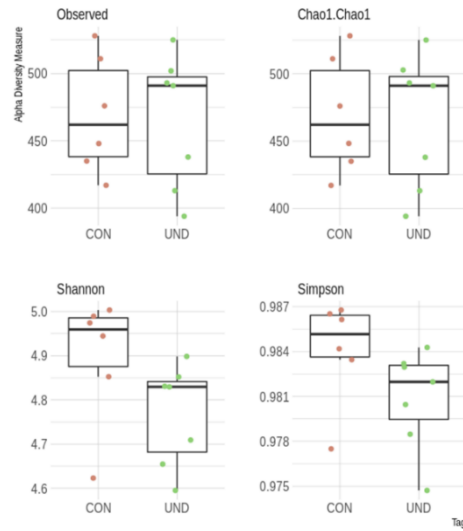
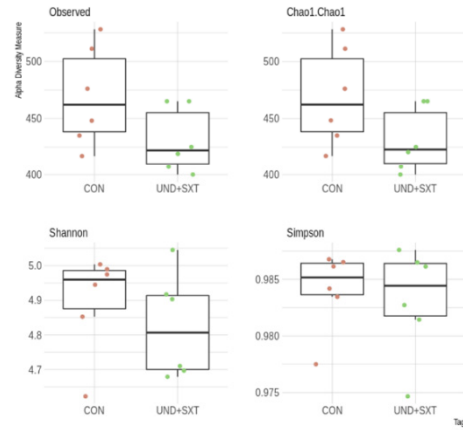


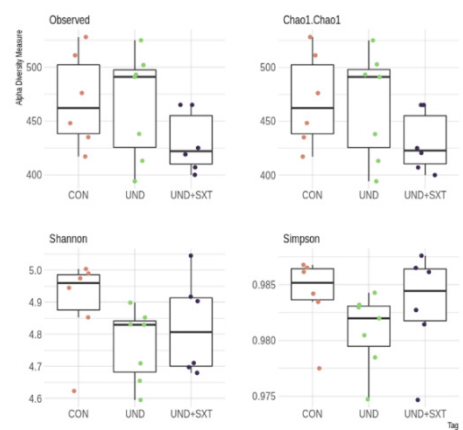
A



B



C



**Figure S1.** Richness (Observed and Chao1) and diversity (Shannon and Simpson) indexes for the gut microbiota. (a) Control (CON) and undernourished (UND) C57BL/6 mice. (b) Control (CON) and cotrimoxazole-treated undernourished (UND-SXT) C57BL/6 mice. (c) Control (CON), undernourished (UND), and cotrimoxazole-treated undernourished (UND-SXT) C57BL/6 mice.

**Table S1.** ANCOM-BC analysis showing W test statistic (mean difference/SE), p-value and FRD p-value for differently significant genus in the gut microbiota of CON (n = 6), UND (n = 7), and UND+SXT (n = 6) C57BL/6 mice. \* Increased in UND+SXT mice when compared to CON and UND mice; \*\* reduced in UND+SXT mice when compared to CON and UND mice.

Family	Genus	W	p-value	FDR p-value
S24-7	Unclassified	67.039100	0.0000000	0.0000000
Enterobacteriaceae	<i>Klebsiella</i>	8.339968	0.0000000	0.0000000
Alcaligenaceae	<i>Sutterella</i> **	45.898923	0.0000000	0.0000000
Porphyromonadaceae	<i>Parabacteroides</i> **	16.378670	0.0005552	0.0030702
Caulobacteraceae	Unclassified	20.140173	0.0000847	0.0005601
F16	Unclassified	16.822358	0.0004447	0.0025546
Enterobacteriaceae	Unclassified	21.668384	0.0000394	0.0002756
Lachnospiraceae	<i>Coproccoccus</i>	10.504023	0.0104739	0.0398010
Ruminococcaceae	<i>Faecalibacterium</i>	25.202518	0.0000067	0.0000780
Turicibacteraceae	<i>Turicibacter</i>	1.225840	0.0000000	0.0000000
Streptococcaceae	<i>Lactococcus</i> **	1.612983	0.0000000	0.0000000
Pasteurellaceae	<i>Haemophilus</i> **	10.896281	0.0000000	0.0000000
Clostridiaceae	<i>Candidatus Arthromitus</i> **	13.439776	0.0024133	0.0114634
Clostridiaceae	Unclassified**	45.393331	0.0000000	0.0000000
Ruminococcaceae	<i>Anaerotruncus</i> *	3.069544	0.0000000	0.0000000
Streptococcaceae	<i>Streptococcus</i> **	25.239520	0.0000066	0.0000780
Veillonellaceae	<i>Veillonella</i> **	25.138432	0.0000070	0.0000780
[Odoribacteraceae]	<i>Odoribacter</i> **	14.062713	0.0017675	0.0085045
Campylobacteraceae	<i>Campylobacter</i>	24.745761	0.0000085	0.0000780
Lachnospiraceae	<i>Anaerostipes</i> **	5.570561	0.0000000	0.0000000
Coriobacteriaceae	<i>Adlercreutzia</i> **	16.787884	0.0000000	0.0000000
Sphingomonadaceae	<i>Sphingomonas</i>	10.801724	0.0090254	0.0355734
Clostridiaceae	<i>Clostridium</i> **	53.433144	0.0000000	0.0000000
Lachnospiraceae	<i>Lachnospira</i>	25.166225	0.0000069	0.0000780