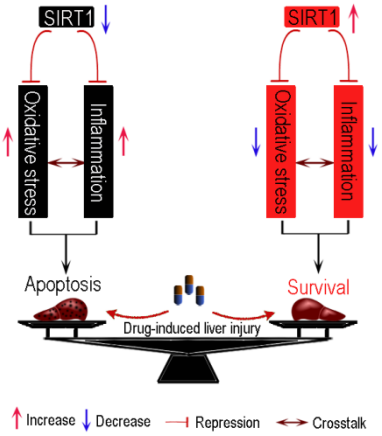

SIRT1 plays a vital role in drug-induced liver injury. SIRT1 can regulate the level of inflammation and oxidative stress, which are the main damages caused by DILI. During DILI, the repressed SIRT1 increases the immune response and oxidative damage, and ultimately leading to the death of hepatocyte, in form of apoptosis, namely programmed cell death, or cell necrosis, both of which are the cause of liver injury. On the other hand, enhancing SIRT1 expression or activity of SIRT1 protects liver against drug-induced injury. Sirt1 alleviates oxidative stress by targeting AMPK, Nrf2, PGC-1α and FoxOs and improves mitochondrial function. The mechanism of inflammation is elucidated mainly in NF-κB signaling pathway which tightly regulated by SIRT1.