

Supplement

**Cerebellar ataxia with anti-DNER antibodies: outcomes and immunological features**

I. Supplementary figures

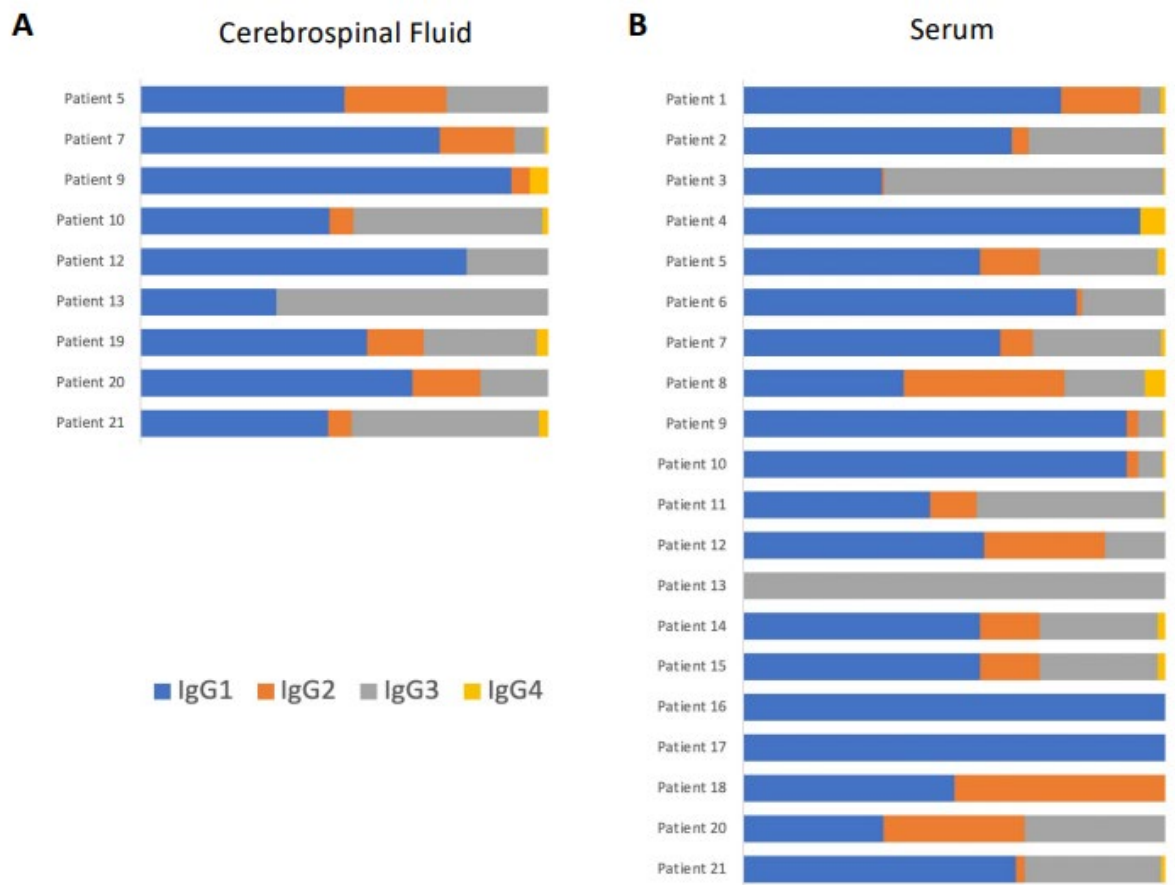


Figure 1. Distribution of IgG subclasses in DNER ataxia patients

The plots represent the relative proportions of the indicated IgG subclasses in the cerebrospinal fluid (panel A, 9 patients) and serum (panel B, 20 patients), assessed by end-point dilutions in cell-based binding assays.

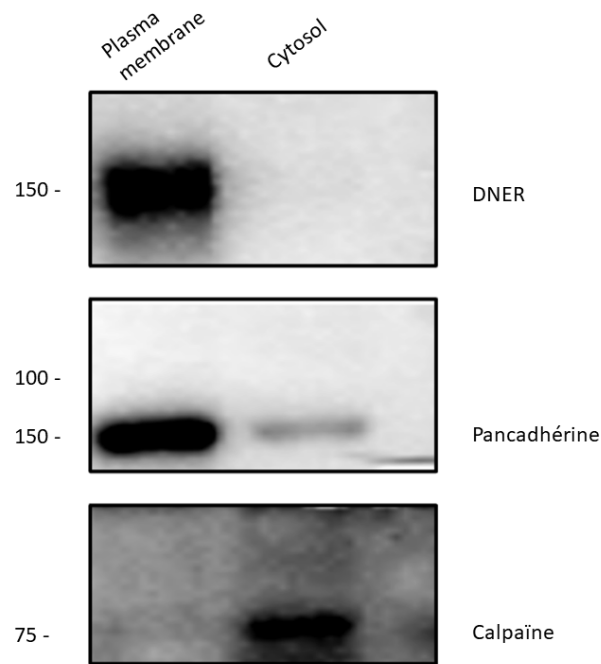


Figure 2. Western blot of plasma membrane and cytosol fractions from rat brain lysate demonstrating DNER enrichment in the plasma membrane fraction.

## II. Supplementary tables

Table 1. Longitudinal cerebellum volumetric analysis: patient demographics and results depending on the outcome category. Cerebellar volumes were normalized to intracranial volumes.

	Patients with favorable outcome (mRS at last visit $\leq 2$ ) n=5	Patients with poor outcome (mRS at last visit $> 2$ ) n=5	P-values
Sex – male, n (%)	4 (80)	4 (80)	1.000
Median age at disease onset, years (range)	40 (24-52)	50 (19-63)	0.310
Median follow-up, days (range)	1387 (820-2165)	746 (309-2159)	0.421
Median time, days (range)			
from onset to baseline MRI	23 (4-76)	11 (2-65)	0.463
from onset to follow-up MRI	637 (283-1138)	272 (200-610)	0.056
from baseline MRI to follow-up MRI	561 (272-1134)	257 (192-545)	0.056
Median volume decrease at follow-up, % of baseline volume (range)			

cerebellar grey matter	24.2 (10.0-31.6)	33.3 (31.6-42.5)	0.016
cerebellar white matter	26.6 (-28.6-28.1)	3.6 (-31.0-19.7)	0.151
total cerebellum	18.4 (12.9-28.1)	26.0 (20.7-35.8)	0.151
Median rate of volume decrease, % of baseline volume/month (range)			
cerebellar grey matter	1.3 (0.4-2.5)	3.7 (1.9-6.6)	0.016
cerebellar white matter	0.9 (-1.5-2.9)	0.5 (-2.8, 1.1)	0.222
total cerebellum	0.7 (0.5-2.3)	2.7 (1.7-5.6)	0.095

Abbreviations: MRI, magnetic resonance imaging; mRS, modified Rankin Scale; ICV, intracranial volume; GM, grey matter; WM, white matter.