Critical role of CREBH-mediated induction of transforming growth factor β2 by hepatitis C virus infection in fibrogenic responses in hepatic stellate cells.

Proposed model for induction of profibrogenic phenotypes triggered by HCV infection through CREBH activation. (A) In HCV-infected hepatocytes, ER stress induced by viral infection activates CREBH. Activated CREBH (CREBH-N) activates the TGF-β2 promoter activity. ATF2 induced by ROS may be an additional mechanism for TGF-β2 induction. (B) TGF-β2 that is secreted from the infected cells contributes to cross-induction of TGF-β2 and -β1 in an autocrine manner through its own signaling pathway, finally increasing fibrogenic responses in HSC adjacent to the infected cells through paracrine TGF-β signaling.

Contact: Prof. Shimano H