

Supplemental Table 1. Strain information and LOS typing results

| Sample ID | Alias | Source | Year | Country | MLST | | PCR | | | | | | | | | | | | LOS locus class | RAST accession number in "guest" account | EMBL accession number |
|-----------|----------|---------|------|-------------|------|-----|-----|---|---|---|---|---|---|---|---|----|----|-----------|-----------------|--|-----------------------|
| | | | | | ST | CC | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | |
| 1 | FB457 | Human | 1997 | Finland | | | 18 | - | - | - | - | - | - | - | - | + | - | - | VIII | | |
| 2 | FB3428 | Human | 1997 | Finland | | | 18 | - | - | + | - | + | - | - | + | - | - | untypable | | | |
| 3 | FB3508 | Human | 1997 | Finland | | | 18 | - | - | - | - | - | - | - | - | + | - | - | VIII | | |
| 4 | FB3429 | Human | 1997 | Finland | 825 | 828 | 18 | - | - | - | - | - | - | - | - | + | - | - | VIII | 195.117 | |
| 5 | FB4856 | Human | 1997 | Finland | | | | - | - | + | - | + | + | + | + | - | - | untypable | | | |
| 6 | FB5755 | Human | 1997 | Finland | 1563 | 828 | 10 | - | + | + | - | - | - | - | - | - | - | II | 195.118 | | |
| 7 | FB6937 | Human | | | | | 8 | - | - | + | + | - | - | - | - | - | - | untypable | | | |
| 12 | FB8983 | Human | 1997 | Finland | 1628 | 828 | 10 | - | + | + | - | - | - | - | - | - | - | II | 195.91 | | |
| 13 | FB8984 | Human | 1997 | Finland | 1628 | 828 | 10 | - | + | + | - | - | - | - | - | - | - | II | 195.113 | | |
| 14 | FB9468 | Human | 1997 | Finland | | | 13 | - | - | + | - | + | - | + | - | - | - | IV | | | |
| 16 | FB10883 | Human | | | | | 7 | - | - | - | + | - | - | - | - | - | - | III | | | |
| 29 | CNET019 | Poultry | | Netherlands | | | 6 | - | - | + | - | + | - | + | - | - | - | untypable | | | |
| 30 | CNET020 | Poultry | | Netherlands | | | 6 | - | - | - | - | - | - | - | - | - | - | untypable | | | |
| 31 | CNET021 | Poultry | | Netherlands | 901 | 828 | 7 | - | - | - | - | - | - | - | - | - | - | untypable | 195.116 | | |
| 32 | CNET051 | Human | | France | 838 | 828 | 13 | - | - | + | - | + | + | - | + | - | - | IV | | | |
| 33 | CNET061 | Poultry | | Netherlands | | | 18 | - | - | - | - | - | - | - | - | + | - | VIII | | | |
| 34 | CNET062 | Poultry | | Netherlands | 2183 | 828 | 7 | + | - | - | - | - | - | - | - | - | - | I | 195.107 | | |
| 36 | CNET067 | Pig | | Netherlands | 1016 | 828 | 10 | - | + | + | - | - | - | - | - | - | - | II | 195.119 | | |
| 37 | CNET069 | Pig | | UK | 1240 | UA | 13 | - | - | + | - | + | + | - | + | - | - | IV | | | |
| 38 | CNET071 | Pig | | Denmark | 1826 | 828 | 18 | - | - | - | - | - | - | - | - | + | - | VIII | 195.112 | | |
| 39 | CNET072 | Pig | | Denmark | 1153 | 828 | 10 | - | + | + | - | - | - | - | - | - | - | II | 195.102 | | |
| 41 | CNET082 | Poultry | | UK | 825 | 828 | 18 | - | - | - | - | - | - | - | - | + | - | VIII | 195.103 | | |
| 44 | FB713 | Human | 1996 | Finland | 1156 | 828 | 15 | - | - | + | - | + | + | + | - | - | - | VII | | | |
| 45 | FB6470 | Human | 1996 | Finland | 1946 | 828 | 11 | - | - | - | - | - | - | - | - | - | - | X | 195.106 | | |
| 47 | T-72385 | Human | 2002 | Finland | 1957 | 828 | 7 | - | - | - | + | - | - | - | - | - | - | III | | | |
| 49 | 76315 | Human | 2006 | India | | | 7 | + | - | - | - | - | - | - | - | - | - | I | | | |
| 50 | 76326 | Human | 2006 | Romania | 825 | 828 | 18 | - | - | - | - | - | - | - | - | + | - | VIII | 195.110 | | |
| 51 | 76339 | Human | 2006 | Finland | 5088 | UA | 7 | - | - | - | - | - | - | - | - | - | + | IX | | HG326877 | |
| 53 | 76347 | Human | 2006 | Turkey | | | 7 | - | - | - | - | - | - | - | - | - | - | untypable | | | |
| 54 | 76348 | Human | 2006 | Spain | | | 7 | + | - | - | - | - | - | - | - | - | - | I | | | |
| 55 | 76361 | Human | 2006 | Spain | 854 | 828 | 10 | - | + | + | - | - | - | - | - | - | - | II | 195.115 | | |
| 56 | 76363 | Human | 2006 | France | | | 12 | + | - | + | - | + | + | - | + | - | - | untypable | | | |
| 58 | 76385 | Human | 2006 | Finland | 1614 | 828 | 7 | - | - | - | + | - | - | - | - | - | - | III | | | |
| 59 | 76398 | Human | 2006 | Bulgaria | | | 18 | - | - | - | - | - | - | - | - | + | - | VIII | | | |
| 60 | 76412 | Human | 2006 | Bulgaria | 6321 | 828 | 10 | - | + | + | - | - | - | - | - | - | - | II | 195.101 | | |
| 61 | 76466 | Human | 2006 | Finland | 854 | 828 | 13 | - | - | + | - | + | + | - | + | - | - | IV | | | |
| 63 | T-73692 | Human | 2003 | Finland | 2725 | 828 | 11 | - | - | - | - | - | - | - | - | - | - | X | 195.105 | | |
| 62 | 76656 | Human | 2006 | Finland | 1965 | 828 | 11 | - | - | - | - | - | - | - | - | - | - | X | | | |
| 64 | T-73805 | Human | 2003 | Finland | 1968 | UA | 7 | - | - | - | + | - | - | - | - | - | - | III | | | |
| 65 | T-73864 | Human | 2003 | Finland | 1585 | 828 | 10 | - | + | + | - | - | - | - | - | - | - | II | 195.97 | | |
| 66 | 8045 | Human | | Finland | | | 18 | - | - | - | - | - | - | - | - | + | - | VIII | | | |
| 67 | 03VV415 | Human | | Finland | 5672 | 828 | 10 | - | + | + | - | - | - | - | - | - | - | II | | | |
| 68 | 03VV2801 | Human | | Finland | | | 18 | - | - | - | - | - | - | - | - | + | - | VIII | | | |
| 70 | HKY6592 | Poultry | 2003 | Finland | 854 | 828 | 13 | - | - | + | - | + | - | - | + | - | - | IV | | | |

| | | | | | | | | | | | | | | | | | | | | | |
|-----|--------|-----|------|---------|------|-----|----|---|---|---|---|---|---|---|---|---|---|---|-----------|--|---------------|
| 133 | E71.3 | Pig | 2009 | Finland | | | 7 | - | - | - | + | - | - | - | - | - | - | - | III | | |
| 134 | E75.1 | Pig | 2009 | Finland | | | 12 | - | - | + | - | + | + | - | + | - | - | - | untypable | | |
| 135 | E82.3 | Pig | 2009 | Finland | | | 7 | - | - | - | + | - | - | - | - | - | - | - | III | | |
| 136 | E89.3 | Pig | 2009 | Finland | | | 13 | - | - | + | - | + | - | - | - | - | - | - | untypable | | |
| 137 | E90.1 | Pig | 2009 | Finland | 2172 | 828 | 10 | - | + | + | - | - | - | - | - | - | - | - | II | | 195.125 |
| 138 | E107.3 | Pig | 2009 | Finland | 1145 | 828 | 11 | - | - | - | - | - | + | - | - | - | - | + | XI | | 195.111 |
| 140 | E97.3 | Pig | 2009 | Finland | | | 11 | - | - | - | - | - | - | - | - | - | - | + | X | | |
| 141 | E116.3 | Pig | 2009 | Finland | | | 13 | - | - | + | - | + | - | - | - | - | - | - | VI | | |
| 142 | E125.3 | Pig | 2009 | Finland | | | 7 | - | - | - | + | - | - | - | - | - | - | - | III | | |
| 143 | E128.3 | Pig | 2009 | Finland | | | 13 | - | - | + | - | + | - | - | + | - | - | - | IV | | |
| 144 | E141.3 | Pig | 2009 | Finland | | | 10 | - | + | + | - | - | - | - | - | - | - | - | II | | |
| 145 | E144.3 | Pig | 2009 | Finland | | | 15 | - | - | + | - | + | - | + | + | - | - | - | VII | | |
| 147 | E149.3 | Pig | 2009 | Finland | | | 14 | - | - | + | - | + | - | + | + | - | - | - | untypable | | |
| 148 | E150.1 | Pig | 2009 | Finland | 7799 | 828 | 13 | - | - | + | - | + | - | - | + | - | - | - | IV | | 195.129 |
| 149 | E154.3 | Pig | 2009 | Finland | 1058 | 828 | 11 | - | - | - | - | - | - | - | - | - | - | + | X | | 195.130 |
| 150 | E160.3 | Pig | 2009 | Finland | | | 13 | - | - | + | - | + | - | - | + | - | - | - | IV | | |
| 151 | E163.2 | Pig | 2009 | Finland | 1096 | 828 | 10 | - | + | + | - | - | - | - | - | - | - | - | II | | 195.126 |
| 152 | E175.9 | Pig | 2009 | Finland | | | 13 | - | - | + | - | + | - | - | + | - | - | - | IV | | |
| 153 | A28 | Pig | 2007 | Finland | | | 12 | - | - | - | - | - | - | - | - | - | - | - | X | | 6666666.94320 |
| 154 | A30 | Pig | 2007 | Finland | | | 7 | - | - | - | + | - | - | - | - | - | - | - | III | | |
| 155 | A31 | Pig | 2007 | Finland | | | 7 | - | - | - | + | - | - | - | - | - | - | - | III | | |
| 156 | A32 | Pig | 2007 | Finland | | | 7 | - | - | - | + | - | - | - | - | - | - | - | III | | |
| 157 | A40.1 | Pig | 2007 | Finland | | | 7 | - | - | - | + | - | - | - | - | - | - | - | III | | |
| 158 | A46 | Pig | 2007 | Finland | | | 7 | - | - | - | + | - | - | - | - | - | - | - | III | | |
| 159 | A50 | Pig | 2007 | Finland | | | 11 | - | - | - | - | - | - | - | - | - | - | + | X | | |
| 160 | A53 | Pig | 2007 | Finland | | | 11 | - | - | - | - | - | - | - | - | - | - | + | X | | |
| 161 | A56 | Pig | 2007 | Finland | | | 11 | - | - | - | - | - | - | - | - | - | - | + | untypable | | |
| 162 | A57 | Pig | 2007 | Finland | | | 13 | - | - | + | - | + | - | - | - | - | - | - | VI | | |
| 163 | A62 | Pig | 2007 | Finland | | | 11 | - | - | - | - | - | - | - | - | - | - | + | X | | |
| 164 | A66 | Pig | 2007 | Finland | | | 11 | - | - | - | - | - | - | - | - | - | - | + | X | | |
| 165 | A68 | Pig | 2007 | Finland | | | 11 | - | - | - | - | - | - | - | - | - | - | + | X | | |
| 167 | A70.1 | Pig | 2007 | Finland | | | 10 | - | + | + | - | - | - | - | - | - | - | - | II | | |
| 168 | A71.1 | Pig | 2007 | Finland | | | 13 | - | - | + | - | + | - | - | - | - | - | - | VI | | |
| 169 | A74.1 | Pig | 2007 | Finland | | | 13 | - | - | + | - | + | - | - | - | - | - | - | VI | | |
| 170 | A78.1 | Pig | 2007 | Finland | | | 10 | - | + | + | - | - | - | - | - | - | - | - | II | | |
| 174 | A26.1 | Pig | 2007 | Finland | 6956 | | 13 | - | - | + | - | + | - | - | - | - | - | - | VI | | 195.109 |
| 175 | A30.1 | Pig | 2007 | Finland | | | 11 | - | - | - | - | - | - | - | - | - | - | + | X | | |
| 176 | A32.1 | Pig | 2007 | Finland | | | 11 | - | - | - | - | - | - | - | - | - | - | + | X | | |
| 177 | A35.1 | Pig | 2007 | Finland | 1143 | | 13 | - | - | + | - | + | + | - | + | - | - | - | IV | | 195.108 |
| 178 | A37.1 | Pig | 2007 | Finland | | | 11 | - | - | - | - | - | - | - | - | - | - | + | X | | |
| 179 | C1.1 | Pig | 2008 | Finland | | | 7 | - | - | - | + | - | - | - | - | - | - | - | III | | |
| 183 | C23.1 | Pig | 2008 | Finland | | | 13 | - | - | + | - | + | - | - | + | - | - | - | IV | | |
| 184 | C25.1 | Pig | 2008 | Finland | | | 10 | - | + | + | - | - | - | - | - | - | - | - | II | | |
| 185 | C28.3 | Pig | 2008 | Finland | | | 7 | - | - | + | + | - | - | - | - | - | - | + | untypable | | |
| 186 | C29.1 | Pig | 2008 | Finland | | | 11 | - | - | - | - | - | - | - | - | - | - | + | X | | |
| 188 | C34.2 | Pig | 2008 | Finland | | | 13 | - | - | + | - | + | - | - | - | - | - | - | VI | | |
| 189 | C35.1 | Pig | 2008 | Finland | | | 11 | - | - | - | - | - | - | - | - | - | - | + | X | | |
| 190 | C37.1 | Pig | 2008 | Finland | | | 13 | - | - | + | - | + | - | - | + | - | - | - | IV | | |

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|-----|-------|-----|------|---------|--|----|---|---|---|---|---|---|---|---|---|---|---|---|-----|--|--|
| 191 | C39.1 | Pig | 2008 | Finland | | 7 | - | - | - | + | - | - | - | - | - | - | - | - | III | | |
| 193 | C40.3 | Pig | 2008 | Finland | | 13 | - | - | + | | + | - | - | - | - | - | - | - | VI | | |
| 195 | C46.1 | Pig | 2008 | Finland | | 7 | - | - | - | + | - | - | - | - | - | - | - | - | III | | |
| 196 | C48.1 | Pig | 2008 | Finland | | 13 | - | - | + | - | + | - | - | + | - | - | - | - | IV | | |