Supplementary Figures

Host response to cholestyramine can be mediated by the gut microbiota

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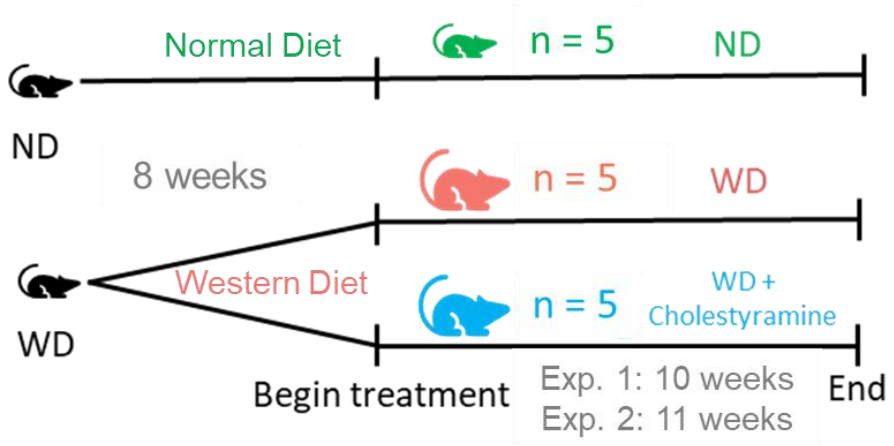
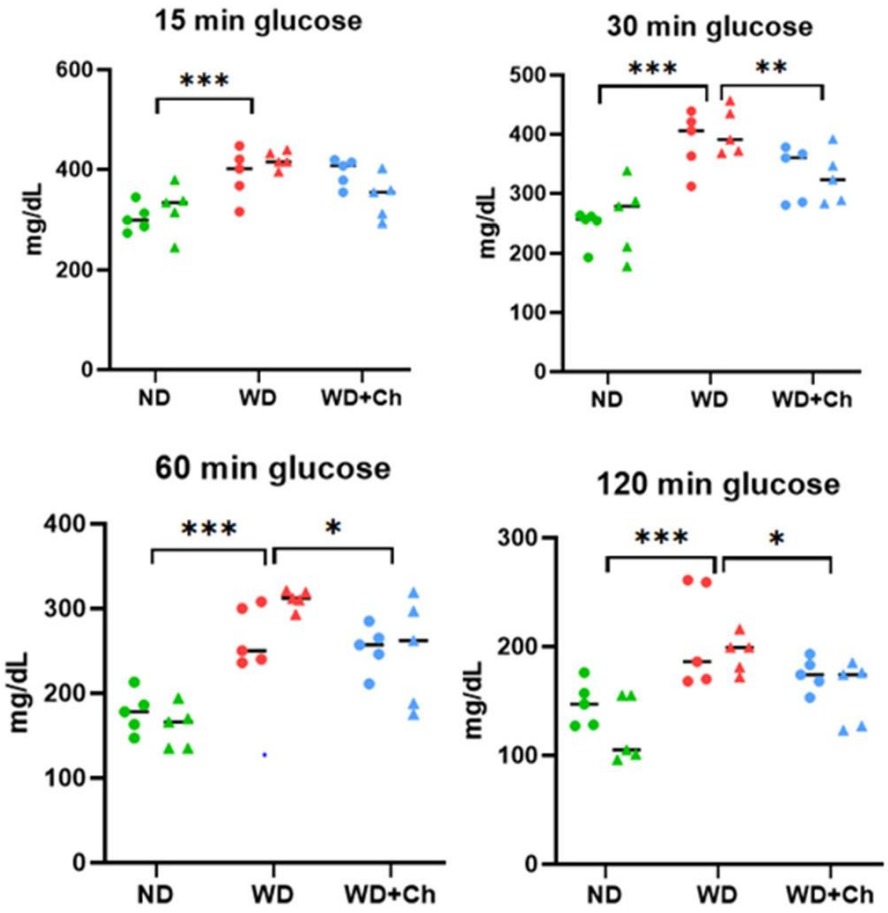


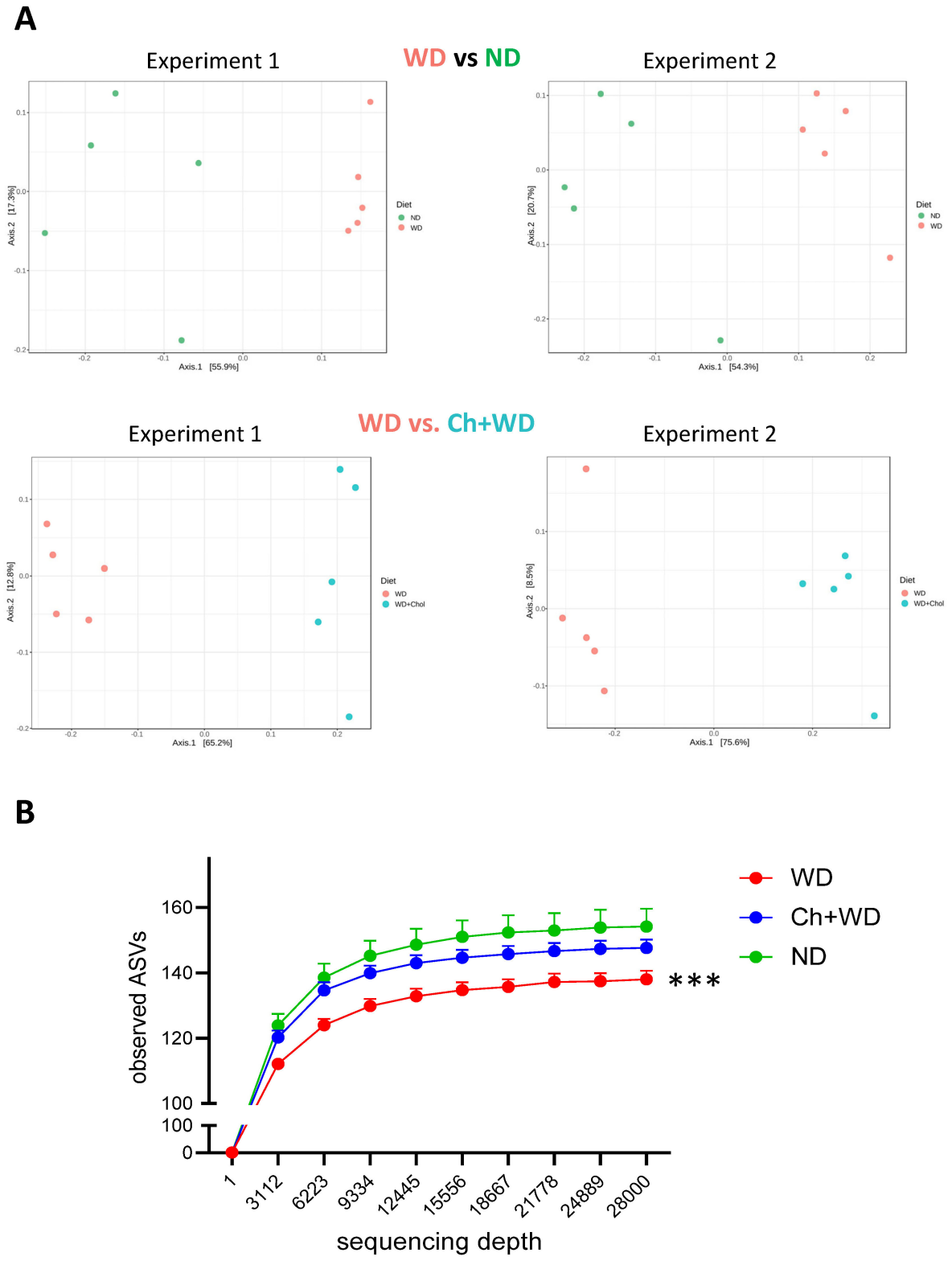
Supplemental Figure 1. Experimental design of the study that consisted of 2 experiments with 15 mice in each and total of 30 mice. In experiment 2, mice were treated with cholestyramine for 11 instead of 10 weeks because of the personnel health issues. ND, normal diet; WD, western diet.

Gene Name	Forward Primer (5'→3')	Reverse Primer (5'→3')
Fgf15	GCCATCAAGGACGTCAGCA	CTTCCTCCGAGTAGCGAATCAG
Gcg	TTACTTTGTGGCTGGATTGCTT	AGTGGCGTTTGTCTTCATTCA
Shp	TGGGTCCCAAGGAGTATGC	GCTCCAAGACTTCACACAGTG
Fxr (Nr1h4)	TGGGCTCCGAATCCTCTTAGA	TGGTCCTCAAATAAGATCCTTGG
Cyp7a1	TGGGGGATTGCTGTGGTAGT	AGCACAGCCCAGGTATGGAA
Tgr5	CTGTGTGAGATCCGCCGAC	CGACGCTCATAGGCCAAGA
Polr2c	CTCACCGAAGAGAACGTCAAG	TCGATGGCTATTATGGGCACC

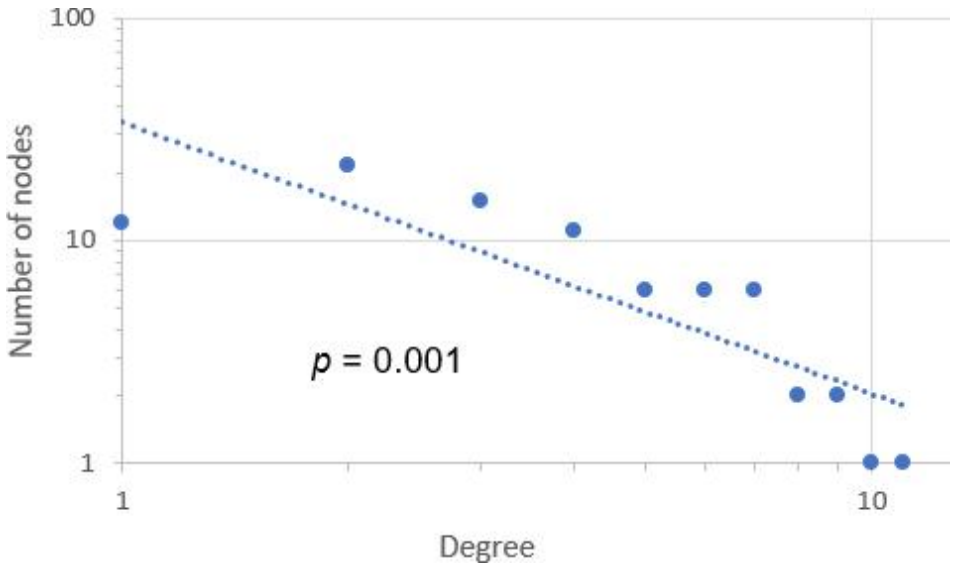
Supplementary Figure 2. Primers used for quantitative RT-PCR and were designed by the lab.



Supplementary Figure 3. Blood glucose levels 15, 30, 60, and 120 minutes after intraperitoneal glucose injection. Different symbol shapes indicate two experiments. ND, normal diet; WD, western diet; Ch, cholestyramine



Supplementary Figure 4. (A) PCoA plots showing feature-level differences of ASVs between treatment groups; (B) Depth of sequencing and number of observed ASVs showing that WD group has lower richness than the other two groups. ***$P < 0.001$. ND: Normal diet; WD: western diet; Ch: cholestyramine.



Supplementary Figure 5. The cholestyramine network follows a power-law degree distribution typical for a regulatory network.