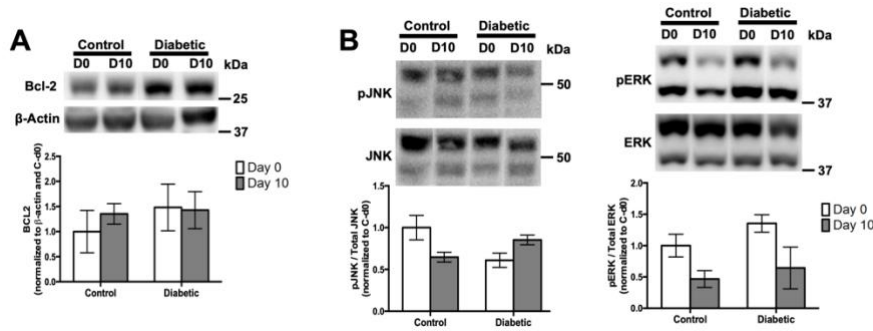
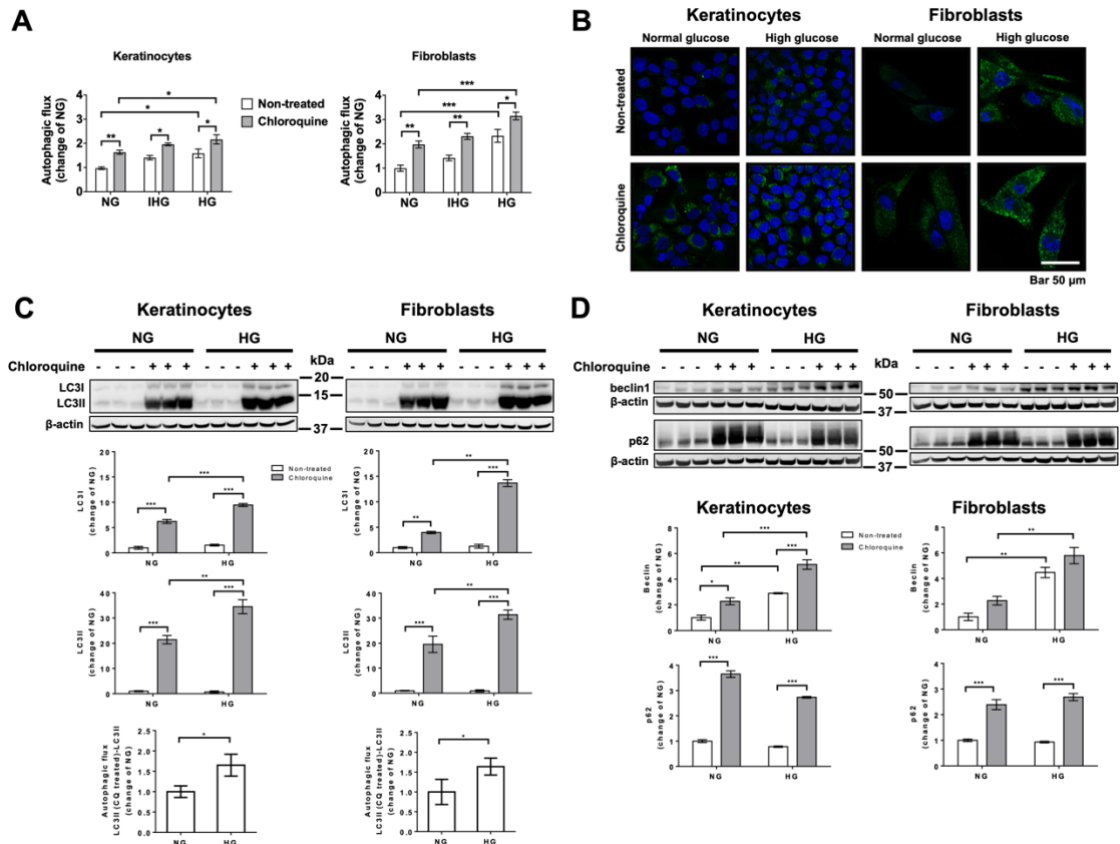


**Dysregulation of endoplasmic reticulum stress response in skin wounds in a streptozotocin-induced diabetes mouse model**

**Supplementary data**

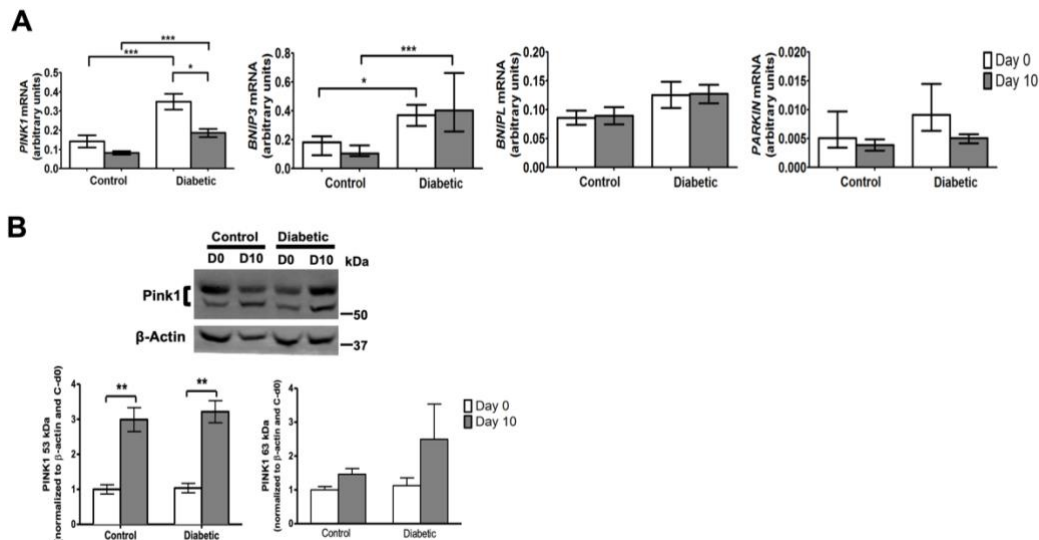


**Supplementary figure 1. Bcl-2 protein expression and JNK ERK pathway activation during skin wound healing in control and diabetic mice.** (A) Bcl-2 protein expression; (B) Phospho-JNK/total JNK, Phospho-ERK/total ERK protein expression. The protein expression was normalized to  $\beta$ -actin. Data was analyzed by two-way ANOVA followed by Tukey's test; n=3.



**Supplementary figure 2. Autophagic response in human keratinocytes and fibroblasts.** The autophagic flux was measured under normal glucose (NG, 5.5 mM), intermediary high glucose (IHG, 15 mM) or high glucose (HG, 25 mM)

conditions, with or without chloroquine (20  $\mu$ M), by CYTO-ID Autophagy Detection Kit with a (A) fluorescence microplate reader or (B) confocal microscopy, and (C) LC3II protein expression turnover; (D) Beclin1 and p62 protein expression. The protein expression was normalized to  $\beta$ -actin. Data was analyzed by two-way ANOVA followed by Tukey's test; \* $p$ <0.05; \*\* $p$ <0.01; \*\*\* $p$ <0.001;  $n$ =3 to all groups.



**Supplementary figure 3. Mitophagy response during skin wound healing in control and diabetic mice.** (A) *PINK1*, *BNIP3*, *BNIP1* and *PARKIN* gene expression; (B) *PINK1* 63 kDa and 53 kDa protein expression. The gene expression was normalized to *TBP*. The protein expression was normalized to  $\beta$ -actin. Data was analyzed by two-way ANOVA followed by Tukey's test, except for *BNIP3* and *PARKIN* gene that was analyzed by Kruskal-Wallis ANOVA; \* $p$ <0.05; \*\* $p$ <0.01; \*\*\* $p$ <0.001;  $n$ =5-8 for gene expression data and  $n$ =3 for protein expression data.