Design of a native-like secreted form of the hepatitis C virus E1E2 heterodimer.

Hepatitis C virus (HCV) is a major worldwide health burden, and a preventive vaccine is needed for global control or eradication. Here, we report the design of a native-like secreted form of the hepatitis C virus E1E2 heterodimer, which is the structural unit of the viral envelope. This secreted form is produced in the absence of any supported cell membranes, allowing for efficient production of E1E2 for future structural and vaccine studies, enabling rational optimization of an E1E2-based antigen.