



## Hepatitis C Virus – Molecular Biology, Disease and Treatment (Section 1) 2.0

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Deadline for manuscript  
submissions:

**closed (31 December 2021)**

### Message from the Guest Editor

Hepatitis C Virus (HCV) preferentially replicates in the human liver and frequently causes chronic infection, often leading to cirrhosis and liver cancer. HCV is an enveloped virus classified in the genus *Hepacivirus* in the family *Flaviviridae* and has a single-stranded RNA genome of positive orientation. The HCV RNA genome is translated by virtue of an internal ribosome entry site. After a pilot round of genome translation, replication factories called “membranous webs” are formed in the cytoplasm, which are the sites of genome replication. During RNA genome synthesis, the error-prone viral replicase provides a high mutation rate in the genome, allowing the virus to easily escape from host immune responses and treatment. Moreover, viral proteins interfere with the immune response in order to establish an ongoing chronic infection “under the radar” of the host. While such treatment does not protect against repeated infection, vaccines are under development.

In this Special Issue, we would like to provide comprehensive overviews over important aspects of the molecular events in the HCV life cycle, disease development and the current state of HCV treatment.





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## Message from the Editor-in-Chief

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