems but also the value and importance of testing intensity discrimination in the clinic. Though at least in one form, the SISI test does do this, few realize it is a discrimination test. Moreover, it is amazing that 53 years after Harris’s article the audiology clinic still does not have a test of intensity, frequency or duration discrimination!

Upcoming Presentations-Dr. Musiek

Invited Lectures	Date and Location	Lecture Title
Speech, Language, and Hearing Homecoming Lecture	October 29: Tucson, Arizona	A 3-D Tour of the Auditory Brain
Inaugural Address Grand Rounds Louisville School of Medicine	November 7: Louisville, Kentucky	When Silence is Good: Application of the GIN Procedure
GSI Webinar	November 9	Introduction to Temporal Processing and its Application to CAPD and other Aspects of Neuroaudiology
Joint DOD & VA Audiology Conference	February 6-8: Anaheim, California	Adult Clinical Populations & CAPD
Association of Research in Otolaryngology	February 11-15: Baltimore, Maryland	TBA
Speech & Hearing Association of Virginia	March 23-25: Richmond, Virginia	Part 1: Fundamentals of Pediatric CAPD, Part 2: An Overlooked Population: Adult CAPD
American Academy of Audiology; AudiologyNOW!	April 5-7: Indianapolis, Indiana	TBA
Kaiser Permanente Audiology Symposium	May 14-15: Oakland, California	TBA
International Evoked Response Study Group	May 21-25: Warsaw, Poland	TBA

Past Neuroaudiology Newsletters

All past newsletters can be found at:
<http://musiek.faculty.arizona.edu/>

Recent Article of Interest

Results from a National Central Auditory Processing Disorder Service: A Real-World Assessment of Diagnostic Practices and Remediation for Central Auditory Processing Disorder; *Seminars in Hearing*

S. Cameron, H. Glyde, H. Dillon, A. King, & K. Gillies