



Figure S1: Colony count (CFU/ml) from all experimental conditions at 3, 24 and 48h p.i.

Table S1: Aminoglycoside MIC values of *S. aureus* ATCC BAA-1556_Catania and its derivative SCVs

	USA 300	
	WT	SCV
AMIKACIN	4 mg/L	96 mg/L
GENTAMYCIN	0.5 mg/L	4 mg/L
TOBRAMYCIN	0.5 mg/L	6 mg/L
KANAMYCIN	1.5 mg/L	16 mg/L

Table S2. Resistance and virulence profiles of ATCC BAA-1556 *S. aureus* WT and its derivative stable SCV.

RESISTANCE AND VIRULENCE PROFILES	
Resistance genes	<i>mecA</i> , gene encodes methicillin resistance in staphylococci; <i>fosB</i> , gene that leads to the resistance of fosfomycin; <i>mepA</i> , gene encodes MepA efflux pumps; <i>arlS</i> , protein histidine kinase for ArlR; <i>mepR</i> , gene for upstream repressor of MepA; <i>tetK</i> , gene encodes a tetracycline efflux pump; <i>ermC</i> , ribosomal RNA methyltransferase; <i>lmrS</i> , secondary active transporters; <i>arlR</i> , response regulator for <i>norA</i> ; <i>norA</i> , multidrug efflux pump; <i>tet38</i> , tetracycline efflux pump; <i>mepA</i> , gene for efflux pump protein; <i>mgrA</i> , regulator for <i>norA</i> , <i>norB</i> , and <i>tet38</i> . Virulence genes: <i>hla</i> , alpha-hemolysin; <i>hlgA</i> beta-hemolysin; <i>hld</i> , delta-lysin; gamma-hemolysin A; <i>hlgB</i> , gamma-hemolysin B; <i>hlgC</i> , gamma-hemolysin C; <i>aur</i> , aureolysin; <i>ebp</i> , elastin-binding protein; <i>IcaR-IcaA-IcaD-IcaB-IcaC-IsdB-IsdA-IsdC-IsdD</i> , iron metabolism and acquisition; <i>isdE-isdF</i> , heme metabolism <i>srtB</i> , <i>isdG</i> , <i>lip</i> , <i>geh</i> , <i>map</i> , <i>lukS/F PV</i> , Pantone Valentine leukocidin encoding factors; <i>scn</i> , staphylococcal complement inhibitor; <i>sdrD</i> , serine-aspartate repeat-containing protein D; <i>sdrE</i> , serine-aspartate repeat-containing protein E; <i>sspB</i> , staphylococcal serine-protease B; <i>sspC</i> , staphylococcal serine-protease C; <i>sak</i> , staphylokinase; <i>esxA</i> , staphylococcal protein secretion system A; <i>esxB</i> , staphylococcal protein secretion system B; <i>esaA</i> , staphylococcal secretion system component A; <i>essA</i> , staphylococcal secretion machinery protein A; <i>essB</i> , staphylococcal secretion machinery protein B; <i>essC</i> , staphylococcal secretion machinery protein C; <i>vWbp</i> , von Willebrand factor-binding protein.
Virulence genes	<i>hla</i> , alpha-hemolysin; <i>hlgA</i> , beta-hemolysin; <i>hld</i> , delta-lysin; gamma-hemolysin A; <i>hlgB</i> , gamma-hemolysin B; <i>hlgC</i> , gamma-hemolysin C; <i>aur</i> , aureolysin; <i>ebp</i> , elastin-binding protein; <i>IcaR-IcaA-IcaD-IcaB-IcaC-IsdB-IsdA-IsdC-IsdD</i> , iron metabolism and acquisition; <i>isdE-isdF</i> , heme metabolism <i>srtB</i> , <i>isdG</i> , <i>lip</i> , <i>geh</i> , <i>map</i> , <i>lukS/F PV</i> , Pantone Valentine leukocidin encoding factors; <i>scn</i> , staphylococcal complement inhibitor; <i>sdrD</i> , serine-aspartate repeat-containing protein D; <i>sdrE</i> , serine-aspartate repeat-containing protein E; <i>sspB</i> , staphylococcal serine-protease B; <i>sspC</i> , staphylococcal serine-protease C; <i>sak</i> , staphylokinase; <i>esxA</i> , staphylococcal protein secretion.

Table S3: statistical insights of gene expression levels detected through qRT-PCR

<i>S.aureus</i> USA300 Vs <i>S.aureus</i> SCV		Unpaired t test P value	P value summary	Significantly different (P < 0.05)?	95% confidence interval	R squared (eta squared)
Regulator	<i>sarA</i>	0,5214	ns	No	-1,058 to 1,520	0,229
	<i>sigB</i>	0,7005	ns	No	-0,4126 to 0,5075	0,08971
	<i>agrA</i>	0,1483	ns	No	-2,962 to 9,757	0,7255
Virulence	<i>psmA</i>	0,844	ns	No	-1,746 to 1,574	0,02434
	<i>hla</i>	0,0878	ns	No	-0,9560 to 6,173	0,8321
	<i>hld</i>	0,097	ns	No	-1,344 to 7,353	0,8155
Surface protein	<i>sdrE</i>	0,0459	*	Yes	0,07210 to 3,155	0,9103
Metabolic Pathways (TCA - Glycolysis)	<i>pdhA</i>	0,8241	ns	No	-1,769 to 1,573	0,03093
	<i>fumC</i>	0,3329	ns	No	-0,9176 to 1,683	0,445
	<i>uhpt</i>	0,0209	*	Yes	0,7451 to 3,307	0,9586