

Hepatitis C Virus and Autophagy

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Autophagy is a catabolic process by which cells remove protein aggregates and damaged organelles for recycling. It can also be used by cells to remove intracellular microbial pathogens including viruses in a process known as xenophagy. However, many viruses have developed mechanisms to subvert this intracellular antiviral response and sometimes even use this pathway to support their own replications.

Hepatitis C virus (HCV) is an important human pathogen that can cause severe liver diseases. Recent studies indicated that HCV could activate the autophagic pathway to support its replication. This review summarizes the current knowledge on how HCV induces autophagy and how autophagy affects HCV replication and host innate immune responses.