

Table S2. Taxa that are differentially abundant in cutaneous penile samples in day-0 vs day-8 specimens and day-0 vs endpoint specimens (ALDEX2 analysis)

| Taxon ^a | Mean relative abundance at Day 0 (%) | Mean relative abundance at Day-8 (%) | Mean relative abundance at Endpoint (%) | Day 0 vs Day-8 | | | Day-0 vs Endpoint | | |
|--------------------------------------|--------------------------------------|--------------------------------------|---|----------------------|--------------------|--------------------------|-------------------|----------|-------|
| | p-value ^b | FDR-p ^c | Effect size ^d | p-value ^e | FDR-p ^f | Effect size ^g | | | |
| <i>Anaerococcus</i> * | 5.53 | 0.15 | 3.70 | 1.49E-08 | 2.02E-06 | -2.32 | 8.41E-02 | 4.04E-01 | -0.23 |
| <i>Peptoniphilus</i> * | 8.42 | 0.17 | 5.38 | 4.00E-07 | 1.92E-05 | -1.65 | 1.60E-02 | 1.89E-01 | -0.35 |
| <i>Finegoldia</i> * | 13.39 | 0.45 | 11.83 | 1.42E-06 | 5.38E-05 | -1.66 | 4.35E-01 | 7.65E-01 | -0.12 |
| <i>Prevotella</i> spp. unclassified* | 8.01 | 0.20 | 3.53 | 1.18E-05 | 2.95E-04 | -1.20 | 5.40E-02 | 3.26E-01 | -0.26 |
| <i>Dialister</i> | 4.01 | 0.38 | 1.99 | 1.87E-04 | 2.09E-03 | -0.91 | 1.09E-01 | 4.24E-01 | -0.27 |
| <i>Staphylococcus</i> * | 8.86 | 41.43 | 12.89 | 2.19E-04 | 3.36E-03 | 0.84 | 1.27E-02 | 1.83E-01 | 0.34 |
| <i>Prevotella timonensis</i> * | 2.34 | 0.23 | 0.91 | 4.13E-04 | 3.96E-03 | -0.86 | 4.37E-03 | 1.07E-01 | -0.64 |
| <i>Porphyromonas</i> * | 2.97 | 0.03 | 1.46 | 4.25E-04 | 4.19E-03 | -0.81 | 3.41E-01 | 6.45E-01 | -0.15 |
| <i>Campylobacter</i> * | 1.26 | 0.01 | 0.92 | 1.11E-03 | 8.27E-03 | -0.77 | 3.78E-01 | 7.01E-01 | -0.19 |
| <i>Actinomyces</i> * | 0.91 | 0.32 | 0.48 | 8.33E-04 | 8.69E-03 | -0.77 | 1.03E-02 | 1.69E-01 | -0.41 |
| <i>Prevotella disiens</i> * | 1.87 | 0.02 | 1.33 | 2.85E-03 | 1.67E-02 | -0.72 | 2.56E-02 | 2.16E-01 | -0.40 |
| <i>Peptostreptococcus</i> * | 0.64 | 0.00 | 0.38 | 1.44E-02 | 4.96E-02 | -0.59 | 1.75E-01 | 5.07E-01 | -0.25 |
| <i>Negativicoccus</i> | 0.89 | 0.00 | 0.13 | 1.34E-02 | 5.02E-02 | -0.54 | 6.11E-02 | 3.19E-01 | -0.42 |
| <i>Escherichia/Shigella</i> | 1.47 | 3.05 | 5.82 | 1.31E-02 | 5.30E-02 | 0.49 | 7.79E-01 | 9.17E-01 | 0.01 |
| <i>DNF00809</i> | 0.24 | 0.00 | 0.01 | 1.71E-02 | 5.51E-02 | -0.58 | 1.18E-02 | 1.50E-01 | -0.58 |
| <i>Prevotella bivia</i> | 3.28 | 0.00 | 1.99 | 1.56E-02 | 6.12E-02 | -0.56 | 7.25E-01 | 8.95E-01 | -0.02 |
| <i>Howardella</i> | 0.08 | 0.00 | 0.03 | 3.43E-02 | 8.68E-02 | -0.53 | 5.64E-02 | 2.86E-01 | -0.35 |
| <i>Varibaculum</i> | 0.08 | 0.00 | 0.09 | 3.64E-02 | 9.33E-02 | -0.48 | 1.25E-01 | 4.02E-01 | -0.29 |
| <i>Pseudomonas</i> | 0.07 | 7.01 | 3.95 | 3.71E-02 | 9.62E-02 | 0.36 | 1.65E-01 | 4.36E-01 | 0.23 |
| <i>Fenollarria</i> | 1.85 | 0.02 | 0.72 | 3.99E-02 | 1.02E-01 | -0.38 | 4.22E-01 | 7.03E-01 | -0.11 |
| <i>Atopobium vaginiae</i> | 0.61 | 0.02 | 0.00 | 9.03E-02 | 1.85E-01 | -0.40 | 9.62E-03 | 1.33E-01 | -0.60 |
| <i>Enterococcus</i> | 0.54 | 2.65 | 2.17 | 1.06E-01 | 1.96E-01 | 0.25 | 4.89E-02 | 2.86E-01 | 0.35 |

^aOnly those taxa with a p-value <0.05 for either the Day-0 vs Day-8 or Day-0 vs Endpoint comparison are shown in this table. * FDR-p<0.05 for Day-0 vs Day-8 comparison

^bExpected P value of Wilcoxon rank test

^cExpected Benjamini-Hochberg corrected P value of Wilcoxon test. Bold indicates statistically significant difference at FDR-p<0.05

^dMedian difference in CLR transformed abundance between Day-0 vs Day-8 groups /median of the largest difference in CLR transformed abundance within Day-0 and Day-8 groups

^eExpected P value of Wilcoxon rank test

^fExpected Benjamini-Hochberg corrected P value of Wilcoxon test. Bold indicates statistically significant difference at FDR-p<0.05

^gMedian difference in CLR transformed abundance between Day-0 vs Endpoint groups /median of the largest difference in CLR transformed abundance within Day-0 and