

Table S1. Strains, plasmids, and primers used in this study.

Strain, Plasmid, or Primer	Genotype/Relevant Characteristic	Source*
<i>S. cerevisiae</i> INVSc1	MATa <i>his3D1 leu2 trp1-289 ura3-52 MAT his3D1 leu2 trp1-289 ura3-52</i>	Shanks et al. 2006
<i>E. coli</i> S17-1(lpir)	<i>thi pro hsdR- hsdM+ DrecA RP4-2::TcMu-Km::Tn7</i>	Shanks et al. 2006
SMC232	Wild type PA14	Zegans et al. 2009
SMC5489	DMS3vir mutant (no bacteria)	Cady and Bondy-Denomy et al. 2012
SMC7475	DMS3vir-PC mutant (no bacteria)	This Study
SMC4279	ΔPA14_CRISPR Region (CR)	Cady et al. 2011
SMC4277	PA14 Δ <i>cas1</i>	Cady et al. 2011
SMC7361	PA14 Δ <i>recD</i>	This Study
SMC7362	PA14 MarTX7:: <i>recG</i>	Liberati et al. 2006
SMC4707	PA14 ΔPA14_CRISPR2 +CRISPR2 Δ <i>spacer1-2</i>	Cady et al. 2011
SMC7442	PA14 Δ <i>recG</i>	This Study
SMC7440	PA14 ΔPA14_CRISPR1_CRISPR2 + CRISPR2 Δ <i>spacers 1-19</i>	This Study
SMC7476	PA14 ΔPA14_CRISPR1_CRISPR2 + CRISPR2 Δ <i>spacers 1-19 + sp20-5MM</i>	This Study
SMC7441	PA14 ΔPA14_CRISPR1_CRISPR2 + CRISPR2 leader and repeat (CRISPR2-Minimum)	This Study
Plasmids		
pMQ30	<i>P. aeruginosa</i> suicide vector for clean deletions; GmR	Shanks et al. 2006
pMQ30- <i>recG</i> -KO	For generating <i>recG</i> deletions in <i>P. aeruginosa</i> ; GmR	This Study
pMQ30- <i>recD</i> -KO	For generating <i>recD</i> deletions in <i>P. aeruginosa</i> ; GmR	This Study
pMQ30-CRISPR2 Δ <i>spacers 1-19</i> KOon	For knocking on CRISPR2 Δ <i>spacers 1-19</i> onto a ΔCRISPR1 ΔCRISPR2 backg	This Study
pMQ30-CRISPR2 Δ <i>spacers 1-19 + sp20-5MM</i> KOon	For knocking on CRISPR2 Δ <i>spacers 1-19 + sp20-5MM</i> onto a ΔCRISPR1 ΔCRISPR2 background	This Study
pMQ30-CRISPR2 leader and repeat	For knocking on the CRISPR2 leader and a single repeat onto a ΔCRISPR1 ΔCRISPR2 background	This Study
pMQ30-DMS3-24PC	For generating a DMS3 mutant in which the C2_sp20 target has the correct PAM	This Study
Primers		
<i>recD</i> KO primer 1	ctgttttatcagaccgcttctgctgtctgaagacgctccaggcgccctggatttc	
<i>recD</i> KO primer 2	atcccagagccgagcgcgtgcccccggcggtcgg	
<i>recD</i> KO primer 3	cgcccggggcgacgcgctcggtcgggatcgctgg	
<i>recD</i> KO primer 4	ggataacaatttcacacaggaacagctatgtcgacctgtggctggaacagtatctcgcc	
Δ <i>recD</i> Sequencing primer For	GTGTTGTACCTGCTGGCCCTGCACCCGG	
Δ <i>recD</i> Sequencing primer Rev	CGGCAGCCTCGACCCGGAATCCCTG	
MarTX7 Transposon Check Forward	TGTCAACTGGGTTCGTGCCTTCATCCG	
<i>recG</i> Transposon Check Forward	GTTCGGTACCGTTGCCATCGCCTGG	
<i>recG</i> Transposon Check Reverse	GGCTTCTGTATGACGAGACCATGCG	
<i>recG</i> KO primer 1	CTGTTTTATCAGACCGCTTCTGCGTCTGATGCCCCGGAGGTTGGTTCGCGGGC	
<i>recG</i> KO primer 2	CGAGAGCGAAATAGATCATGCGATTTGGCGTGTTCCTGGGTTGCGG	
<i>recG</i> KO primer 3	CCGCAATTCGATGATCTATTTTCGCTCTCGCTGACCGCGTAGGTC	
<i>recG</i> KO primer 4	CGGATAACAATTTACACAGGAACAGCTATGAGGCCCTCGATCACCGGCGGGTGTAG	
<i>recG</i> sequencing For	GAGAACAAGCACACCACGGTGGAGTCTCGTCG	
<i>recG</i> sequencing Rev	CGGCAGGCGATGCCTAGCTTGGCG	
CRISPR2sp1-19 KO 1	TTATCAGACCCGCTTCTGCGTCTGATGTAGCACCCGAGTCCATGGGAAATGCCAGCAC	
CRISPR2sp1-19 KO 2	GTTCACTGCGGTGTAGGCAGCTAAGAAATTCACGGCG	
CRISPR2sp1-19 KO 3	TTTCTTAGCTGCCTACACGGCAGTGAACCTAGCTCCGAAAAC	
CRISPR2sp1-19 KO 4	AACAATTTACACAGGAACAGCTATGCAATCGGCGGATAACGCCCATGGCGTTATTTCG	
CRISPR2sp1-19 Seq For	ATATTCGGATGTTGGTAGTGGGATGGGAGG	
CRISPR leader + repeat 1	AGTCACGACGTTGTAAAACGACGGCCGTAGCACCCGAGTCCATGGGAAATGCCAGCAC	
CRISPR leader + repeat 2	CTAGTTCACTGCCGTGTAGGCAGCTAAGAACTCGAACCACC	
CRISPR leader + repeat 3	CCTACACGGCAGTGAACCTAGCTCCGAAAACCTATAACCATTTGAAGG	
CRISPR leader + repeat 4	TAACAATTTACACAGGAACAGCTATGCAATCGGCGGATAACGCCCATGGCGTTATTTCG	
CRISPR1 Insertion Check For	gctgaacagctaggccgttctgaac	
CRISPR1 Insertion Check Rev	cgtgtcgtccgatctgtgacagta	
CRISPR2 Insertion Check For	acgaacgccgtccagaagtcaacc	
CRISPR2 Insertion Check Rev	gagggtttctggcgggaaaaactcggtatttc	
CRISPR2 Sequence For	TGGTCTGCCTAGACGGCAGCGAACCCGGC	
CR2sp1-19KOsp20_5MM 2	GAAATTCACCGCAGCCTTGATGTCGCGCTCAACCTGG	
CR2sp1-19KOsp20_5MM 3	CCAGGTTGAGGCGGACATCAAGGCTGCGTGAATTC	
CR2sp1-19KOsp20_5MM 4	CGGATAACAATTTACACAGGAACAGCTATGCCTCTACGCCGAAAGCGGCGCGG	
DMS324_PC 1	tttatcagaccgcttctgctgtctgatcgacacccgcatatgcccacggcc	
DMS324_PC 2	CGAGCAGTGCACCTTCCGGCGG	
DMS324_PC 3	CCGCCGTGAAGTGCAGTGTCTG	
DMS324_PC 4	cgataacaatttcacacaggaacagctatgCGGCCCTTGCCGGCCCTGGG	
DMS3vir Seq For (66)	CTTCTGCTCAAGCTGTAGCGCTAAAGG	
DMS3vir Seq For (66)	GCGCAAGTGCTTTAGCGGGAATGCTG	
DMS3-24-PC Seq For (65)	GCTGGAACACGACGGCGGAAGCCG	
DMS3-24-PC seq Rev (65)	GTGCTGCGGGAACCGCTCACGGATG	
DMS3-24 Check For (66)	GTTGCCTGCGGCTGCTCGCG	
DMS3-24 Check Rev (66)	AGGCCTTGAAATGTACCCCTGCAATTCGTGTGTT	

*See main text for complete references of literature cited.