## **Supplementary Online Content**

Gaiani A, Martinelli I, Bello L, et al. Diagnostic and prognostic biomarkers in amyotrophic lateral sclerosis: neurofilament light chain levels in definite subtypes of disease. *JAMA Neurol*. Published online March 6, 2017. doi:10.1001/jamaneurol.2016.5398

**eFigure 1.** Natural Logarithm Transformation of CSF NFL Concentration With Subsequent Normal Distribution of Data

**eFigure 2.** ROC Curves of NFL Concentrations for Discrimination Between ALS and Controls/FTD/MN, Between ALS and Controls, and Between ALS and MN/FTD

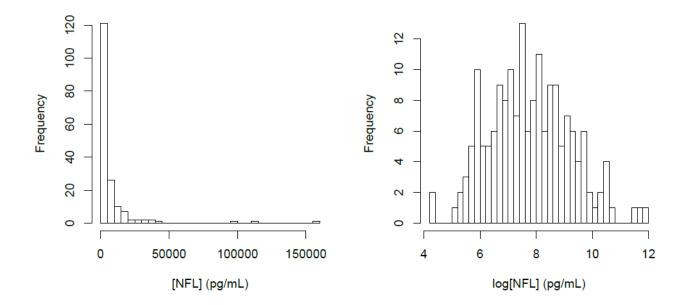
**eFigure 3.** Effect of Time From Onset to Lumbar Puncture on the Concentration of NFL in the ALS Group

**eFigure 4.** Effect of Disease Progression Rate From Onset to Lumbar Puncture ( $\Delta$ FS) on NFL Concentration in the ALS Group

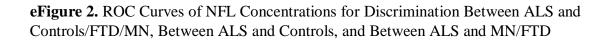
**eFigure 5.** ALSFRS-R (A-B-C-D) and MITOS (E-F-G-H) Change Relative to Time (Months From Lumbar Puncture) by Subtypes

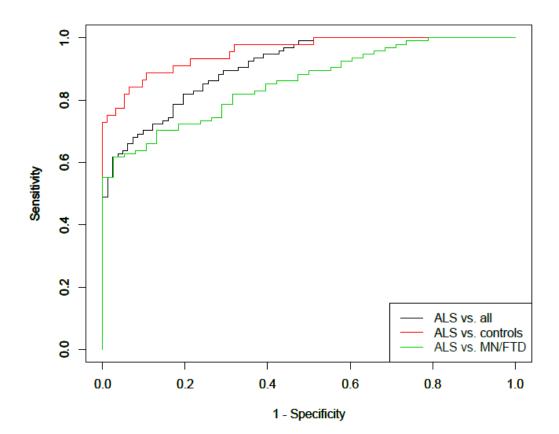
eTable. Characteristics of the ALS Group

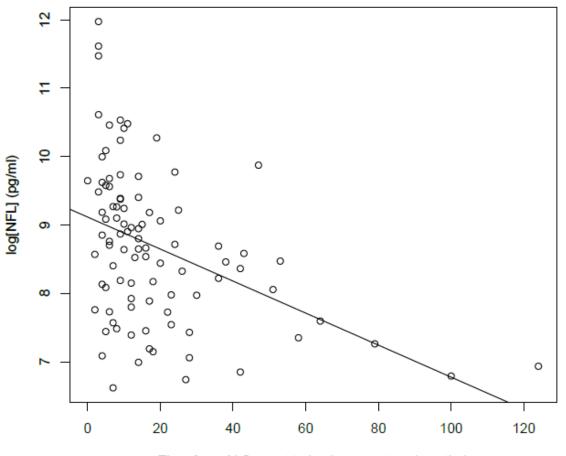
This supplementary material has been provided by the authors to give readers additional information about their work.



**eFigure 1.** Natural Logarithm Transformation of CSF NFL Concentration With Subsequent Normal Distribution of Data

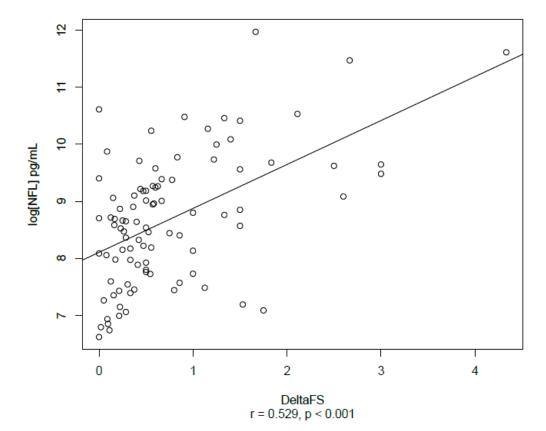






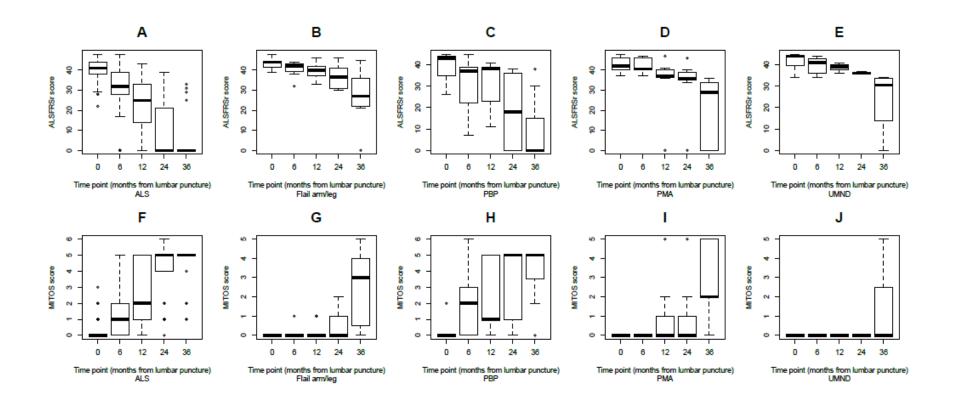
eFigure 3. Effect of Time From Onset to Lumbar Puncture on the Concentration of NFL in the ALS Group

Time from ALS onset to lumbar puncture (months) r = -0.420, p < 0.0001



**eFigure 4.** Effect of Disease Progression Rate From Onset to Lumbar Puncture ( $\Delta$ FS) on NFL Concentration in the ALS Group

eFigure 5. ALSFRS-R (A-B-C-D) and MITOS (E-F-G-H) Change Relative to Time (Months From Lumbar Puncture) by Subtypes



eTable. Characteristics of the ALS Group

	Typical ALS	57
Subtype of ALS	Flail Arm/Leg	11
	PMA	10
	PBP	9
	UMND	7
Gender	female	30
	male	64
CI*	yes	13
	no	81
Genetic ALS**	yes	8
	no	82
	NA	4
Age at onset	-	62 (52-68)
Disease duration at T0	-	12 (6-22.8)
ALSFRS-r	ΔFS***	0.5 (0.2-1)
	baseline (CSF)	42 (39-44)
	6 months	37 (28-42)
	12 months	33 (23-39)
	24 months	23 (0-36)
	36 months	0 (0-28)
MITOS	baseline (CSF)	0 (0-0)
	6 months	0 (0-2)
	12 months	1 (0-3)
	24 months	3 (0-5)
	36 months	5 (2-5)

Median and interquartile range are shown for quantitative variables.