

Supplemental Table 1. Strains used in this study.

Sau ID#	<i>mecA</i>	SCC <i>mec</i>	CC	ST	Sensitivity to Spn*		Source of culture
					Average	SD	
NRS049	+	II	5	5	7.00	0.03	
NRS275	-	-	8	254	7.30	0.50	
NRS268					7.37	0.42	
Newman					7.41	0.39	
NRS029	+	II	30 (36)	36	7.47	0.33	
NRS036	+	I	8 (247)	247	7.56	0.50	
NRS180	-	-	30	30	7.71	0.38	
NRS039	+	I	8 (247)	247	7.72	0.84	
NRS103	-	-	45	508 - DLV	7.78	0.49	bloodstream
NRS215	-	-	121	121	7.78	0.09	
NRS271	+	IV	22	22	7.88	0.42	wound drain site
NRS223	-	-	30	30	7.99	0.61	
NRS002	+	II	5	5	8.01	0.42	
NRS035	+	I	8 (247)	572	8.03	0.62	bloodstream
NRS022	+	II	45	45	8.08	0.72	bloodstream
NRS003 [#]	+	II	5	5	8.10	0.49	
NRS001	+	II	5	5	8.12	0.51	
NRS051 [#]	+	II	5	5	8.19	0.52	bile
NRS021 [#]	+	IV	8	8	8.22	0.41	bloodstream
NRS408	+	II	5	371	9.27	1.18	
NRS170	-	-	10	10	9.63	0.16	

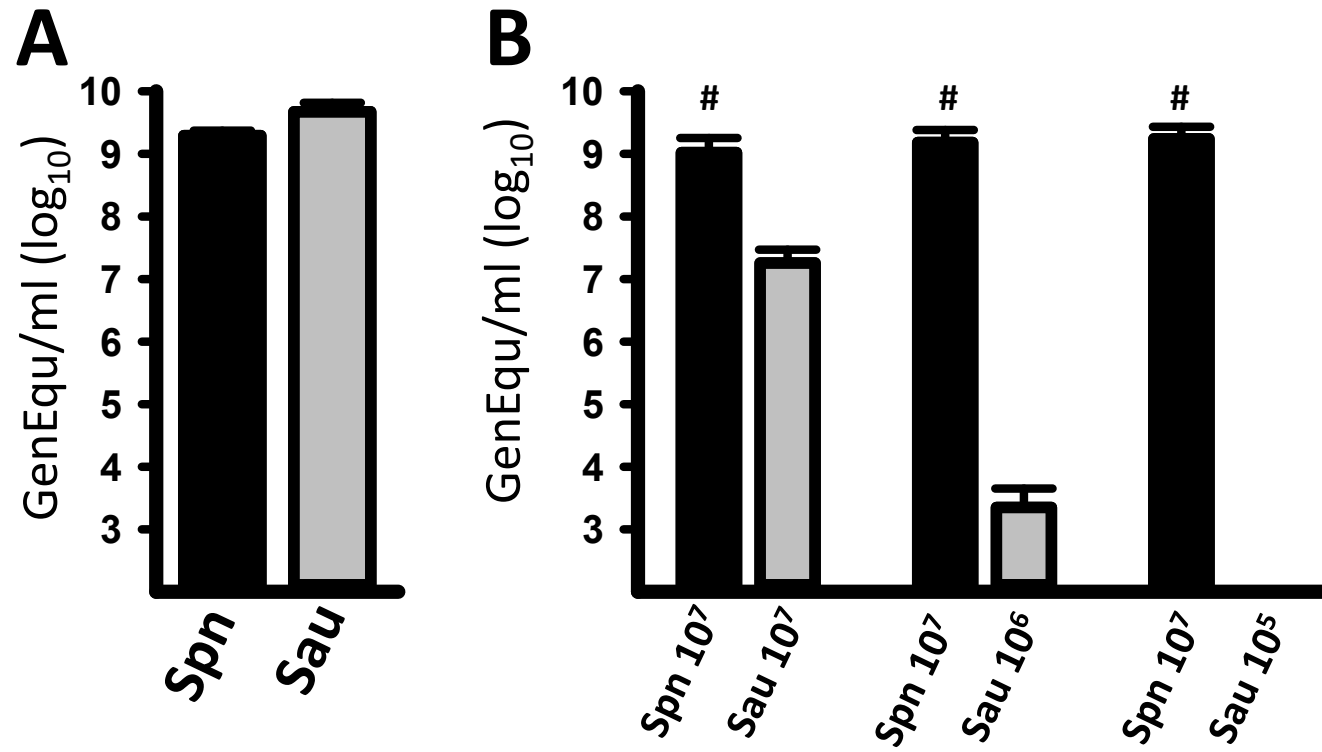
*Bactericidal efficiency (log₁₀ cfu), The maximum staphylococcal inoculum “killed” by 10⁷ cfu of *S. pneumoniae* in 4 h

[#]VISA strain

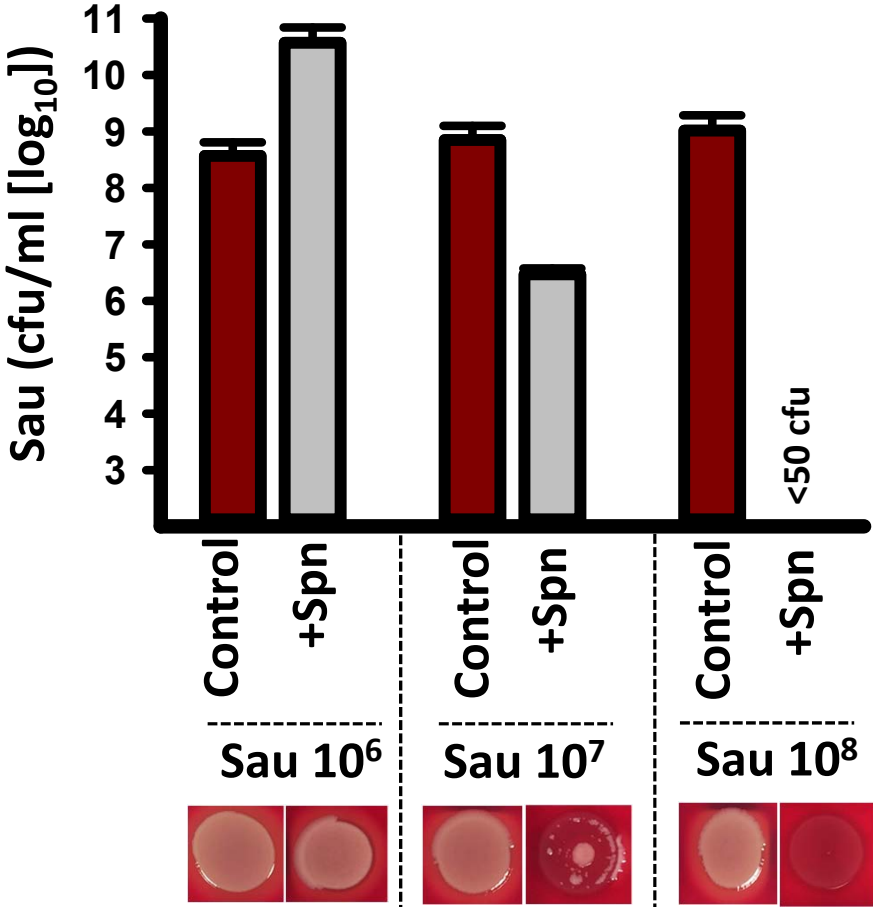
Supplemental Table 2. Dose-response effects of resistant (NRS049) and sensitive (NRS408J) Sau strains on competition in the presence of Spn. Doses of two Sau strains (NRS49 and NRS408 rifampin resistant mutant – NRS408J) were varied as shown in the table below and subjected to competition in the presence of Spn (TIGR4; 6.67e6 CFU/mL). Experimental conditions included Spn, while controls did not. Sau concentrations are reported as CFU/mL. Sau growth is indicated by (+), while failure to grow is indicated by (-). Results are representative of two biological and two technical replicates.

Outcome (NRS49/NRS408J) (experimental) (control)	(+)/(-) (+)/(-)	(+)/(+) (+)/(+)	(+)/(+) (+)/(+)	(+)/(+) (+)/(+)	(-)/(-) (-)/(+)
NRS49 Concentration	5e6 0	3.75e6 1.25e6	2.5e6 2.5e6	1.25e6 3.75e6	0 5e6
NRS408J Concentration					
Outcome (NRS49/NRS408J) (experimental) (control)	(-)/(-) (-)/(+)	(+)/(+) (+)/(+)	(+)/(+) (+)/(+)	(+)/(+) (+)/(+)	(+)/(+) (+)/(+)
NRS49 Concentration	0 5e6	1.25e6 5e6	2.5e6 5e6	3.75e6 5e6	5e6 5e6
NRS408J Concentration					
Outcome (NRS49/NRS408J) (experimental) (control)	(+)/(-) (+)/(-)	(+)/(+) (+)/(+)	(+)/(+) (+)/(+)	(+)/(+) (+)/(+)	(+)/(+) (+)/(+)
NRS49 Concentration	5e6 0	5e6 1.25e6	5e6 2.5e6	5e6 3.75e6	5e6 5e6
NRS408J Concentration					

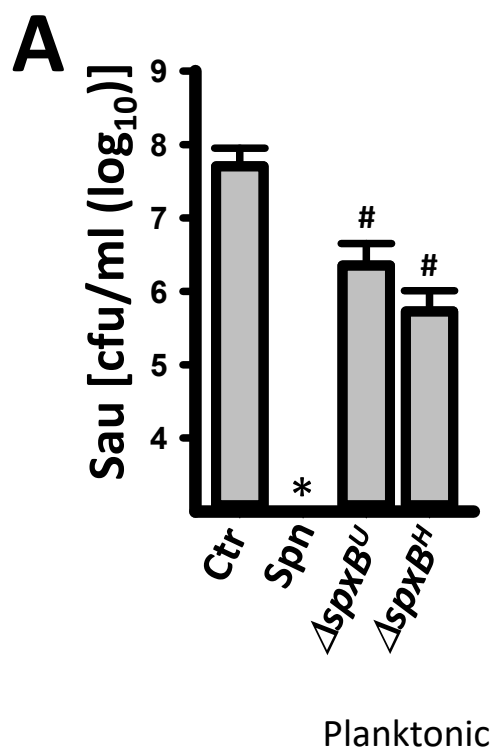
Supplemental Figure 1



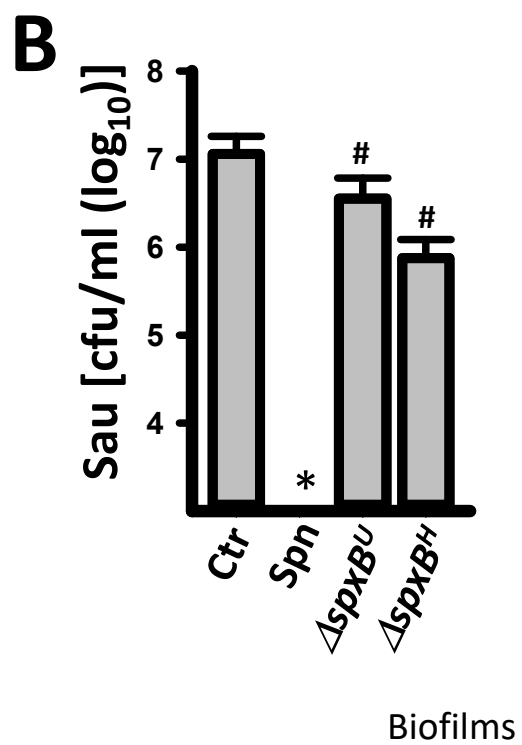
Supplemental Figure 2



Supplemental Figure 3



$p > 0.391$



$p > 0.304$

Supplemental Figure 4

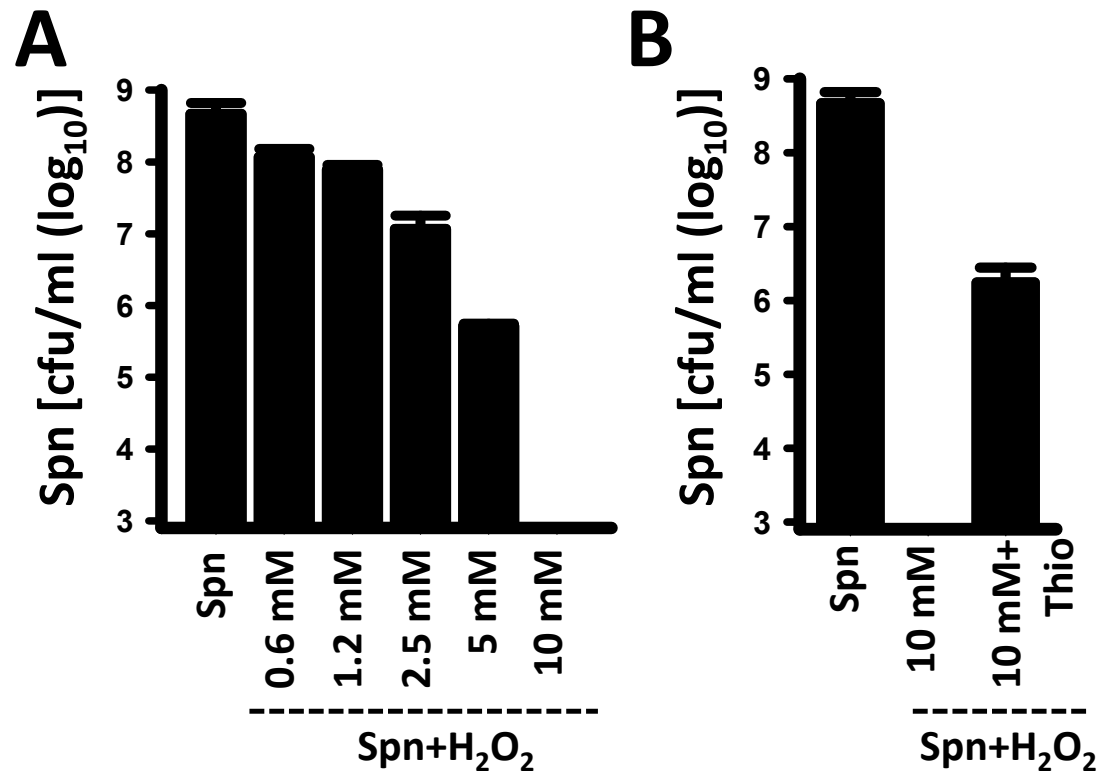


Figure legends: Supplemental Figures

Supplemental Figure 1. Quantification of genome equivalents from concurrently inoculated

bacteria. (A) Spn strain TIGR4 and Sau strain Newman were inoculated alone (A) each at $\sim 10^7$ cfu/ml or together (B) at the indicated density (cfu/ml) on a blood agar plate. Plates were incubated for 24 h at 37°C. Bacteria were removed from the plates, DNA extracted and the DNA used as the template in species-specific qPCR reactions. Error bars in both panels represent the standard errors of the means calculated using data from at least three independent experiments. $*p < 0.05$ compared to Sau control incubated alone. $\#p > 0.67$ compared to Spn control inoculated alone.

Supplemental Figure 2. Viable counts of Sau when inoculated concurrently with Spn.

Sau strain Newman was inoculated alone (Control) onto a blood agar plate, at the indicated density in cfu/ml, or concurrently with Spn strain TIGR4 that was inoculated in all spots at $\sim 10^8$ cfu. Plates were incubated for 24 h at 37°C. Bacteria were removed from the plates (bottom panels), serially diluted and plated onto LBA with optochin to obtain Sau counts. Error bars in both panels represent the standard errors of the means calculated using data from at least three independent experiments. $*p < 0.05$ compared to Sau control incubated alone. $\#p > 0.67$ compared to Spn control inoculated alone.

Supplemental Figure 3.

Sau strain Newman was inoculated alone (Ctrl), along with TIGR4 wild-type (Spn), or the indicated TIGR4-derivative mutant, in 6-well microtiter plates containing THY; mixtures were incubated for 4 h at 37°C. Planktonic cells (A), or biofilms (B) were harvested, then diluted and plated to obtain counts of Sau. Error bars in both panels represent the standard errors of the means calculated using data from at least three independent experiments. $*p < 0.05$, or $\#p > 0.30$, compared to Sau control (Ctrl) incubated alone.

Supplemental Figure 4. Thiourea protects Spn from a challenge with hydrogen peroxide.

(A) Spn strain TIGR4 was inoculated in 6-well plates containing THY alone, or with the indicated concentration of hydrogen peroxide (H_2O_2). (B) Another set of wells were inoculated with Spn and 10 mM H_2O_2 , or with Spn, 10 mM H_2O_2 , and 40 mM of thiourea. Plates were incubated for 4 h at 37°C. Pneumococci were removed from the plates, diluted and plated onto blood agar plates to obtain the density (cfu/ml). Error bars in both panels represent the standard errors of the means calculated using data from at least three independent experiments.