

Projekt 3 (P3): **Charakterisierung der Strategien über die HCV das Überleben der infizierten Wirtszelle sicherstellt**
Characterization of HCV-triggered strategies to maintain viability of the infected host cell

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Summary:

The hepatitis C virus worldwide is a leading cause of chronic liver disease. It thereby interacts to high degree with the inter- and intracellular signal transduction of its host to circumvent the antiviral host response and to utilize the infrastructure of its host without larger impairment of the viability of the host cell. In this context the mechanisms enabling HCV to overcome induction of apoptosis in the successfully infected host cells are of high relevance. Own preliminary results suggest that HCV enhances anti-apoptotic effectormechanisms by enhancing the expression and activation of ATF2. Moreover, HCV largely modulates the intra-cellular signaltransduction of inflammatory cytokines such as IL-1 β , which also mediates inhibitory effects on host cell proliferation. The proposed project aims at elucidating the relevance of these observations and to investigate the consequences of the enhanced expression and activation of ATF2 and the interaction of HCV with NF κ B-mediated signalling of inflammatory cytokines. It is expected that the results of the project not only provide a deeper insight into viral strategies to establish persistent infections but will also contribute to an indepth understanding of the signalling networks that control cellular survival.