Diagnostic Test for Alzheimer’s Disease and Neuronal Injury

**Background:** As the most common form of dementia, Alzheimer’s disease (AD) is currently estimated to affect over 5 million in the U.S and over 10 million people in Europe. The rising incidence of AD has created a significant market for minimally invasive diagnostic tests to identify affected individuals prior to the onset of clinical symptoms. Early diagnosis of AD will provide new opportunities for therapeutic interventions to stop and/or slow the advancement of the disease.

**Technology Description:** Dr. Ladenson has discovered that levels of key neuronal protein markers, VILIP-1, Neurogranin and SNAP-25, are elevated in the cerebral spinal fluid (CSF) of individuals with AD prior to the onset of clinical dementia. He has developed a diagnostic assay and proprietary monoclonal antibodies to determine VILIP-1 levels in human biological fluids including CSF. This extensively tested assay enables early diagnosis of AD.

**Key Advantages:**
- CSF-VILIP-1 levels are elevated 15 years prior to dementia diagnosis
- Superior diagnostic compared to Aβ1-42 and tau-based assays
- Early diagnosis enables improved clinical trial design
- VILIP-1 facilitates differential diagnosis of AD from non-AD-dementia
- Measurement of CSF-VILIP-1 levels facilitates detection and monitoring of brain injury as a result of stroke or traumatic brain injury (TBI)

**Issued Patents:** US7985555, US8481277, US20080131881, and other issued patents in major European countries including UK, Switzerland, Germany, Spain, Italy, and France.

**Lead Inventor:** Dr. Jack Ladenson is a world-renowned expert in the field of clinical diagnostics. He is responsible for developing CK-MB and Troponin tests to diagnose myocardial infarction, which are used extensively worldwide.

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<td>Qian Zhang, PhD, MBA</td>
<td>Alzheimer’s disease, Diagnostics, Neurology, Traumatic Brain Injury</td>
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