

Supplementary Table S1. Strains and plasmids used in this study

Strains/Plasmids	Relevant Characteristics	Source/Reference
<i>E. coli</i>		
Novablue	<i>gyrA96 relA1 lac F' [proA+B+ lacIqZΔM15::Tn10]</i> (Tet ^R)	EMD4Biosciences
Rosetta 2 (DE3)	<i>F-ompT hsdSB(rB- mB-) gal dcm</i> (DE3) pRARE (Cm ^R)	EMD4Biosciences
B834 (DE3) pLysS	<i>F-ompT hsdSB(rB- mB-) gal dcm met</i> (DE3) pLysS	EMD4Biosciences
S17-1λpir	Conjugative strain for suicide plasmids	[1]
SM10λpir	Conjugative strain for suicide plasmids	[1]
<i>P. aeruginosa</i>		
PAO1	wild-type <i>P. aeruginosa</i> strain, parent of the strains below	Laboratory collection
PAO1 CTX:: <i>pqsA'-lux</i>	PAO1 with a miniCTX:: <i>pqsA'-luxCDABE</i> fusion integrated in the chromosomal CTX attachment site	[2]
PAO1 Δ <i>pqsA</i>	<i>pqsA</i> in-frame deletion mutant; AQ-negative	[2]
PAO1 Δ <i>pqsA</i> CTX:: <i>pqsA'-lux</i>	<i>pqsA</i> in-frame deletion mutant with a miniCTX:: <i>pqsA'-luxCDABE</i> fusion integrated in the chromosome	[3]
PAO1 Δ <i>pqsAH</i> CTX:: <i>pqsA'-lux</i>	double Δ <i>pqsA</i> Δ <i>pqsH</i> in-frame deletion mutant with a miniCTX:: <i>pqsA'-luxCDABE</i> chromosomal fusion	[2]
PAO1 Δ <i>pqsR</i>	Δ <i>pqsR</i> in-frame deletion mutant	This study
PAO1 Δ <i>pqsAHR</i>	triple Δ <i>pqsA</i> Δ <i>pqsH</i> Δ <i>pqsR</i> in-frame deletion mutant	This study
PAO1 Δ <i>pqsR</i> CTX:: <i>pqsA'-lux</i>	Δ <i>pqsR</i> deletion mutant with a miniCTX:: <i>pqsA'-luxCDABE</i> chromosomal fusion	This Study
PAO1 Δ <i>pqsAHR</i> CTX:: <i>pqsA'-lux</i>	triple Δ <i>pqsA</i> Δ <i>pqsH</i> Δ <i>pqsR</i> in-frame deletion mutant with a miniCTX:: <i>pqsA'-luxCDABE</i> chromosomal fusion	This Study
PAO1 <i>lecA::lux</i>	<i>lecA::luxCDABE</i> chromosomal reporter fusion	[4]
PAO1 CTX:: <i>phzA1'-lux</i>	PAO1 with a miniCTX:: <i>phzA1'-luxCDABE</i> fusion integrated in the chromosomal CTX attachment site	This study
Plasmids		
pBluescript II KS+ pFLP2	Cloning vector; ColE1 replicon; Ap ^R	Stratagene
miniCTX- <i>lux</i>	Plasmid providing Flp recombinase; Ap ^R	[5]
	pHKBS1 reporter vector for the insertion of promoter- <i>luxCDABE</i> fusions into the CTX attachment site of <i>P. aeruginosa</i> ; Tc ^R	[6]
pCTX:: <i>pqsA'-lux</i>	Promoter region and part of <i>pqsA</i> fused to <i>luxCDABE</i> inserted into the miniCTX-1 delivery plasmid. Tc ^R	[2]
CTX:: <i>phzA1-lux</i>	Promoter region and part of <i>phzA1</i> fused to <i>luxCDABE</i> inserted into the miniCTX-1 delivery plasmid. Tc ^R	This Study
pET28a	Expression vector for <i>E. coli</i> , Km ^R	Novagen
pPqsR-C ⁹⁴⁻³³²	pET28a containing the PqsR CBD region, residues 94-332; Km ^R	This study
pPqsR-C ⁹⁴⁻²⁹⁴	pET28a containing the PqsR CBD region, residues 94-294; Km ^R	This study
pBS <i>pqsRU</i> p	pBluescript II KS+ carrying the upstream region of <i>pqsR</i> ; Ap ^R	This study
pBS <i>pqsRDown</i>	pBluescript-II KS+ carrying the downstream region of <i>pqsR</i> ; Ap ^R	This study
pDM4Δ <i>pqsR</i>	pDM4 derivative for the in-frame deletion of <i>pqsR</i> ; Cm ^R	This study
pME6032	pVS1-p15A shuttle expression (IPTG-inducible) vector, Tc ^R	[7]
pPqsR	pME6032 derivative expressing native <i>pqsR</i> ; Tc ^R	This Study
pPqsR-6His	pME6032 derivative expressing <i>pqsR</i> -6His; Tc ^R	This Study
pPqsR-6His-I149A	derivative of pPqsR-6His with I149A substitution; Tc ^R	This Study
pPqsR-6His-I149E	derivative of pPqsR-6His with I149E substitution; Tc ^R	This Study
pPqsR-6His-A168F	derivative of pPqsR-6His with A168F substitution; Tc ^R	This Study
pPqsR-6His-I186A	derivative of pPqsR-6His with I186A substitution; Tc ^R	This Study
pPqsR-6His-Q194E	derivative of pPqsR-6His with Q194E substitution; Tc ^R	This Study
pPqsR-6His-L207A	derivative of pPqsR-6His with L207A substitution; Tc ^R	This Study
pPqsR-6His-L207E	derivative of pPqsR-6His with L207E substitution; Tc ^R	This Study
pPqsR-6His-F221A	derivative of pPqsR-6His with F221A substitution; Tc ^R	This Study
pPqsR-6His-F221E	derivative of pPqsR-6His with F221E substitution; Tc ^R	This Study
pPqsR-6His-F221Y	derivative of pPqsR-6His with F221Y substitution; Tc ^R	This Study
pPqsR-6His-I236F	derivative of pPqsR-6His with I236F substitution; Tc ^R	This Study
pPqsR-6His-Y258A	derivative of pPqsR-6His with Y258A substitution; Tc ^R	This Study
pPqsR-6His-I263W	derivative of pPqsR-6His with I263W substitution; Tc ^R	This Study

References for Table S1

1. Simon R, Priefer U, Puhler A (1983) A broad host range mobilization system for *in vivo* genetic engineering, transposon mutagenesis in Gram-negative bacteria. *Bio-Technol* 1: 784-791.
2. Fletcher MP, Diggle SP, Crusz SA, Chhabra SR, Camara M, et al. (2007) A dual biosensor for 2-alkyl-4-quinolone quorum-sensing signal molecules. *Environ Microbiol* 9: 2683-2693.
3. Diggle SP, Matthijs S, Wright VJ, Fletcher MP, Chhabra SR, et al. (2007) The *Pseudomonas aeruginosa* 4-quinolone signal molecules HHQ and PQS play multifunctional roles in quorum sensing and iron entrapment. *Chem Biol* 14: 87-96.
4. Winzer K, Falconer C, Garber NC, Diggle SP, Camara M, et al. (2000) The *Pseudomonas aeruginosa* lectins PA-IL and PA-IIL are controlled by quorum sensing and by RpoS. *J Bacteriol* 182: 6401-6411.
5. Hoang TT, Karkhoff-Schweizer RR, Kutchma AJ, Schweizer HP (1998) A broad-host-range Flp-FRT recombination system for site-specific excision of chromosomally-located DNA sequences: application for isolation of unmarked *Pseudomonas aeruginosa* mutants. *Gene* 212: 77-86.
6. Becher A, Schweizer HP (2000) Integration-proficient *Pseudomonas aeruginosa* vectors for isolation of single-copy chromosomal *lacZ* and *lux* gene fusions. *Biotechniques* 29: 948-952.
7. Heeb S, Blumer C, Haas D (2002) Regulatory RNA as mediator in GacA/RsmA-dependent global control of exoproduct formation in *Pseudomonas fluorescens* CHA0. *J Bacteriol* 184: 1046-1056.