ADNI-1 Plasma neurofilament light (NFL)

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Summary

This is an analysis of the axonal protein neurofilament light (NFL) in plasma on ADNI-1 samples. NFL is, together with NFM and NFH, part of the structural neurofilament proteins, and is predominantly expressed in large-caliber myelinated axons that extend subcortically. Numerous studies have shown a mild to moderate increase in NFL in cerebrospinal fluid (CSF) in Alzheimer's disease (AD), but CSF NFL is not disease specific, even more marked increases are found in several other neurodegenerative disorders, e.g. FTD and ALS. Several studies have shown that NFL measured in serum/plasma correlates tightly with CSF NFL levels.

Method

Plasma NFL was analyzed by the Single Molecule array (Simoa) technique. The assay uses a combination of monoclonal antibodies, and purified bovine NFL as a calibrator.
All samples were measured in duplicate, except for one (due to technical reasons).
Analytical sensitivity was <1.0 pg/mL, and no sample contained NFL levels in plasma below the Limit of detection (LOD).

Dataset Information
This methods document applies to the following dataset(s) available from the ADNI repository:

Dataset Name	Date Submitted
Blennow Lab – ADNI-1 – Plasma NFL – Data file	20 September 2016

About the Authors

This document was prepared by Prof. Kaj Blennow, University of Gothenburg, Sweden. For more information please contact Kaj Blennow by email **kaj.blennow@neuro.gu.se**.

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