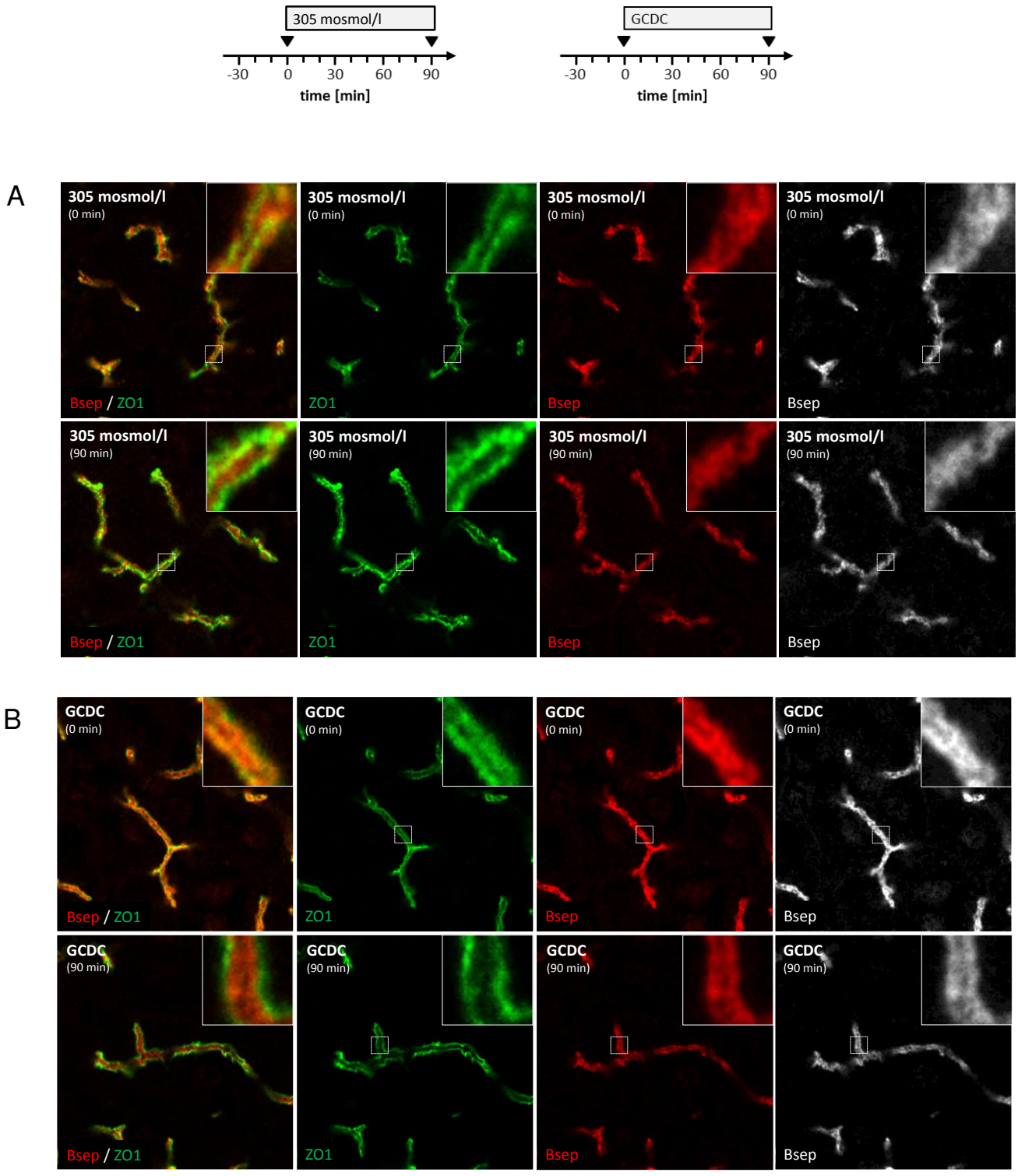
Supplemental Material

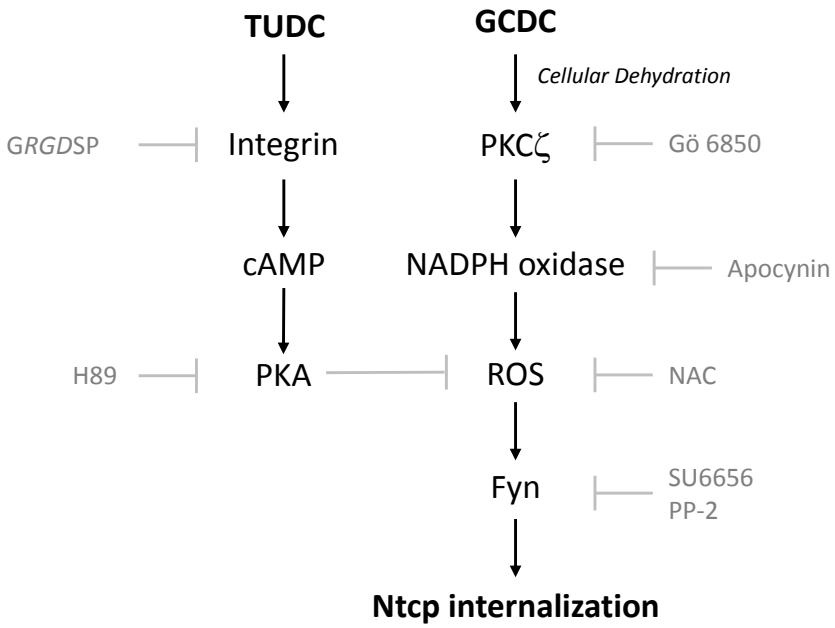
Regulation of Plasma Membrane Localization of the Na^+-Taurocholate Co-Transporting Polypeptide by Glycochenodeoxycholate and Tauroursodeoxycholate

Patrick G. K. Mayer Natalia Qvartskhava Annika Sommerfeld Boris Görg Dieter Häussinger

Clinic for Gastroenterology, Hepatology, and Infectious Diseases, Heinrich-Heine-University, Düsseldorf, Germany



Supplemental Figure 1: Effects of GCDC on the subcellular distribution of Bsep and ZO-1 in perfused rat liver. Rat livers were perfused with Krebs-Henseleit buffer without (A, 305mosmol/l) or (B) with GCDC (20 µmol/l). ZO-1 (green) and Bsep (red and white) were visualized by confocal laserscanning microscopy at t = 0 and t = 90 min, respectively. Representative pictures of 3 independent experiments are shown.



Supplemental Figure 2: Proposed mechanisms underlying GCDC-induced and TUDC-sensitive Ntcp internalization in rat liver. GCDC activates via NADPH oxidase and ROS the Src family kinase Fyn which induces Ntcp retrieval from the basolateral membrane, most likely as a consequence of hepatocyte shrinkage. TUDC prevents the internalization of Ntcp by preventing the activation of Fyn in an integrin and PKA-dependent way. For mechanisms of bile salt-induced oxidative stress see refs 4 and 51.