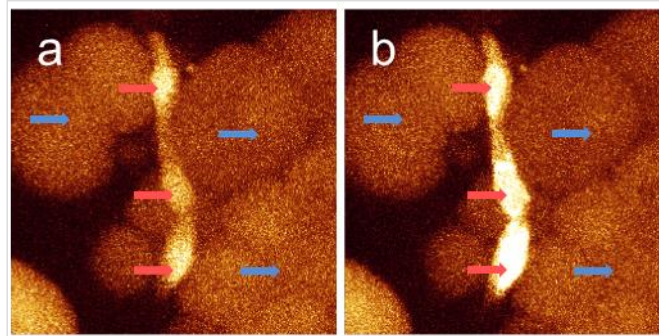


## Supplementary Material

Jakubowska et al. 2016, "Nitric Oxide Signals are Interlinked with Calcium Signals in Normal Pancreatic Stellate Cells upon Oxidative Stress and Inflammation"

**Fig. S1**

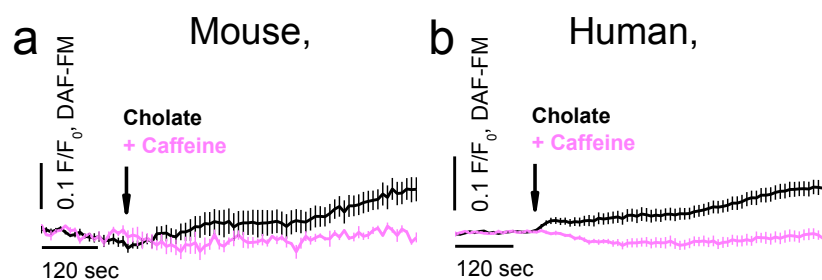


**Fig. S1 Oxidative stress induces increase in cytosolic nitric oxide in stellate cells - images from Movie S1.**

**a** The pancreatic tissue lobule loaded with DAF-FM fluorescent NO indicator. Arrows: PSCs red, PACs blue.

**b** The same lobule stimulated with 0.5 mM  $H_2O_2$ .

**Fig. S2**

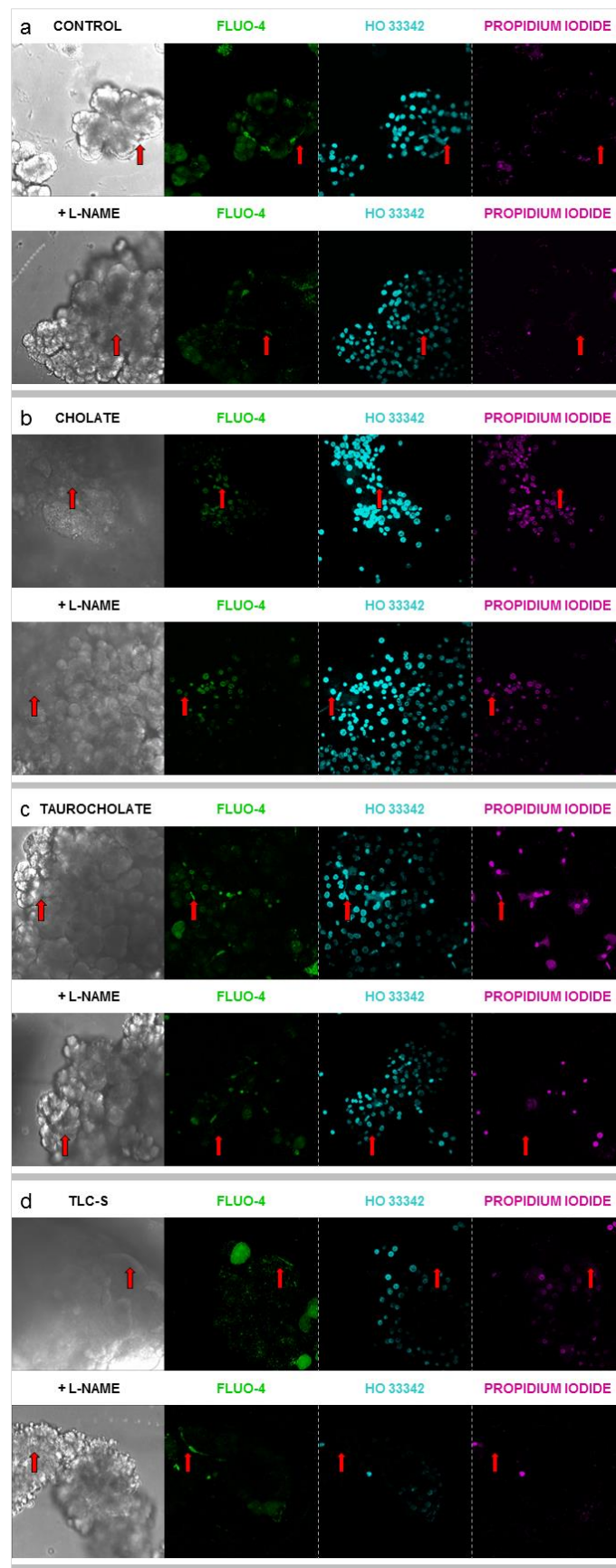


**Fig. S2 Inhibitor of 1,4,5-triphosphate receptors caffeine attenuates development of cytosolic nitric oxide signals.**

**a** Average traces (mean $\pm$ SEM) of cytosolic NO responses to 5 mM cholate in the absence (black, n=8) and the presence of 20 mM caffeine (pink, n=5), exerted in the lobular PSCs.

**b** Average traces (mean $\pm$ SEM) of cytosolic NO responses to 1 mM cholate in the absence (black, n=35) and the presence of 20 mM caffeine (pink, n=12), exerted in hPSCs.

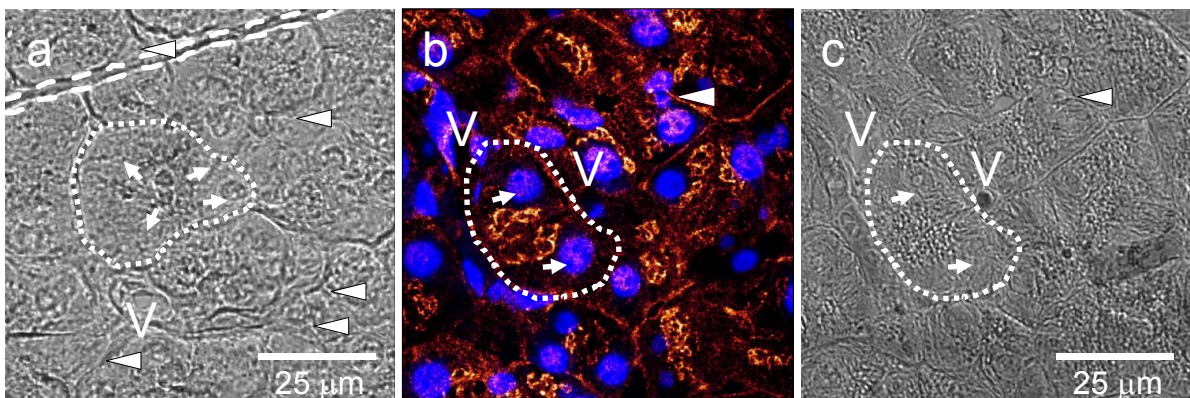
Fig. S3



**Fig. S3 Photomicrographs comparing levels of necrosis in the lobules under different experimental conditions - graphical summary of Fig. 4e.**

The lobules were triple loaded with fluorescent dyes Fluo-4 (green, left), Hoechst 33342 (cyan, middle) and PI (magenta, right), and followed the bile acid-challenge, and some of them were treated in the presence of 0.6 mM L-NAME (indicated with +). Arrows: PSCs. Representative transmitted light and fluorescent images are shown in the panels: **a** The untreated (control) lobules. **b** The 5 mM cholocate-challenged lobules. **c** The 5 mM taurocholate-challenged lobules. **d** The 0.2 mM TLC-S-challenged lobules.

**Fig. S4**



**Fig. S4 Mouse exocrine pancreas - paraffin-embedded tissue.**

**a** Transmitted light image of **Figs. 4f-i**. Arrowheads - PSCs, arrows - PACs, V - blood vessels, dashed line - pancreatic duct, dotted line - acinus. Scale bar: 25 μm.

**b** High-resolution immunolocalisation of NOS2 in mouse pancreas. Nuclei stained with DAPI (blue); NOS2 (yellow). Arrowheads - PSCs, arrows - PACs, V - blood vessel, dotted line - acinus.

**c** Transmitted light image of **b**. Scale bar: 25 μm.