Special Issue

Mechanism of Hepatitis B Virus Infection and Antiviral Development

Message from the Guest Editors

Hepatitis B virus (HBV) is a leading cause of liver diseases. HBV is the only virus of the Hepadnaviridae family that infects human hepatocytes. It is an enveloped virus with a partial double-stranded circular DNA genome at 3.2 kbp, which is extremely small compared to other DNA viruses. The unique arrangement of the open reading frame, the replication strategy of reverse transcription of the RNA intermediate to generate the DNA genome, and the production of a large number of non-infectious HBs particles in addition to the infectious particles are also characteristic of this virus.

Current therapies include nucleos(t)ide analogs (NUCs), which act directly on viral replication, and immunomodulators such as interferon therapy. NUC therapy suppresses viral replication and improves liver histology. However, long-term NUC administration rarely results in functional cure (HBs seroclearance) of chronic hepatitis, and virologic relapse almost often occurs after treatment is discontinued.

This Special Issue is seeking articles that provide new insights into the molecular aspects of regulatory mechanisms of HBV lifecycle and drug discovery research against HBV.

Guest Editors

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Message from the Editor-in-Chief

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