Supporting Information

An engineered *Escherichia coli* community for studying quorum sensing

Yuwei Li[1], Justin Clarke[2], Alex O'Neill[3], Francisco M. Goycoolea[4,*] and James Smith[5,*]

[1] School of Food Science and Nutrition, University of Leeds, Leeds LS2 9JT, U.K; fs17yl@leeds.ac.uk
[2] Faculty of Biological Sciences, University of Leeds, Leeds LS2 9JT, U.K; j.e.clarke@leeds.ac.uk
[3] Faculty of Biological Sciences, University of Leeds, Leeds LS2 9JT, U.K; a.j.oneill@leeds.ac.uk
[4] School of Food Science and Nutrition, University of Leeds, Leeds LS2 9JT, U.K; f.m.goycoolea@leeds.ac.uk
[5] School of Food Science and Nutrition, University of Leeds, Leeds LS2 9JT, U.K; j.smith252@leeds.ac.uk
*Author to whom correspondence should be addressed.

Table S1. Major components of the three *E. coli* engineered strains used in this study.

Strain	Host	Backbone	Insert
Sensor	Tuner (DE3)	pBAD24	*NheI+luxR+luxPR_4G12T+egfp+EcoRI*
Producer		pET-21 (+)	*EcoRI+luxI+mCherry+NheI*
Regulator		pZH509	*EcoRI+aiiA+ebfp2+PN25+tetR+NheI*

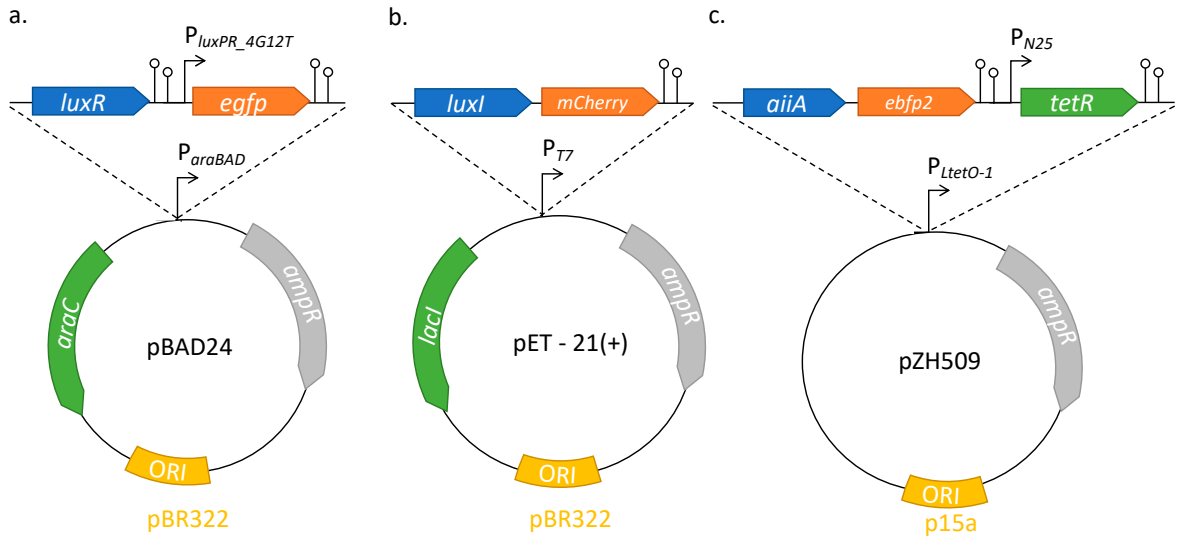

Figure S1. The structures of the plasmids of: (**a**) sensor, (**b**) producer, and (**c**) regulator strains. Genes encoding QS-related proteins are represented as blue arrows, encoding fluorescent proteins are represented as orange arrows, encoding promoter regulator proteins are represented as green arrows, and conferring ampicillin resistance are represented as grey arrows. Genes of origin of replication are represented as yellow ribbons. Black arrows indicate the promotors. Hairpins indicate the terminators.

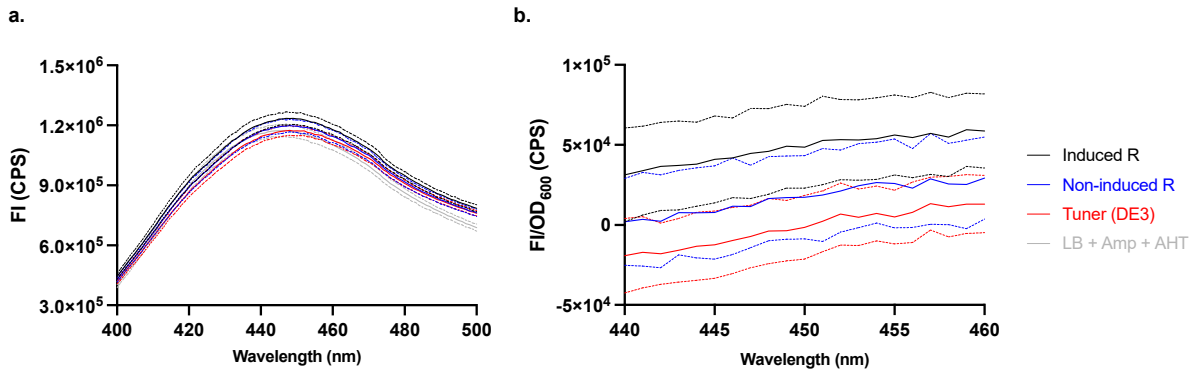

Figure S2. Influence of the addition of anhydrotetracycline (100 ng/mL) on induction of the regulator strain as assessed on (**a**) the emission spectra of EBFP2 intensity at λ_{ex} = 367 nm and (**b**) the cell response levels (FI/OD_{600}) of cultures. Data are shown as the mean values with their standard deviations (shown as dotted lines) of at least three independent experiments.