

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

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\*Running title: *In vivo use of a global sialyltransferase inhibitor*

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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.

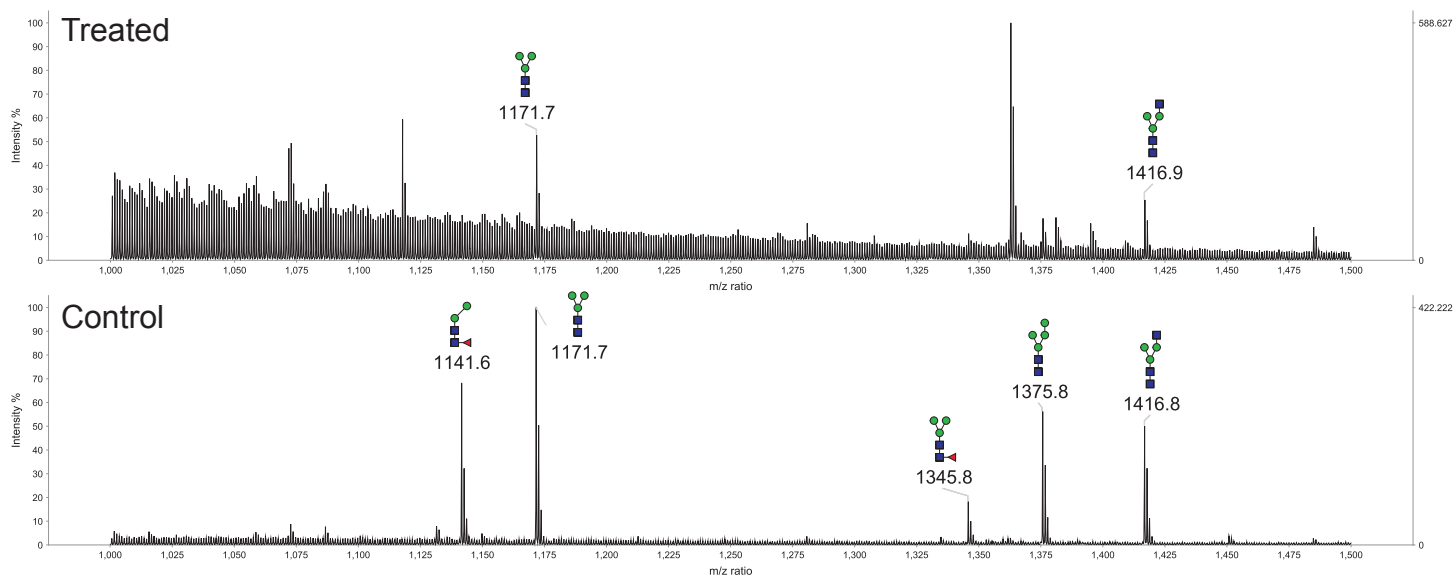
**FIGURE S4.** Mass spectra of kidney *N*-glycans and *O*-glycans from mice treated with 3F-NeuAc. (A-H) The *N*-glycans were released by PNGase F and permethylated. (I-J) The *O*-glycans were released by reductive elimination and permethylated. All data were acquired in the positive ion mode to observe  $[M+Na]^+$  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.

# Figure S1

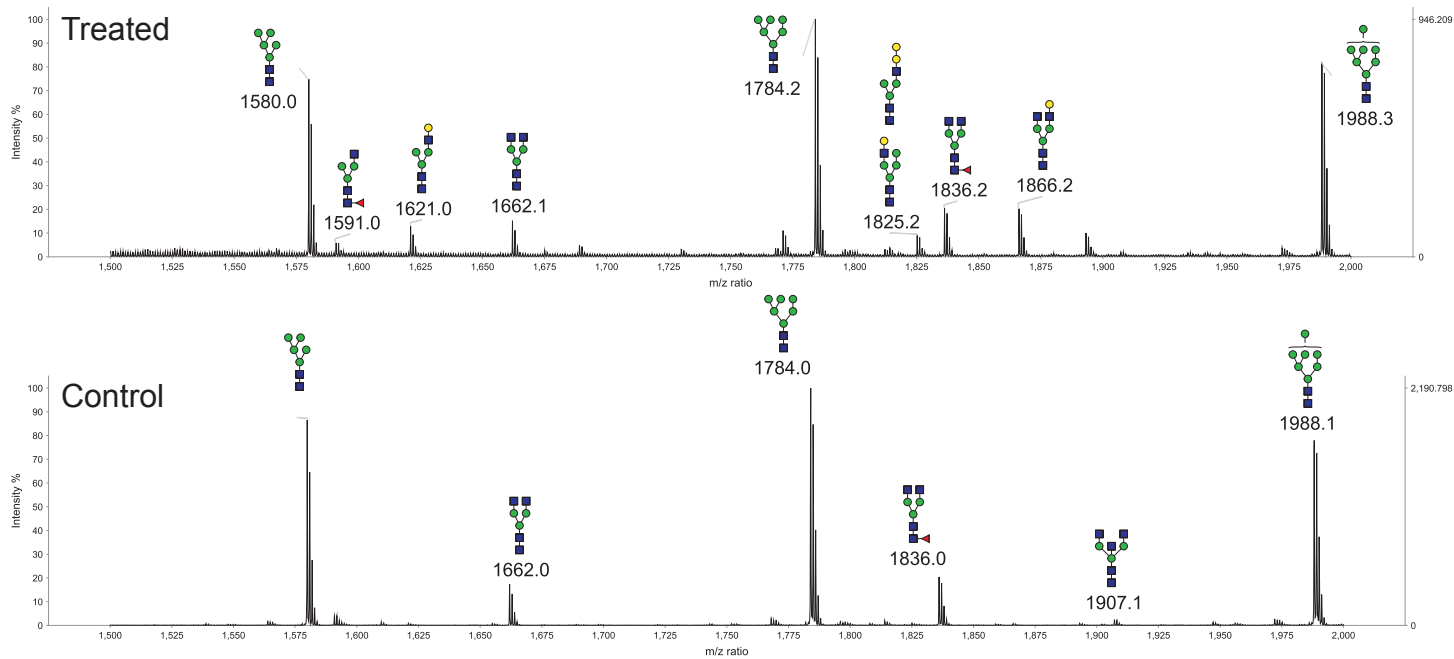
## Liver

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

### A m/z 1000-1500



### B m/z 1500-2000



### C m/z 2000-2500

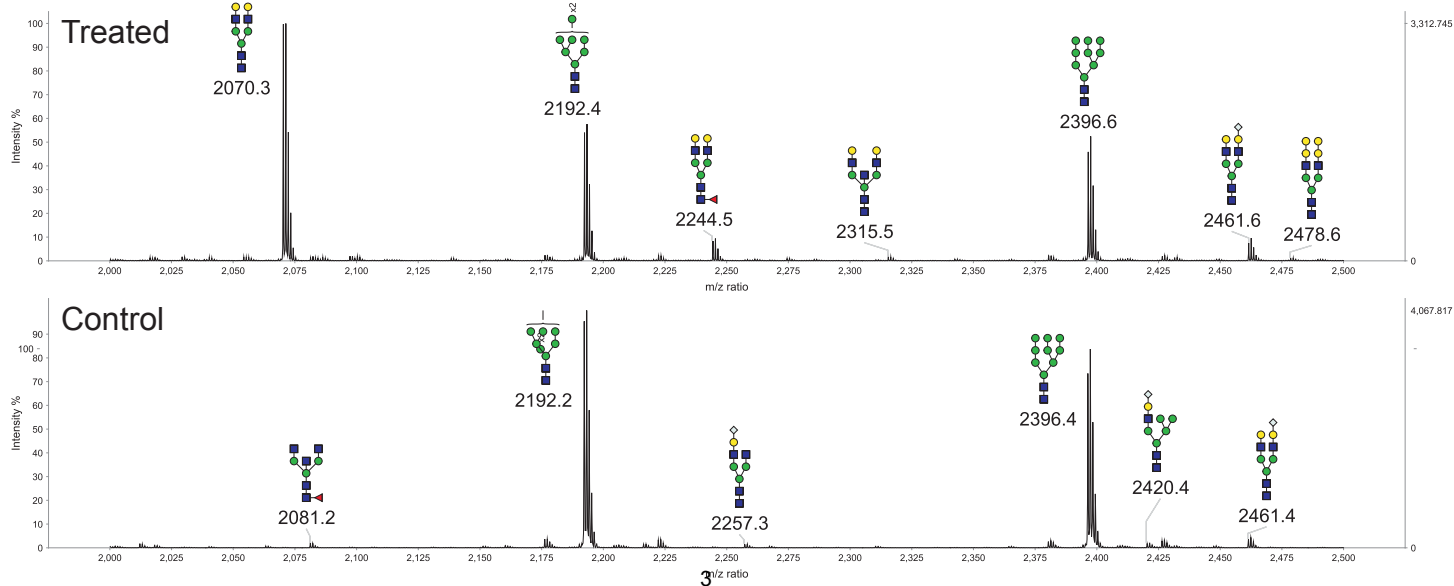
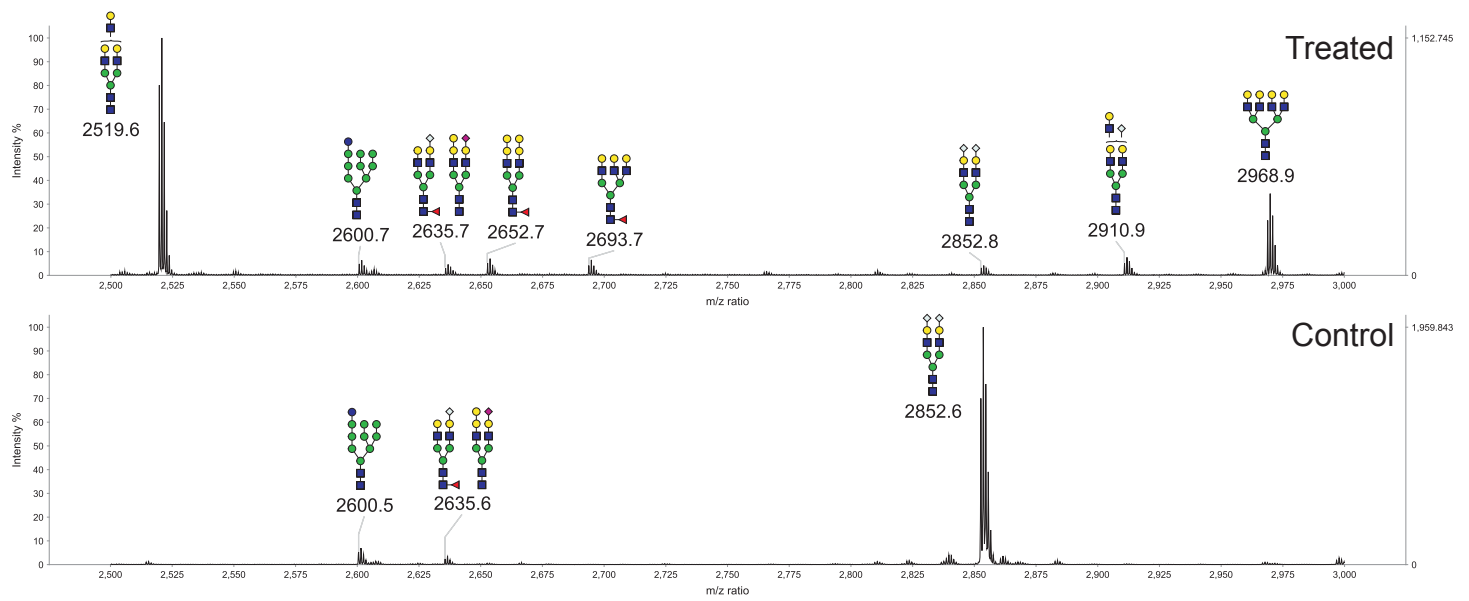
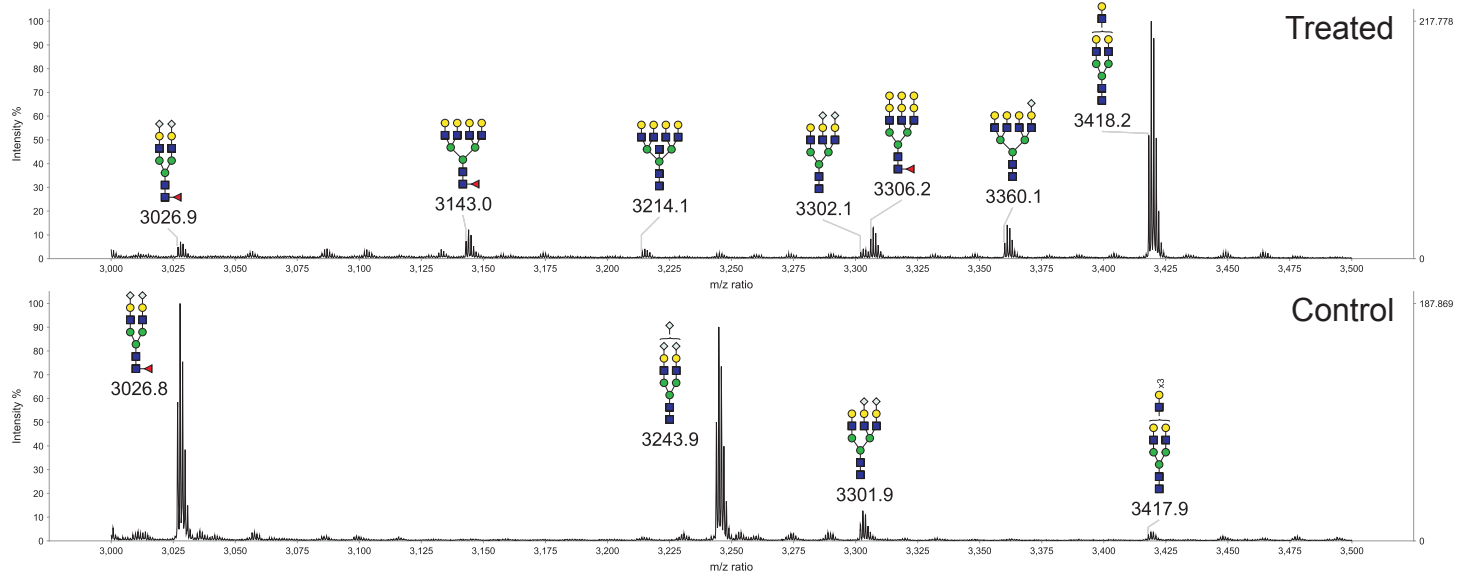


Figure S1 - continued

D *m/z* 2500-3000



E *m/z* 3000-3500



F *m/z* 3500-4000

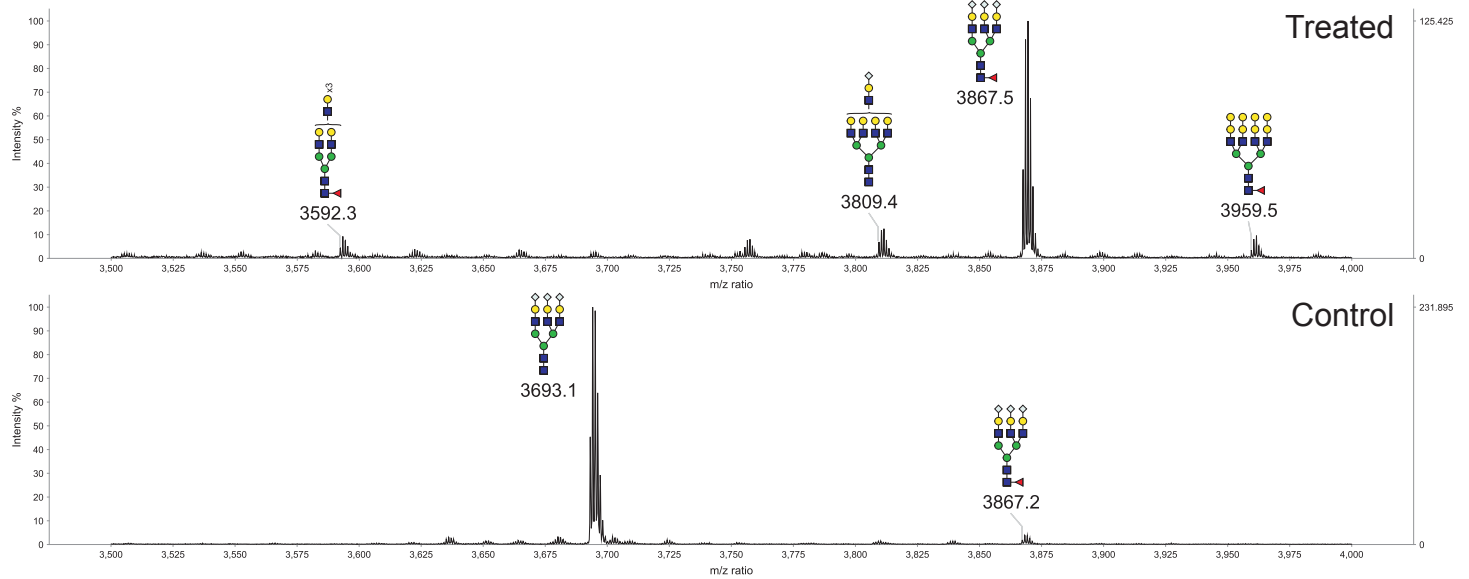
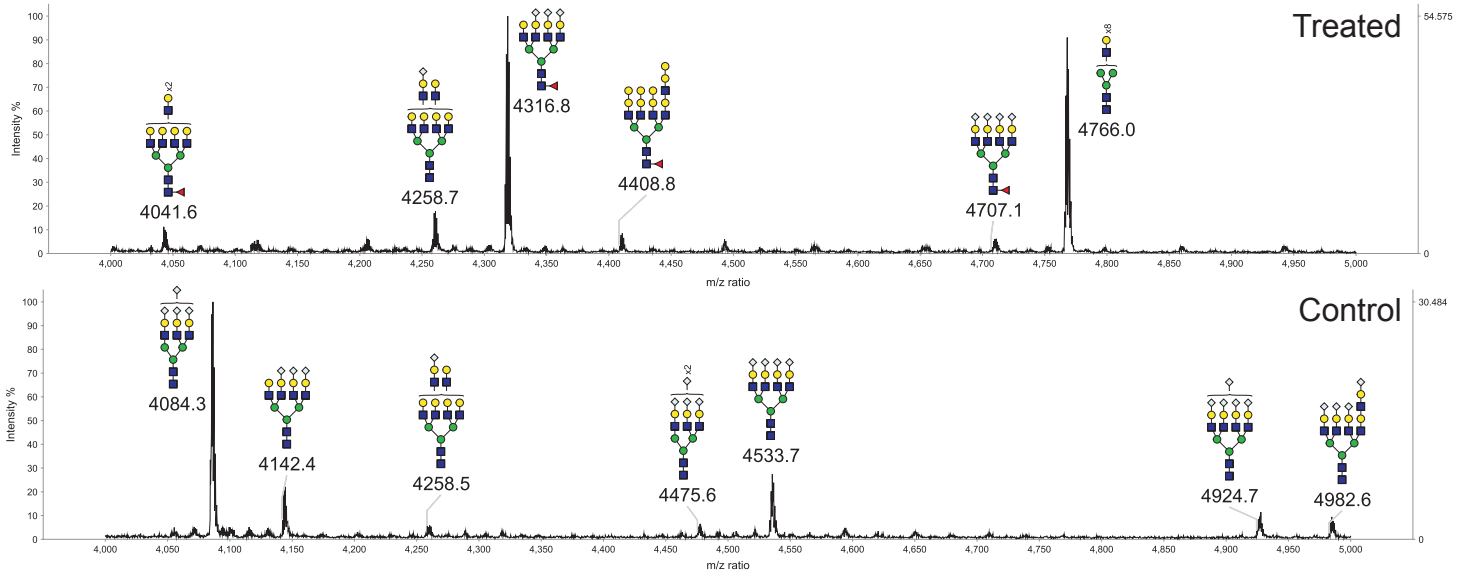
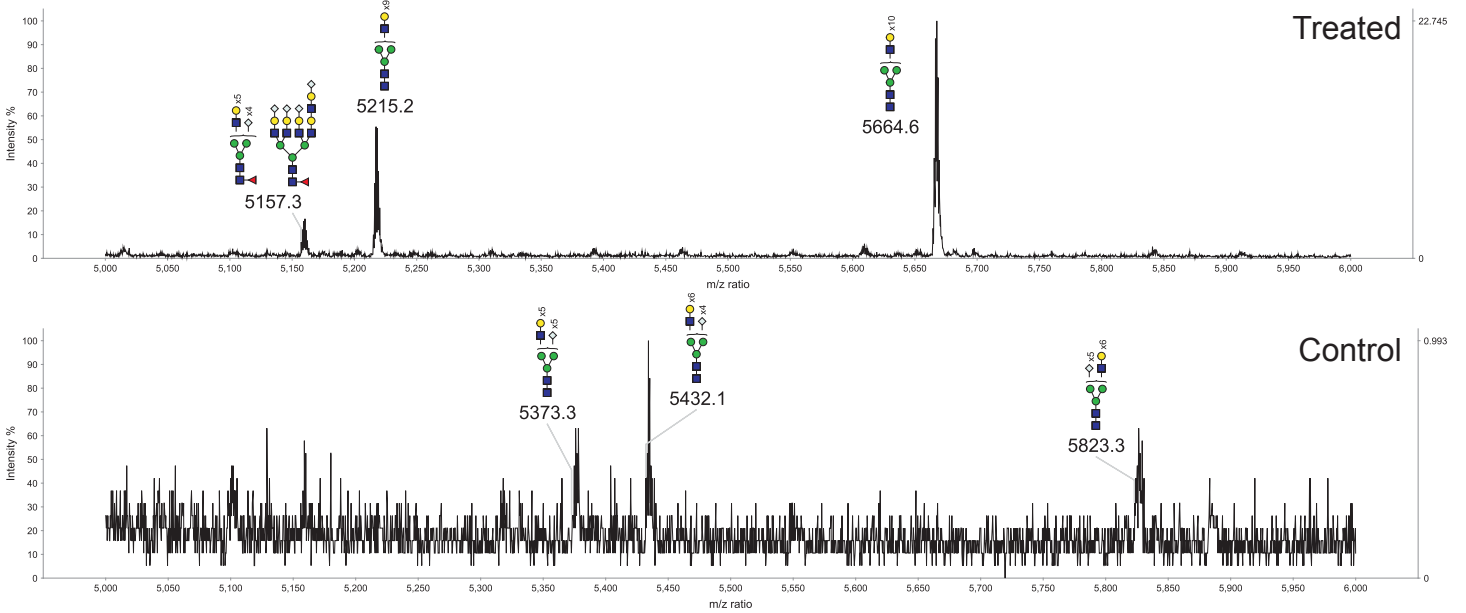


Figure S1 - continued

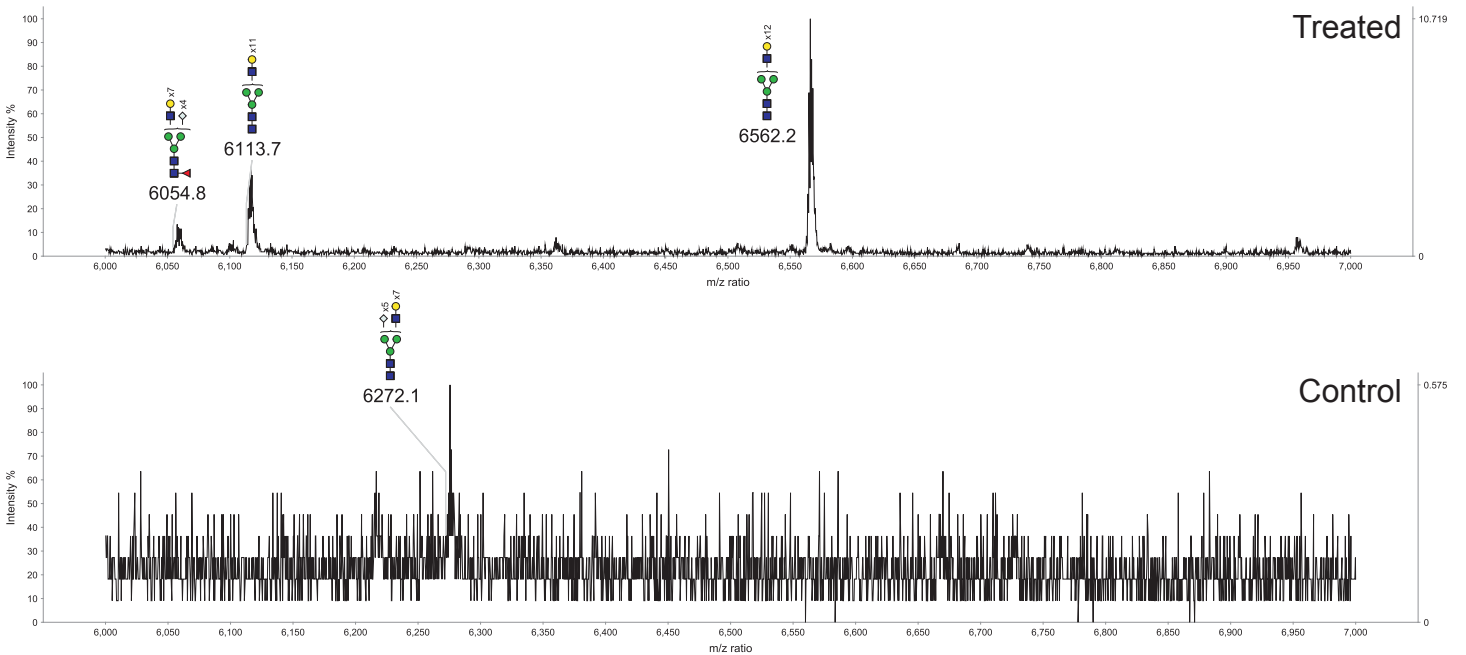
G *m/z* 4000-5000



H *m/z* 5000-6000



I *m/z* 6000-7000

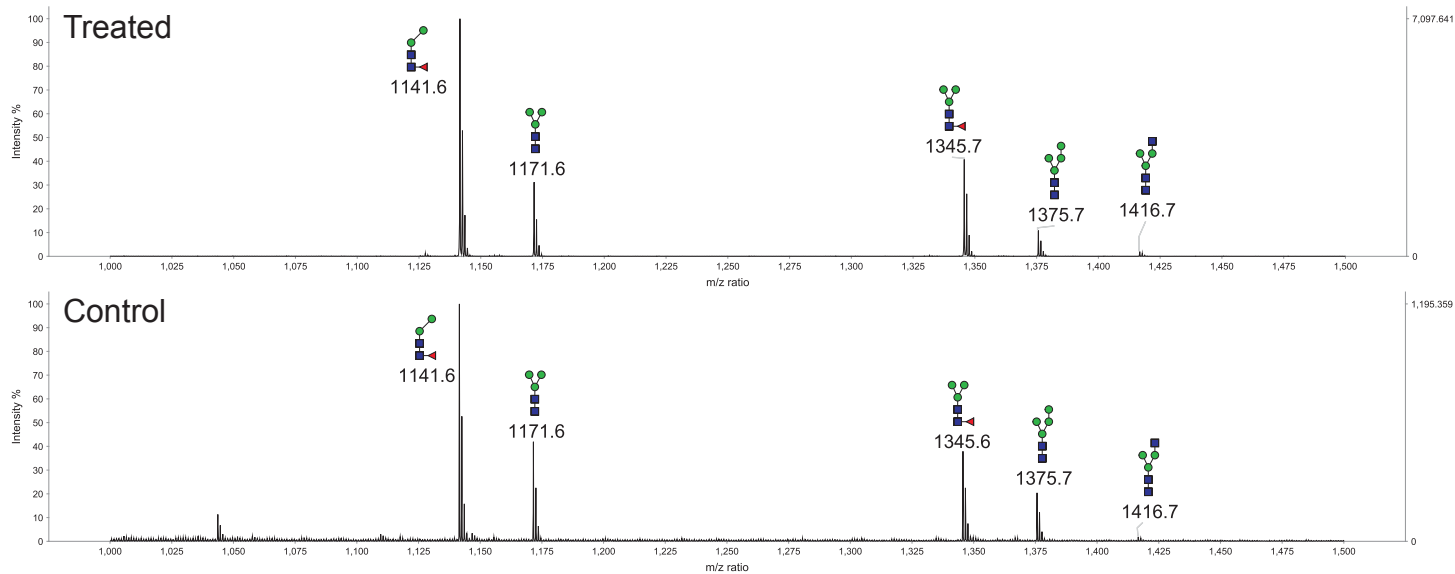


# Figure S2

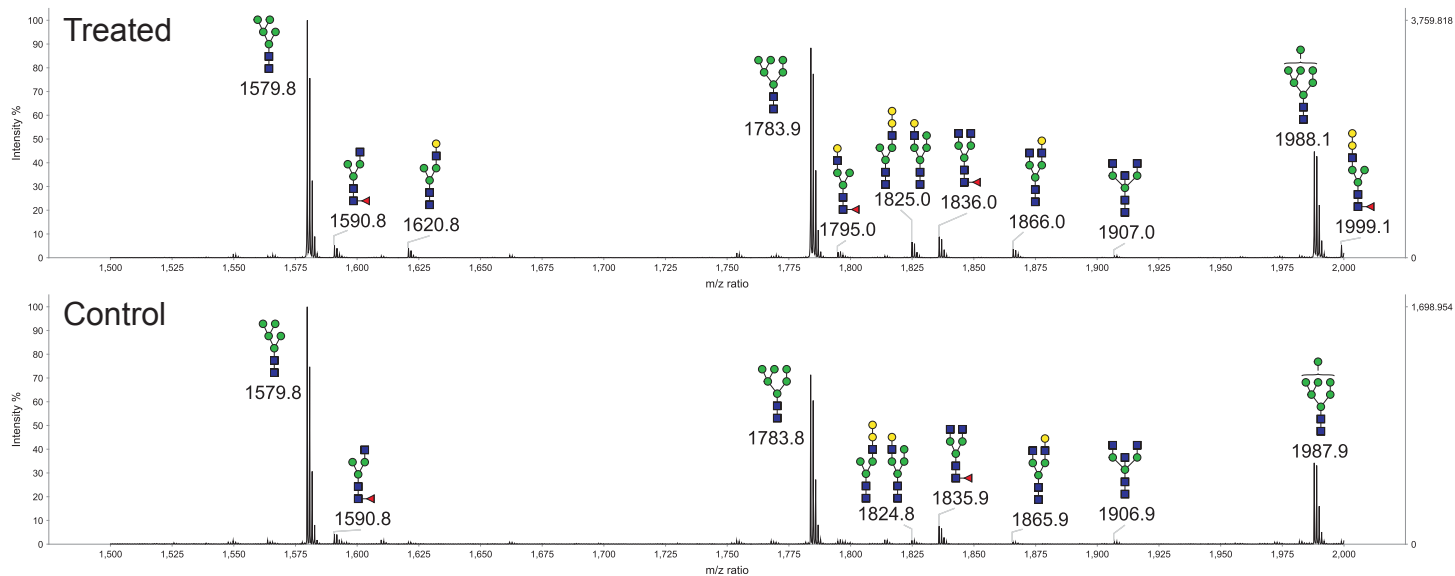
## Spleen

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

### A m/z 1000-1500



### B m/z 1500-2000



### C m/z 2000-2500

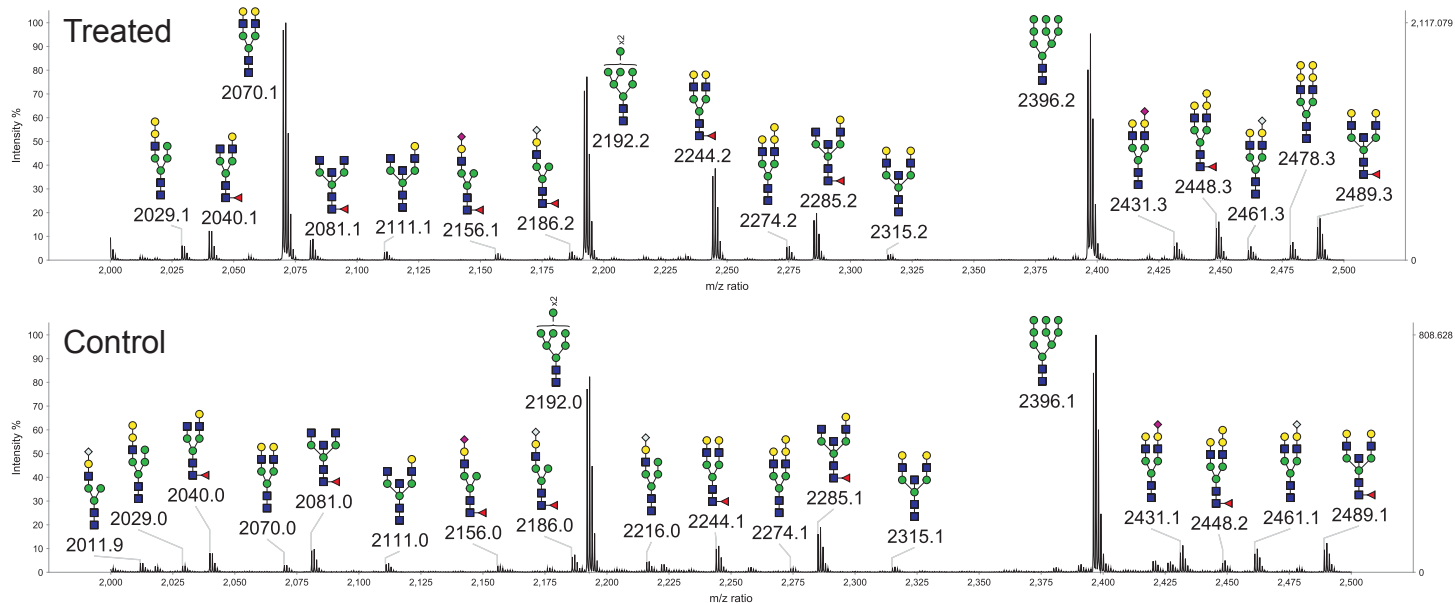
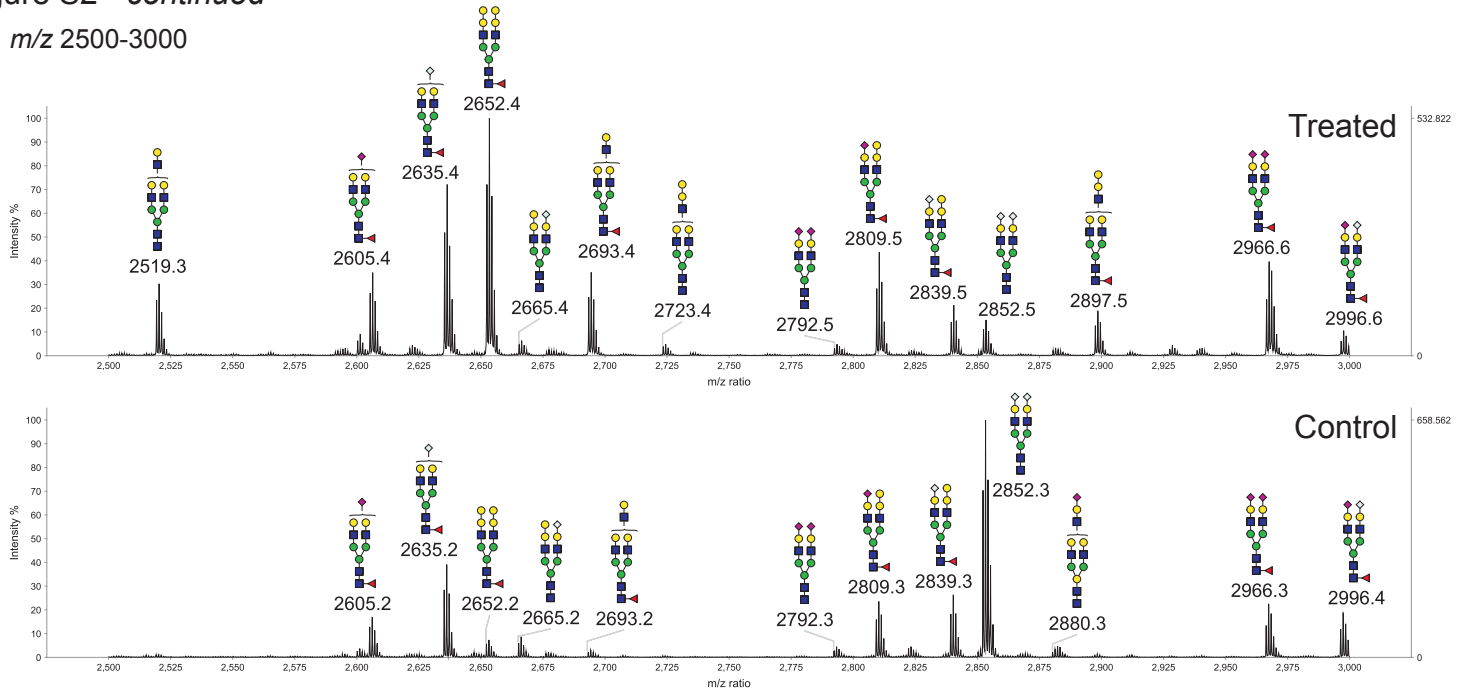
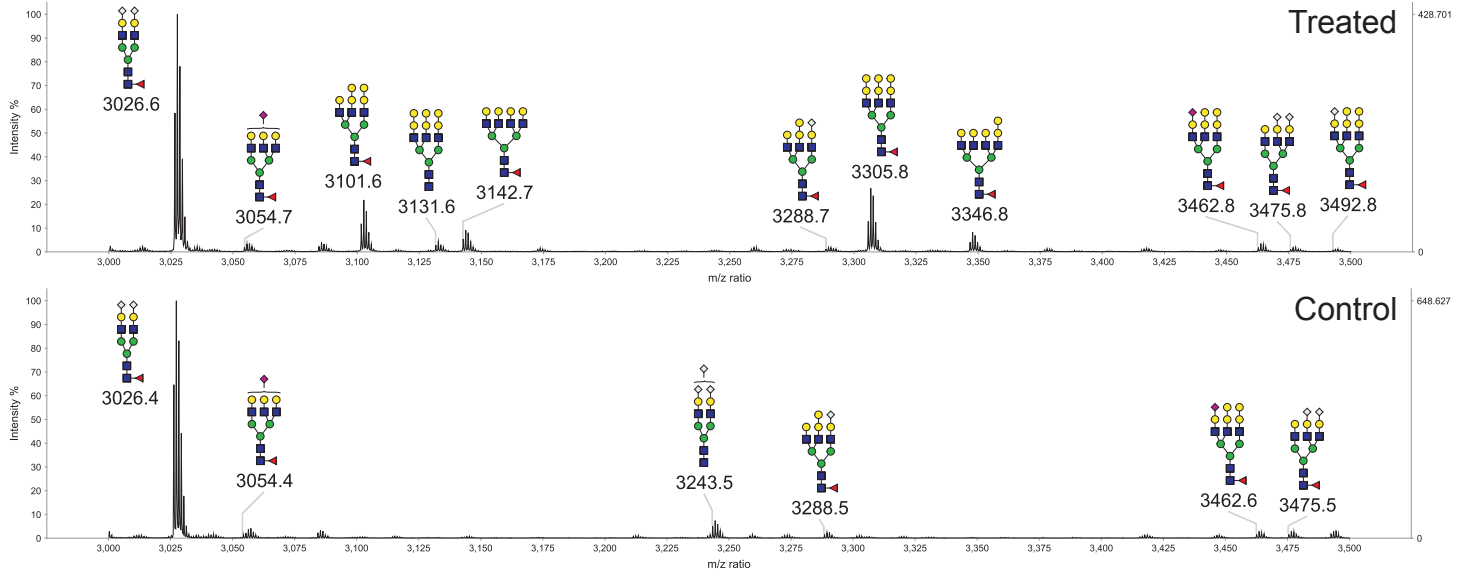


Figure S2 - continued

D  $m/z$  2500-3000



E  $m/z$  3000-3500



F  $m/z$  3500-4000

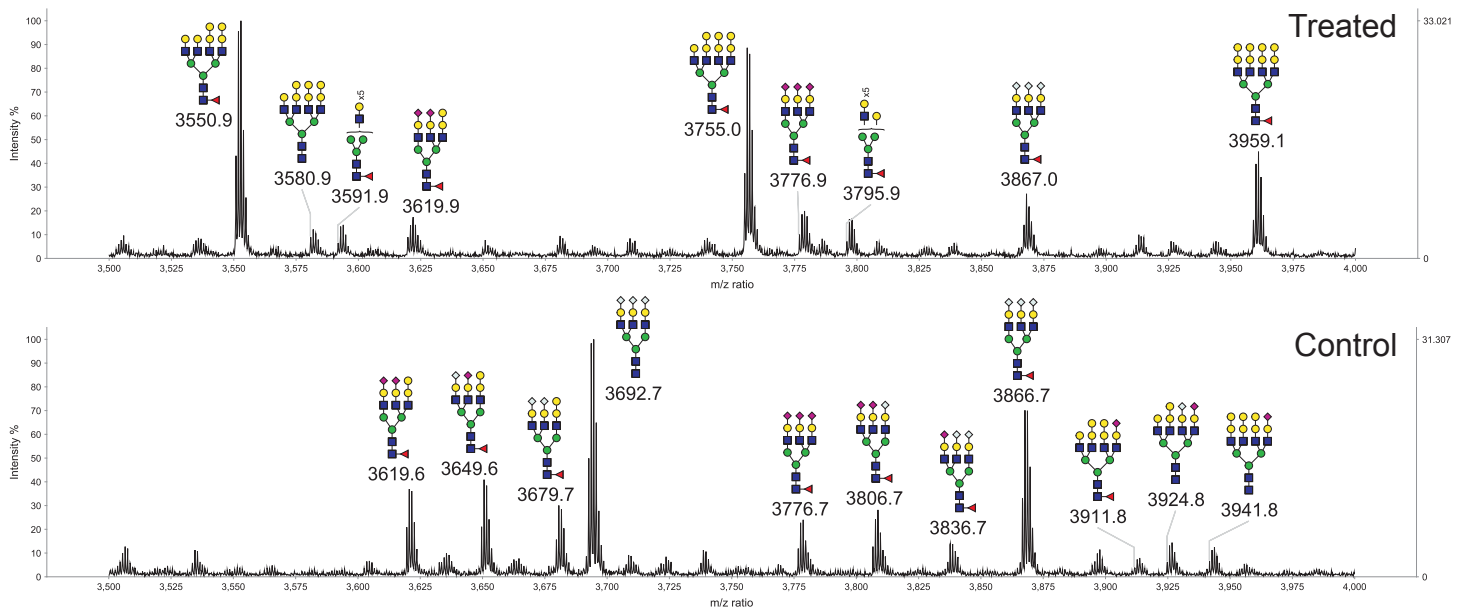
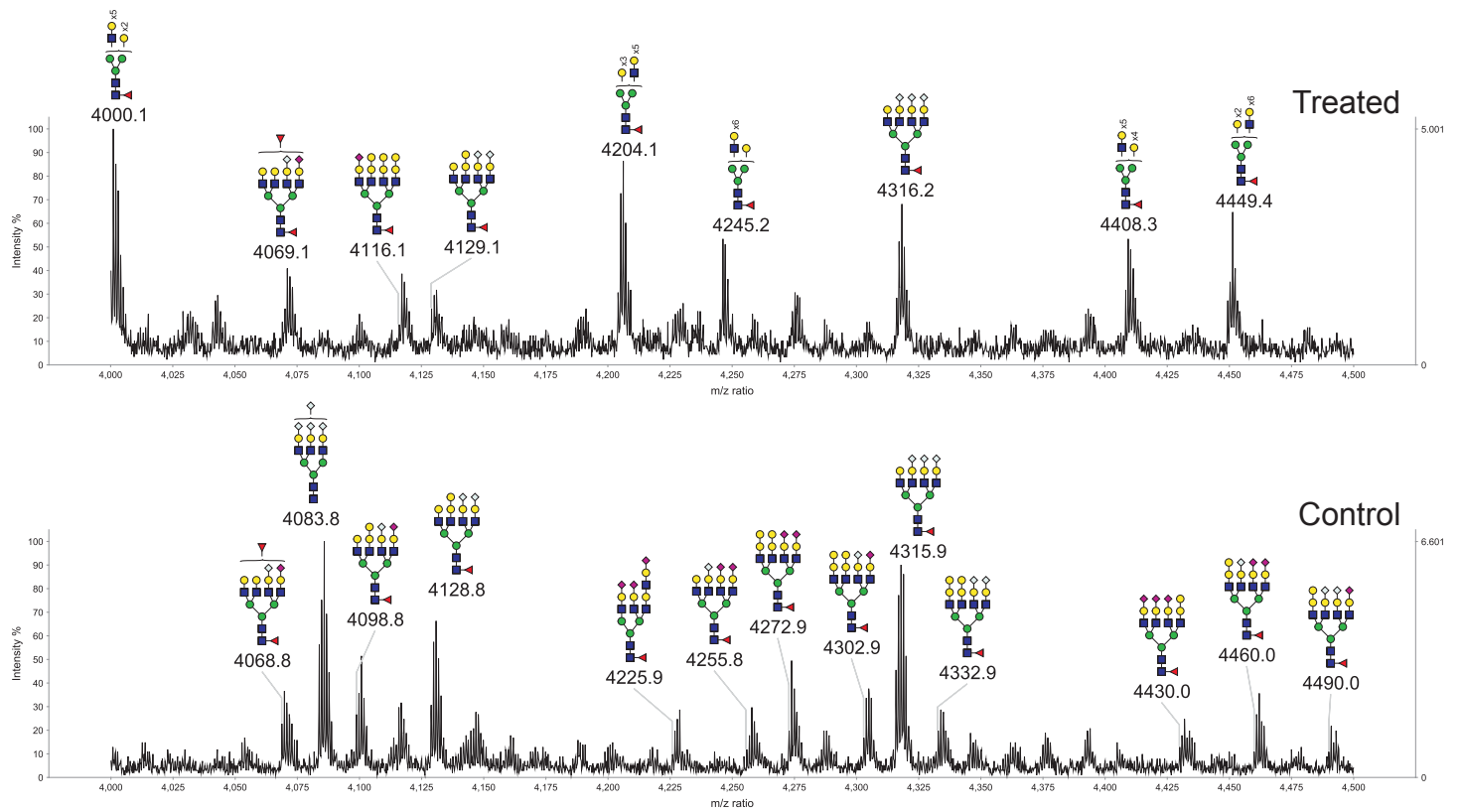


Figure S2 - continued

G  $m/z$  4000-4500



H  $m/z$  4500-5000

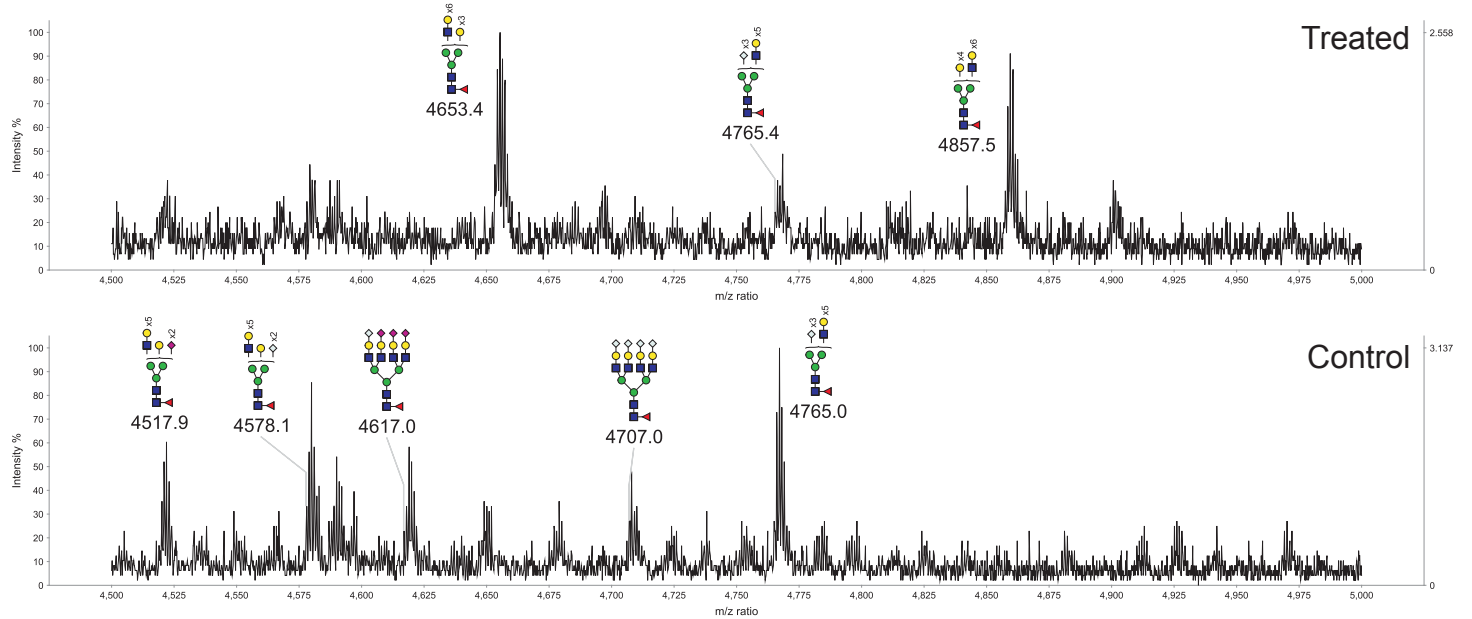




Figure S3

Testes

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

m/z 2500-3050

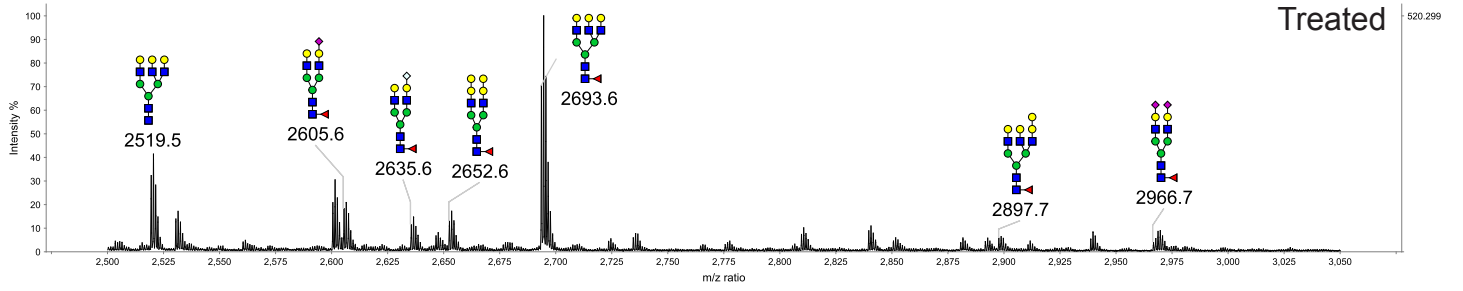
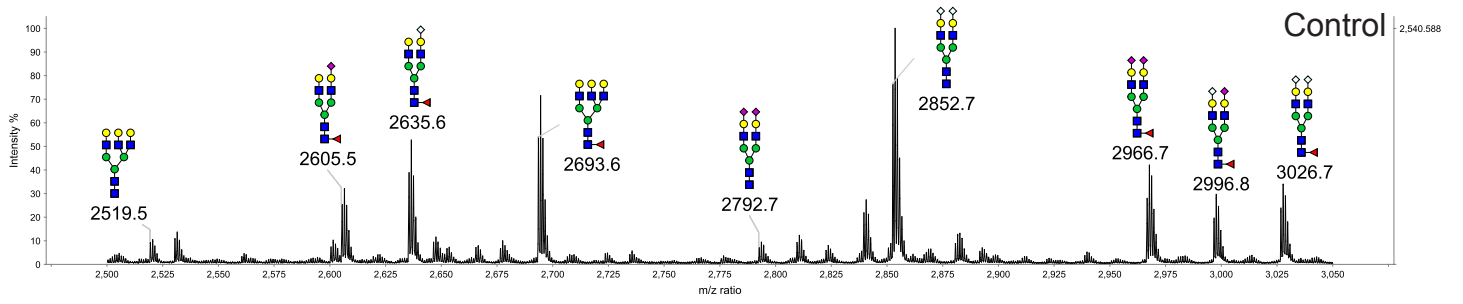
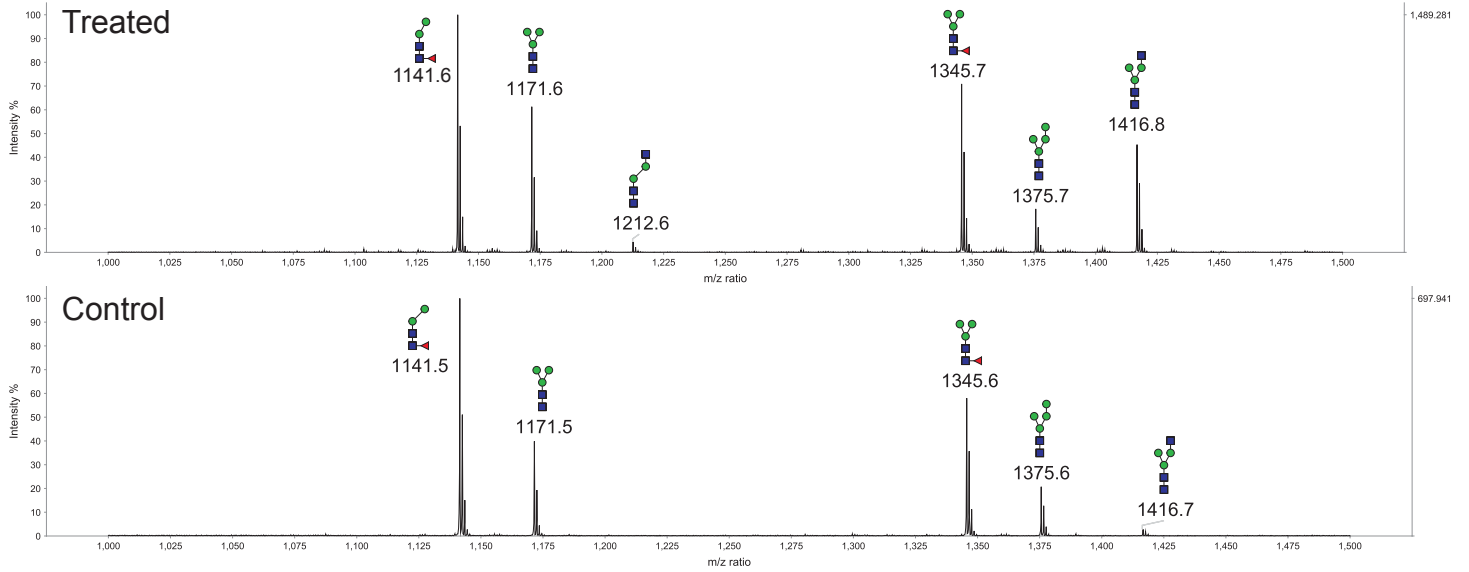


Figure S4

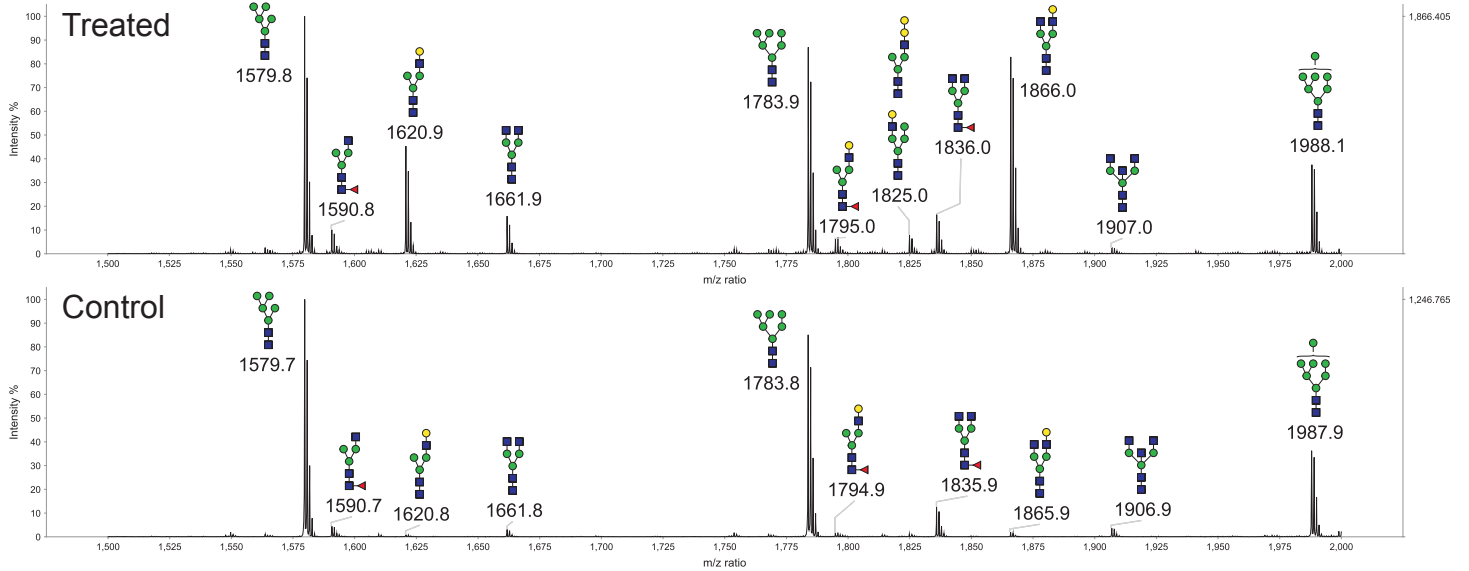
**Kidney**

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

**A** *m/z* 1000-1500



**B** *m/z* 1500-2000



**C** *m/z* 2000-2500

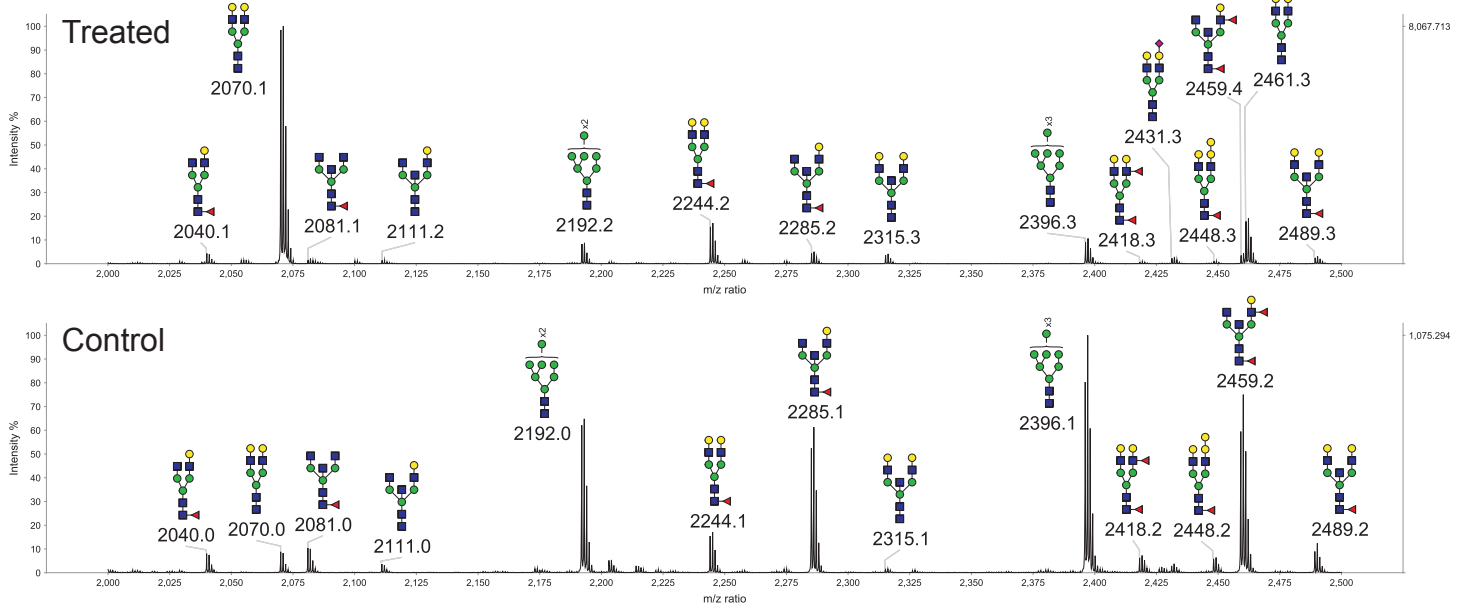
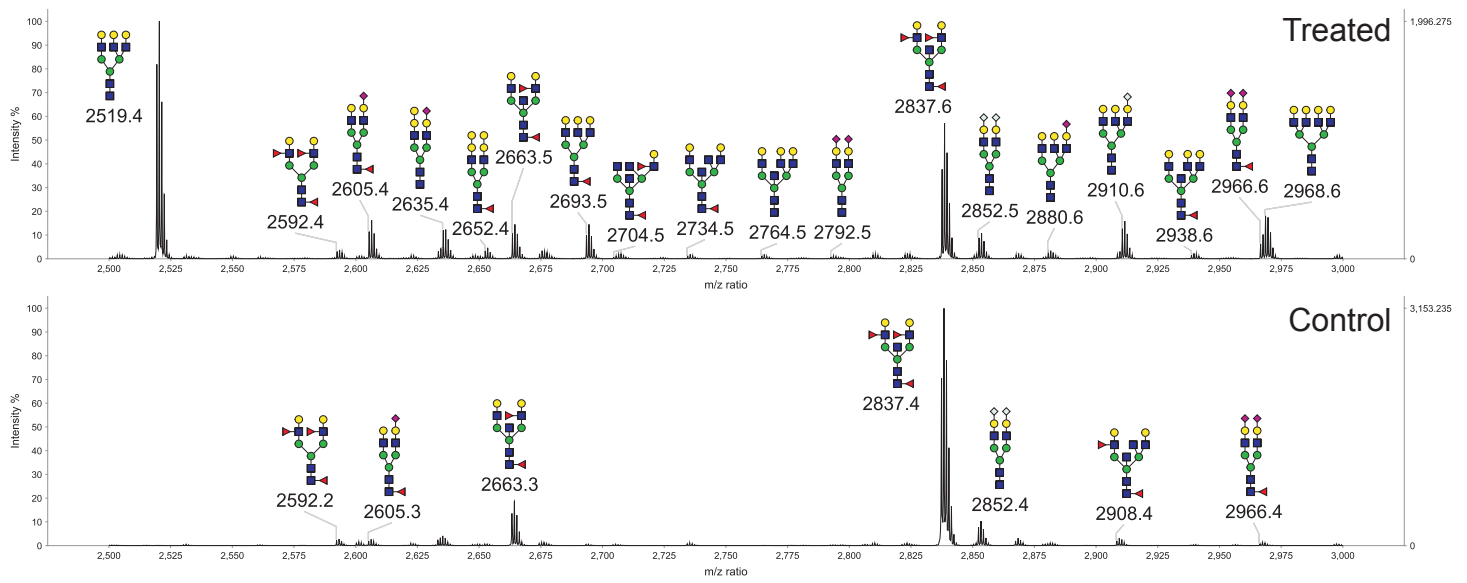
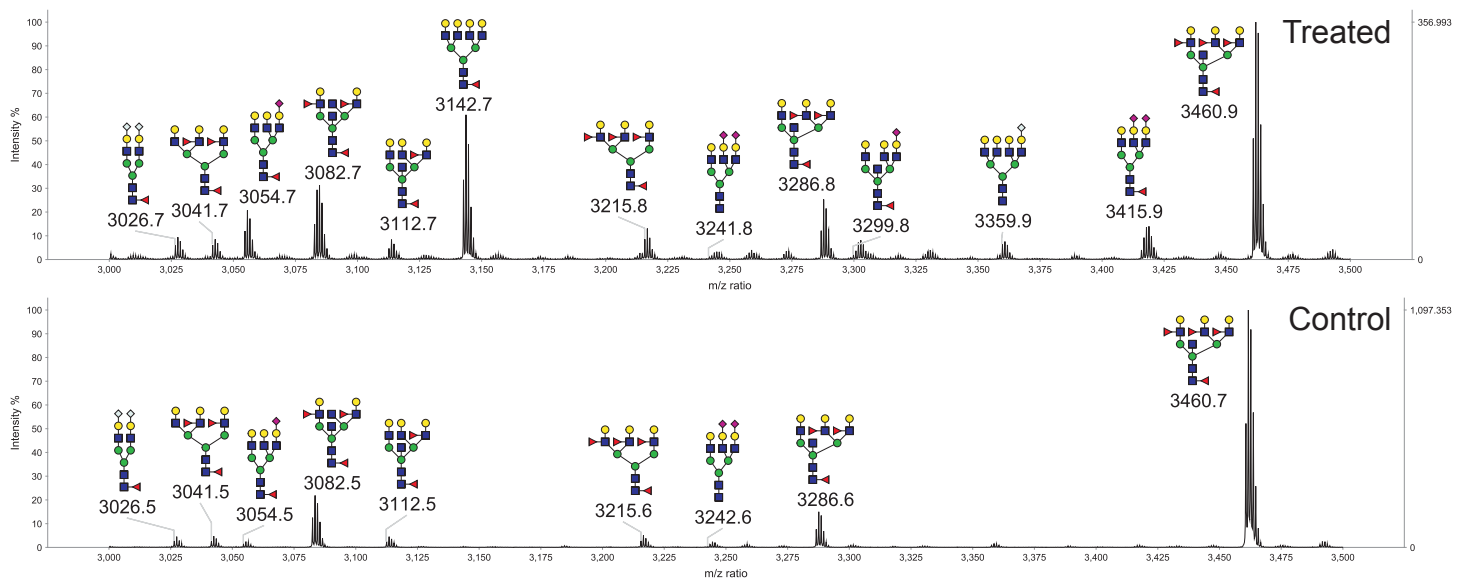


Figure S4 - continued

D  $m/z$  2500-3000



E  $m/z$  3000-3500



F  $m/z$  3500-4000

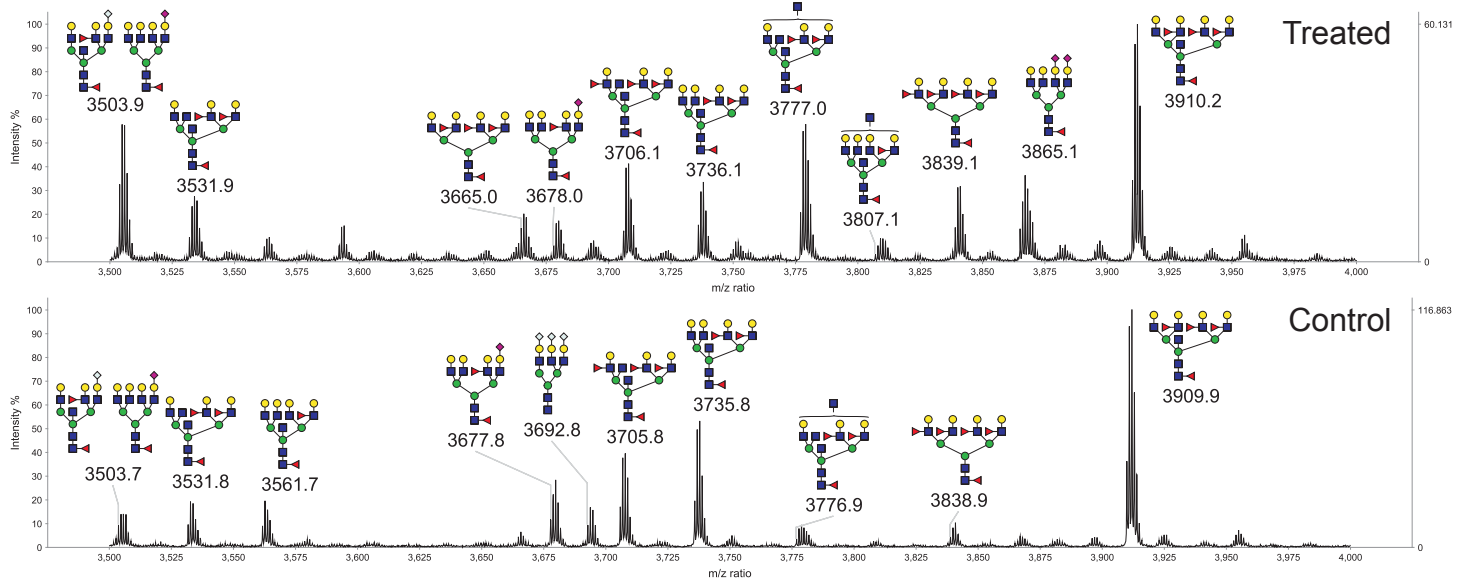
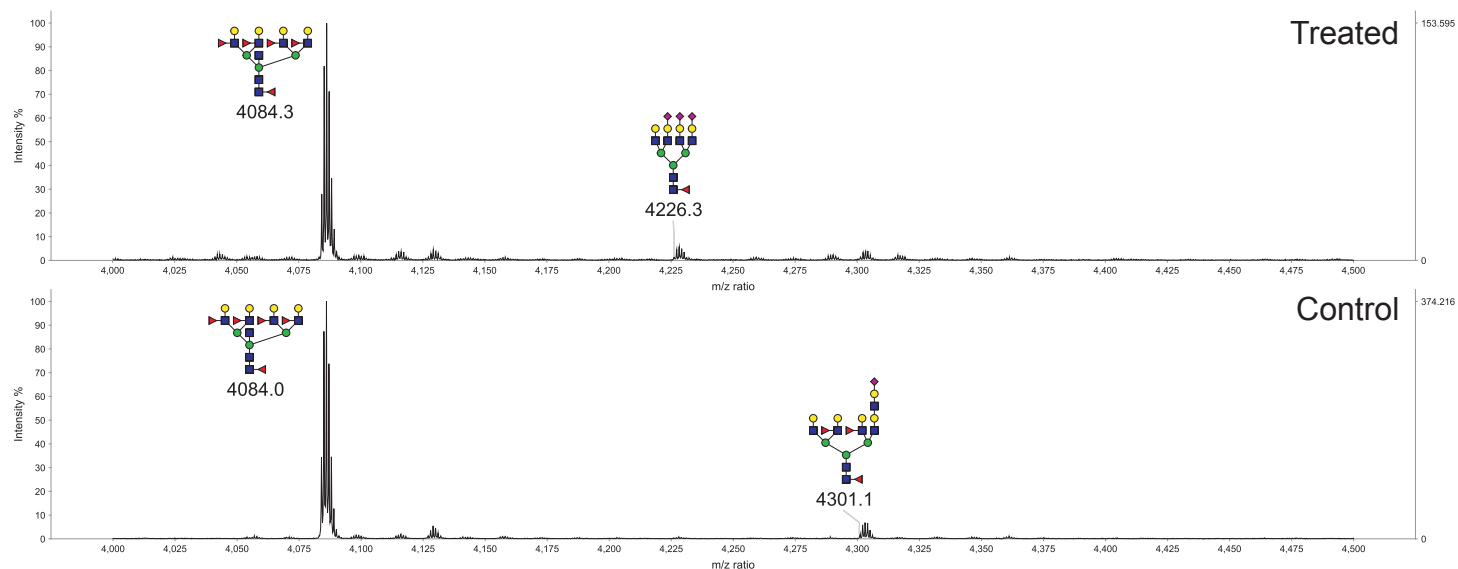
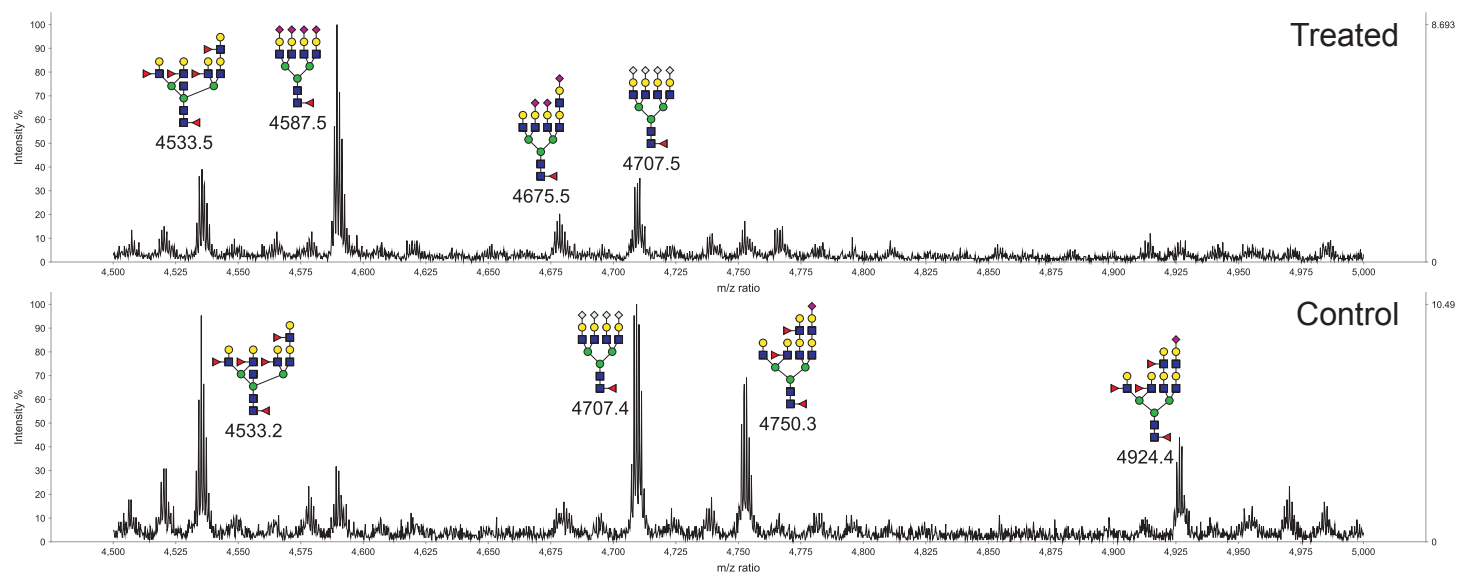


Figure S4 - continued

G *m/z* 4000-4500



H *m/z* 4500-5000



I *m/z* 500-1450

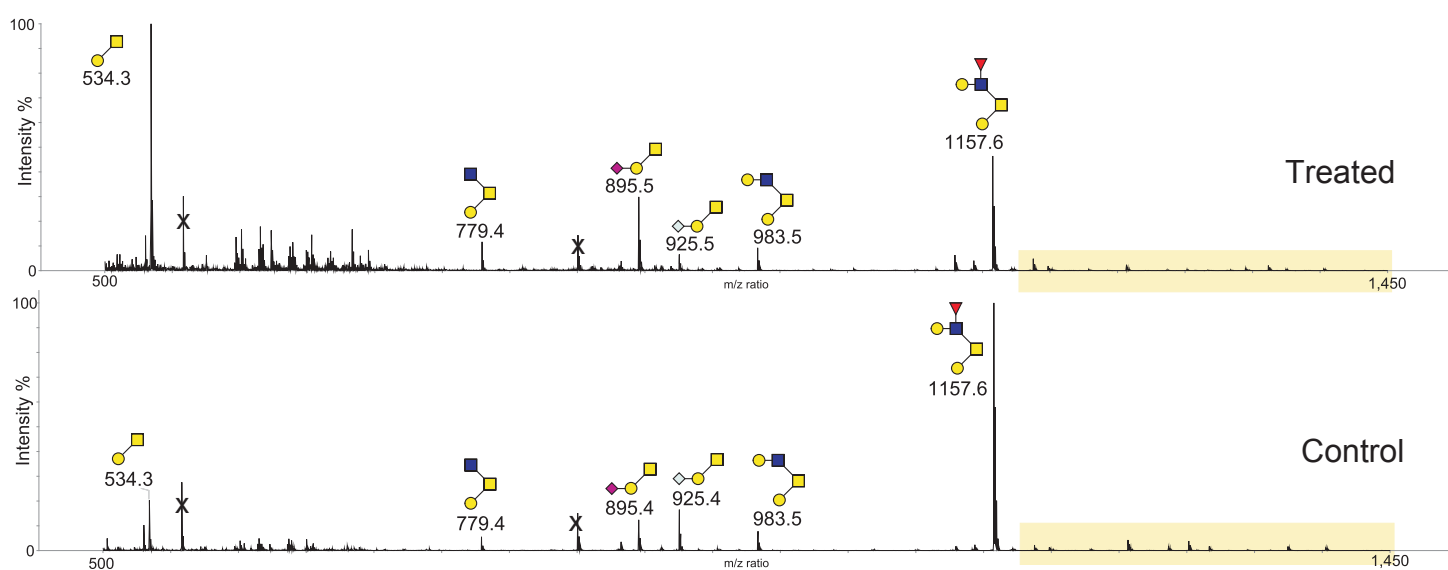


Figure S4 - continued

J  $m/z$  1170-1450

