Table S4. Table of Major T7 ODEs Genome Definition Update.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation of Change</th>
<th>Value</th>
<th>Units</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>$n_{gp10A,PC}$</td>
<td>GP10A stoichiometry in procapsid. Updated to reflect combined inclusion of GP10A (415) and GP10B (16), treated as single species because T7 ODEs lack description of small percentage programed frameshift distinguishing between these proteins which are of very similar length and stoichiometry.</td>
<td>431</td>
<td>$\text{molecules per procapsid}$</td>
<td>[1]</td>
</tr>
<tr>
<td>Gene10B</td>
<td>GP10B genomic element removed during inclusion in 10A (see $n_{gp10A,PC}$)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$n_{gp6.7,T7}$</td>
<td>GP6.7 DNA completion or ejection protein. Not in virion in original T7 ODEs.</td>
<td>18</td>
<td>$\text{molecules per phage}$</td>
<td>[1]</td>
</tr>
<tr>
<td>$n_{gp7.3,T7}$</td>
<td>GP7.3 Adsorption and/or ejection protein. Not in virion in original T7 ODEs.</td>
<td>33</td>
<td>$\text{molecules per phage}$</td>
<td>[1]</td>
</tr>
<tr>
<td>$n_{gp8,T7}$</td>
<td>GP8 head tail connector. Not changed from T7 ODEs.</td>
<td>12</td>
<td>$\text{molecules per phage}$</td>
<td>[1]</td>
</tr>
<tr>
<td>$n_{gp11,T7}$</td>
<td>GP11 tail protein. Stoichiometry updated.</td>
<td>12</td>
<td>$\text{molecules per phage}$</td>
<td>[1]</td>
</tr>
<tr>
<td>$n_{gp14,T7}$</td>
<td>GP14 core and/or ejected protein. Stoichiometry updated.</td>
<td>10</td>
<td>$\text{molecules per phage}$</td>
<td>[1]</td>
</tr>
<tr>
<td>$n_{gp15,T7}$</td>
<td>GP15 core and/or ejected protein. Stoichiometry updated.</td>
<td>8</td>
<td>$\text{molecules per phage}$</td>
<td>[1]</td>
</tr>
<tr>
<td>$n_{gp16,T7}$</td>
<td>GP16 core and/or ejected protein. Stoichiometry updated.</td>
<td>4</td>
<td>$\text{molecules per phage}$</td>
<td>[1]</td>
</tr>
<tr>
<td>$\phi_{4.7.4.3.4c.3.8.2.5.1.6.1.5}$</td>
<td>Promotor weighting</td>
<td>0.01</td>
<td>Relative Units</td>
<td>See SI text</td>
</tr>
<tr>
<td>$\phi_{6.5}$</td>
<td>Promotor weighting</td>
<td>0.05</td>
<td>Relative Units</td>
<td>See SI text</td>
</tr>
<tr>
<td>$\phi_{9}$</td>
<td>Promotor weighting</td>
<td>0.2</td>
<td>Relative Units</td>
<td>See SI text</td>
</tr>
<tr>
<td>$\phi_{13.17}$</td>
<td>Promotor weighting</td>
<td>0.1</td>
<td>Relative Units</td>
<td>See SI text</td>
</tr>
<tr>
<td>$\eta_{T\phi}$</td>
<td>T7 terminator efficiency</td>
<td>0.85</td>
<td>Fraction</td>
<td>See SI text</td>
</tr>
</tbody>
</table>

Changes relative to genome used previously [2], other changes are based on any nucleotide/protein updates in current GenBank sequence for T7 the impact of which is negligible with respect to simulation predictions.
References
