Hepatitis C: From sequences to viral dynamics

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Hepatitis C virus (HCV) infects about 170 million people worldwide and is the leading cause of liver transplantation. Drug therapy is undergoing rapid development and current protocols can cure this disease in a majority of patients – making HCV the first chronic viral disease that is curable. Here I will review recent modeling work on HCV that has helped us understand the evolution and dynamics of this virus within an infected host as well as the effects of therapy. Both agent-based and multiscale dynamic models will be discussed.