Supplementary Methods

Procedures

Patient and mutation carrier samples were obtained during routine diagnostic workup by standard blood drawing and lumbar puncture, respectively; peripheral venous blood was collected after skin disinfection in a 9 ml tube containing clotting activator (Sarstedt) using a 21G butterfly needle (Sarstedt). CSF was collected from sitting or lying individuals without local anaesthesia by puncturing the spinal cavity at the level L3/L4 or L4/L5 after 4x disinfection, using an introducer and a 22G atraumatic puncture needle (BD). Samples were processed within a maximum of 2 hours. Cellular components in serum and CSF were removed by centrifugation at 2000 g for 10 min, followed by aliquotation and storage at -80°C until further processing.

Statistics

Statistical calculations were done using Graphpad Prism 7 software, Version 7.0b. Normal distribution was tested in each sample group using the D'Agostino-Pearson normality test. When not normally distributed, the groups were analysed using an unpaired, two-tailed Mann-Whitney test or the Spearman correlation test. All other groups were analysed using an unpaired, two-tailed t-test.