The Walter Reed National Military Medical Center is seeking a partner interested in a Collaborative Research and Development Project (CRADA) and Commercializing new hearing testing technology.

Unmet need:

48 million people experience hearing loss according to recent estimates. **One in five Americans** are estimated to have some degree of hearing loss with most hearing impaired individuals complaining of difficulty understanding speech in high-noise environments like restaurants or the theater.

Hearing care professionals use clinical **Speech-in-Noise “SIN” tests** to assess speech understanding in noise. It provides actionable data for improved hearing screening, optimizing hearing aid fitting and for improved amplification strategy to improve a hearing aid wearers’ experience and general quality of life.

However, most clinical SIN tests focus on relatively simple listening environments and are often too predictable to adequately assess hearing in real-world noisy environments.

In addition, hearing care professionals often report a confusing myriad of speech perception tests that vary in reliability, require differing testing times, and have laborious training requirements.

A more reliable SIN test, which better mimics real-world listening conditions, have manageable testing time and intuitive training for easy integration into a routine battery of hearing tests is needed.

The Technology:

At the Walter Reed National Military Medical Center, Dr. Brungart developed an improved test battery for evaluating speech perception in complex listening environments.

Advantages/Benefits:

**Comprehensive Functional Hearing Testing:** Unlike current speech-in-noise tests, this improved test mimics real-world listening environments by using audiovisual speech cues, spatially separated sound sources, reverberant listening spaces and other effects that are typical in high-noise environments to facilitate comprehensive examination of speech perception.

**Self-Administered Testing Capabilities:** Enables a listener to self-administer the SIN test in conjunction with their hearing care professional’s advice and input.

**Multiple listening conditions testing:** Designed to permit users to assess hearing under multiple listening conditions in a manageable testing time, while also minimizing non-auditory factors like working memory, vocabulary size, or overall motivation.

Stage of Development:

Available for Cooperative Research and Development Partnership and for Licensing.