

# Super-Resistant *Plasmodium falciparum*, Uganda, Tanzania, and Ethiopia

## Technical Appendix

Technical Appendix Table. Microsatellite haplotypes and their geographic occurrence and association with double and triple mutant *Plasmodium falciparum dhps* alleles\*

| Haplotype no. | Locus |     |     | Ethiopia | Tanzania |         |        | Uganda |           | SGEAA | SGEGA |
|---------------|-------|-----|-----|----------|----------|---------|--------|--------|-----------|-------|-------|
|               | 0.8   | 4.3 | 7.7 |          | Hale     | Korogwe | Magoda | Kabale | Rikungiri |       |       |
| 1             | 117   | 104 | 107 |          |          | 1       |        |        |           | 1     |       |
| 2             | 117   | 108 | 107 |          |          | 1       |        |        |           | 1     |       |
| 3             | 121   | 106 | 107 |          |          | 1       |        |        |           | 1     |       |
| 4             | 121   | 114 | 98  | 71       |          |         |        |        |           | 30    | 41    |
| 5             | 123   | 108 | 109 |          |          |         |        |        | 2         | 2     |       |
| 6             | 123   | 108 | 119 |          |          | 1       |        |        |           | 1     |       |
| 7             | 123   | 114 | 98  | 2        |          |         |        |        |           | 2     |       |
| 8             | 125   | 110 | 119 |          |          | 1       |        |        |           | 1     |       |
| 9             | 129   | 98  | 119 |          |          | 1       |        |        |           | 1     |       |
| 10            | 131   | 100 | 107 |          |          | 1       |        |        |           | 1     |       |
| 11            | 131   | 104 | 107 | 1        | 23       | 38      | 10     | 32     | 34        | 96    | 42    |
| 12            | 131   | 104 | 109 |          |          | 3       | 1      | 1      |           | 5     |       |
| 13            | 131   | 104 | 111 |          |          | 5       | 1      |        | 1         | 6     | 1     |
| 14            | 131   | 104 | 113 |          |          | 2       |        | 1      | 1         | 2     | 2     |
| 15            | 131   | 104 | 115 |          | 1        | 1       |        |        |           | 2     |       |
| 16            | 131   | 104 | 117 |          | 1        |         | 1      | 1      |           | 2     | 1     |
| 17            | 131   | 104 | 121 |          |          |         | 1      |        |           | 1     |       |
| 18            | 131   | 104 | 125 |          | 6        | 14      | 6      | 1      | 1         | 2     | 26    |
| 19            | 131   | 104 | 127 |          |          | 2       |        |        |           | 2     |       |
| 20            | 131   | 104 | 129 |          | 1        |         |        |        |           | 1     |       |
| 21            | 131   | 106 | 119 | 2        |          |         |        |        |           | 2     |       |
| 22            | 131   | 110 | 113 |          | 2        | 2       |        |        |           | 4     |       |
| 23            | 131   | 110 | 119 |          |          | 1       |        |        |           | 1     |       |
| 24            | 131   | 114 | 111 |          |          | 1       |        |        |           | 1     |       |
| 25            | 133   | 104 | 107 |          | 1        | 2       |        |        | 1         | 3     | 1     |
| 26            | 133   | 104 | 125 |          |          | 2       |        |        |           |       | 2     |
| 27            | 133   | 104 | 129 |          | 1        |         |        |        |           | 1     |       |
| 28            | 133   | 104 | 136 |          |          |         |        | 1      |           | 1     |       |
| 29            | 136   | 103 | 115 |          |          | 1       |        |        |           | 1     |       |
| 30            | 136   | 104 | 107 |          |          |         |        | 1      | 1         | 2     |       |
| 31            | 136   | 104 | 125 |          |          |         | 1      |        |           |       | 1     |
| 32            | 136   | 110 | 117 |          |          | 1       |        |        |           | 1     |       |
| 33            | 138   | 110 | 113 |          |          | 1       |        |        |           | 1     |       |

\*For each unique haplotype, the fragment size in bp at each of the 3 linked microsatellite loci is shown. Blank cells indicate that the haplotypes were not found in the respective countries.