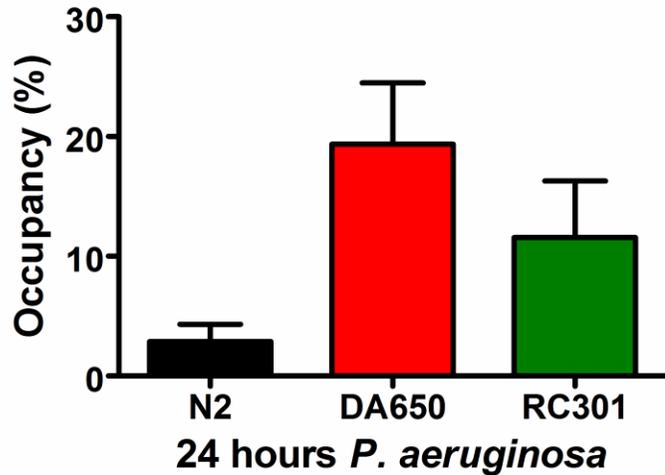


**Figure S1. (A)** Animals were exposed to heat-killed *E. coli* and score for lifespan. The survival graphs represent the combined results of three independent experiments;  $n = 350$  animals/strain. N2 versus DA650 ( $P < 0.0001$ ), DA650 versus RC301 ( $P = 0.0493$ ) and WT versus RC301 ( $P < 0.0001$ ) are shown. **(B)** The median, which was determined for each nematode strain exposed to heat-killed *E. coli*, is shown. The graph is representative of the three independent experiments shown in panel A, error bars indicate s.e.m.



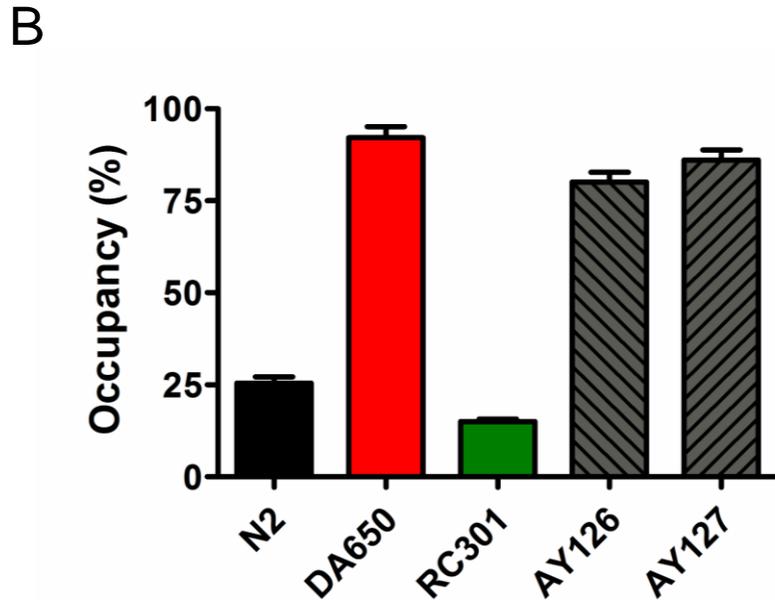
**Figure S2.** N2, DA650, and RC301 animals were placed on a spot of *P. aeruginosa* under the same conditions used by Chang and coworkers (Chang et al., 2011) and monitored at 24 hours for their presence or absence on the lawn. The graphs represent the combined results of three independent experiments, error bars indicate s.e.m. n = 60 adult animals/strain.

**A**

	446		475
<i>str-86</i> (WT)	AATGGAGTATTTCAACGGAGGGTATTTAAT		
<i>str-86</i> ( <i>ec320</i> )	AATGGAGTATTT-AACGGAGGGTATTTAAT		
		△	
		gggtattttaatgttt	
	439		478
<i>str-86</i> (WT)	TTAAAAAATGG (16bp) GTATTTAATGTT		
<i>str-86</i> ( <i>ec321</i> )	TTAAAAAATGG-----GTATTTAATGTT		

**B**

WT	MLTFTIRCEQLGVVVALFSNTMLFYLLTFKANTSYGAYRRLMFSYTTIVELMYSVIVSMGMMAH
STR-86 ( <i>ec320</i> )	MLTFTIRCEQLGVVVALFSNTMLFYLLTFKANTSYGAYRRLMFSYTTIVELMYSVIVSMGMMAH
STR-86 ( <i>ec321</i> )	MLTFTIRCEQLGVVVALFSNTMLFYLLTFKANTSYGAYRRLMFSYTTIVELMYSVIVSMGMMAH
WT	STETSFVVFVDLYEGYVSRYLAPIFLIDFCAFYFTLILLLVVHFYIYRYVVVCDFFKKMEYFNGGYL
STR-86 ( <i>ec320</i> )	STETSFVVFVDLYEGYVSRYLAPIFLIDFCAFYFTLILLLVVHFYIYRYVVVCDFFKKMEYLTGI*-
STR-86 ( <i>ec321</i> )	STETSFVVFVDLYEGYVSRYLAPIFLIDFCAFYFTLILLLVVHFYIYRYVVVCDFFKKMGI*-----
WT	MFVVFESAACGVSMCIILKFFAFPETERRSIELSEEFSLYYNLTMDQVVYNGPNYYICNENDECE
STR-86 ( <i>ec320</i> )	-----
STR-86 ( <i>ec321</i> )	-----
WT	MPLKDW TAMMILSNGLIFSIVIMLYCGYRCCVKLNKNDKQTS CRTVDLQQLMIALIIQSVIPI
STR-86 ( <i>ec320</i> )	-----
STR-86 ( <i>ec321</i> )	-----
WT	IFMYIPILLLEITPMPFKIGLGPVYNIAMATLSIYPPIDQFAIYVVKDFRIGVKDFFKCGKKS
STR-86 ( <i>ec320</i> )	-----
STR-86 ( <i>ec321</i> )	-----
WT	NTSSSTIFTTRLSLTKSHLSL*
STR-86 ( <i>ec320</i> )	-----
STR-86 ( <i>ec321</i> )	-----



**Figure S3. (A-B)** Schematic of the CRISPR/Cas9 generated *str-86* mutant alleles and STR-86 variants. **(C)** N2, DA650, RC301, AY126 [*str-86(ec320); npr-1(ad650)*] and AY127 [*str-86(ec321); npr-1(ad650)*] animals were placed on a spot of *P. aeruginosa* under standard assay conditions and monitored at 24 hours for their presence or absence on the lawn. The graph represent the combined results of three independent experiments, error bars indicate s.e.m. n = 60 adult animals/strain.

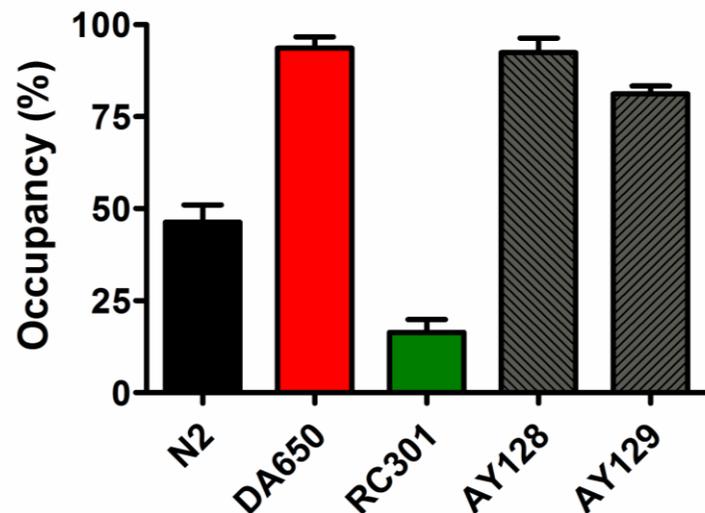
A

	13		175
<i>C50F4.1</i> (WT)	GCATTAATTGCA	(139bp)	AGGGCATTGCAA
<i>C50F4.1</i> ( <i>knu123</i> )	GCATTAATTGCA	-----a	AGGGCATTGCAA
	73		102
<i>C50F4.1</i> (WT)	ATCAATGGTGT	CACAACCGTGGAGTTAGAG	
<i>C50F4.1</i> ( <i>knu124</i> )	ATCAATGGTGT	CACA-CCGTGGAGTTAGAG	
		△	
	tgtccgatgtccgtgtccgtgtccgtggaccgtggtgt		

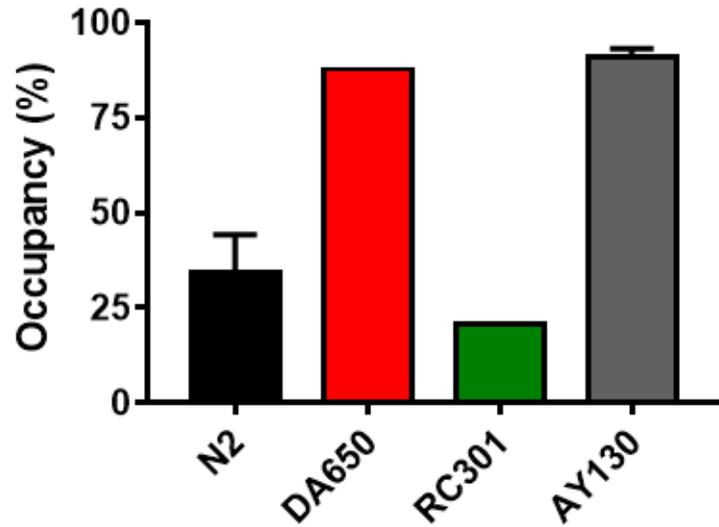
B

WT	MFITALIAKELGLSRVKELNPTVTINGVTTVELETAEGFRVHLVRDDQDVIVKLEEGSKLAAY
<i>C50F4.1</i> ( <i>knu123</i> )	MFITALIAKGIAKISKTFNSKFKCTTDIKYYKIVTPTITVSFFNGSNFKRILQIF*-----
<i>C50F4.1</i> ( <i>knu124</i> )	MFITALIAKELGLSRVKELNPTVTINGVTVRCPCPCPWTVVYRGVRDSGGPLPSAFGER*----
WT	YNSLFWHEISTFEKIPIPSAHFNRSFVVTEDENKHSVYVTFQFLKKGSVRTKLGLEPELEQVASQI
<i>C50F4.1</i> ( <i>knu123</i> )	-----
<i>C50F4.1</i> ( <i>knu124</i> )	-----
WT	AKLHAVNSKTINKQFSLNVQENYGNIIISFKKKIQKELIEVLETAVTTTEVADYFMNPSVIEKV
<i>C50F4.1</i> ( <i>knu123</i> )	-----
<i>C50F4.1</i> ( <i>knu124</i> )	-----
WT	GILTHYLEDWKDEDADEKEKHNVIAHGRLTAEICRFDEDEGNLVEITEWENIHLGNPVEDLANLI
<i>C50F4.1</i> ( <i>knu123</i> )	-----
<i>C50F4.1</i> ( <i>knu124</i> )	-----
WT	VSSADVDIRRKKFMKIFQVYFYALVDYYPKYQLHDLKRWFQEQPTVLINGIESLLFTLSEGS
<i>C50F4.1</i> ( <i>knu123</i> )	-----
<i>C50F4.1</i> ( <i>knu124</i> )	-----
WT	DDVKQDAARRWETALNDTVDFLTGNYISDNEHPFLSQKENDD*
<i>C50F4.1</i> ( <i>knu123</i> )	-----
<i>C50F4.1</i> ( <i>knu124</i> )	-----

B



**Figure S4. (A-B)** Schematic of the CRISPR/Cas9 generated *C50F4.5* mutant alleles and *C50F4.1* variants. **(C)** N2, DA650, RC301, AY128 [*C50F4.1(knu123);npr-1(ad650)*] and AY129 [*C50F4.1(knu124);npr-1(ad650)*] animals were placed on a spot of *P. aeruginosa* under standard assay conditions and monitored at 24 hours for their presence or absence on the lawn. The graph represents the combined results of three independent experiments, error bars indicate s.e.m. n = 60 adult



**Figure S5.** N2, DA650, RC301 and AY130 [*C13A2.5(gk792531); npr-1(ad650)*] animals were placed on a spot of *P. aeruginosa* under standard assay conditions and monitored at 24 hours for their presence or absence on the lawn. The graph represents the combined results of three independent experiments, error bars indicate s.e.m. n = 60 adult animals/strain.