Supplemenary Figure for Harshaw, et al. 2021
From Antibiotics used in empiric treatment of ocular infections trigger the bacterial Rcs stress response system independent of antibiotic susceptibility

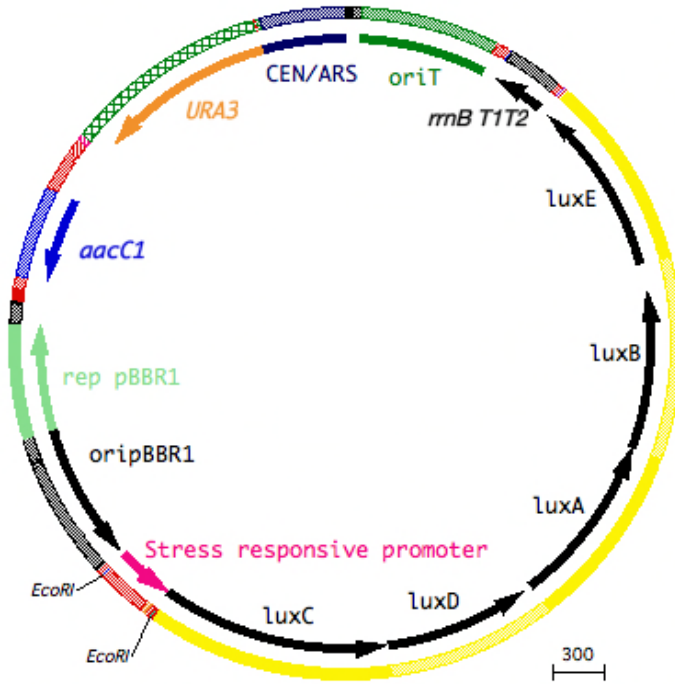

Figure S1. Diagram of pMQ747 used in this study. Starting from the origin, the origin of conjugal transfer, oriT, is from RP4; the *rrnB* T1T2 are transcriptional terminators from *Escherichia coli*. The *luxCDABE* operon provides luminescence. The stress responsive promoter was altered in each of the plasmids used in this study. The oripBBR1-rep pBBR1 is a broad host-range medium copy replicon that is sufficient for replication in a large number of Gram-negative bacterial species. The *aacC-1* gene provides gentamicin resistance, and the *URA3* and *CEN/ARS* portions allow replication in *Saccharomyces cerevisiae* for recombineering purposes. The size bar represents 300 base pairs.

Supplemental tables for Antibiotics used in empiric treatment of ocular infections trigger the bacterial Rcs stress response system independent of antibiotic susceptibility

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Table S1. *S. marcescens* strains and plasmids used in this study.

Strain	Description	Source
K904	Wild-type *S. marcescens* keratitis isolate	[1]
Δ*gumB*	K904 with deletion of *gumB* gene	[2]
Δ*rcsB*	K904 with *rcsB* ORF replaced by *mClover*	[3]
Δ*gumB* Δ*rcsB*	K904 with deletion mutations of *gumB* and *rcsB*	[3]
S17-1 λ-*pir*	*Escherichia coli* conjugal plasmid donor strain	[4]
pMQ414	pBBR1-replicon plasmid with *nptII* promoter driving *tdtomato* expression	[5]
pMQ589	RSF1010-IncQ plasmid with *nptII* promoter driving *luxCDABE* expression	This study
pMQ670	pBBR1-replicon plasmid with *xut* promoter driving *luxCDABE* expression	[6]
pMQ713	pBBR1-replicon plasmid with *pigA* promoter - *luxCDABE* expression	[7]
pMQ747	pMQ713 with SMDB11_1637 promoter -*luxCDABE*	This study
pMQ748	pMQ713 with SMDB11_2817 promoter -*luxCDABE*	This study
pMQ749	pMQ713 with SMDB11_1194 promoter –*luxCDABE*	This study

Table S2. Oligonucleotides used in this study.

Name of sequence	Sequence (5' to 3')
3805	agaccgcttctgcgttctgatttaatctgtatcaGGATCCTCAACTATCAAACGCTTCGG
3806	gatcaagatctgatcaagagacaggatgaggaGAATTCATGACTAAAAAAATTTCATTCA
4858 SMDB11_1637	ttgcactaaatcatcactttcgggaaagatttcaacctggccgttaatgatgaatgaaatctttttagtcatGAATTC TTCCTGGTAAATTGGCTGATTAATGGATTAAAAATAATCCGATTAACC CACCGGTAGAAGTTGGGATGAATGTATTCCTCCGAAAGAAAATCGAAC AGGTAAAAATTCTTAATTTTTCGGCGGTGAAAAGCGATTGCTCGCCGA ATGTGCGGCCACCGACAAAACCGTGGGTCTATACTGGGAAGACGCCTC GCGGGGTGCGGGGCACACACTCTGGAGGCCGCCATGTCCGATCTCGTT TCCGCGTCCGGCAAACCGGTGAAAATCCCCGGCCCGGACCACCCAATC ACCTTGACCCGCCATCCGGCGCGGGTTGTCGTGCGTGCTGCCGGTCAG ACCCTGGCCGACAGTCGCAGAATTCgtcgactccagtcgggaaacctgtcgtgccagctgca ttaatgcgccctacgggcttgct
4860 SMDB11_2817	ttgcactaaatcatcactttcgggaaagatttcaacctggccgttaatgatgaatgaaatctttttagtcatGAATTC CTTCTCCTTCCCGCTTGCGCGGCCTGGCCGTTTGTCACTTTATGAAGCG CGTTCATCAGTTTAAAAAAGCGGCCTTATCGTTATTTTGCTGCAATATC GGCATCATAGCGCCGGCGCATAGGGTTGAATCTGAGAGCCACTCTGAA AATGATGCAGGAGGTTAAGATTTGAGATTTTTCTGGAGTATCGCCGCT CGATTGAACGGCGGAATTTGTAAGCGATTACAATAAGATGTTCTCGAT CTGCGCGAGCTCTTCTTCACTGAAGTGACGATTGGCCAGCATGCCCAC CGCGTCTTCTATCTGCGCATTCTTGCTGGCGCCGATCAGCACTGAGGGA ATTCgtcgactccagtcgggaaacctgtcgtgccagctgcattaatgcgccctacgggcttgctctccgggcttcg ccctg
4862 SMDB11_1194	gattgcactaaatcatcactttcgggaaagatttcaacctggccgttaatgatgaatgaaatctttttagtcatGAATT CAGGAAACCTCCTGAAAGTGTTACCACGCATTTTTTCCGGGGTCTGTTA CCGGCATGGCACCGCGCTTATTATTTTGCGCATGGGCGGCTTGCGGTAT CCCGGTTTACGGCGTGCGCGACGCGCCGTCTGTAAACGAGGTAAAGTC TGCACAATGATTTGAGGGCTCGCAATAAGACAAGGGGACCAAAAATG CGGGAAAACGGCCGTTTTGCCGTTGTTTAGGAGGAATCTTAAGAATTT TACCCATGTCGGCGACAGCTTATGCTGAAGAATCAAGCAACCGCCGCC GTTAGCCTCGCCCCGCCATAAAAAAACCCGCGCAGGCGAACCGGCGC GGGGAATTCgtcgactccagtcgggaaacctgtcgtgccagctgcattaatgcgccctacgggcttgctctcc gggcttcgccc

Lower case sequence represents DNA for targeting recombination, upper case is for priming or promoter sequence. Underlined sequence indicates an introduced restriction enzyme cleavage site.

References

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