

**SupplementaryTable 1. Altered Protein and Lipoprotein Outcomes in NMOSD Proteomic Studies.**

Endpoint	Shift	Biopsy	NMOSD Cohort		Disease State at Biopsy <sup>a</sup>		AQP4-Ab Serology		Control	Method <sup>c</sup>	Ref.
			Female	Male	Relapse	Remission	+	-			
Actin- $\alpha$ 1	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
AEBP1	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
$\alpha$ 1- $\beta$ glycoprotein	↓	CSF	6	3	9	—	NR	NR	9 OND	2-DE & MALDI-TOF-MS	(187)
$\alpha$ 1-acid glycoprotein	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
$\alpha$ 1-antichymotrypsin	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
$\alpha$ 1-antitrypsin	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
$\alpha$ 2-macroglobulin	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Albumin	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Amyloid-like protein 1	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Angiotensinogen	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Antithrombin III	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Apolipoprotein A-I	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
	↓	CSF	4	2	6	—	NR	NR	6 OND	2-DE & MALDI-TOF-MS	(188)
Apolipoprotein A-II	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Apolipoprotein A-IV	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
	↓	CSF	6	3	9	—	NR	NR	9 OND	2-DE & MALDI-TOF-MS	(187)
Apolipoprotein B-100	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Apolipoprotein D	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Apolipoprotein E	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
	↓	CSF	6	3	9	—	NR	NR	9 OND	2-DE & MALDI-TOF-MS	(187)
	↓	CSF	4	2	6	—	NR	NR	6 OND	2-DE & MALDI-TOF-MS	(188)
Attractin	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
$\beta$ -Ala-His Dipeptidase	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
$\beta$ -Mannosidase	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Bile salt-activated lipase	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
C1 esterase inhibitor	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
C4BP $\alpha$	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
CACNA2D2	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Cadherin-2	↓	Urine	28	4	—	32	32	—	46 RRMS, 31 HC	LC-MS/MS	(189)
Cadherin-19	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Calsyntenin-1	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Carboxypeptidase E	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Cathepsin D	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
CD9	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
CD84	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Ceruloplasmin	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Chitinase-3-like protein	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
CHL1	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
CHMP5	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Chromogranin A	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Clusterin	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Collagen $\alpha$ 1, type I	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Collagen $\alpha$ 1, type IV	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Collagen $\alpha$ 1, type XVIII	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Complement C1q	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Complement C1r	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Complement C1s	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Complement C3	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Complement C4	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Complement C5	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Complement C6	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Complement C7	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)

Complement C8 $\beta$	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Complement C8 $\gamma$	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Complement C9	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Contactin-1	$\downarrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
	$\downarrow$	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Cystatin-C	$\downarrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
DKK3	$\downarrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Factor H	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
FAM3C	$\downarrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
FGFR1	$\downarrow$	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Fibrinogen $\alpha$	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Fibrinogen $\beta$	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Fibrinogen $\gamma$	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
	$\downarrow$	CSF	6	3	9	—	NR	NR	9 OND	2-DE & MALDI -TOF-MS	(187)
Fibronectin	$\downarrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Fibulin-1	$\downarrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Ficolin-3	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Follistatin-like 1	$\downarrow$	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Frizzled-4	$\downarrow$	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
GAPDH	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Gelsolin	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
GFAP	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
GnTE	$\downarrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Haptoglobin	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
	$\uparrow$	Serum	3	3	6	—	NR	NR	6 RRMS, 6 HC	2-DE & HD-MS/MS	(185)
	$\uparrow$	CSF	6	3	9	—	NR	NR	9 OND	2-DE & MALDI-TOF-MS	(187)
	$\uparrow$	CSF	4	2	6	—	NR	NR	6 OND	2-DE & MALDI-TOF-MS	(188)
Haptoglobin related protein	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Hemoglobin	$\downarrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
HSPG	$\downarrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
ICAM-2	$\downarrow$	Urine	28	4	—	32	32	—	46 RRMS, 31 HC	LC-MS/MS	(189)
IGFBP7	$\downarrow$	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
IGFALS	$\downarrow$	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Ig heavy, constant $\alpha 1$	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Ig heavy, constant $\alpha 2$	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Ig heavy, variable 3	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Ig heavy, constant $\gamma 1$	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Ig heavy, constant $\gamma 2$	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Ig heavy, constant $\gamma 3$	$\uparrow$	CSF	6	3	9	—	NR	NR	9 OND	2-DE & MALDI-TOF-MS	(187)
	$\uparrow$	Urine	28	4	—	32	32	—	46 RRMS, 31 HC	LC-MS/MS	(189)
Ig heavy, constant $\mu$	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
IgG F <sub>c</sub> binding protein	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Ig $\kappa$ , constant	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
	$\uparrow$	CSF	6	3	9	—	NR	NR	9 OND	2-DE & MALDI-TOF-MS	(187)
Ig $\kappa$ , variable 1	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Ig $\kappa$ , variable 3	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
	$\uparrow$	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Ig $\kappa$ , variable 4	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Ig $\lambda$	$\downarrow$	Serum	3	3	6	—	NR	NR	6 RRMS	2-DE & HD-MS/MS	(185)
Ig $\lambda$ , constant 2	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
	$\uparrow$	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Ig $\lambda$ -like polypeptide 5	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Ig $\lambda$ , variable 3	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Integral membrane protein	$\downarrow$	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Inter- $\alpha$ -trypsin inhibitors	$\uparrow$	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)	
Interleukin-10 receptor $\beta$	$\downarrow$	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)

JAML	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Kallikrein-1	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Kallistatin	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Keratin 1	↑	CSF	3	3	6	—	NR	NR	6 RRMS, 6 HC	2-DE & HD-MS/MS	(186)
	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Keratin 2E	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Keratin 5	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Keratin 6C	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Keratin 9	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
	↑	CSF	3	3	6	—	NR	NR	6 HC	2-DE & HD-MS/MS	(186)
Keratin 10	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Keratin 83	↓	Serum	3	3	6	—	NR	NR	6 RRMS	2-DE & HD-MS/MS	(185)
L-lactate dehydrogenase B	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Laminin γ1	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Mimecan	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
NCAM-1	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
NCAM-2	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Neogenin	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Neurofascin	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Neurofilament	↑	CSF	6	3	9	—	NR	NR	9 OND	2-DE & MALDI-TOF-MS	(187)
	↑	CSF	4	2	6	—	NR	NR	6 OND	2-DE & MALDI-TOF-MS	(188)
Neuronal growth factor 1	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Neuronal pentraxin 1	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Neuronal pentraxin receptor	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Neurotrimin	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Nidogen-2	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
OPCML	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
PAM	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
PEDF	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
	↓	CSF	6	3	9	—	NR	NR	9 OND	2-DE & MALDI-TOF-MS	(187)
	↓	CSF	4	2	6	—	NR	NR	6 OND	2-DE & MALDI-TOF-MS	(188)
Plasminogen	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Pre-albumin	↓	CSF	3	3	6	—	NR	NR	6 RRMS	2-DE & HD-MS/MS	(186)
Pregnancy zone protein	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Pro-LRP1	↑	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Prosaposin	↓	Urine	28	4	—	32	32	—	46 RRMS	LC-MS/MS	(189)
Prostaglandin-D H2	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Protocadherin-16	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
PTPRS	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
QPCT	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Retinol binding protein 4	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Secretogranin-1	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Serotransferrin	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
SPARC-like protein 1	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Tenascin-X	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Transferrin	↑	CSF	3	3	6	—	NR	NR	6 HC	2-DE & HD-MS/MS	(186)
TREM 132A	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
Transthyretin	↓	CSF <sup>d</sup>	8 <sup>e</sup>	2 <sup>e</sup>	NR	NR	NR	NR	12 LETM <sup>f,g</sup>	HR LTQ-Orbitrap MS	(184)
	↓	CSF	6	3	9	—	NR	NR	9 OND	2-DE & MALDI-TOF-MS	(187)
	↓	CSF	4	2	6	—	NR	NR	6 OND	2-DE & MALDI-TOF-MS	(188)
Ubiquitin	↓	Urine	28	4	—	32	32	—	31 HC	LC-MS/MS	(189)
Vitamin D binding protein	↓	CSF	6	3	9	—	NR	NR	9 OND	2-DE & MALDI-TOF-MS	(187)

<sup>a</sup>2-DE, two dimensional gel electrophoresis; AEBP1, adipocyte enhancer binding protein 1; C4BP $\alpha$ , C4b-binding protein alpha chain; CACNA2D2, voltage-dependent calcium channel subunit alpha-2/delta-1; CHL1, neural cell adhesion molecule L1-like; CHMP5, chromatin-modifying protein 5; CSF, cerebrospinal fluid; 3DKK3, Dickkopf-related protein 3; FAM3C, family with sequence similarity 3 member C; FGFR1, fibroblast growth factor receptor 1; Gal3BP, galectin-3-binding protein; GAPDH, glyceraldehyde-3-phosphate dehydrogenase; GFAP, glial fibrillary acidic protein; GnTE, N-acetyllactosaminide beta-1,3-N-acetylglucosaminyltransferase; HC, healthy controls; HD-MS/MS, high definition tandem mass spectrometry; HR LTQ-Orbitrap MS, high resolution hybrid linear ion trap quadrupole-orbitrap mass spectroscopy; HSPG, basement membrane-specific heparin sulfate proteoglycan core protein; ICAM-2, intercellular adhesion molecule 2; IGFBP7, insulin-like growth factor-binding protein 7; IGFALS, insulin-like growth factor-binding protein complex acid labile subunit; Ig, immunoglobulin; JAML, junctional adhesion molecule-like; LC-MS, liquid chromatography-tandem mass spectrometry; LETM, longitudinally extensive transverse myelitis; MALDI-TOF-MS, matrix-assisted laser desorption ionization time of flight mass spectrometry; neuronal pentraxin receptor; NCAM, neural cell adhesion molecule 1 & 2; NMOSD, neuromyelitis optica spectrum disorder; NR, not reported; OPCML, opioid-binding protein/cell adhesion molecule; OND, other neurological disorders, e.g., migraines, tension-type headaches, drug-induced delirium, normal pressure hydrocephalus, or trigeminal neuralgia diseases; PAM, peptidyl-glycine alpha-amidating monooxygenase; PEDF, pigment epithelium-derived factor; Pro-LRPI, pro low-density lipoprotein receptor-related protein 1; PTPRS, receptor-type tyrosine-protein phosphatase S; QPCT, glutaminyl-peptide cyclotransferase; RRMS, relapsing-remitting multiple sclerosis; TREM, transmembrane protein 132.

<sup>a</sup>NMOSD status at the time of biopsy sampling.

<sup>b</sup>NMOSD samples are statistically different from each comparison group.

<sup>c</sup>Method of metabolomic spectra data acquisition.

<sup>d</sup>Proteomic analysis was performed using CSF exosomes.

<sup>e</sup>Five NMOSD CSF biopsies, with the highest MCP-1 and IP-10, were pooled prior to analysis.

<sup>f</sup>Six LETM CSF biopsies, with the highest MCP-1 & IP-10, were pooled prior to analysis.

<sup>g</sup>NMOSD Patients are AQP4<sup>+</sup> and MOG<sup>+</sup>.

<sup>h</sup>T2 weighted hyperintense lesions, >3 vertebral segments, spinal cord MRI.