

Table S3: Table of pairwise gene content comparisons for each individual showing the relatedness of genomes within and across clades.

| Subject | Total no. of clades | No. of clades with multiple isolates | No. of isolates in shared clades | <i>Genomes in shared clades</i> | | <i>Genomes in different clades</i> | |
|----------|---------------------|--------------------------------------|----------------------------------|---------------------------------|--------------------|------------------------------------|--------------------|
| | | | | Average no. of variable genes | Standard deviation | Average no. variable genes | Standard deviation |
| 1_110_08 | 5 | 3 | 7 | 64.6 | 18.6 | 2597.4 | 381.1 |
| 1_176_05 | 4 | 2 | 6 | 142.7 | 69.5 | 2549 | 627.8 |
| 1_182_04 | 3 | 3 | 9 | 317.1 | 435.9 | 2664.6 | 432.9 |
| 1_250_04 | 3 | 3 | 7 | 78.4 | 33.5 | 2708.1 | 503.8 |
| 1_392_07 | 4 | 3 | 7 | 95.8 | 73.3 | 2942.4 | 298.3 |
| 2_005_03 | 5 | 3 | 7 | 68.2 | 26.8 | 3170.8 | 565.8 |
| 2_011_08 | 6 | 2 | 4 | 36.5 | 14.8 | 2639.3 | 436.1 |
| 2_052_05 | 5 | 2 | 5 | 99.5 | 82.9 | 2781.5 | 653.1 |
| 2_156_04 | 7 | 0 | 0 | N/A | N/A | 2428.1 | 433.7 |
| 2_177_06 | 6 | 2 | 5 | 99.3 | 55.6 | 2450.3 | 242.3 |
| 2_210_07 | 6 | 2 | 4 | 66 | 58 | 2288.3 | 409.2 |
| 2_222_05 | 4 | 3 | 8 | 261.9 | 335.9 | 2661.6 | 186.5 |
| 2_316_03 | 6 | 1 | 2 | 42 | N/A | 2816.6 | 611.6 |
| 2_427_07 | 5 | 2 | 5 | 628.8 | 601.5 | 2501.4 | 823.4 |
| 2_460_02 | 4 | 3 | 8 | 131.7 | 106.9 | 2896 | 725.4 |
| 2_474_04 | 4 | 2 | 6 | 107.7 | 84 | 2433.8 | 328.5 |
| 3_020_07 | 4 | 3 | 7 | 79 | 23.6 | 2653.1 | 483.6 |
| 3_073_06 | 5 | 2 | 4 | 150.5 | 92.6 | 2792.4 | 455.8 |
| 3_105_05 | 7 | 2 | 4 | 86 | 65.1 | 2545.6 | 642.1 |
| 3_267_03 | 6 | 1 | 2 | 61 | N/A | 2566.8 | 391.8 |
| 3_373_03 | 4 | 3 | 8 | 76 | 32.8 | 2387.1 | 252.2 |
| 3_475_03 | 6 | 0 | 0 | N/A | N/A | 2676.2 | 302.2 |
| 4_203_08 | 3 | 3 | 8 | 88.7 | 69.6 | 2008.9 | 255.9 |
| 5_172_05 | 4 | 1 | 3 | 156.7 | 35.9 | 2010.2 | 280.9 |
| 5_366_08 | 5 | 2 | 4 | 197 | 69.3 | 3010.4 | 210.3 |
| 6_175_07 | 4 | 3 | 8 | 227.6 | 130.8 | 3045.9 | 236.2 |
| 6_319_05 | 3 | 3 | 8 | 285.3 | 172.5 | 2968.1 | 589.4 |
| 6_537_08 | 3 | 3 | 8 | 158.9 | 60.1 | 2444.4 | 214.5 |
| 7_233_03 | 5 | 3 | 6 | 219 | 177.8 | 1833.7 | 377 |
| 8_415_05 | 2 | 2 | 8 | 114.3 | 65.6 | 3399.6 | 57.8 |
| | | | Mean | 147.9 | 120.1 | 2629.1 | 339.4 |