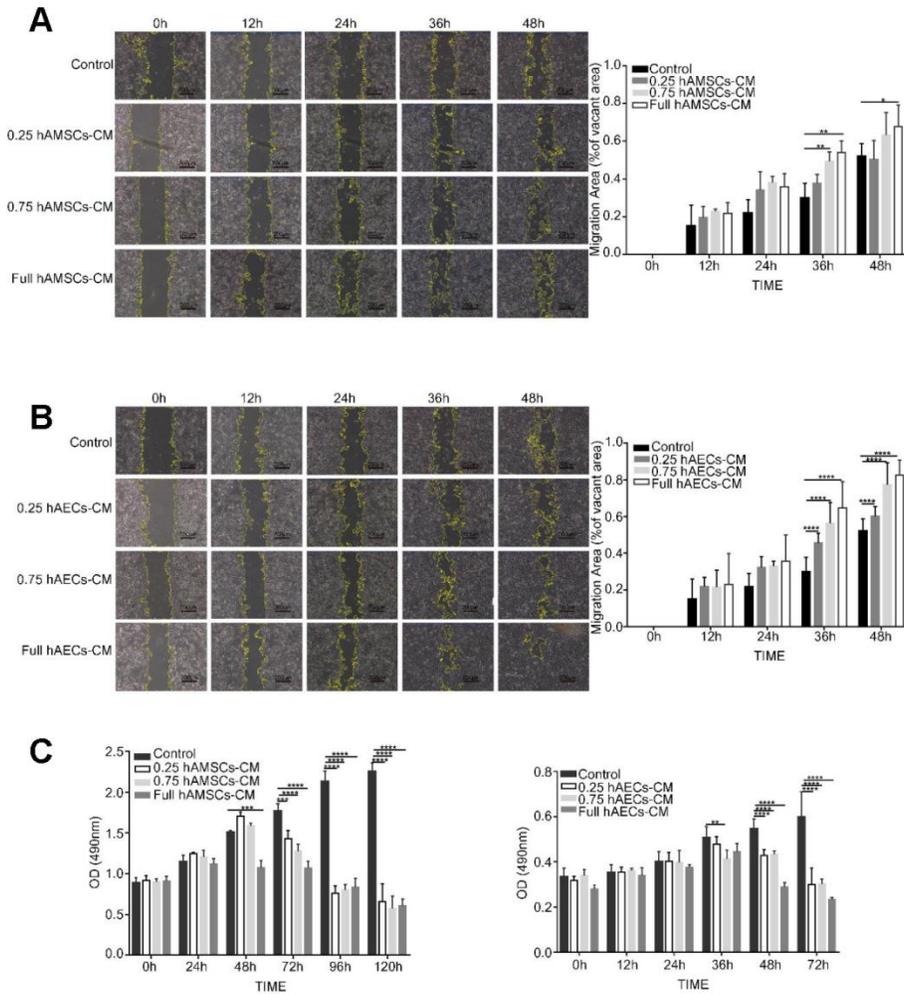
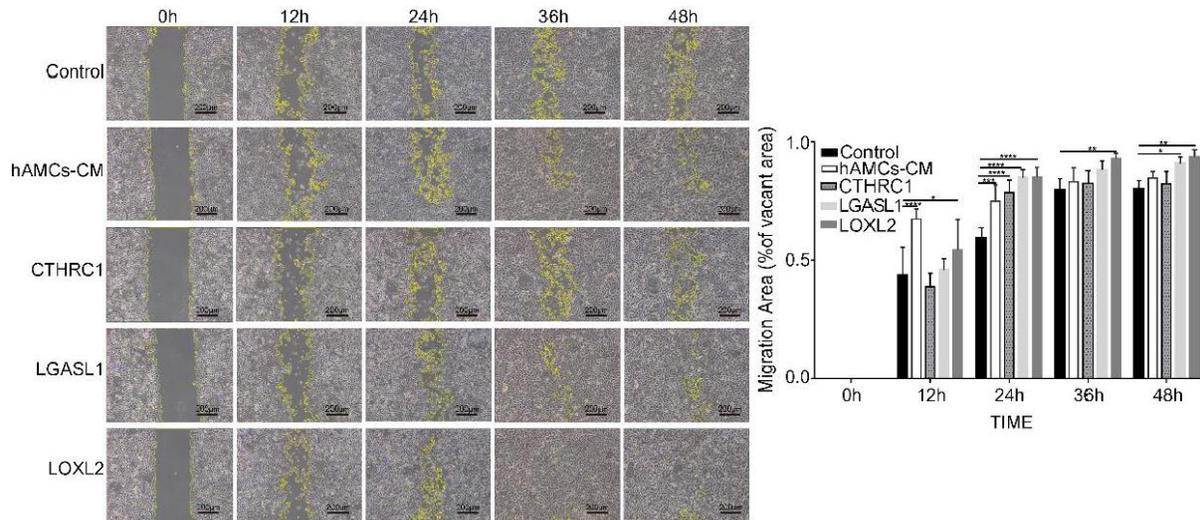


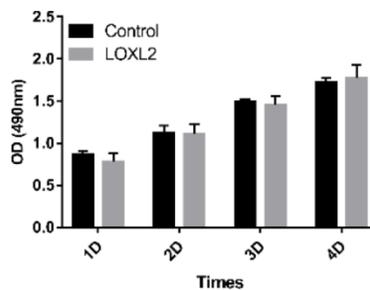
SUPPLEMENTARY FIGURES



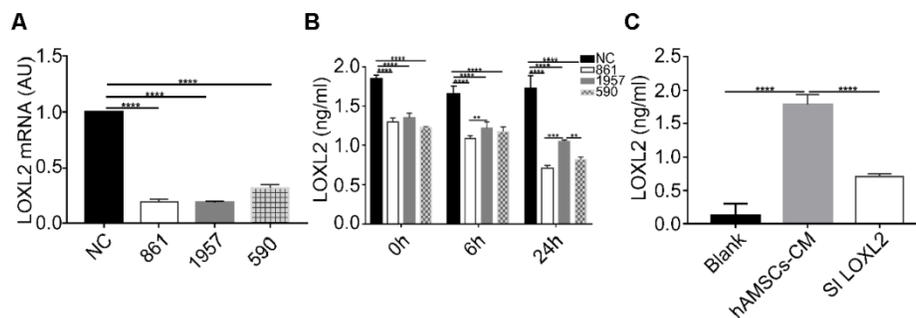
**Supplementary Figure 1. Culturing with increasing proportion of hAMSCs-CM and hAECs-CM inhibits proliferation, but promotes migration of keratinocytes.** (A) Representative images of the scratch wound assay show the migration of keratinocytes at various time points (0, 12, 24, 36, and 48 h) in different dilutions of hAMSC-CM. The histogram plot shows the quantification of the keratinocyte migration at different time points in all experimental groups. (B) Representative images of the scratch wound assay show the migration of keratinocytes at various time points in the different dilutions of hAEC-CM. The histogram plot shows the quantification of the keratinocyte migration at different time points in all experimental groups. (C) Histogram plot shows the results of MTS cell proliferation assay of keratinocytes grown in different dilutions of hAMSC-CM and hAEC-CM at 0, 24, 48, 72, 96 and 120 h. The values are shown as means  $\pm$ SEM. \*\*\*\* $p < 0.0001$ ; \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ .



**Supplementary Figure 2.** Representative images of the scratch wound assay show the migration of keratinocytes at various time points (0, 12, 24, 36, and 48 h) in control medium, hAMSCs-CM, CTHRC1, LGASL1 and the LOXL2 groups. The histogram plot (right) shows the quantification of keratinocyte migration at various time points in all experimental groups. The values are shown as means  $\pm$  SEM. \*\*\*\* $p < 0.0001$ ; \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$



**Supplementary Figure 3.** The histogram plot shows the results of MTS cell proliferation assay in the control and LOXL2 treatment groups. The values are shown as means  $\pm$  SEM.



**Supplementary Figure 4.** LOXL2 silencing significantly reduces LOXL2 protein levels in hAMSC-CM. (A) The histogram plot shows relative LOXL2 mRNA levels from hAMSCs transfected with si-NC, si-861, si-1957, and si-590 for 24 h. (B) ELISA assay results show LOXL2 protein levels (ng/ml) in the conditioned media obtained from hAMSCs transfected with si-NC, si-861, si-1957, and si-590. The LOXL2 levels were measured at 0h, 6h and 24h after transfections. (C) ELISA assay results show LOXL2 levels in blank (EpiLife medium plus HKCs and without any treatment), hAMSC-CM, and si-861-hAMSC-CM. The values are means  $\pm$  SEM. \*\*\*\* $p < 0.0001$ ; \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ .