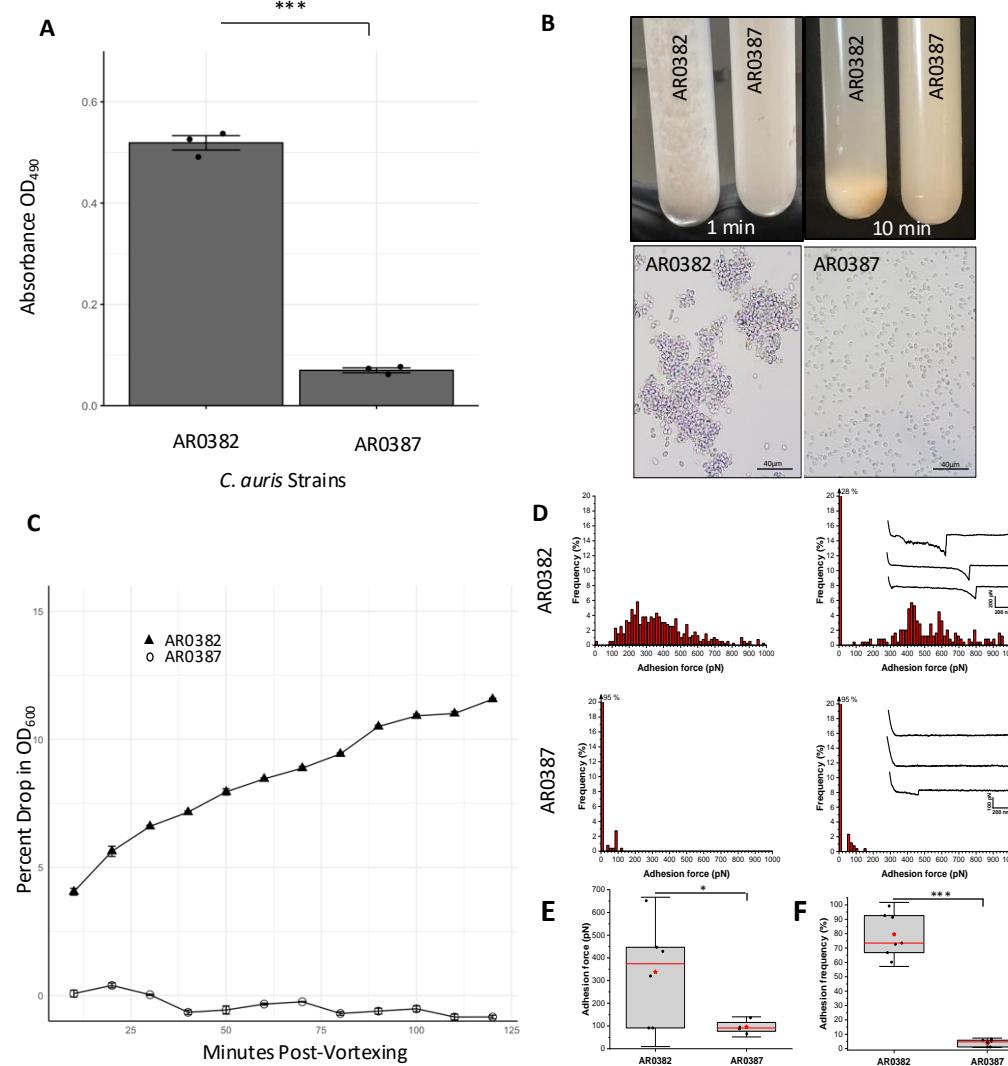
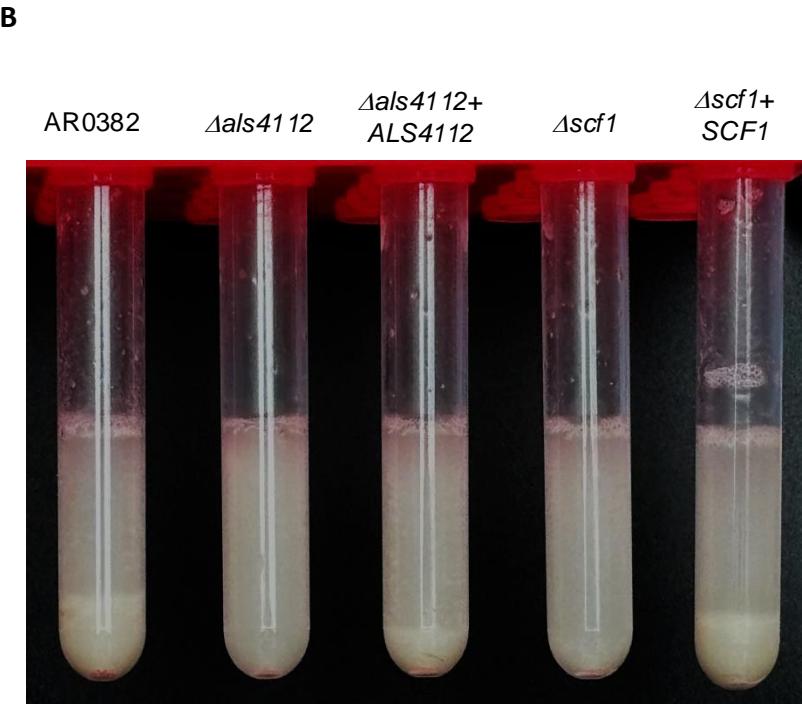
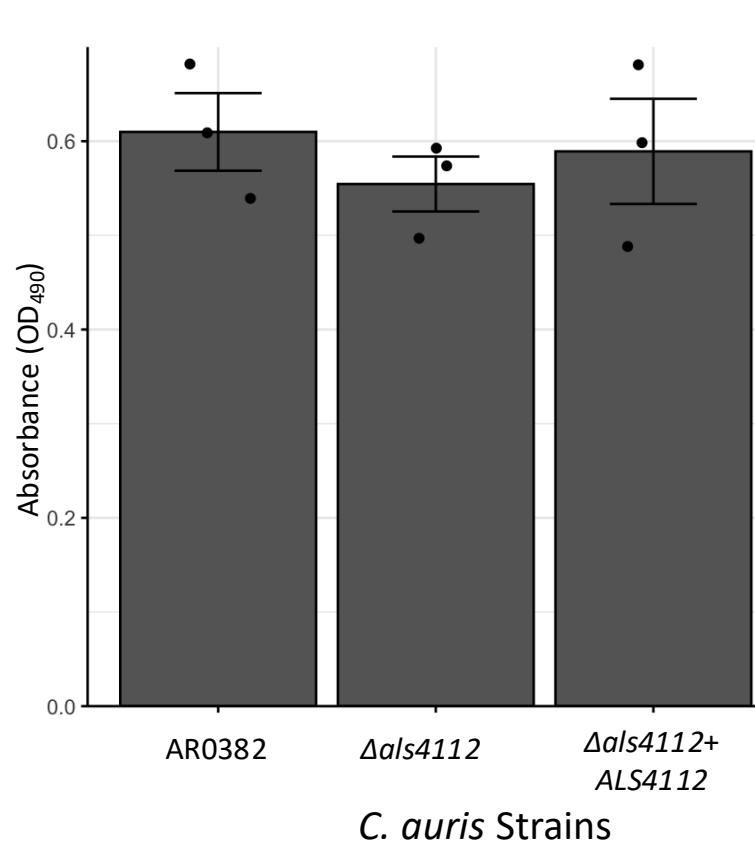
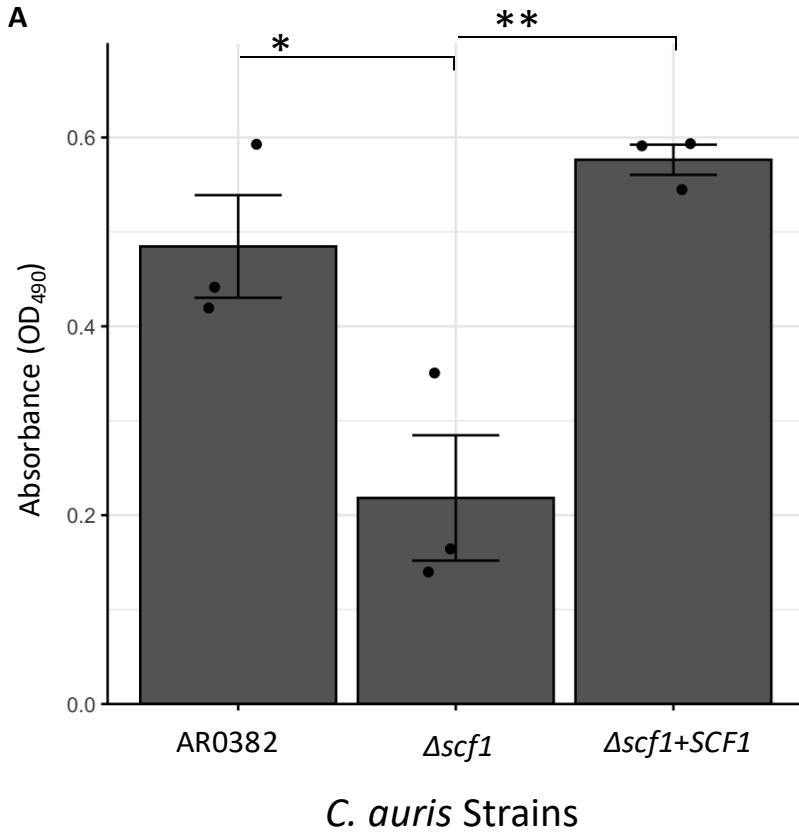
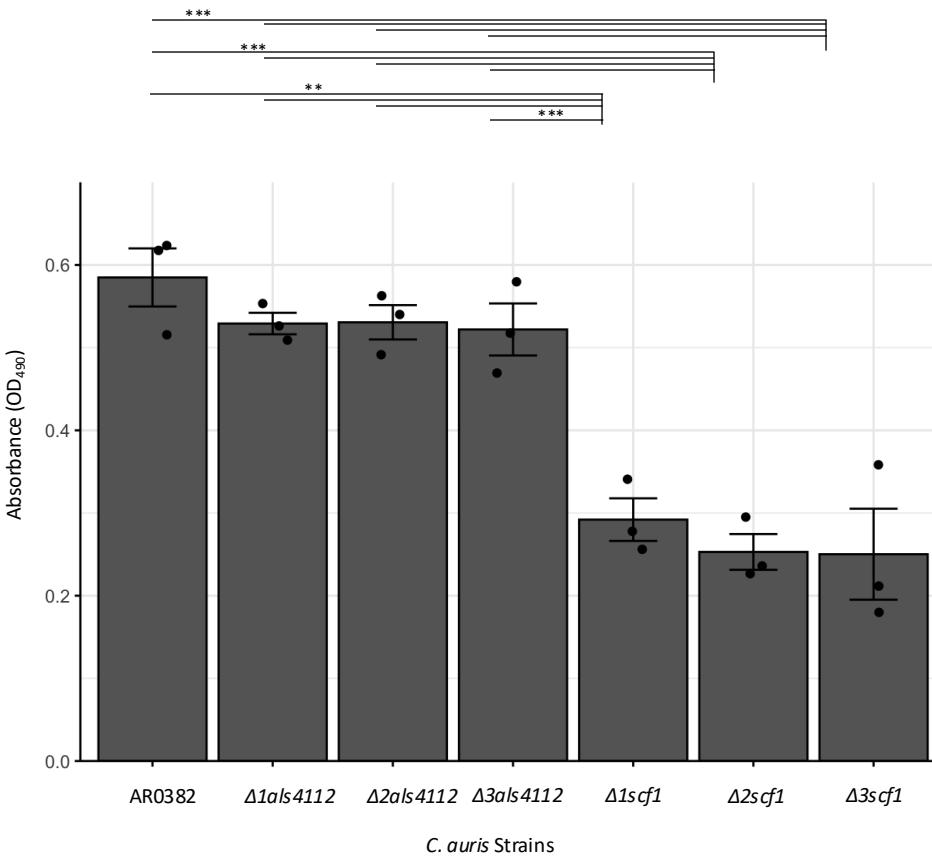


**Fig. S1. Comparative evaluation of biofilm formation, aggregation and cell-cell adhesion force by the wild-type AR0382 (aggregative) and AR0387 (non-aggregative) phenotypes.** (A) Metabolic activity of 24 h biofilms based on measurements of OD<sub>490</sub>, optical density. Bar-graphs shows mean and standard error of mean of  $n = 3$  biological replicates, each as an average of 4 technical replicates. Statistical analysis was performed by an unpaired two-tailed Welch's t-test.  $P = 2.243 \times 10^{-5}$ . (B) Aggregation assays, following vigorous vortexing of cell suspensions comparing cell aggregates of AR0382 and AR0387. Bright-field microscopy (lower panel) of aliquots of cell suspensions demonstrating presence of aggregates of AR0382 cells compared to singly suspended cells of AR0387. (C) Measurement of rate of cell sedimentation by absorbance readings of OD<sub>600</sub> of wild-type strains AR0382 and AR0387 over 2 h following vigorous vortexing. Values represent mean OD and standard error of mean of three technical replicates. (D) Single-cell force spectroscopy of *C. auris* cell-cell adhesion. Adhesion force histograms with representative retraction profiles (inset) obtained for the interaction between AR0382 wild-type cells and the interaction between AR0387 cells; 2 representative cell pairs are shown for each strain. (E) Adhesion force boxplots depicting  $n = 6$  and  $n = 4$  cell pairs for AR0382 and AR0387 respectively. Statistical analysis was performed by an unpaired two-tailed Welch's t-test.  $P = 4.21 \times 10^{-2}$  (F) As in (E), adhesion frequency boxplots show interactions between  $n = 7$  cell pairs for both strains.  $P = 8.06 \times 10^{-6}$ . Red stars represent the mean values, red lines are the medians, boxes are the 25–75% quartiles and whiskers the standard deviation from mean. \* $0.01 < P \leq 0.05$ , \*\*\* $P < 0.001$ .





**Fig. S2. Comparative evaluation of biofilm formation and aggregation by complemented strains of mutants of *ALS4112* and *SCF1* genes (*Δals4112+ALS4112* and *Δscf1+SCF1*) to their respective mutants and wild-type strain. (A)** Metabolic activity of 24 h biofilms based on measurements of OD<sub>490</sub>. Bar-graphs shows mean and standard error of mean of n = 3 biological replicates, each as an average of 4 technical replicates. Statistical analysis was performed by one-way ANOVA and post-hoc Tukey test with p-values representing significant differences. P = 2.25×10<sup>-2</sup>, 5.72×10<sup>-3</sup> \*\* 0.001 < P ≤ 0.01, \*\*\*P < 0.001. **(B)** Cell aggregation following 2 min of vigorous vortexing.



**Fig. S3. Evaluation of biofilm formation by the 3 mutant strains generated for the *ALS4112* and *SCF1* genes ( $\Delta 1$ - $\Delta 3$ ).** A measurement of the metabolic activity of 24 h biofilms based on values of OD<sub>490</sub> comparing all generated mutant strains to the wild-type. Boxplots show mean and standard error of mean of  $n = 3$  biological replicates, each as an average of 4 technical replicates. Statistical analysis was performed by one-way ANOVA and post-hoc Tukey test with  $p$ -values representing significant differences.  $P = 1.64 \times 10^{-3}, 1.55 \times 10^{-3}, 2.18 \times 10^{-3}, 2.02 \times 10^{-4}, 3.70 \times 10^{-4}, 3.50 \times 10^{-4}, 4.83 \times 10^{-4}, 5.17 \times 10^{-5}, 3.35 \times 10^{-4}, 3.17 \times 10^{-4}, 4.37 \times 10^{-4}, 4.71 \times 10^{-5}$  \*\*\* $P < 0.001$   $< P \leq 0.01$ , \*\*\* $P < 0.001$ .

**Supplementary Table 1 (S1). Primers used in this study.**

Marker	Purpose	Primer name	Sequence (5'-3')
<i>B9J08_004112</i>	US_cloning	CauALS5_US_GIB_F	AACTTCCCTCGAGGGGGGGGCCGAAAGATGATGGGAAACAA
		CauALS5_US_GIB_R	GGTGAAG AGGGAACAAAAGCTGGGTACCTCACCAACGAGACGGGAG
	DS_cloning	CauALS5_DS_GIB_F	C GCGAATTGGAGCTCCACCGCGGGTCCCCAGGTGCTATTTC
	DS_cloning	CauALS5_DS_GIB_R	TTG AGATCCACTAGTTCTAGAGCACGTGAGCTTTATGATACC
	crRNA	ALS5_crRNA	TAC
		ALS5US_chF	GTAATCAGGCAGAAACATCG
<i>B9J08_001458</i>		ALS5US_chR	GTCATTCTCCTTGTTCCG
		ALS5DS_chR	CATTGCGAGAGAAAGAAATCTGCGC
	US_cloning	Gbson_RBT1US_F	TAGAAAGTATAGGAACCTCCTGTGGAGGTGAAGTTTAAG
	US_cloning	Gbson_RBT1US_R	ATAGAG AGGGAACAAAAGCTGGGTACGCTCGCCGCTCACAATG
	DS_cloning	Gbson_RBT1DS_F	CTATAGGGCGAATTGGAGCTGTCGGATTGTGGGAATT
	DS_cloning	Gbson_RBT1DS_R	AGATCCACTAGTTCTAGAGCTTCTAACGACTCAT ACTTTC
pSFS2	Verify deletion	RBT1US_chF	ATGTGCTTCTGGGTCTTTG
	Verify deletion	RBT1DS_chR	GCGATAGGAGACGATGTTGATAAC
	crRNA	RBT1_crRNA	CTAGGTCCACTAGGTCCACT
	PCR/Seq/verify deletion	pSAT1_US-cPCR_F	CTAACGATGCATACGACTACATC
	PCR/Seq/verify deletion	pSAT1_DS-cPCR_R	ACATATGTGAAGTGTGAAGGGGG