

# NeuroAudiology Newsletter

Editor: Alyssa  
Davidson, PhD, AuD,  
CCC-A  
Co-Editor: Frank  
Musiek, PhD, CCC-A

## Celebrating the Musiek's!



## AUDIOLOGY TRIVIA

### ANSWERS ON LAST PAGE

1) This hearing scientist was the director of auditory research at the Naval Submarine base in Groton, CT.

a) Zwislocki, b) Rintelmann, c) Donald Harris, d) Ira Hirsh

2) What is the name of the new device for tinnitus therapy that stimulates the tongue and auditory system simultaneously?

a) Lenire, b) Smith – Stockton, c) Suppression Inc., d) Mills

3) The Epley maneuver is primarily used for what vestibular abnormality?

a) Spontaneous nystagmus, b) BPPV, c) caloric unilateral paresis

There is no question that Dr. Frank Musiek has been an integral part of Neuroaudiology research, but as we know, next to every great man is an equally great partner. For Dr. Musiek, that person is Sheila, his wife. It is always exciting to share the personal side of audiology, so this month, we celebrate Frank and Sheila together. In August, they celebrated their 50<sup>th</sup> wedding anniversary!! The Musiek's will continue to enjoy their retirement together in their homes in New York and Arizona. Happy Anniversary!

# NeuroAudiology/CAPD Corner



Topic: Fourth Ventricle Hydrocephalus

Audiologists should be aware of the possible hearing consequences related to hydrocephalus. Hydrocephalus occurs when the ventricles expand due to excessive cerebral-spinal fluid. In this script, the focus is on the 4<sup>th</sup> ventricle, located between the dorsal brainstem (pons) and the cerebellum. This becomes an audiological issue because the cochlear nuclei are located at the lateral aspect of the 4<sup>th</sup> ventricle. In addition, the dorsal stria which exits the dorsal cochlear nuclei and courses contralaterally immediately beneath the 4<sup>th</sup> ventricle. Also, running a similar route as the dorsal stria is the olivocochlear bundle. Hence, some major auditory structures can be compromised when 4<sup>th</sup> ventricle hydrocephalus occurs. This is well supported by a number of studies showing the effect of the 4<sup>th</sup> ventricle expansion on auditory function. Not only has hearing sensitivity loss been shown in a majority of cases with hydrocephalus, but also abnormal ABRs have been shown in some studies to occur in over 90% of the study group.

These findings in audiology and underlying anatomy for hydrocephalus should alert audiologists to be sure to evaluate both pediatric and adult population with this disorder. It should be understood that in some situations the link to hearing loss may be overlooked or not appreciated. Hence, the audiologist may need to step-up and lead the way to be sure good hearing health care is pursued.

## CAPD Corner Suggested Reading

- Edwards, C. G., Durieux-Smith, A., & Picton, T. W. (1985). Auditory brainstem response audiometry in neonatal hydrocephalus. *The Journal of Otolaryngology. Supplement*, 14, 40-46.
- McPherson, D. L., Amlie, R., & Foltz, E. (1985). Auditory brainstem response in infant hydrocephalus. *Child's Nervous System*, 1(2), 70-76.
- Satzer, D., & Guillaume, D. J. (2016). Hearing loss in hydrocephalus: A review, with focus on mechanisms. *Neurosurgical review*, 39(1), 13-25.

# Audiology Group in Central New York

A new audiology group in central New York has been formed. The goal of this group is to bring practicing audiologists in the Utica, Syracuse and adjacent areas together for networking and continuing education. If you are interested in becoming involved or learning more about this opportunity, contact Frank Musiek at [fmusiek@arizona.edu](mailto:fmusiek@arizona.edu).

## Audiology in the News

Two major audiology-related news happened recently and are important to share. First, new augmented reality (AR) glasses allow people who are Deaf and hard of hearing (among others) to “see” conversations by tuning audio into subtitles.

Second, the Food and Drug Administration released its final rule on Over the Counter (OTC) hearing aids. The FDA has established a regulatory category allowing companies to start selling OTCs in October 2022!

## Upcoming Auditory Conferences

**American Speech-Language-Hearing Association Convention:** November 17-19, 2022

**7<sup>th</sup> International Conference on Auditory Cortex:** September 3-7, 2022

**2<sup>nd</sup> World Congress on Otology, Rhinology, & Laryngology:** September 19-20, 2022

**Association for Research in Otolaryngology:** February 11-15, 2023

**American Auditory Society:** March 2-4, 2023

**American Academy of Audiology:** April 19-22, 2023

**AUDIOLOGY TRIVIA ANSWERS**

- 1) (C) Donald Harris was the director of auditory research.
- 2) The new device for tinnitus therapy is the (A) Lenire.
- 3) The Epley maneuver is used for (B) BPPV: Benign paroxysmal positional vertigo