



US DEPARTMENT OF DEFENSE

# BLAST INJURY RESEARCH PROGRAM COORDINATING OFFICE

## Hearing Loss and Protection

### P13 Peptide as Ear Drops Against Auditory Dysfunction Resulting from Occupational Level Repeated Blast Exposures

Repeated low-level blast exposures during military training are implicated in auditory dysfunctions. However, no effective treatment strategies have been developed. Anti-inflammatory peptide, P13, generated by 13Therapeutics (Portland, OR) has shown significant promise against noise-induced hearing impairments in mice. Researchers at Walter Reed Army Institute of Research (WRAIR; Silver Spring, MD) are planning to test the efficacy of topical administration of P13 as ear drops for protection against occupational level blast-induced auditory dysfunctions using an advanced blast simulator in validated pre-clinical models. Previous work by 13Therapeutics has revealed that P13 applied topically crosses the intact eardrum into the inner ear to prevent hearing impairment after noise exposure. These findings reveal the potential of P13 as a non-invasive therapeutic strategy against blast-induced auditory dysfunctions in Service members.

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