Table S4. Comparison of microbiome data to clinical and immunological data

Table E4A. Comparison of microbiome data to patient demographics, treatment, and outcomes.

	Redondoviridae OP	Anelloviridae OP	Anelloviridae NP	Redondoviridae + Anelloviridae OP	Bacterial Diversity OP	Bacterial Diversity NP	Weighted Unifrac OP	Weighted Unifrac NP	Weighted Unifrac OP	Weighted Unifrac NP	Unweighted Unifrac OP	Unweighted Unifrac NP	Unweighted Unifrac OP	Unweighted Unifrac NP
	presence/absence	presence/absence	presence/absence	presence/absence	Simpson index	Simpson index	PCoA Axis 1	PCoA Axis 1	PCoA Axis 2	PCoA Axis 2	PCoA Axis 1	PCoA Axis 1	PCoA Axis 2	PCoA Axis 2
Age	1.62E-01	9.65E-01	7.68E-01	5.03E-01	7.68E-01	7.68E-01	7.68E-01	7.68E-01	7.68E-01	7.68E-01	7.68E-01	7.68E-01	7.68E-01	7.68E-01
Gender (male/female)	4.94E-01	7.68E-01	6.98E-01	1.00E+00	5.03E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
BMI	4.85E-01	5.78E-01	3.96E-01	2.73E-01	9.16E-01	5.78E-01	5.78E-01	5.78E-01	5.78E-01	5.78E-01	5.78E-01	5.78E-01	5.78E-01	5.78E-01
Hydroxychloroquine (yes/no)	1.49E-01	1.01E-01	1.00E+00	1.23E-02	5.03E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01
Remdesivir (yes/no)	7.54E-01	1.00E+00	4.85E-01	7.22E-01	1.00E+00	4.85E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01
Corticosteroids (yes/no)	1.00E+00	4.98E-01	7.68E-01	4.85E-01	1.01E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01
Chemo immunosupression (yes/no)	1.00E+00	1.00E+00	9.21E-01	7.68E-01	9.65E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
Intubation (yes/no)	2.02E-02	2.23E-02	5.03E-01	3.67E-04	1.62E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01	4.85E-01
WHO score (4-6/7-10)	1.21E-01	5.01E-02	7.68E-01	3.49E-03	2.02E-02	7.68E-01	7.68E-01	7.68E-01	7.68E-01	7.68E-01	7.68E-01	7.68E-01	7.68E-01	7.68E-01
Outcome (live/dead)	1.00E+00	6.96E-01	9.65E-01	8.07E-01	1.88E-01	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00

Table S4B. Comparison of microbiome data to clinical laboratory data.

	Redondoviridae OP	Anelloviridae OP	Anelloviridae NP	Redondoviridae + Anelloviridae OP	Bacterial Diversity OP	Bacterial Diversity NP	Weighted Unifrac OP	Weighted Unifrac NP	Weighted Unifrac OP	Weighted Unifrac NP	Unweighted Unifrac OP	Unweighted Unifrac NP	Unweighted Unifrac OP	Unweighted Unifrac NP
	presence/absence	presence/absence	presence/absence	presence/absence	Simpson index	Simpson index	PCoA Axis 1	PCoA Axis 1	PCoA Axis 2	PCoA Axis 2	PCoA Axis 1	PCoA Axis 1	PCoA Axis 2	PCoA Axis 2
Platelets	8.54E-01	8.77E-01	9.45E-01	8.77E-01	8.77E-01	9.15E-01	9.03E-01	8.77E-01	8.77E-01	8.54E-01	9.29E-01	8.54E-01	8.54E-01	8.54E-01
Procalcitonin	8.54E-01	8.54E-01	8.54E-01	8.54E-01	8.77E-01	9.98E-01	8.94E-01	9.98E-01	8.54E-01	8.62E-01	8.54E-01	8.77E-01	8.54E-01	9.90E-01
C-reactive protein	8.77E-01	9.65E-01	8.62E-01	9.45E-01	9.56E-01	9.65E-01	8.54E-01	8.54E-01	9.65E-01	8.54E-01	8.77E-01	8.54E-01	8.54E-01	9.15E-01
Ferritin	8.54E-01	8.77E-01	8.77E-01	9.15E-01	8.54E-01	8.54E-01	8.77E-01	8.54E-01	9.15E-01	9.90E-01	9.15E-01	8.77E-01	8.77E-01	8.54E-01
D-dimer	8.77E-01	8.54E-01	8.54E-01	8.54E-01	8.54E-01	8.54E-01	8.54E-01	8.54E-01	9.98E-01	8.54E-01	8.54E-01	9.15E-01	8.77E-01	9.90E-01
Troponin-T	8.54E-01	9.45E-01	8.54E-01	8.54E-01	8.54E-01	9.15E-01	4.36E-02	9.98E-01	9.15E-01	8.54E-01	8.77E-01	9.98E-01	8.54E-01	5.36E-01

Table S4C. Comparison of microbiome data to Lymphocyte-to-Neutrophil ratios.

	Redondoviridae OP	Anelloviridae OP	Anelloviridae NP	Redondoviridae + Anelloviridae OP	Bacterial Diversity OP	Bacterial Diversity NP	Weighted Unifrac OP	Weighted Unifrac NP	Weighted Unifrac OP	Weighted Unifrac NP	Unweighted Unifrac OP	Unweighted Unifrac NP	Unweighted Unifrac OP	Unweighted Unifrac NP
	presence/absence	presence/absence	presence/absence	presence/absence	Simpson index	Simpson index	PCoA Axis 1	PCoA Axis 1	PCoA Axis 2	PCoA Axis 2	PCoA Axis 1	PCoA Axis 1	PCoA Axis 2	PCoA Axis 2
Lymphocyte/ Neutrophil ratio	2.30E-01	3.25E-01	7.07E-01	2.22E-01	2.95E-02	3.25E-01	4.57E-01	1.93E-01	1.40E-02	2.30E-01	3.99E-01	4.57E-01	8.40E-03	3.25E-01

Table S4D. Comparison of microbiome data to immune profiling available on 34 subjects.

	Redondoviridae OP	Anelloviridae OP	Anelloviridae NP	Redondoviridae + Anelloviridae OP	Bacterial Diversity OP	Bacterial Diversity NP	Weighted Unifrac OP	Weighted Unifrac NP	Weighted Unifrac OP	Weighted Unifrac NP	Unweighted Unifrac OP	Unweighted Unifrac NP	Unweighted Unifrac OP	Unweighted Unifrac NP
	presence/absence	presence/absence	presence/absence	presence/absence	Simpson index	Simpson index	PCoA Axis 1	PCoA Axis 1	PCoA Axis 2	PCoA Axis 2	PCoA Axis 1	PCoA Axis 1	PCoA Axis 2	PCoA Axis 2
UMAP component1	9.53E-01	7.61E-01	8.26E-01	5.90E-01	5.29E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01
UMAP component2	5.64E-01	9.59E-01	9.15E-01	5.76E-01	6.36E-01	5.90E-01	5.90E-01	5.90E-01	5.90E-01	5.90E-01	5.90E-01	5.90E-01	5.90E-01	5.90E-01
immunotype3	9.95E-01	8.23E-01	9.95E-01	9.68E-01	1.30E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01
percOf_Live_Bcell	7.61E-01	6.45E-01	9.15E-01	5.72E-01	2.56E-01	8.23E-01	8.23E-01	8.23E-01	8.23E-01	8.23E-01	8.23E-01	8.23E-01	8.23E-01	8.23E-01
percOf_Bcell_BcellPB	9.59E-01	9.59E-01	7.70E-01	9.59E-01	7.61E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01
percOf_Live_Tcell	5.72E-01	6.60E-01	7.61E-01	1.79E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01
percOf_Tcell_CD4	7.97E-01	5.29E-01	1.78E-01	5.29E-01	9.59E-01	5.72E-01	5.72E-01	5.72E-01	5.72E-01	5.72E-01	5.72E-01	5.72E-01	5.72E-01	5.72E-01
percOf_CD4_CD4cTfh	9.53E-01	9.59E-01	9.42E-01	9.53E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01
percOf_CD8nonNaive_HLADRposCD38p	9.53E-01	9.68E-01	7.61E-01	7.61E-01	1.30E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01
percOf_Tcell_CD8	7.61E-01	5.29E-01	1.78E-01	5.16E-01	9.59E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01
percOf_CD8nonNaive_KI67pos	9.59E-01	7.61E-01	6.12E-01	5.90E-01	2.64E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01	7.61E-01
percOf_CD4nonNaive_KI67pos	9.92E-01	7.61E-01	8.23E-01	5.76E-01	6.33E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01
percOf_CD4nonNaive_HLADRposCD38p	9.53E-01	7.11E-01	7.28E-01	5.18E-01	5.72E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01	9.59E-01
percOf_CD8_CD8EMRA	8.23E-01	7.61E-01	9.59E-01	5.29E-01	9.59E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01