**Neural Event Extractor for a Vestibular Diagnostic**

The measurement of the Sp/Ap ratio is a commonplace diagnostic for the cochlea.

This measurement is normally not applied to the vestibular system and when applied the method appears not reliable across patients or for “inhibitory” head tilts and not easily adopted by audiologists without significant training. What has been developed is a reliable evoked vestibular extraction routine based on detecting individual neural events consequent to a head tilt. Once times of the neural events are known an Sp/Ap plot and ratio can be calculated.

This method is immune to inter patient differences and is able to extract both excitatory and “inhibitory” driven responses, for example, head tilt back and forward, contralateral and ipsilateral. The method is also applicable to extraction of improved ABR responses (see other research section) and Depression/Parkinsons diagnosis (see other research sections).