**Supplementary data**

**Supplementary figure 1: M23 AQP4-IgG and AQP4-IgG complement-mediated cell killing titers in individual patients categorized by disease course and immunotherapy\***

M23 AQP4 titer

1. M23 AQP4 titer
2. M23 AQP4 complement-mediated cell killing titers

Abbreviation: EDSS; Expanded Disability Status Scale, AQP4-IgG; aquaporin-4-IgG

\*Immunotherapy included azathioprine, mycophenolate mofetil, cyclophosphamide, and rituximab.

**Supplementary figure 2: Kaplan-Meier estimates of time to develop EDSS ≥ 8**

Years from the first AQP4-IgG complement-mediated cell killing titers to develop EDSS ≥ 8

Note: all Martinique patients, any patients with unknown status for each outcome, and any patients with missing complement values were excluded from the corresponding analysis.

Abbreviation: EDSS; Expanded Disability Status Scale,AQP4-IgG; aquaporin-4-IgG

**Supplementary Table: Supplementary Table: AQP4-IgG titer and AQP4-IgG complement-mediated cell killing titers** **of specimens drawn at sequential time-points (pre-attack, attack, remission) in individual patients (transformed scale)**

\*The data was limited to subsets of samples for individuals with samples collected at both time points within the same attack. For example, the first model was limited to pre-attack and subsequent attack samples which occurred during the same attack for the same patient. A pre-attack sample could be paired with multiple attack samples and vice versa.

†Estimates and p values were obtained from generalized estimating equation regression models which accounted for multiple samples within the same patient and attack number. AQP4 end-titers for these models were transformed using log base 10, as follows: titer of 0 [transformed value 0]; 5 [0.70]; 10 [1]; 100 [2]; 1,000 [3], 10,000 [4], ≥100,000 [5].

‡Estimates and p values were obtained from generalized estimating equation regression models which accounted for multiple samples within the same patient and attack number. Complement values for these models were transformed using a doubling transformation as follows: titer of 0 [transformed value 0]; 5 [1]; 10 [2]; 20 [3]; 40 [4]; 80 [5]; 160 [6]; 320 [7]; 640 [8]; 1,280 [9]; 2,560 [10]; 5,120 [11]; 10,240 [12].