The Department of Defense Hearing Center of Excellence (HCE) was established in 2009 under legislation by Congress in the National Defense Authorization Act and directed to partner with the Department of Veterans Affairs, institutions of higher education, and other mission-minded public and private organizations. HCE focuses on the prevention, diagnosis, mitigation, treatment, and rehabilitation of hearing loss and auditory injury. In order to achieve its mission, the HCE established and maintains a collaborative research network, known as the “Collaborative Auditory & Vestibular Research Network (CAVRN)”, bringing together technical experts in acoustic laboratories, medical treatment facilities, and operational communities to analyze patient’s needs and improve primary outcomes.

**MISSION**

Provide support to enhance operational performance, mission readiness, and quality of life through collaborative leadership and advocacy for hearing and balance health.

**GENEVA’S ROLE**

HCE approached Geneva in 2010 to serve as a research facilitator in the collaborative research network by hiring highly trained research personnel and allowing access to Geneva’s proven systems developed for conducting research in the military environment. Geneva connects HCE to existing strategic partnerships with military and research collaborators. This synergistic partnership has provided an opportunity for both HCE and Geneva to work together towards the fulfillment of paralleled missions.

**GENEVA’S RESEARCH SUPPORTS HCE PROTOCOLS IN AREAS INCLUDING:**

- Biomarkers
- Blast-Exposure
- Hearing Loss
- Regeneration
- Tinnitus
Geneva’s research staff and principal investigators support HCE protocols in areas including:

**BIOMARKERS:** The aim of this study is to assess specific types of tinnitus that influence brain connectivity. Possible objective biomarkers of tinnitus will be identified and correlated with behavioral characteristics that better distinguish tinnitus sub-groups in civilian and military populations.

**BLAST-EXPOSURE:** This two-phase study investigates the difficulty of understanding speech in noise among individuals with normal or near-normal hearing. Researchers examine the relationship between self-perceived hearing difficulties, peripheral and central auditory processing, and cognitive-communication abilities of individuals with and without a history of blast-exposure.

**HEARING LOSS:** The primary objective of this study is to examine the prevalence, incidence, etiology, and short-and long-term effects of tinnitus and hearing loss among service members. Researchers evaluate the relationship between various types of noise exposure and auditory complaints that occur post-exposure among service members over their lifetimes.

**REGENERATION:** This study addresses the critical need for a functional assessment battery of tests that are able to track the progress of hearing restoration strategies involving hair cell regeneration. The study will validate an assessment strategy that measures the physical integrity of auditory pathways as well as the return to normal hearing function.

**TINNITUS:** The purpose of this study is to develop an objective way to measure tinnitus. Researchers are testing the methodology of a device to explore the optimal stimulus settings and response acquisition parameters for eyeblink startle measurement and the relationship between eyeblink reflexes and hyperacusis.

QUESTIONS?
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