

Table S2. Bacterial strains and plasmids

Strains/Plasmids	Relevant characteristics and plasmids construction	Reference/Source
<i>E. coli</i>		
DH5 α	Cloning strain.	[55]
S17.1 λ <i>pir</i>	Conjugative strain for suicide plasmids.	[56]
H1717	Mutant strain carrying the <i>PfhuF::lacZ</i> transcriptional fusion that does not produce the siderophore enterochelin. Used for the Fur titration assay (FurTA).	[51]
<i>P. aeruginosa</i>		
PAO1	Nottingham collection wild type strain.	
$\Delta pqsA \Delta pqsH$	<i>pqsA</i> and <i>pqsH</i> double mutant of strain PAO1.	[27]
$\Delta pqsA \Delta pqsE$	<i>pqsA</i> and <i>pqsE</i> double mutant of strain PAO1.	[11]
$\Delta pqsR$	<i>pqsR</i> mutant of strain PAO1.	This study
$\Delta 4AQ$	Quadruple mutant of PAO1 carrying in frame clear deletions of the <i>pqsA</i> , <i>pqsH</i> , and <i>pqsL</i> genes, in which <i>pqsE</i> is under the control of an IPTG-inducible promoter.	This study
$\Delta 5AQ$	Quintuple mutant of PAO1 carrying in frame clear deletions of the <i>pqsA</i> , <i>pqsH</i> , <i>pqsL</i> , and <i>pqsR</i> genes, in which <i>pqsE</i> is under the control of an IPTG-inducible promoter.	This study
$\Delta pvdS$	<i>pvdS</i> mutant of strain PAO1.	This study
$\Delta 4AQ \Delta pvdS$	$\Delta 4AQ$ strain carrying a deletion of the <i>pvdS</i> gene.	This study
$\Delta 5AQ \Delta pvdS$	$\Delta 5AQ$ strain carrying a deletion of the <i>pvdS</i> gene.	This study
$\Delta pqsAHLE$	Quadruple mutant of PAO1 carrying in frame clear deletions of the <i>pqsA</i> , <i>pqsH</i> , <i>pqsL</i> and <i>pqsE</i> genes.	This study
Plasmids		
pBluescript II KS(+)	Cloning vector; ColE1 replicon; Ap ^R .	Stratagene
pDM4	Suicide vector; <i>sacBR</i> ; <i>oriR6K</i> ; Cm ^R .	[57]
pME6032	pVS1-p15A shuttle expression (IPTG-inducible) vector, Tc ^R .	[58]
miniCTX- <i>lux</i>	Promoter-probe vector containing the <i>luxCDABE</i> operon; Tc ^R .	[59]
pEX $\Delta pvdS$	pEX18 derivative used to introduce the <i>pvdS</i> mutation in PAO1 wild type, $\Delta 4AQ$ and $\Delta 5AQ$.	[53]
pDM4 <i>pqsE</i> ind	pDM4 derivative for the generation of the <i>pqsE</i> -inducible strain $\Delta 4AQ$.	[11]

Strains/Plasmids	Relevant characteristics and plasmids construction	Reference/Source
pDM4 Δ <i>pqsE</i>	pDM4 derivative for the generation of the PAO1 Δ <i>pqsAHLE</i> mutant strain.	[11]
pDM4 Δ <i>pqsR</i>	pDM4 derivative used to introduce the <i>pqsR</i> mutation in PAO1 wild type and in the Δ 5AQ strain.	[24]
miniCTX- <i>PpqsA::lux</i>	miniCTX- <i>lux</i> derivative used to insert the <i>PpqsA::lux</i> fusion in the chromosome of different <i>P. aeruginosa</i> strains.	[27]
pUCP18	pUC18 derivative containing a stabilising fragment for maintenance in <i>Pseudomonas</i> ; Ap ^R , <i>E. coli</i> / Cb ^R , <i>P. aeruginosa</i> .	[60]
pUCP <i>pqsE</i>	pUCP18 derivative for <i>pqsE</i> complementation; Ap ^R .	[11]
pBS <i>pqsLUP</i>	The DNA fragment encompassing the upstream region of the <i>pqsL</i> gene originated with primers FW <i>pqsLUP</i> and RV <i>pqsLUP</i> (Table S3) was cloned in pBluescript II KS(+) by XhoI-EcoRI restriction.	This study
pBS <i>pqsLDOWN</i>	The DNA fragment encompassing the downstream region of the <i>pqsL</i> gene originated with primers FW <i>pqsLDOWN</i> and RV <i>pqsLDOWN</i> (Table S3) was cloned in pBluescript II KS(+) by EcoRI-XbaI restriction.	This study
pDM4 Δ <i>pqsL</i>	pDM4-derived plasmid used to introduce the <i>pqsL</i> mutation in <i>P. aeruginosa</i> Δ <i>pqsA</i> Δ <i>pqsH</i> . It contains the DNA fragments encompassing the upstream region <i>pqsL</i> (extracted by XhoI-EcoRI restriction from pBS <i>pqsLUP</i>) and the downstream region of <i>pqsL</i> (extracted by EcoRI-XbaI restriction from pBS <i>pqsLDOWN</i>), and cloned in pDM4 by XhoI-XbaI.	This study
miniCTX- <i>PpqsH::lux</i>	miniCTX- <i>lux</i> derivative used to insert the <i>PpqsH::lux</i> fusion in the chromosome of different <i>P. aeruginosa</i> strains. Obtained by cloning in miniCTX- <i>lux</i> with restriction enzymes XhoI-PstI a DNA region encompassing the <i>PpqsH</i> promoter amplified with primers FW <i>PpqsH</i> and RV <i>PpqsH</i> (Table S3).	This study
miniCTX- <i>PpqsL::lux</i>	miniCTX- <i>lux</i> derivative used to insert the <i>PpqsL::lux</i> fusion in the chromosome of different <i>P. aeruginosa</i> strains. Obtained by cloning in miniCTX- <i>lux</i> with restriction enzymes XhoI-PstI a DNA region encompassing the <i>PpqsL</i> promoter amplified with primers FW <i>PpqsL</i> and RV <i>PpqsL</i> (Table S3).	This study

Strains/Plasmids	Relevant characteristics and plasmids construction	Reference/Source
miniCTX- <i>PpqsR::lux</i>	miniCTX- <i>lux</i> derivative used to insert the <i>PpqsR::lux</i> fusion in the chromosome of different <i>P. aeruginosa</i> strains. Obtained by cloning in miniCTX- <i>lux</i> with restriction enzymes HindIII-EcoRI a DNA region encompassing the <i>PpqsR</i> promoter amplified with primers FW <i>PpqsR</i> and RV <i>PpqsR</i> (Table S3).	This study
miniCTX- <i>PpchR::lux</i>	miniCTX- <i>lux</i> derivative used to test the ability of Fur to bind the <i>PpchR</i> promoter (FurTA; positive control). Obtained by cloning in miniCTX- <i>lux</i> with restriction enzymes XhoI-HindIII a DNA region encompassing the <i>PpchR</i> promoter amplified with primers FW <i>PpchR</i> and RV <i>PpchR</i> (Table S3).	This study
miniCTX- <i>PphzA1::lux</i>	miniCTX- <i>lux</i> derivative used to insert the <i>PphzA1::lux</i> fusion into the chromosome of <i>P. aeruginosa</i> $\Delta pqsAHLE$. Obtained by cloning in miniCTX- <i>lux</i> with restriction enzymes HindIII-BamHI a DNA region encompassing the <i>PphzA1</i> promoter amplified with primers FW <i>PphzA1</i> and RV <i>PphzA1</i> (Table S3).	This study
miniCTX- <i>PphzA2::lux</i>	miniCTX- <i>lux</i> derivative used to insert the <i>PphzA2::lux</i> fusion into the chromosome of <i>P. aeruginosa</i> $\Delta pqsAHLE$. Obtained by cloning in miniCTX- <i>lux</i> with restriction enzymes EcoRI-PstI a DNA region encompassing the <i>PphzA2</i> promoter amplified with primers FW <i>PphzA2</i> and RV <i>PphzA2</i> (Table S3).	This study
pME- <i>pqsE</i>	pME6032 derivative for the IPTG-dependent expression on <i>pqsE</i> . Obtained by cloning in pME6032 with restriction enzymes EcoRI-SacI a DNA region encompassing the <i>pqsE</i> gene amplified with primers FW <i>pqsE</i> and RV <i>pqsE</i> (Table S3).	This study
pME- <i>pqsE</i> Δ 1-6	pME6032 derivative for the IPTG-dependent expression of a mutated variant of <i>pqsE</i> lacking the first two codons (ATGTTG). Obtained by cloning in pME6032 with restriction enzymes EcoRI-SacI a DNA region encompassing the <i>pqsE</i> gene amplified with primers FW <i>pqsE</i> Δ 1-6 and RV <i>pqsE</i> Δ 1-6 (Table S3).	This study

Strains/Plasmids	Relevant characteristics and plasmids construction	Reference/Source
pME- <i>pqsE</i> NoFrame	pME6032 derivative for the IPTG-dependent expression of a mutated variant of <i>pqsE</i> out of frame. Obtained by cloning in pME6032 with restriction enzymes EcoRI-SacI a DNA region encompassing the <i>pqsE</i> gene amplified with primers FW <i>pqsE</i> NoFrame and RV <i>pqsE</i> (Table S3).	This study

Additional references for Table S2:

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