

Descriptions of Additional Supplementary Files

Supplementary Data 1

Description: MaAsLin2 genus-level associations with significant clinical metadata variables in PC patient microbiota.

Supplementary Data 2

Description: ALDEx2 effect sizes for pathway abundances of predicted bacterial metagenomes in ADT relative to CTRL patient rectal swab samples.

Supplementary Data 3

Description: ALDEx2 effect sizes for pathway abundances of predicted bacterial metagenomes in ADT+AA relative to CTRL patient rectal swab samples.

Supplementary Data 4

Description: MaAsLin2 associations between prostate cancer treatment group and pathway abundance of predicted bacterial metagenomes in patient rectal swab samples.

Supplementary Data 5

Description: ALDEx2 effect sizes for predicted metabolic pathways in AA-exposed gut model samples.

Supplementary Data 6

Description: MaAsLin2 associations between AA exposure and metabolic pathway abundances in simulated gut model samples.

Supplementary Data 7

Description: Read count table stratified by taxonomy for PICRUSt2 predicted bacterial metagenome of PC patient samples.

Supplementary Data 8

Description: Read count table stratified by taxonomy for PICRUSt2 predicted bacterial metagenome of simulated gut samples.