Supplementary Material

Synechococcus elongatus PCC7942 secretes extracellular vesicles to accelerate cutaneous wound healing by promoting angiogenesis

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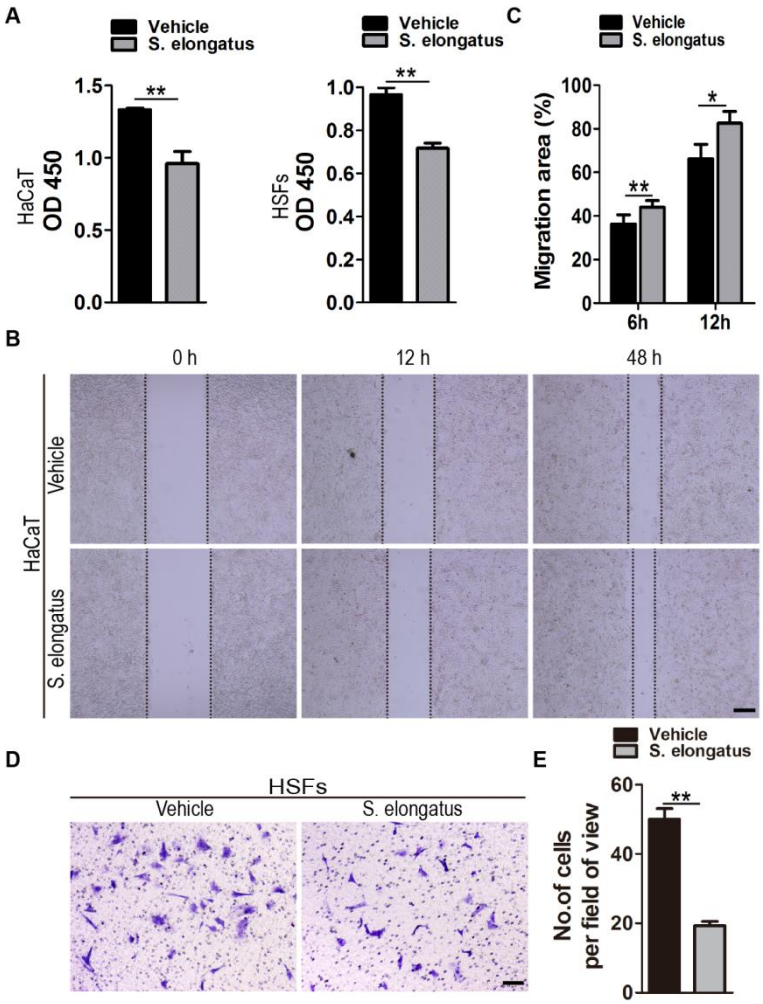

Figure S1. Effects of *S. elongatus* PCC 7942 on functional properties of keratinocytes and fibroblasts. (A) CCK-8 analysis of proliferation of human keratinocyte cell line HaCaT and human skin fibroblasts (HSFs). n = 4 per group. **(B-C)** Representative images of wound healing assay in HaCaT **(B)** and quantitative analysis of the migration rates **(C)**. Scale bar: 200 μm. n = 3 per group. **(D-E)** Representative images of transwell migration assay in HSFs **(D)** and quantitative analysis of the migrated cells **(E)**. Scale bar: 100 μm. n = 3 per group. Data are plotted as mean ± SD. $^{*}P < 0.05$, $^{**}P < 0.01$, $^{***}P < 0.001$.

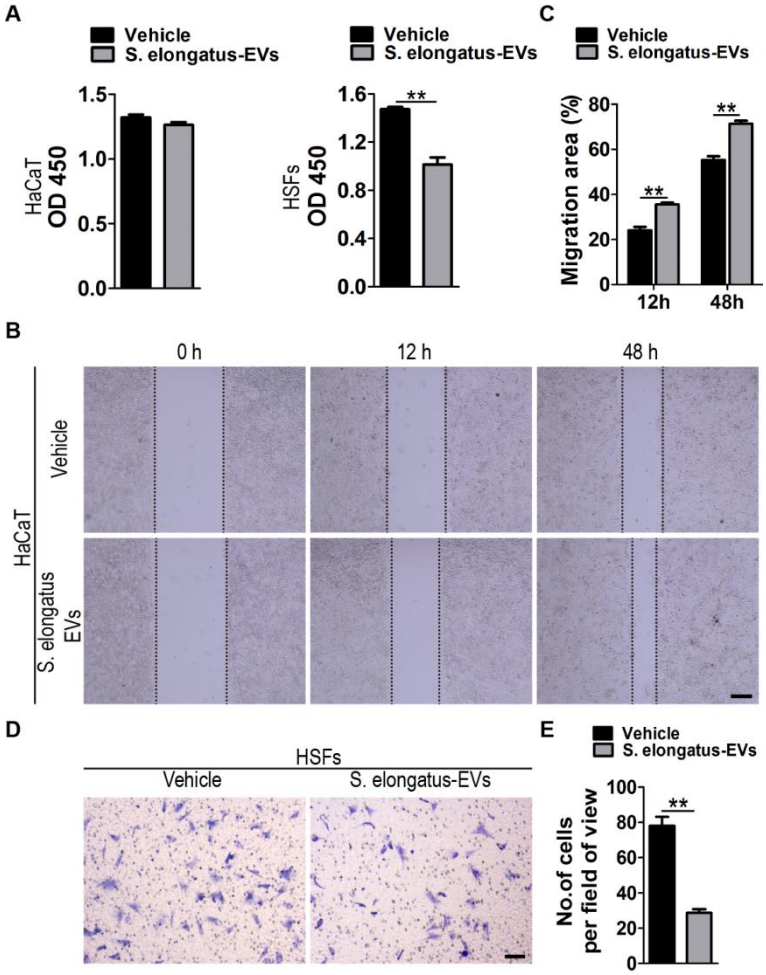

Figure S2. Effects of *S. elongatus*-EVs on functional properties of human keratinocytes and fibroblasts. (A) CCK-8 analysis of proliferation of keratinocyte cell line HaCaT and HSFs. n = 4 per group. **(B-C)** Representative images **(B)** and quantification **(C)** of wound healing assay for HaCaT. Scale bar: 200 μm. n = 3 per group. **(D-E)** Representative images **(D)** and quantification **(E)** of wound healing assay for HSFs. Scale bar: 200 μm. n = 3 per group. Data are plotted as mean ± SD. $^{*}P < 0.05$, $^{**}P < 0.01$, $^{***}P < 0.001$.

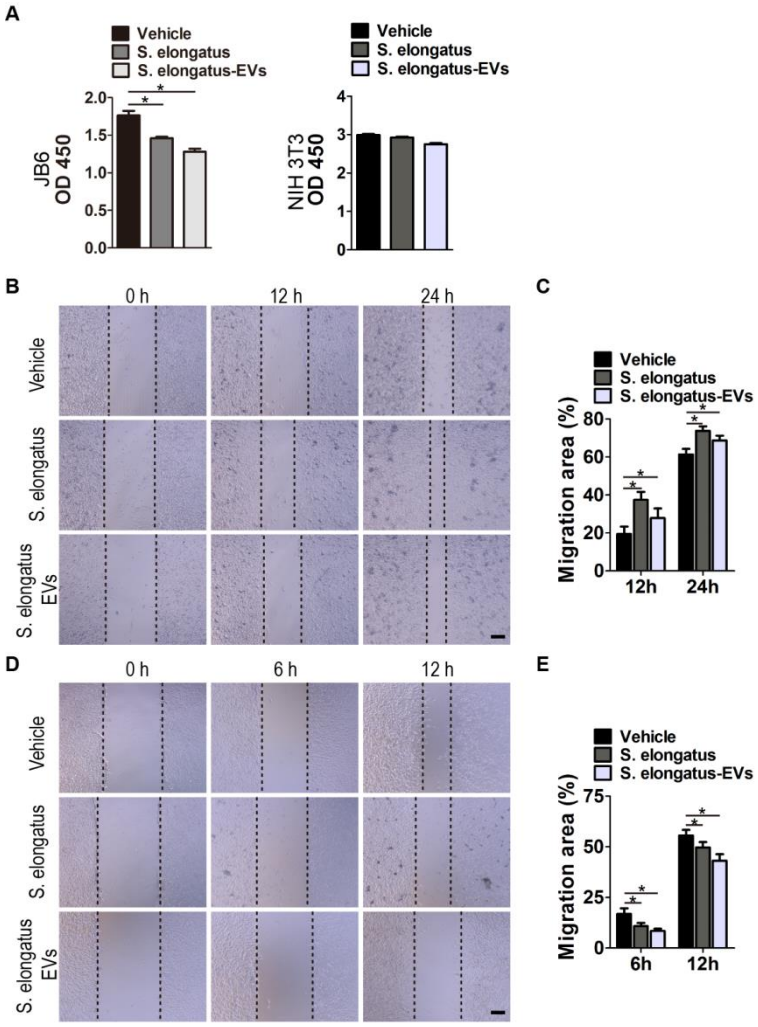

Figure S3. Effects of *S. elongatus* PCC 7942 and *S. elongatus*-EVs on functional properties of mouse epidermal cells and fibroblasts. (A) CCK-8 analysis of proliferation of mouse epidermal JB6 cells and NIH3T3 fibroblasts. n = 4 per group. **(B-C)** Representative images **(B)** and quantification **(C)** of wound healing assay for JB6 cells. Scale bar: 200 μm. n = 3 per group. **(D-E)** Representative images **(D)** and quantification **(E)** of wound healing assay for NIH3T3 fibroblasts. Scale bar: 200 μm. n = 3 per group. Data are plotted as mean ± SD. $^{*}P < 0.05$, $^{**}P < 0.01$, $^{***}P < 0.001$.

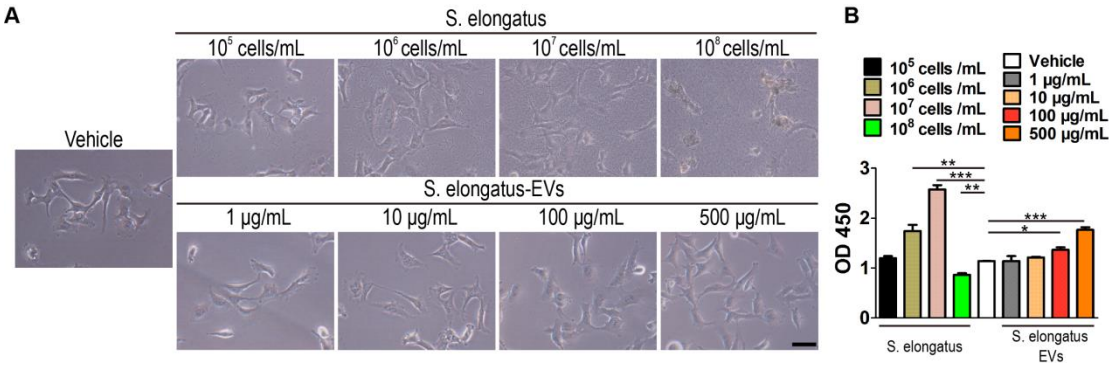

Figure S4. Effects of *S. elongatus* PCC 7942 and *S. elongatus*-EVs on morphology and growth of endothelial cells. (A) Morphology of HMECs under optical microscopy. Scale bar: 100 μm. **(B)** CCK-8 analysis of HMECs' viability. n = 4 per group. Data are plotted as mean ± SD. $^{*}P < 0.05$, $^{**}P < 0.01$, $^{***}P < 0.001$.