

Supporting Information

Table S1. The induction of collagen secretion by Hs68 cells with different Lactobacilli.

Species	Strain	mean \pm SEM ^a
<i>L. acidophilus</i>	BCRC910774	2.79 \pm 0.13
<i>L. acidiophilus</i>	GMNL-631	3.33 \pm 0.10
<i>L. helveticus</i>	GMNL-440	5.45 \pm 0.04
<i>L. fermentum</i>	BCRC910259	4.28 \pm 0.09
<i>L. fermentum</i>	GMNL-297	3.61 \pm 0.22
<i>L. fermentum</i>	GMNL-299	3.93 \pm 0.03
<i>L. casei</i>	BCRC910585	3.00 \pm 0.23
<i>L. paracasei</i>	BCRC910220	4.61 \pm 0.15
<i>L. paracasei</i>	BCRC910314	5.32 \pm 0.39
<i>L. paracasei</i>	GMNL-653, BCRC910721	5.99 \pm 0.02
<i>L. plantarum</i>	GMNL-6, BCRC910777	9.39 \pm 0.27
<i>L. plantarum</i>	BCRC911066	2.11 \pm 0.01
<i>L. pentosus</i>	BCRC910591	3.70 \pm 0.10
<i>L. latiss</i>	GMNL-480	3.82 \pm 0.04

^a Data were presented as fold change compared with vehicle control.

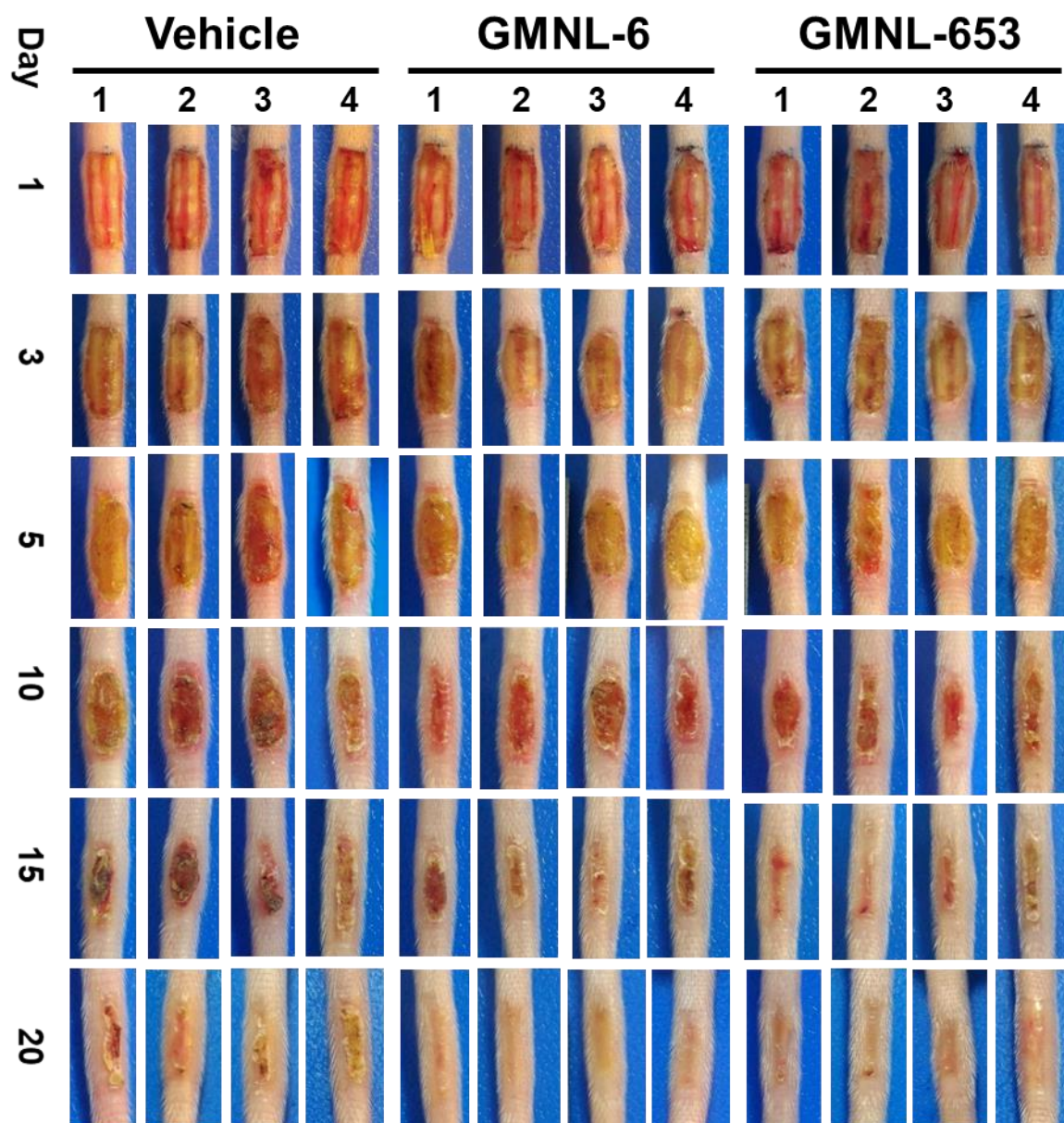


Figure S1. The images of tail wounds from each mouse used for analyzing the beneficial effects of heat-killed GMNL-6- or GMNL-653-containing gels.

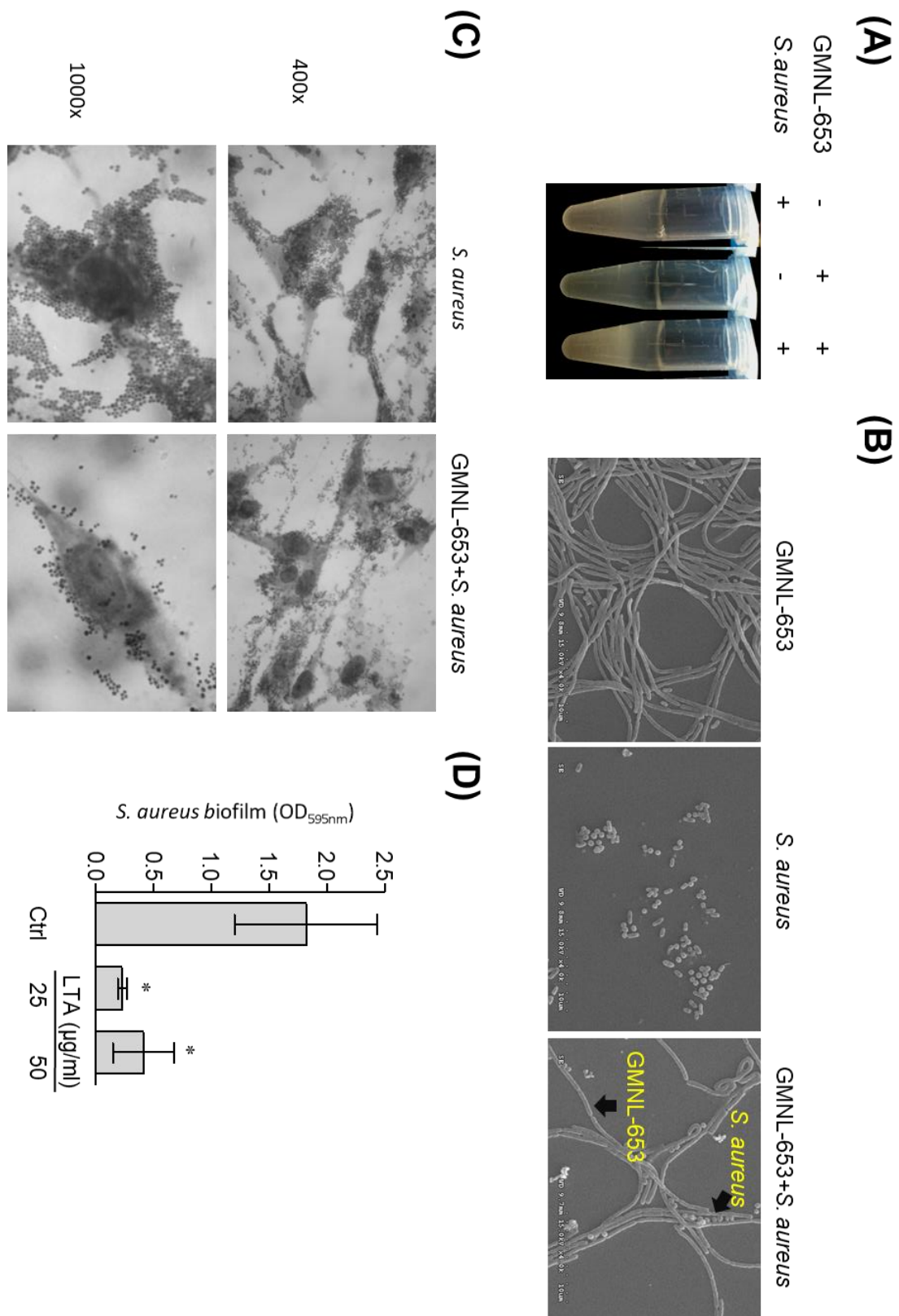


Figure S2. Heat-killed GMNL-653 decreases the adherence of *S. aureus* to Hs68 cells through the induction of aggregation. (A) The tube test of aggregation by directly mixing and observing the formation of precipitates. (B) The SEM data of

aggregates of heat-killed GNML-653 bacterial bodies and live *S. aureus* cells. (C) The live *S. aureus* or the mixture of heat-killed GMNL-653 and live *S. aureus* (1:1) were added into microwells with Hs68 cells for 24 hours followed by observing under microscopy. (D) *S. aureus* were seeded into wells of 96-well-plate with or without the indicated concentration of GMNL-653 derived LTA for 24 hours and the wells were washed with PBS. The biofilm was visualized by staining with 0.1% crystal violet, dissolved with DMSO, and quantified by the absorbance at a wavelength of 590 nm. *, $p < 0.05$.