

## Design 1

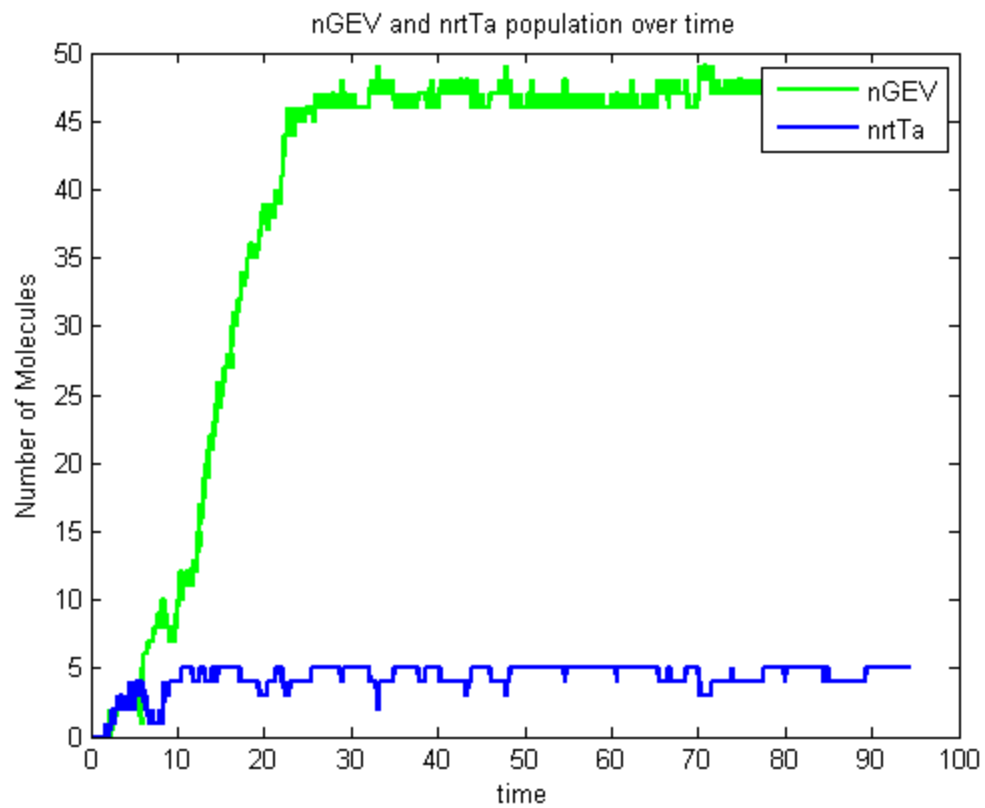


Figure 1. Result of a Simulation of the first design of the tristable-switch over 10000 time-steps. Initial molecule populations were 5 aTc and 50 beta. Expression of GEV and rT<sub>a</sub> is measured by the number of nGEV and nrtT<sub>a</sub> molecules found in the cell.

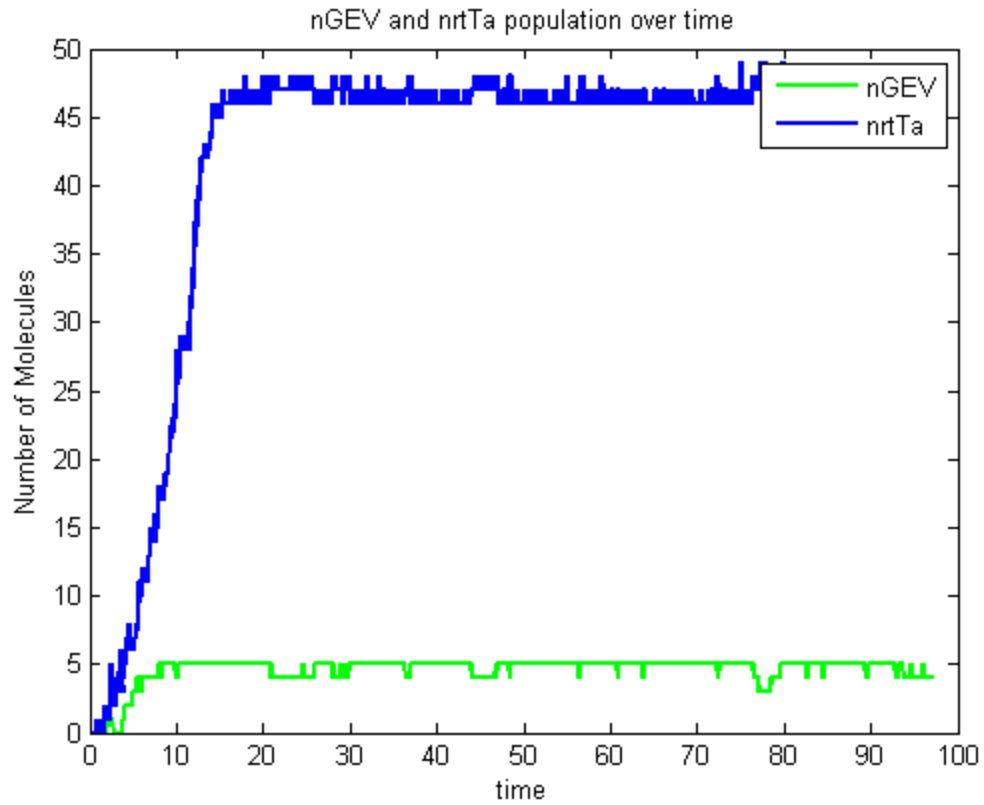


Figure 2. Result of a Simulation of the first design of the tristable-switch over 10000 time-steps. Initial molecule populations were 50 aTc and 5 beta. Expression of GEV and rT<sub>a</sub> is measured by the number of nGEV and nrtT<sub>a</sub> molecules found in the cell.

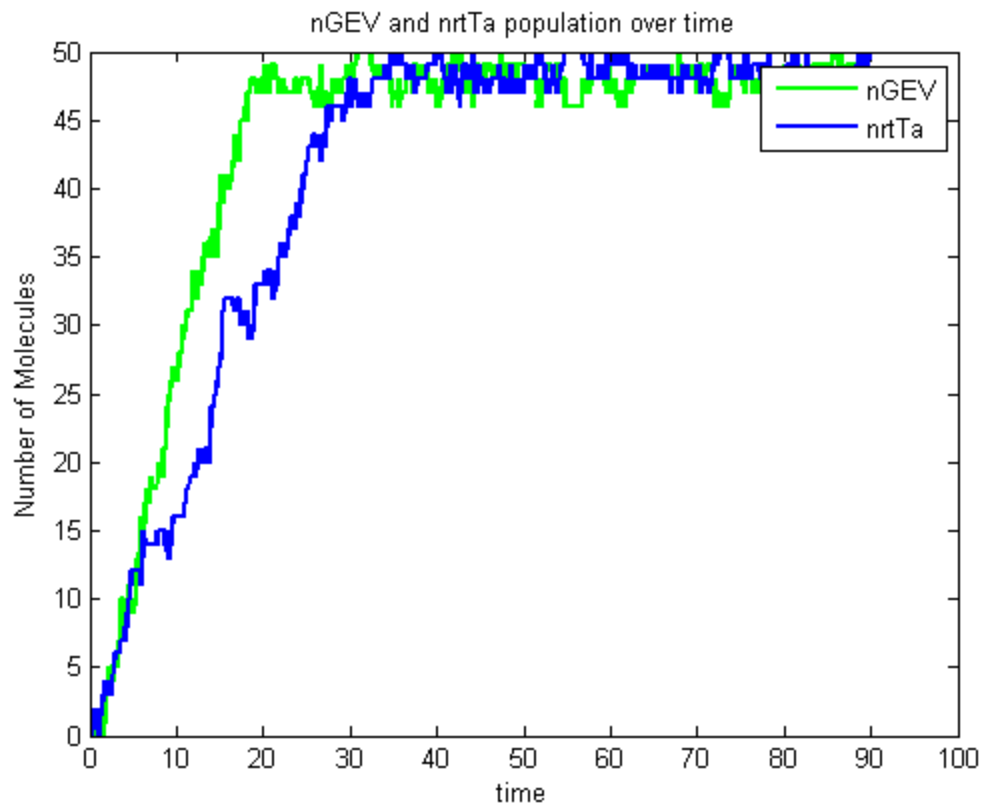


Figure 3. Result of a Simulation of the first design of the tristable-switch over 10000 time-steps. Initial molecule populations were 50 aTc and 50 beta. Expression of GEV and rTa is measured by the number of nGEV and nrTa molecules found in the cell.

## Design 2

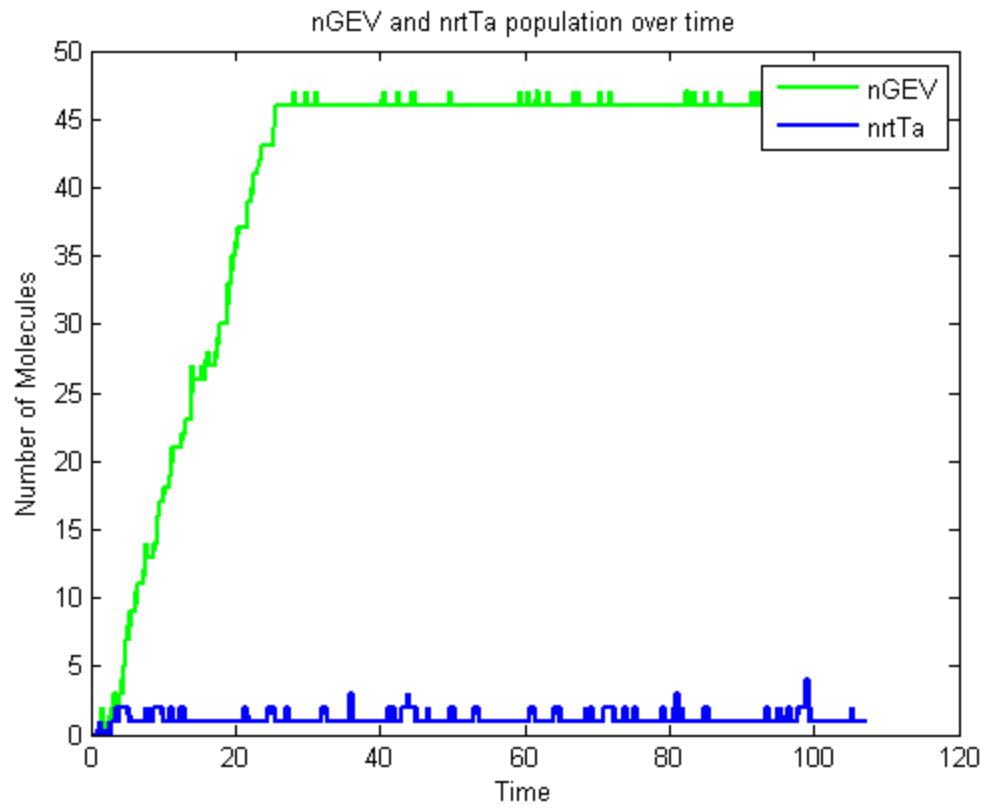


Figure 4. Result of a Simulation of the second design of the tristable-switch over 10000 time-steps. Initial molecule populations were 5 aTc and 50 beta. Expression of GEV and rtTa is measured by the number of nGEV and nrtTa molecules found in the cell.

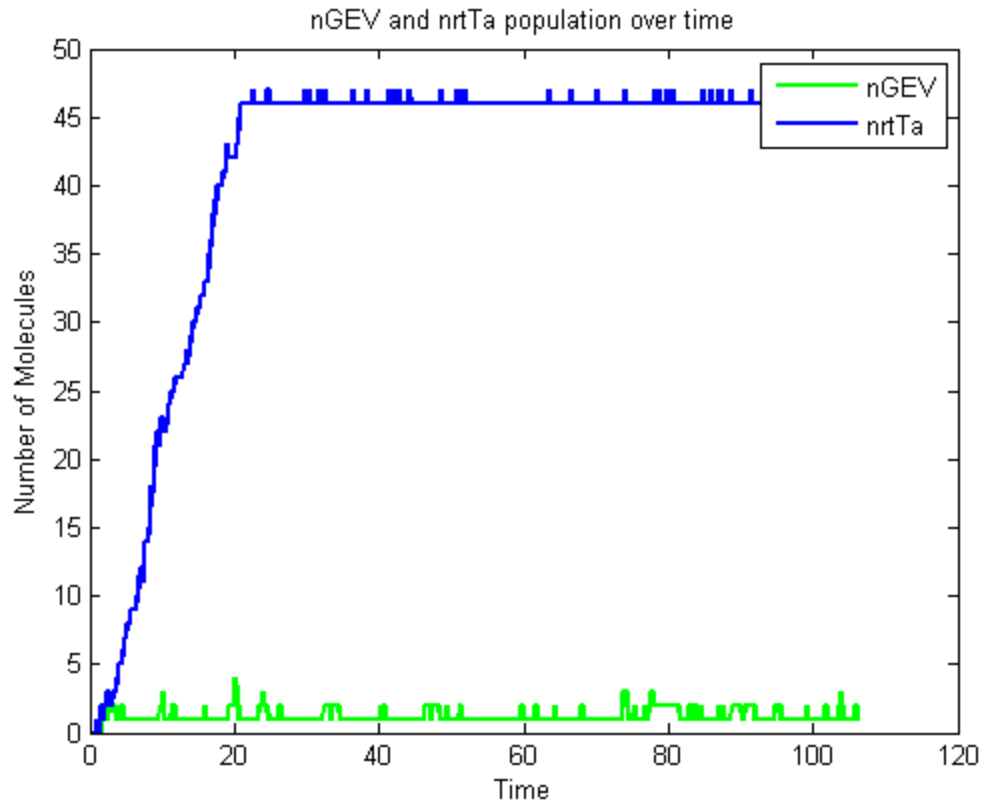


Figure 5. Result of a Simulation of the second design of the tristable-switch over 10000 time-steps. Initial molecule populations were 50 aTc and 5 beta. Expression of GEV and rtTa is measured by the number of nGEV and nrtTa molecules found in the cell.

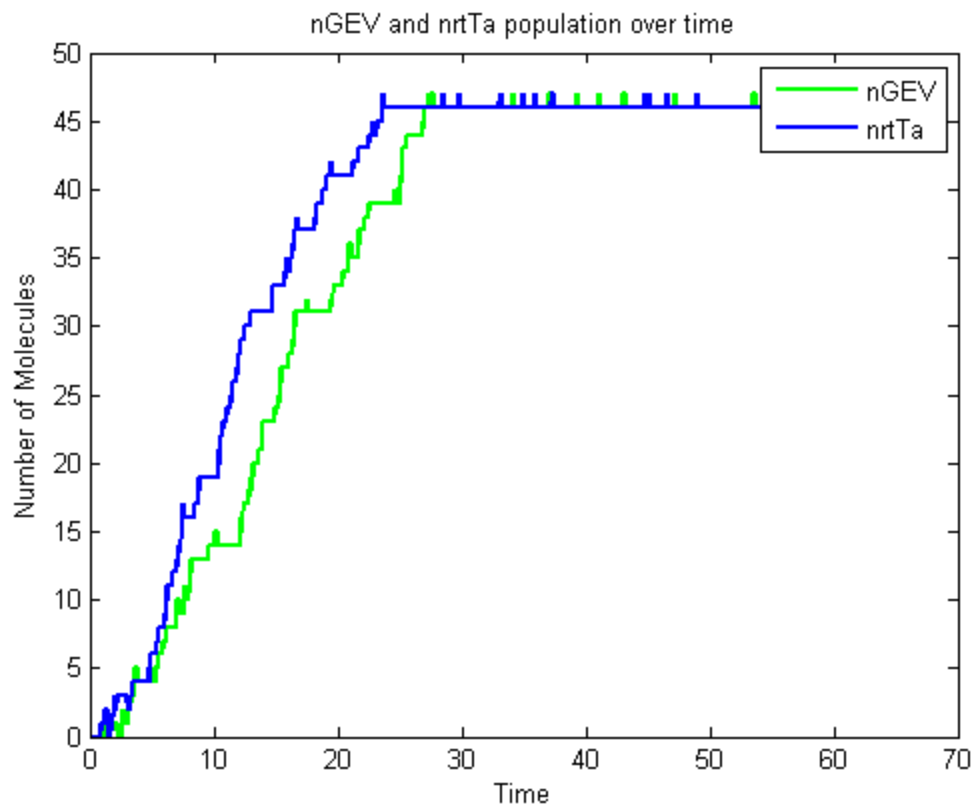


Figure 6. Result of a Simulation of the second design of the tristable-switch over 10000 time-steps. Initial molecule populations were 50 aTc and 50 beta. Expression of GEV and rtTa is measured by the number of nGEV and nrtTa molecules found in the cell.