

## Supplementary Materials

Table S1. List of Isolates

| Number | Isolation Year | Collection Method | Growth at 10 µg/ml<br>Azithromycin | Growth at 100 µg/ml<br>Azithromycin | <i>ermA</i> |
|--------|----------------|-------------------|------------------------------------|-------------------------------------|-------------|
| 1      | 2017           | void              | 1                                  | 0                                   | 0           |
| 2      | 2017           | cath              | 1                                  | 0                                   | 0           |
| 3      | 2017           | cath              | 1                                  | 1                                   | 1           |
| 4      | 2017           | cath              | 1                                  | 0                                   | 0           |
| 5      | 2017           | void              | 1                                  | 1                                   | 1           |
| 6      | 2017           | void              | 1                                  | 1                                   | 1           |
| 7      | 2017           | pswab             | 1                                  | 0                                   | 0           |
| 8      | 2017           | vswab             | 1                                  | 0                                   | 0           |
| 9      | 2017           | cath              | 1                                  | 1                                   | 1           |
| 10     | 2017           | vswab             | 1                                  | 1                                   | 1           |
| 11     | 2017           | pswab             | 1                                  | 1                                   | 1           |
| 12     | 2017           | void              | 1                                  | 1                                   | 1           |
| 13     | 2017           | vswab             | 1                                  | 0                                   | 0           |
| 14     | 2017           | pswab             | 1                                  | 0                                   | 0           |
| 15     | 2017           | void              | 1                                  | 0                                   | 0           |
| 16     | 2018           | void              | 1                                  | 0                                   | 0           |
| 17     | 2018           | vswab             | 1                                  | 1                                   | 1           |
| 18     | 2018           | void              | 1                                  | 0                                   | 0           |
| 19     | 2018           | cath              | 1                                  | 1                                   | 1           |
| 20     | 2018           | cath              | 1                                  | 0                                   | 0           |
| 21     | 2018           | cath              | 1                                  | 1                                   | 1           |
| 22     | 2018           | void              | 1                                  | 0                                   | 0           |
| 23     | 2018           | cath              | 1                                  | 0                                   | 0           |
| 24     | 2018           | vswab             | 1                                  | 0                                   | 0           |
| 25     | 2018           | pswab             | 1                                  | 0                                   | 0           |
| 26     | 2018           | void              | 1                                  | 1                                   | 1           |
| 27     | 2018           | void              | 1                                  | 1                                   | 1           |
| 28     | 2018           | void              | 1                                  | 0                                   | 1           |
| 29     | 2018           | cath              | 1                                  | 0                                   | 0           |
| 30     | 2018           | cath              | 1                                  | 0                                   | 0           |
| 31     | 2018           | vswab             | 0                                  | 0                                   | 0           |
| 32     | 2018           | cath              | 1                                  | 1                                   | 1           |
| 33     | 2018           | cath              | 1                                  | 1                                   | 1           |
| 34     | 2018           | cath              | 1                                  | 0                                   | 0           |
| 35     | 2018           | void              | 0                                  | 0                                   | 0           |
| 36     | 2018           | cath              | 1                                  | 0                                   | 0           |
| 37     | 2018           | pswab             | 1                                  | 0                                   | 0           |
| 38     | 2018           | void              | 0                                  | 0                                   | 0           |
| 39     | 2018           | vswab             | 1                                  | 0                                   | 0           |
| 40     | 2018           | cath              | 1                                  | 0                                   | 0           |

|    |      |       |   |   |   |
|----|------|-------|---|---|---|
| 41 | 2018 | void  | 1 | 0 | 0 |
| 42 | 2018 | void  | 1 | 0 | 0 |
| 43 | 2018 | vswab | 0 | 0 | 0 |
| 44 | 2018 | pswab | 0 | 0 | 0 |
| 45 | 2018 | upper | 1 | 0 | 0 |
| 46 | 2018 | vswab | 1 | 0 | 0 |
| 47 | 2018 | cath  | 1 | 1 | 1 |
| 48 | 2018 | cath  | 0 | 0 | 0 |
| 49 | 2018 | void  | 0 | 0 | 0 |
| 50 | 2018 | void  | 0 | 0 | 0 |
| 51 | 2018 | vswab | 0 | 0 | 0 |
| 52 | 2018 | void  | 1 | 0 | 0 |
| 53 | 2018 | cath  | 0 | 0 | 0 |
| 54 | 2018 | void  | 1 | 0 | 0 |
| 55 | 2018 | pswab | 0 | 0 | 0 |
| 56 | 2018 | void  | 1 | 1 | 1 |
| 57 | 2018 | cath  | 1 | 1 | 1 |
| 58 | 2018 | cath  | 1 | 1 | 1 |
| 59 | 2018 | cath  | 1 | 1 | 1 |
| 60 | 2018 | pswab | 0 | 0 | 0 |
| 61 | 2018 | pswab | 1 | 0 | 0 |
| 62 | 2018 | cath  | 0 | 0 | 0 |
| 63 | 2018 | vswab | 1 | 1 | 1 |
| 64 | 2018 | void  | 1 | 1 | 1 |
| 65 | 2018 | pswab | 1 | 1 | 1 |
| 66 | 2018 | cath  | 1 | 1 | 1 |
| 67 | 2018 | vswab | 0 | 0 | 0 |
| 68 | 2018 | pswab | 0 | 0 | 0 |
| 69 | 2018 | void  | 0 | 0 | 0 |
| 70 | 2018 | vswab | 1 | 1 | 1 |
| 71 | 2019 | void  | 1 | 0 | 0 |
| 72 | 2019 | cath  | 1 | 1 | 0 |
| 73 | 2019 | vswab | 1 | 1 | 0 |
| 74 | 2019 | cath  | 0 | 0 | 0 |
| 75 | 2019 | cath  | 0 | 0 | 0 |
| 76 | 2019 | cath  | 0 | 0 | 0 |
| 77 | 2019 | cath  | 0 | 0 | 0 |
| 78 | 2020 | void  | 0 | 0 | 0 |
| 79 | 2020 | cath  | 1 | 1 | 1 |
| 80 | 2020 | cath  | 1 | 1 | 1 |
| 81 | 2020 | void  | 1 | 1 | 1 |
| 82 | 2020 | cath  | 1 | 1 | 1 |
| 83 | 2020 | void  | 0 | 0 | 0 |
| 84 | 2020 | cath  | 0 | 0 | 0 |
| 85 | 2021 | cath  | 1 | 1 | 1 |
| 86 | 2021 | void  | 1 | 1 | 1 |

|     |      |       |   |   |   |
|-----|------|-------|---|---|---|
| 87  | 2021 | cath  | 1 | 1 | 1 |
| 88  | 2021 | void  | 0 | 0 | 0 |
| 89  | 2021 | cath  | 1 | 1 | 1 |
| 90  | 2021 | cath  | 1 | 1 | 1 |
| 91  | 2021 | cath  | 1 | 0 | 0 |
| 92  | 2021 | void  | 1 | 1 | 1 |
| 93  | 2021 | cath  | 0 | 0 | 1 |
| 94  | 2021 | void  | 1 | 1 | 1 |
| 95  | 2021 | cath  | 1 | 0 | 0 |
| 96  | 2021 | cath  | 0 | 0 | 0 |
| 97  | 2021 | cath  | 0 | 0 | 1 |
| 98  | 2021 | cath  | 0 | 0 | 0 |
| 99  | 2021 | cath  | 1 | 1 | 1 |
| 100 | 2021 | cath  | 1 | 0 | 0 |
| 101 | 2021 | cath  | 1 | 0 | 0 |
| 102 | 2021 | void  | 1 | 1 | 1 |
| 103 | 2021 | cath  | 1 | 1 | 1 |
| 104 | 2021 | cath  | 1 | 0 | 0 |
| 105 | 2021 | cath  | 1 | 0 | 0 |
| 106 | 2021 | cath  | 0 | 0 | 0 |
| 107 | 2021 | cath  | 1 | 1 | 1 |
| 108 | 2021 | cath  | 1 | 1 | 1 |
| 109 | 2021 | cath  | 1 | 0 | 0 |
| 110 | 2021 | void  | 0 | 0 | 1 |
| 111 | 2021 | stone | 1 | 1 | 1 |
| 112 | 2021 | cath  | 1 | 0 | 0 |
| 113 | 2021 | cath  | 1 | 1 | 1 |
| 114 | 2021 | cath  | 1 | 0 | 0 |
| 115 | 2021 | cath  | 0 | 0 | 0 |
| 116 | 2021 | void  | 0 | 0 | 0 |
| 117 | 2021 | cath  | 1 | 0 | 0 |
| 118 | 2021 | cath  | 1 | 0 | 0 |
| 119 | 2021 | cath  | 1 | 0 | 0 |
| 120 | 2021 | void  | 1 | 1 | 1 |
| 121 | 2021 | cath  | 0 | 0 | 0 |
| 122 | 2021 | cath  | 1 | 0 | 0 |
| 123 | 2021 | cath  | 1 | 0 | 0 |
| 124 | 2021 | cath  | 1 | 0 | 0 |
| 125 | 2022 | cath  | 1 | 0 | 0 |
| 126 | 2022 | cath  | 1 | 0 | 0 |
| 127 | 2022 | void  | 1 | 1 | 1 |
| 128 | 2022 | cath  | 1 | 0 | 0 |
| 129 | 2022 | void  | 1 | 1 | 1 |
| 130 | 2022 | cath  | 1 | 1 | 1 |
| 131 | 2022 | cath  | 1 | 1 | 1 |
| 132 | 2022 | cath  | 1 | 1 | 1 |

|     |      |        |   |   |   |
|-----|------|--------|---|---|---|
| 133 | 2022 | cath   | 0 | 0 | 0 |
| 134 | 2022 | void   | 1 | 1 | 1 |
| 135 | 2022 | cath   | 1 | 0 | 1 |
| 136 | 2022 | cath   | 1 | 1 | 1 |
| 137 | 2022 | cath   | 1 | 1 | 1 |
| 138 | 2022 | cath   | 1 | 0 | 0 |
| 139 | 2022 | cath   | 1 | 1 | 1 |
| 140 | 2022 | void   | 1 | 0 | 0 |
| 141 | 2022 | vswab  | 1 | 0 | 0 |
| 142 | 2022 | cath   | 1 | 1 | 1 |
| 143 | 2023 | cath   | 1 | 0 | 0 |
| 144 | 2023 | cath   | 1 | 0 | 0 |
| 145 | 2023 | uswab  | 1 | 1 | 1 |
| 146 | 2023 | puswab | 1 | 0 | 0 |
| 147 | 2023 | CTIP   | 1 | 1 | 1 |
| 148 | 2023 | cath   | 1 | 1 | 1 |
| 149 | 2023 | cath   | 1 | 1 | 1 |
| 150 | 2023 | vswab  | 1 | 1 | 1 |
| 151 | 2023 | puswab | 1 | 0 | 0 |
| 152 | 2023 | uswab  | 1 | 1 | 1 |
| 153 | 2023 | cath   | 1 | 1 | 1 |
| 154 | 2023 | vswab  | 1 | 1 | 1 |
| 155 | 2023 | void   | 0 | 0 | 0 |
| 156 | 2023 | CTIP   | 1 | 0 | 0 |
| 157 | 2023 | void   | 0 | 0 | 0 |
| 158 | 2023 | void   | 0 | 0 | 0 |
| 159 | 2023 | void   | 0 | 0 | 0 |
| 160 | 2023 | cath   | 1 | 1 | 1 |
| 161 | 2023 | void   | 1 | 1 | 1 |
| 162 | 2023 | puswab | 1 | 1 | 1 |
| 163 | 2023 | cath   | 1 | 1 | 1 |
| 164 | 2023 | void   | 1 | 1 | 1 |
| 165 | 2023 | puswab | 0 | 0 | 0 |
| 166 | 2023 | vswab  | 1 | 1 | 1 |
| 167 | 2023 | void   | 1 | 1 | 1 |
| 168 | 2023 | void   | 1 | 1 | 1 |
| 169 | 2023 | vswab  | 1 | 1 | 1 |
| 170 | 2023 | cath   | 1 | 1 | 1 |
| 171 | 2023 | void   | 1 | 1 | 1 |
| 172 | 2023 | vswab  | 1 | 0 | 0 |
| 173 | 2023 | vswab  | 1 | 1 | 1 |
| 174 | 2023 | void   | 1 | 1 | 1 |
| 175 | 2023 | cath   | 1 | 1 | 1 |
| 176 | 2023 | vswab  | 1 | 1 | 1 |
| 177 | 2023 | puswab | 1 | 1 | 1 |
| 178 | 2023 | cath   | 1 | 1 | 1 |

|     |      |        |   |   |   |
|-----|------|--------|---|---|---|
| 179 | 2023 | vswab  | 1 | 1 | 1 |
| 180 | 2023 | cath   | 1 | 0 | 0 |
| 181 | 2023 | puswab | 1 | 0 | 0 |
| 182 | 2023 | vswab  | 1 | 1 | 1 |
| 183 | 2023 | vswab  | 1 | 0 | 0 |
| 184 | 2023 | cath   | 1 | 0 | 0 |
| 185 | 2023 | cath   | 1 | 1 | 1 |
| 186 | 2023 | cath   | 1 | 0 | 0 |
| 187 | 2023 | void   | 1 | 1 | 1 |
| 188 | 2023 | void   | 1 | 1 | 1 |
| 189 | 2023 | void   | 1 | 0 | 1 |

pswab = perineal swab, vswab = vaginal swab, uswab = urethral swab, CTIP = catheter tip, cath = transurethral catheter urine, void = voided urine, puswab = periurethral swab, stone = kidney stone. 1= positive result 0= negative result

**Table S2. List of Analyzed Genomes**

| Strain Name               | Accession No.   | BioProject  |
|---------------------------|-----------------|-------------|
| 151250009-4-258-51        | GCF_014050445.1 | PRJNA649272 |
| 151250015-1-258-55        | GCF_014050435.1 | PRJNA649272 |
| 151250015-2-258-56        | GCF_014050425.1 | PRJNA649272 |
| 1KP-2016                  | GCF_002252085.1 | PRJNA383933 |
| ACS-120-V-Col10a          | GCF_000193205.1 | PRJNA51073  |
| Aerococcus_suis_DSM_21500 | GCF_900176325.1 | PRJEB20326  |
| As-24-U13                 | GCF_905109795.1 | PRJEB36767  |
| As-25-U14                 | GCF_905125215.1 | PRJEB36767  |
| As-29b-U14                | GCF_905113005.1 | PRJEB36767  |
| As-34-B09                 | GCF_905115175.1 | PRJEB36767  |
| As-41-B14                 | GCF_905113015.1 | PRJEB36767  |
| As-46-U14                 | GCF_905113025.1 | PRJEB36767  |
| As-55-B15                 | GCF_905113035.1 | PRJEB36767  |
| As-56-U15                 | GCF_905109855.1 | PRJEB36767  |
| ATCC_11563=_CCUG_4311     | GCF_000178435.1 | PRJNA308559 |
| ATCC_51268                | GCF_002087935.1 | PRJNA379934 |
| Au-01-U13                 | GCF_905113045.1 | PRJEB36767  |
| Au-02-B96                 | GCF_905115225.1 | PRJEB36767  |
| Au-03-U96                 | GCF_905113065.1 | PRJEB36767  |
| Au-04-B04                 | GCF_905113075.1 | PRJEB36767  |
| Au-06-U13                 | GCF_905113055.1 | PRJEB36767  |
| Au-07-B93                 | GCF_905111135.1 | PRJEB36767  |
| Au-08-B04                 | GCF_905125195.1 | PRJEB36767  |
| Au-09-B94                 | GCF_905115135.1 | PRJEB36767  |
| Au-10-B10                 | GCF_905125205.1 | PRJEB36767  |
| Au-11-U84                 | GCF_905125305.1 | PRJEB36767  |
| Au-12-B98                 | GCF_905125255.1 | PRJEB36767  |
| Au-13-B13                 | GCF_905111125.1 | PRJEB36767  |
| Au-15-B94                 | GCF_905125225.1 | PRJEB36767  |

|                        |                 |             |
|------------------------|-----------------|-------------|
| Au-16-B92              | GCF_905115205.1 | PRJEB36767  |
| Au-17-B94              | GCF_905125275.1 | PRJEB36767  |
| Au-18-B93              | GCF_905125265.1 | PRJEB36767  |
| Au-19-H93              | GCF_905125335.1 | PRJEB36767  |
| Au-20-U84              | GCF_905111885.1 | PRJEB36767  |
| Au-21-B87              | GCF_905125295.1 | PRJEB36767  |
| Au-23-B94              | GCF_905115095.1 | PRJEB36767  |
| Au-26-U84              | GCF_905125245.1 | PRJEB36767  |
| Au-28-U13              | GCF_905125235.1 | PRJEB36767  |
| Au-29a-U14             | GCF_905125315.1 | PRJEB36767  |
| AU3                    | GCF_001649715.1 | PRJNA315093 |
| Au-30-B02              | GCF_905111875.1 | PRJEB36767  |
| Au-31-B94              | GCF_905125325.1 | PRJEB36767  |
| Au-33-U84              | GCF_905115125.1 | PRJEB36767  |
| Au-43-B13              | GCF_905112965.1 | PRJEB36767  |
| Au-44-B14              | GCF_905125285.1 | PRJEB36767  |
| Au-45-U14              | GCF_905115075.1 | PRJEB36767  |
| Au-47-U14              | GCF_905112955.1 | PRJEB36767  |
| Au-49-B14              | GCF_905115085.1 | PRJEB36767  |
| Au-50-U14              | GCF_905115115.1 | PRJEB36767  |
| Au-51-B15              | GCF_905112975.1 | PRJEB36767  |
| Au-52-U15              | GCF_905115165.1 | PRJEB36767  |
| Au-53-B14              | GCF_905115105.1 | PRJEB36767  |
| Au-54-U14              | GCF_905112985.1 | PRJEB36767  |
| Au-57-B15              | GCF_905115155.1 | PRJEB36767  |
| Au-58-U15              | GCF_905115195.1 | PRJEB36767  |
| Au-59-B15              | GCF_905112995.1 | PRJEB36767  |
| Au-60-U15              | GCF_905115145.1 | PRJEB36767  |
| AV208                  | GCF_001719605.1 | PRJNA339485 |
| CCUG28094              | GCF_001543205.1 | PRJNA308559 |
| CCUG28831              | GCF_001543105.1 | PRJNA308559 |
| CCUG42038B             | GCF_001543245.1 | PRJNA308559 |
| CCUG43001              | GCF_001543145.1 | PRJNA308559 |
| CCUG4311               | GCF_001543285.1 | PRJNA308559 |
| CDC-1515-U85           | GCA_026694535.1 | PRJNA876651 |
| CDC-1656-U92           | GCA_026695435.1 | PRJNA876651 |
| CDC-1871-U94           | GCA_026695425.1 | PRJNA876651 |
| CDC-3352-U95           | GCA_026694515.1 | PRJNA876651 |
| CDC-944-U94            | GCA_026695485.1 | PRJNA876651 |
| DSM_15634              | GCF_900103385.1 | PRJEB16196  |
| DSM_15819_=_CCUG_28831 | GCF_001466745.1 | PRJNA175732 |
| DSM_20341_=_CCUG_28094 | GCF_000425085.1 | PRJNA308559 |
| FDAARGOS_249           | GCF_002083135.2 | PRJNA231221 |
| FDAARGOS_911           | GCF_016026975.1 | PRJNA231221 |
| HMSC035B07             | GCF_001836025.1 | PRJNA296312 |

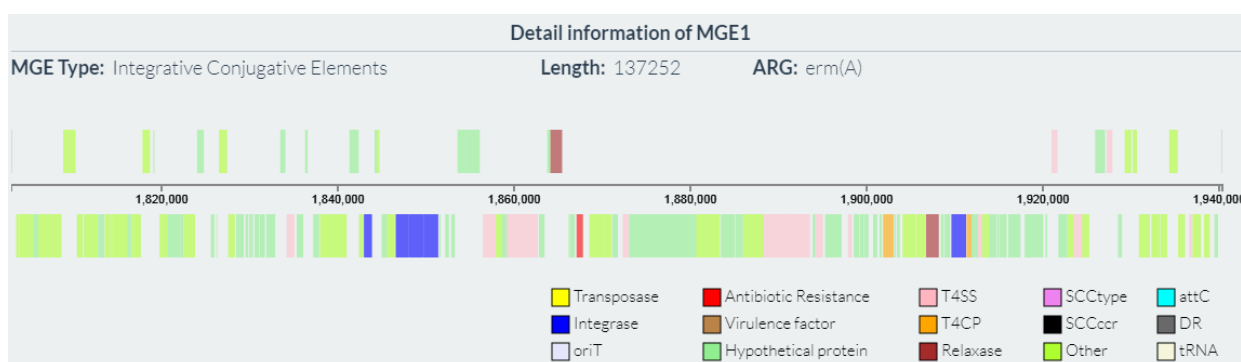
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|--|-----------------|-------------|
| HMSC061A03                             | GCF_001813115.1 | PRJNA300046 |
| HMSC062A02                             | GCF_001809535.1 | PRJNA296233 |
| HMSC062B07                             | GCF_001809895.1 | PRJNA296287 |
| HMSC06H08                              | GCF_001807425.1 | PRJNA269898 |
| HMSC072A12                             | GCF_001811965.1 | PRJNA299983 |
| HMSC075D05                             | GCF_001811135.1 | PRJNA299938 |
| HMSC10H05                              | GCF_001806975.1 | PRJNA269853 |
| HMSC23C02                              | GCF_001806805.1 | PRJNA269827 |
| KA00635                                | GCF_001552755.1 | PRJNA272079 |
| LL1                                    | GCF_000262085.1 | PRJNA159617 |
| LUND-01-B14                            | GCA_026695685.1 | PRJNA876651 |
| LUND-02-B14                            | GCA_026695635.1 | PRJNA876651 |
| LUND-04-B14                            | GCA_026695605.1 | PRJNA876651 |
| LUND-06-B14                            | GCA_026694875.1 | PRJNA876651 |
| LUND-10-B14                            | GCA_026694505.1 | PRJNA876651 |
| LUND-12-B13                            | GCA_026695705.1 | PRJNA876651 |
| LUND-14-B13                            | GCA_026695665.1 | PRJNA876651 |
| LUND-16-B13                            | GCA_026694895.1 | PRJNA876651 |
| LUND-20-B13                            | GCA_026695625.1 | PRJNA876651 |
| LUND-25-B13                            | GCA_026695505.1 | PRJNA876651 |
| LUND-33-B12                            | GCA_026695585.1 | PRJNA876651 |
| LUND-35-B12                            | GCA_026695535.1 | PRJNA876651 |
| LUND-36-B12                            | GCA_026694865.1 | PRJNA876651 |
| LUND-40-B12                            | GCA_026694525.1 | PRJNA876651 |
| LUND-41-B12                            | GCA_026695525.1 | PRJNA876651 |
| LUND-44-B12                            | GCA_026695025.1 | PRJNA876651 |
| NBRC_15544 =_CCUG_36881<br>_NBRC_15544 | GCF_001544335.1 | PRJNA308559 |
| NCTC7595                               | GCF_900445105.1 | PRJEB6403   |
| NCTC8251                               | GCF_900445095.1 | PRJEB6403   |
| NLD-005-U95                            | GCA_026694675.1 | PRJNA876651 |
| NLD-015-U95                            | GCA_026694665.1 | PRJNA876651 |
| NLD-022-U95                            | GCA_026694725.1 | PRJNA876651 |
| NLD-036-U95                            | GCA_026694685.1 | PRJNA876651 |
| NLD-049-U95                            | GCA_026694645.1 | PRJNA876651 |
| NLD-059-U95                            | GCA_026695445.1 | PRJNA876651 |
| NLD-060-U95                            | GCA_026694965.1 | PRJNA876651 |
| NLD-066-U95                            | GCA_026695565.1 | PRJNA876651 |
| NLD-971-U95                            | GCA_026694485.1 | PRJNA876651 |
| SJQ22                                  | GCF_003797145.1 | PRJNA504512 |
| SLA-40126-U13                          | GCA_026695825.1 | PRJNA876651 |
| SLA-43350-U13                          | GCA_026695805.1 | PRJNA876651 |
| SLA-43565-U13                          | GCA_026695785.1 | PRJNA876651 |
| SLA-45893-U13                          | GCA_026695765.1 | PRJNA876651 |
| SLA-48199-U13                          | GCA_026695745.1 | PRJNA876651 |
| SLA-48243-U13                          | GCA_026694815.1 | PRJNA876651 |

|                       |                 |             |
|-----------------------|-----------------|-------------|
| SLA-48590-U13         | GCA_026695725.1 | PRJNA876651 |
| T43                   | GCF_014931015.1 | PRJNA668452 |
| UMB0071               | GCF_003286525.1 | PRJNA316969 |
| UMB0072               | GCF_002847665.1 | PRJNA316969 |
| UMB0072b              | GCF_002884575.1 | PRJNA316969 |
| UMB0080               | GCF_002871915.2 | PRJNA316969 |
| UMB0088               | GCF_002884955.2 | PRJNA316969 |
| UMB0126               | GCF_002847705.1 | PRJNA316969 |
| UMB0139               | GCF_002847725.1 | PRJNA316969 |
| UMB0232               | GCF_002847625.1 | PRJNA316969 |
| UMB0239               | GCF_003286895.1 | PRJNA316969 |
| UMB0240               | GCF_002871935.1 | PRJNA316969 |
| UMB0267               | GCF_003286875.3 | PRJNA316969 |
| UMB0337               | GCF_003286845.2 | PRJNA316969 |
| UMB0509               | GCF_003286825.2 | PRJNA316969 |
| UMB0553               | GCF_003286805.1 | PRJNA316969 |
| UMB0621               | GCF_003286515.1 | PRJNA316969 |
| UMB0637               | GCF_008726885.1 | PRJNA316969 |
| UMB0722               | GCF_003286755.1 | PRJNA316969 |
| UMB0844               | GCF_002861505.1 | PRJNA316969 |
| UMB0970               | GCF_008726845.1 | PRJNA316969 |
| UMB1016               | GCF_003286735.3 | PRJNA316969 |
| UMB1741               | GCF_003286715.1 | PRJNA316969 |
| UMB2126               | GCF_008726675.1 | PRJNA316969 |
| UMB2325               | GCF_003286725.1 | PRJNA316969 |
| UMB2354               | GCF_003286695.1 | PRJNA316969 |
| UMB2879               | GCF_003286665.1 | PRJNA316969 |
| UMB3440               | GCF_003286595.3 | PRJNA316969 |
| UMB3669               | GCF_003286645.3 | PRJNA316969 |
| UMB5628               | GCF_003286585.1 | PRJNA316969 |
| UMB623                | GCF_008726925.1 | PRJNA316969 |
| UMB6497               | GCF_003286635.1 | PRJNA316969 |
| UMB7049               | GCF_008726475.2 | PRJNA316969 |
| UMB7382               | GCF_003286565.1 | PRJNA316969 |
| UMB7480               | GCF_003286555.1 | PRJNA316969 |
| UMB8614               | GCF_008726385.1 | PRJNA316969 |
| UMB8662               | GCF_008726315.1 | PRJNA316969 |
| UMB8711               | GCF_008726285.1 | PRJNA316969 |
| USDA-ARS-USMARC-56713 | GCF_001518795.1 | PRJNA281531 |

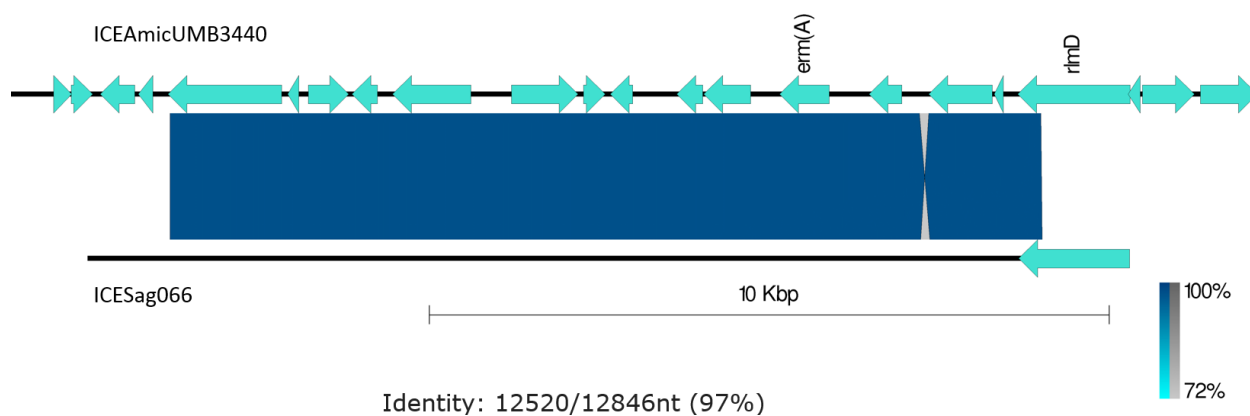


**Table S3. NCBI Deposit of Complete Genomes**

|         | Illumina Raw Reads          | Oxford Nanopore Raw Reads   | Hybrid Assembly                 |
|---------|-----------------------------|-----------------------------|---------------------------------|
| UMB3669 | <a href="#">SRX3914940</a>  | <a href="#">SRX20822257</a> | <a href="#">GCA_003286645.3</a> |
| UMB0337 | <a href="#">SRX20822236</a> | <a href="#">SRX20822241</a> | <a href="#">GCA_003286845.2</a> |
| UMB7049 | <a href="#">SRX6878814</a>  | <a href="#">SRX20822261</a> | <a href="#">GCA_008726475.2</a> |
| UMB0080 | <a href="#">SRX3104357</a>  | <a href="#">SRX20822271</a> | <a href="#">GCA_002871915.2</a> |
| UMB0509 | <a href="#">SRX3914955</a>  | <a href="#">SRX20822243</a> | <a href="#">GCA_003286825.2</a> |
| UMB0088 | <a href="#">SRX3104358</a>  | <a href="#">SRX20822238</a> | <a href="#">GCA_002884955.2</a> |
| UMB3440 | <a href="#">SRX3914941</a>  | <a href="#">SRX20822256</a> | <a href="#">GCA_003286595.3</a> |
| UMB1016 | <a href="#">SRX3914949</a>  | <a href="#">SRX20822252</a> | <a href="#">GCA_003286735.2</a> |



**Figure S1 – VRprofile2 output of ICEAloyUMB0088**



**Figure S2 – Nucleotide homology of AUC ICEAmicUMB3440 and *Streptococcus agalactiae* ICESag066**