Systemic blockade of sialylation in mice with a global inhibitor of sialyltransferases*

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SUPPLEMENTAL FIGURE LEGENDS

FIGURE S1. MALDI-TOF mass spectra of liver *N*-glycans from mice treated with 3F-NeuAc. Regions from the MALDI-MS spectra shown in Figure 4A are expanded for clarity. The *N*-glycans were released by PNGase F and permethylated. Data were acquired in the positive ion mode to observe [M+Na]⁺ molecular ions. Structures shown outside a bracket have not had their antenna location unequivocally defined. Data are representative of three replicates for each condition.

FIGURE S2. Mass spectra of spleen *N*-glycans from mice treated with 3F-NeuAc. Regions from the MALDI-MS spectra shown in Figure 4B are expanded for clarity. The *N*-glycans were released by PNGase F and permethylated. Data were acquired in the positive ion mode to observe [M+Na]⁺ molecular ions. Structures shown outside a bracket have not had their antenna location unequivocally defined. Data are representative of three replicates for each condition.

FIGURE S3. Partial mass spectra of testis *N*-glycans from mice treated with 3F-NeuAc. Only signals that underwent major changes are annotated in these spectra. The *N*-glycans were released by PNGase F and permethylated. Data were acquired in the positive ion mode to observe [M+Na]⁺ molecular ions. Structures shown outside a bracket have not had their antenna location unequivocally defined. Data are representative of three replicates for each condition.

FIGURE S4. Mass spectra of kidney *N*-glycans and *O*-glycans from mice treated with 3F-NeuAc. (A-H) The *N*-glycans were released by PNGase F and permethylated. (I-J) The *O*-glycans were released by reductive elimination and permethylated. All data were acquired in the positive ion mode to observe [M+Na]⁺ molecular ions. Structures shown outside a bracket have not had their antenna location unequivocally defined. Peaks which are labeled with an "x" are due to known contaminants. Data are representative of three replicates for each condition.

Liver

Key: ◀ Fucose ● Mannose ● Galactose ■ N-acetylglucosamine ◇ N-glycolylneuraminic acid ◆ N-acetylneuraminic acid

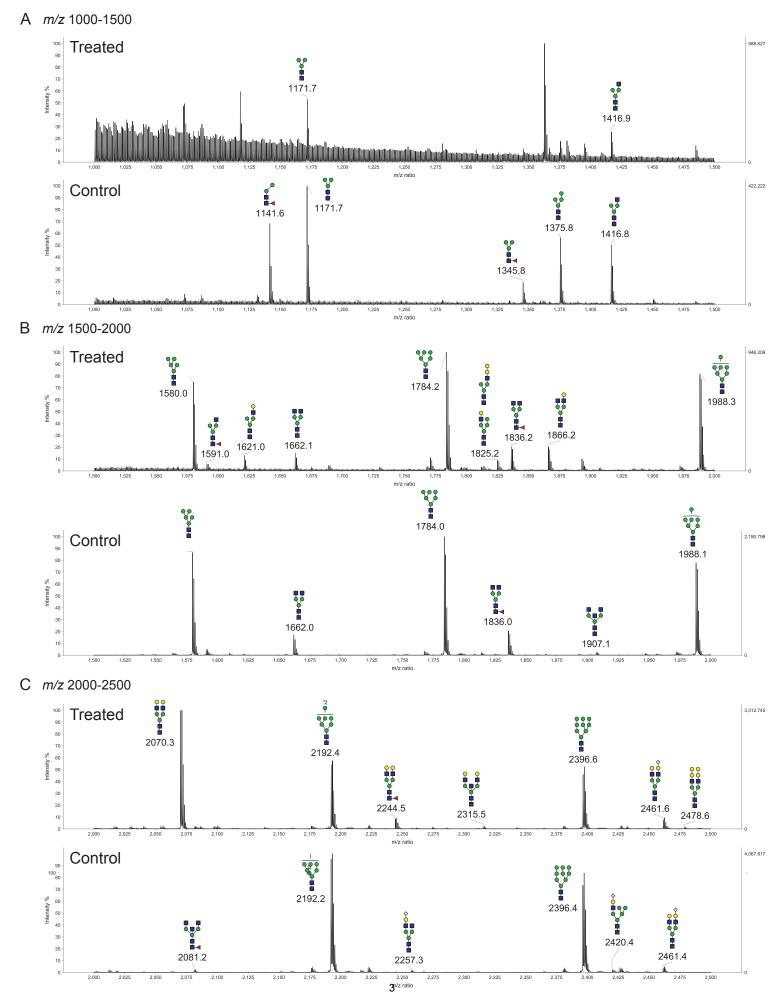
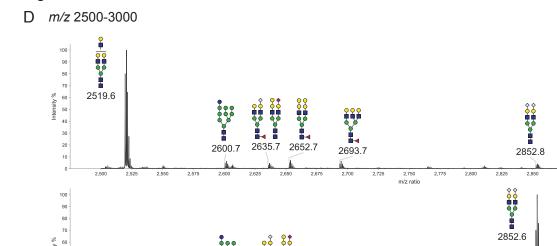
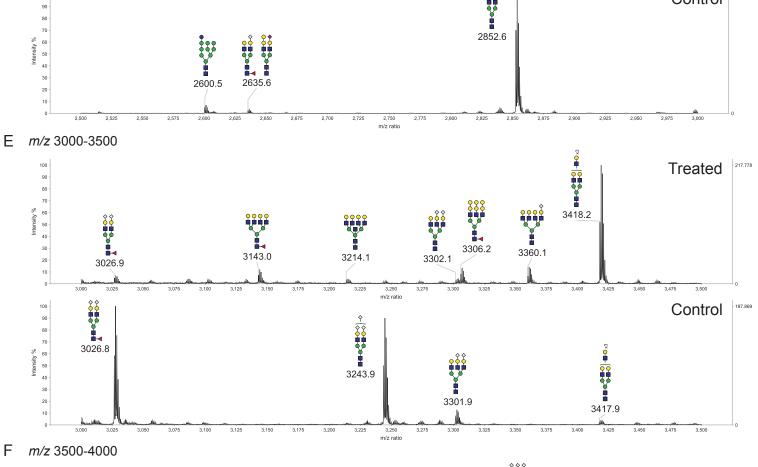


Figure S1 - continued





1,152.745

1,959.843

Treated

Control

ł

2968.9

2910.9

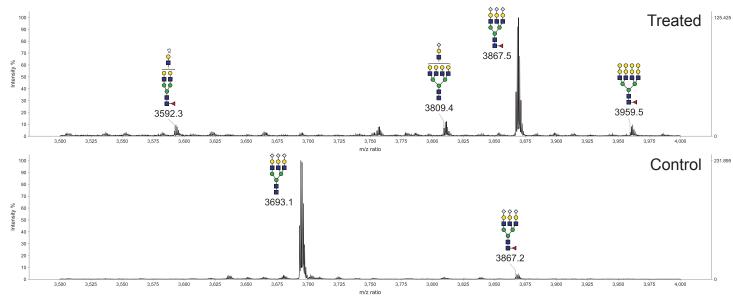
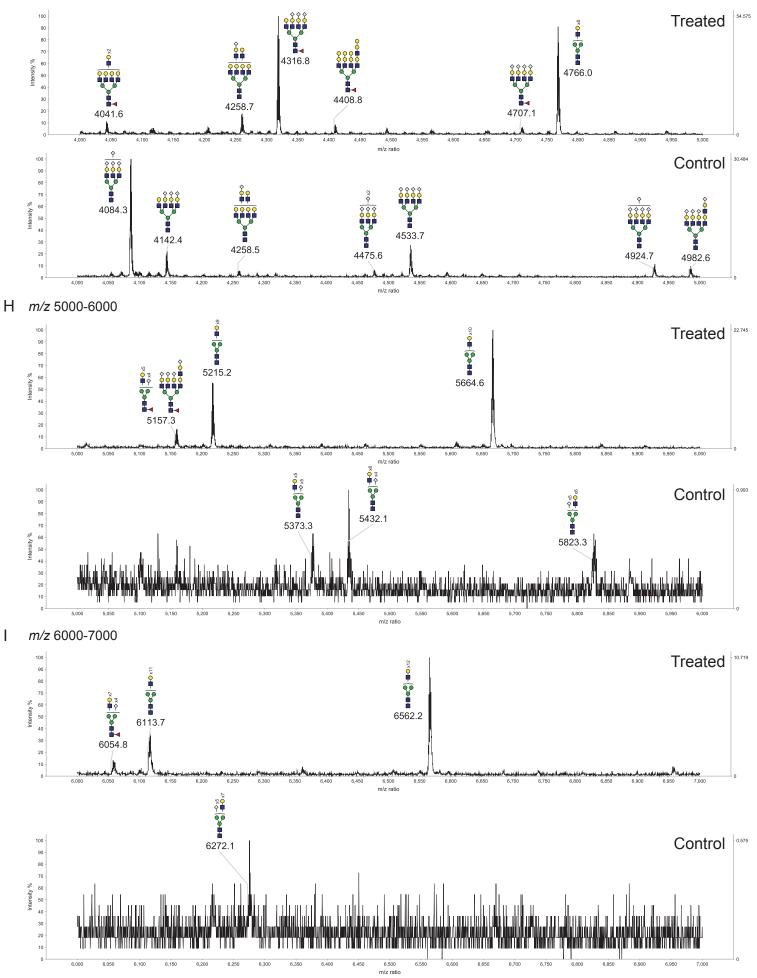


Figure S1 - continued





Spleen

Key: Fucose

7,097.641

1.195.359

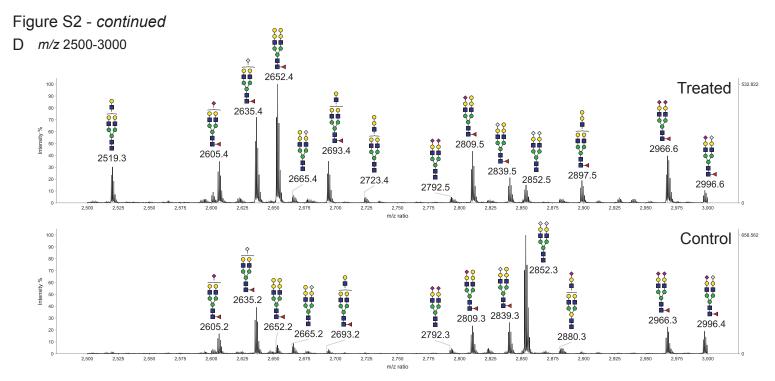
3,759.818

2,117.079

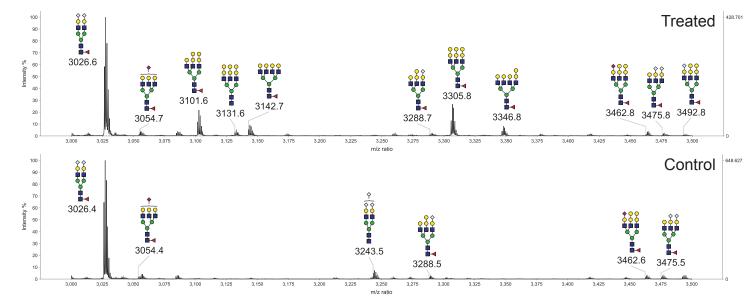
A m/z 1000-1500 100 Treated 1141.6 90 80 1345.7 70 60 Intensity % 1171.6 50 20 1375.7 1416.7 1,250 1,42 1,475 1,500 m/z ratio 100 90 80 Control 1141.6 70 1171.6 1345.6 60 50 Intensity % 1375.7 40 Y 30 1416.7 1,125 1.150 1,250 1,475 m/z ratio *m/z* 1500-2000 В 1579.8 100 Treated 90 1783.9 80 70 Ĭ 60 Intensity % 1988.1 1590.8 1620.8 1836.0 ļ 40 1907.0 1825.0 20 1866.0 1795.0 1999.1 10 60 1 500 1,550 1,52 1,57 1,77 1,97 1,725 1,750 m/z ratio 100 90 80 Control 1579.8 1783.8 70 23 Intensity % 60 50 1824.8 40 1590.8 1987.9 1835.9 20 1906.9 1865.9 1,600 1,875 1,975 1.525 1,550 1,625 1,700 1,725 1,750 m/z ratio 1,775 1,825 1,925 2,00 1.67 C m/z 2000-2500 2070.1 2396.2 100 Treated 90 80 2244.2 70 Intensity % 60 50 2431.3 2478.3 2192.2 2448.3 30 2489.3 2285.2 20 2029.1 2040.1 2461.3 2274.2 2186.2 2081.1 2111.1 2156.1 2315.2 2,27 2,250 m/z ratio 2396.1 100 90 80 70 60 50 40 Control 2192.0 Intensity % 2186.0 2070.0 2029.0 2156.0 2040.0 30 2081.0 2285 1 2431.1 2448.2 2216.0 2244.1 2461.1 2489.1 20 10 2274.1 2315.1 2111.0 2011.9 2,275 2,375 2,500 2,325 2,350

2,250 m/z ratio

2,075



E m/z 3000-3500



F *m/z* 3500-4000

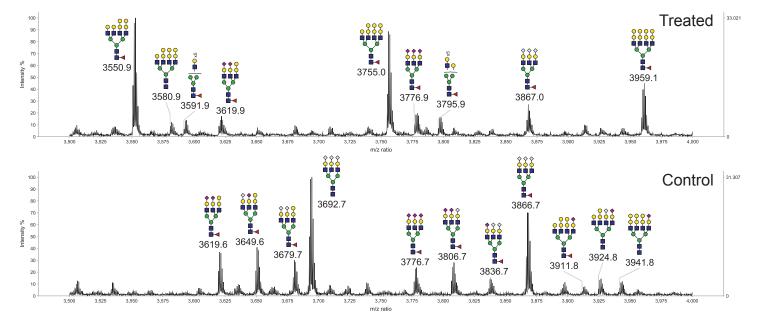
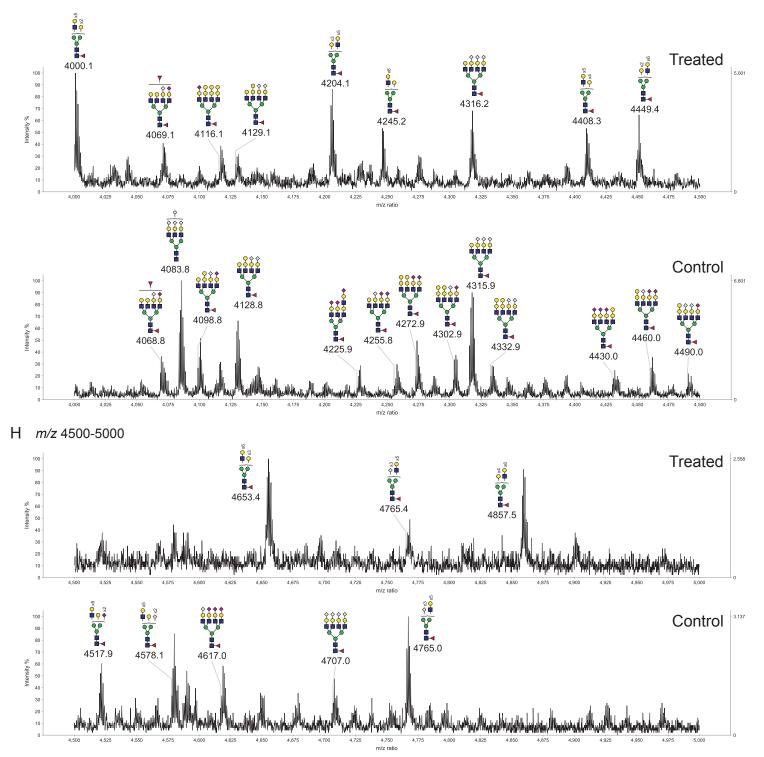


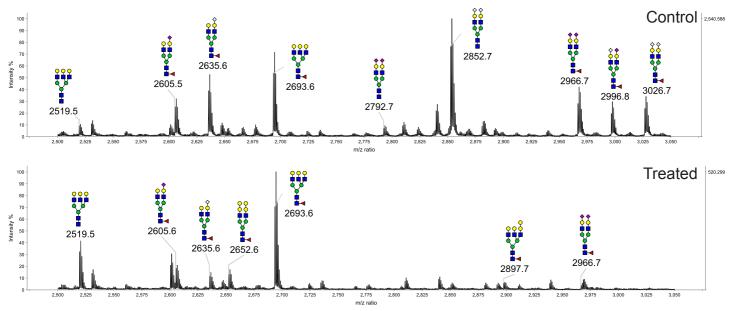
Figure S2 - *continued* G *m*/z 4000-4500



Testes

Key: ◀Fucose ●Mannose ●Galactose ■*N*-acetylglucosamine ◇*N*-glycolylneuraminic acid ◆*N*-acetylneuraminic acid

m/z 2500-3050



Kidney

Key: ◀Fucose ●Mannose ○Galactose ■*N*-acetylglucosamine ◇*N*-glycolylneuraminic acid ◆*N*-acetylneuraminic acid

A *m/z* 1000-1500

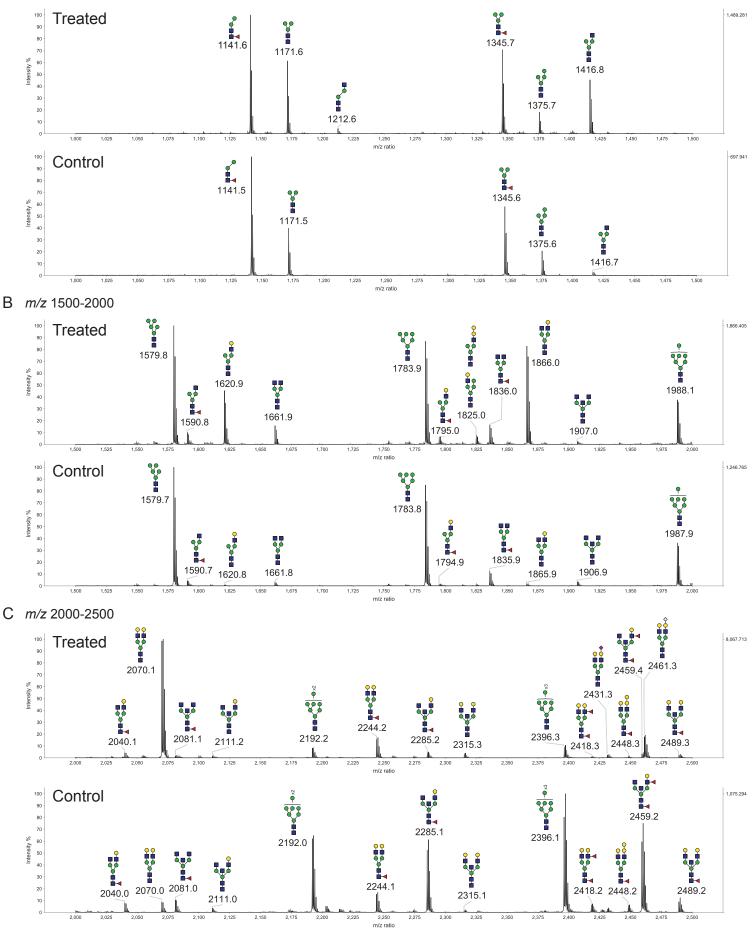
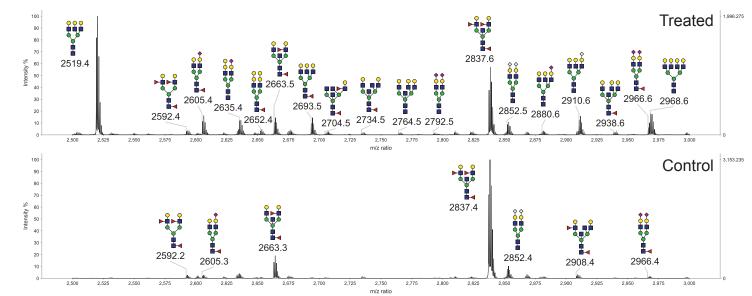
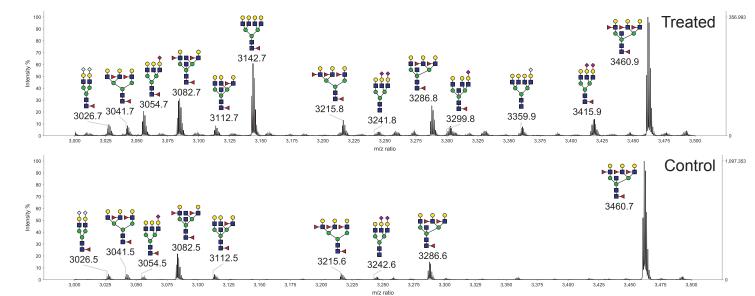


Figure S4 - continued

D *m/z* 2500-3000



E m/z 3000-3500



F m/z 3500-4000

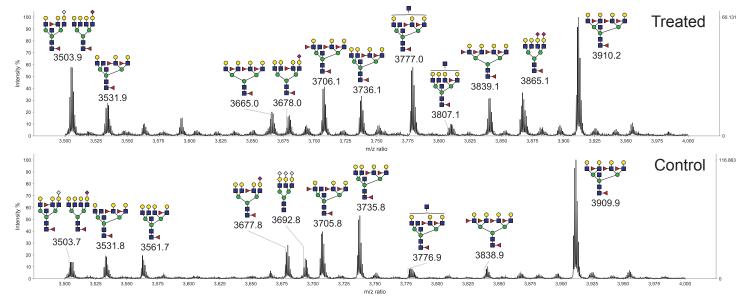
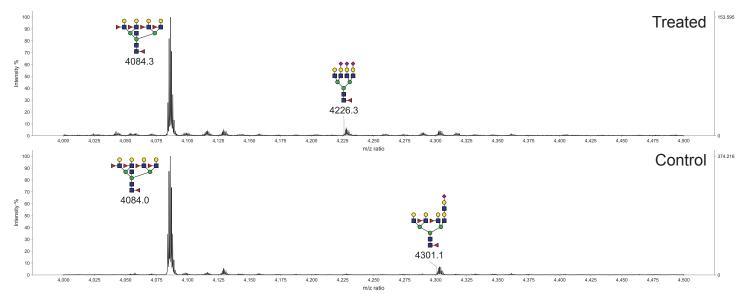
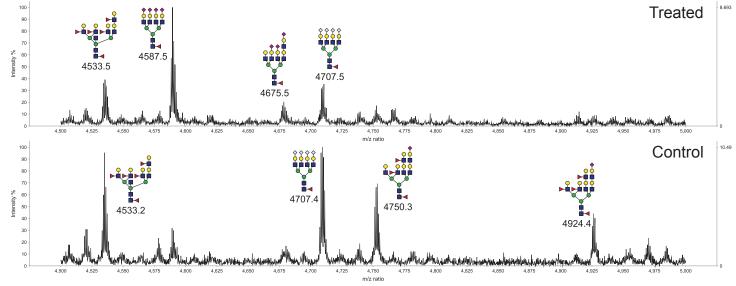


Figure S4 - continued





H m/z 4500-5000



m/z 500-1450

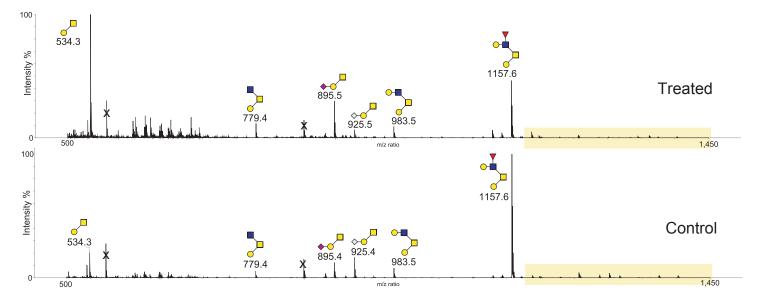


Figure S4 - continued

