

Quorum signaling module	Quorum sensing module	Toggle switch
$\overline{k_p^{AI1}} = TS_{QS}k_p^{AI1}$ $\overline{k_d^{AI1}} = TS_{QS}k_d^{AI1}$	$\overline{k_p^{A1}} = TS_{QM}k_p^{A1}$ $\overline{k_d^{A1}} = TS_{QM}k_d^{A1}$	$\overline{k_p^{R5}} = TS_{R5}k_p^{R5}$ $\overline{k_d^{R5}} = TS_{R5}k_d^{R5}$
$\overline{k_p^{AI2}} = TS_{QS}k_p^{AI2}$ $\overline{k_d^{AI2}} = TS_{QS}k_d^{AI2}$	$\overline{k_p^{R2}} = TS_{QM}k_p^{R2}$ $\overline{k_d^{R2}} = TS_{QM}k_d^{R2}$	$\overline{k_p^{R6}} = TS_{R6}k_p^{R6}$ $\overline{k_d^{R6}} = TS_{R6}k_d^{R6}$
$\overline{k_{diff}} = TS_{QS}k_{diff}$	(in Systems 3 & 4) $\overline{k_p^{A3}} = TS_{QM}k_p^{A3}$ $\overline{k_d^{A3}} = TS_{QM}k_d^{A3}$	$\overline{k_p^{R7}} = TS_{R7}k_p^{R7}$ $\overline{k_d^{R7}} = TS_{R7}k_d^{R7}$
(in System 4) $\overline{k_p^{AI3}} = TS_{QS}k_p^{AI3}$ $\overline{k_d^{AI3}} = TS_{QS}k_d^{AI3}$		(in System 4) $\overline{k_p^{At}} = TS_{At}k_p^{At}$ $\overline{k_d^{At}} = TS_{At}k_d^{At}$

Table S2: Scaled parameters for the time-scale analysis. The kinetics parameters (k_p^α and k_d^α) from table S1 are scaled by the time-scale parameters TS_α according to their module. For each combination of time-scale parameters, the $\overline{k_p^\alpha}$ and $\overline{k_d^\alpha}$ parameters are used for the Langevin simulations.