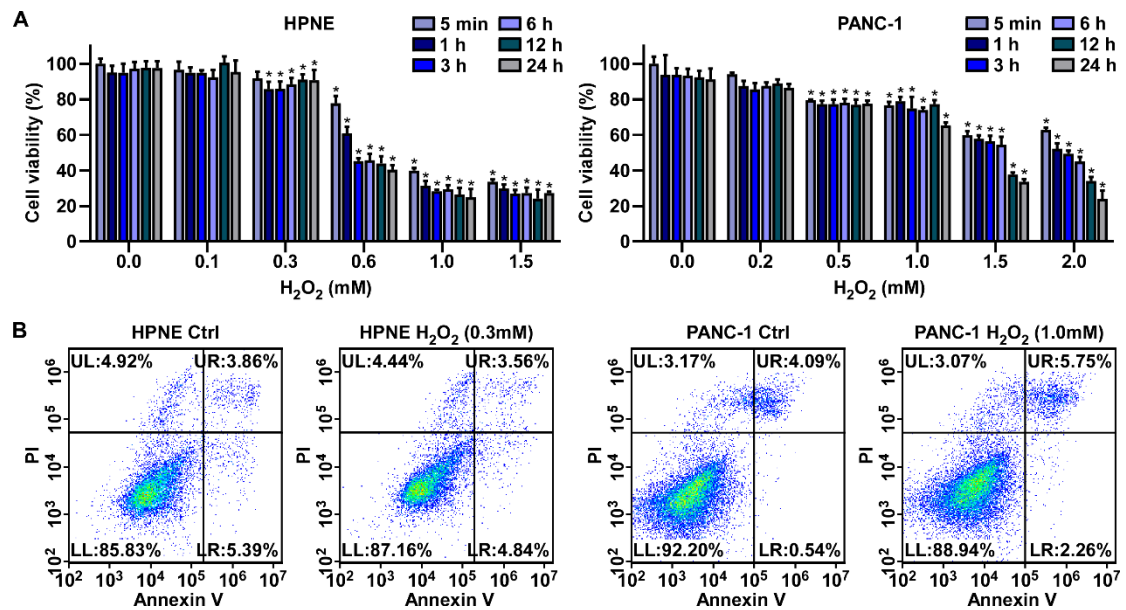
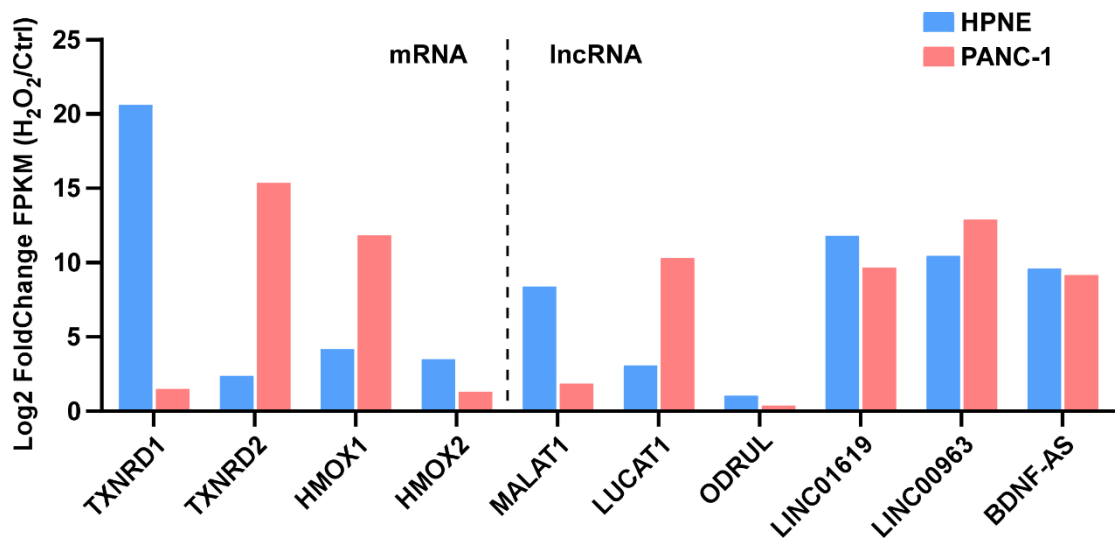


## Supplemental figure 1



**Figure S1. Effect of hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) on cell viability in normal pancreatic epithelia and pancreatic cancer cells.** (A) Immortalized human pancreatic normal epithelia (HPNE) and pancreatic cancer (PANC-1) cells were treated with various concentrations of H<sub>2</sub>O<sub>2</sub> for various time periods as indicated. Cell viability was measured by MTS assay. \*,  $p < 0.01$ . (B) HPNE and PANC-1 cells were respectively treated with 0.3 mM and 1.0 mM H<sub>2</sub>O<sub>2</sub> for 12 h. Apoptotic cell death was analyzed by annexin-V/PI double staining followed by flow cytometry analysis.

Supplemental figure 2



**Figure S2. Expression of oxidative stress responsive target mRNA and lncRNA in HPNE and PANC-1 cells exposed to sub-toxic concentrations of H<sub>2</sub>O<sub>2</sub>.** Expression of the transcripts was measured by RNA-seq analysis.

Supplemental figure 3

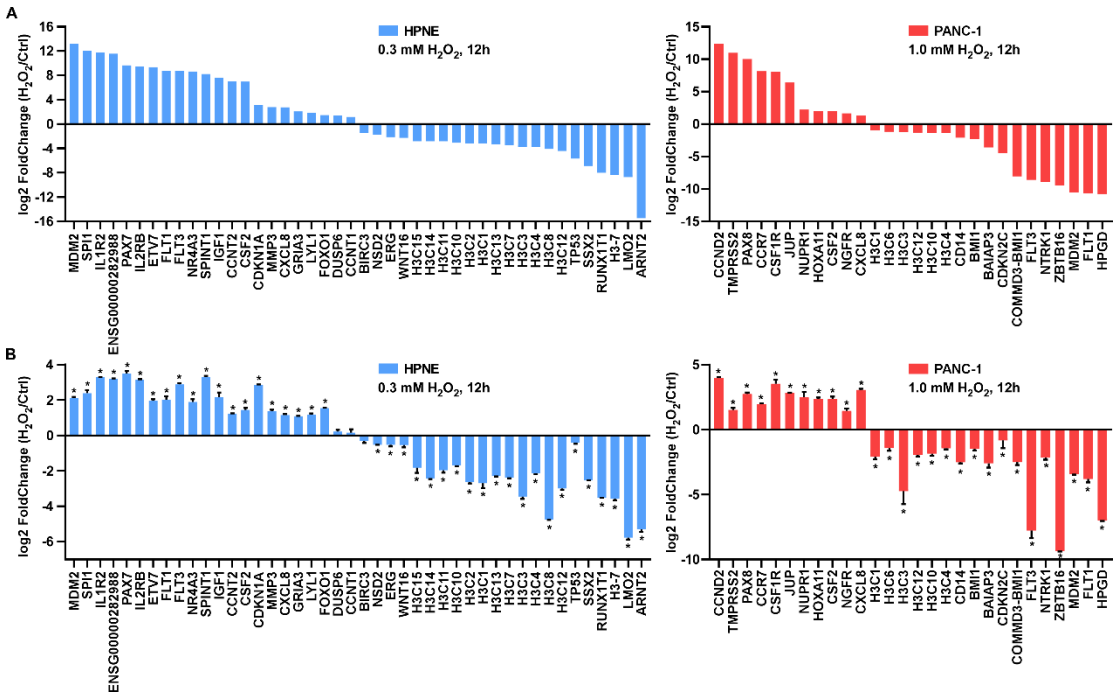


Figure S3. Distribution of differentially expressed genes associated with “Transcriptional

misregulation in cancer” pathway induced by H<sub>2</sub>O<sub>2</sub>. Expression of enriched genes in

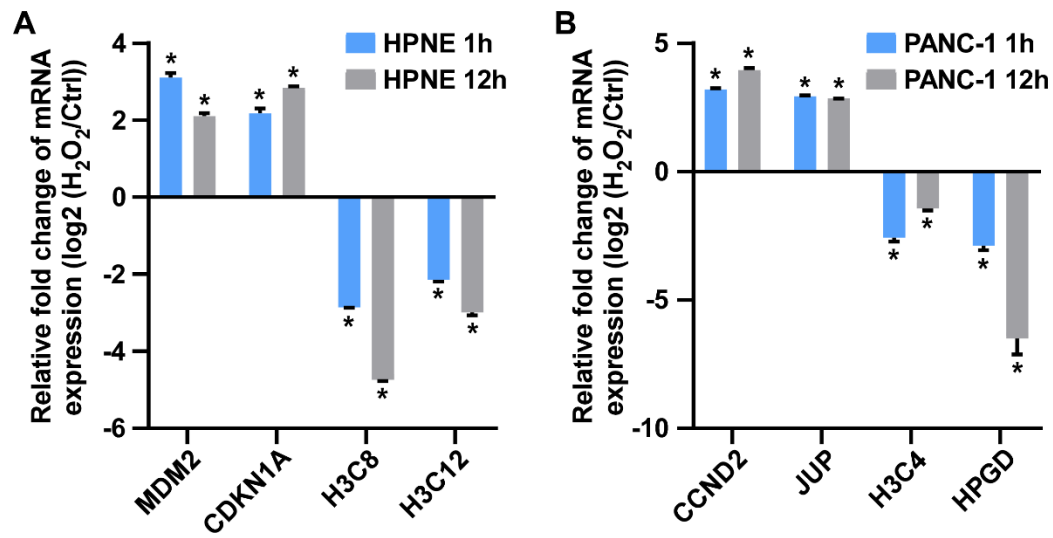
“Transcriptional misregulation in cancer” pathway in HPNE (left) and PANC-1 cells (right)

treated with sub-toxic concentrations of H<sub>2</sub>O<sub>2</sub> (0.3 mM for HPNE and 1.0 mM for PANC-1 cells

for 12 h) was measured by transcriptome sequence (A) or by qRT-PCR (B). Data are means ±

SEM of three separate experiments; two-tailed unpaired t-test for B; \*,  $p < 0.05$ .

Supplemental figure 4



**Figure S4. Expression of genes associated with “Transcriptional misregulation in cancer” pathway in HPNE and PANC-1 cells treated with H<sub>2</sub>O<sub>2</sub>.** Quantitative RT-PCR measured Transcriptional misregulation in cancer signal associated genes in HPNE (A) and PANC-1 (B) cells treated with H<sub>2</sub>O<sub>2</sub> (HPNE: 0.3 mM; PANC-1: 1.0 mM) for 1 h or 12 h as indicated. Data are means ± SEM of three separate experiments; two-tailed unpaired t-test; \*,  $p < 0.05$ .