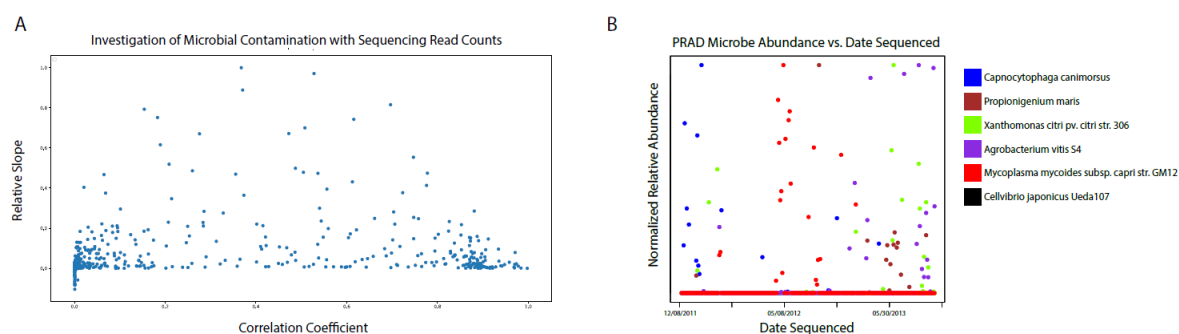# Supplementary Materials: Influence of Intratumor Microbiome on Clinical Outcome and Immune Processes in Prostate Cancer

Jiayan Ma, Aditi Gnanasekar, Abby Lee, Wei Tse Li, Martin Haas, Jessica Wang-Rodriguez, Eric Y. Chang , Mahadevan Rajasekaran and Weg M. Ongkeko

Figure S1. (A) Microbial contamination correction with sequencing read counts. R-squared and slope was calculated to detect contaminants, microbes with large slopes. **(B)** Contamination correction by date sequenced.

Table S1. Microbes in PC. Columns "Role in PC" and "Correlation" are written according to results found in this study. Column "Known Function" is written according to prior research.

Microbe	Role in PC	Known Function	Correlation
Pediococcus pentosaceus	Anti-tumor	Mitigate colon cancer	Gleason score
Listeria monocytogenes (Lm)	Anti-tumor	Stimulate proinflammatory cytokines and trigger immune response	Gleason score
Lactobacillus crispatus	Anti-tumor	Causes reduction in tumor size in breast cancer	Gleason score
Bacillus halodurans	Anti-tumor		Gleason score
Nevskia ramosa	Pro-tumor		Gleason score
Methylobacterium radiotolerans JCM 2831	Anti-tumor		TNM staging
Meiothermus silvanus DSM 9946	Anti-tumor		TNM staging
Rhodococcus erythropolis PR4	Anti-tumor	Associated with immunosuppression	TNM staging
Methylobacterium radiotolerans	Anti-tumor	Associated with immunosuppression	TNM staging
Stenotrophomonas maltophilia	Anti-tumor	Associated with infection	TNM staging
Thermus thermophilus	Pro-tumor	Anti-tumor according to past research; inhibits cancer growth	PSA
Campylobacter concisus	Pro-tumor	Induces inflammation	PSA
Streptococcus pneumoniae	Pro-tumor		PSA
Xanthomonas albilineans GPE PC73	Anti-tumor		PSA
Herminiimonas arsenicoxydans	Anti-tumor		PSA

Pseudarthrobacter chlorophenolicus	Anti-tumor		PSA
D. acidovorans SPH-1	Pro-tumor	Associated with immunosuppression and infection	Genomic alterations and dysregulated IA genes
N. hamburgensis X 14	Pro-tumor		Genomic alterations and dysregulated IA genes
S. aureus	Pro-tumor	Causes prostate abscess/inflammation	Genomic alterations, dysregulated IA genes, PCSC gene expression
G. vaginalis	Pro-tumor	Strongly associated with infection	Genomic alterations and dysregulated IA genes
Bradyrhizobium elkanii	Anti-tumor		AR expression
Ochrobactrum anthropi ATCC 49188	Anti-tumor		AR expression
Bradyrhizobium japonicum	Anti-tumor		AR expression
Escherichia coli ETEC H10407	Pro-tumor		AR expression
Escherichia coli str. K-12 substr. MG1655	Pro-tumor		AR expression
Paraburkholderia phymatum STM815	Pro-tumor		PCSC gene expression
Pseudomonas putida F1	Pro-tumor		PCSC gene expression
Haemophilus parainfluenzae T3T1	Pro-tumor		PCSC gene expression
Stackebrandtia nassauensis DSM 44728	Pro-tumor	Breaks down uric acid	
Mycoplasma hyorhinis HUB-1	Pro-tumor	Activates the NLRP3 Inflammasome and MMP2, phosphorylation of EGFR, promotes migration and invasion of gastric cancer cells	