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Human Cytomegalovirus Vaccine Development: Progress and Prospects

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Message from the Guest Editor

Human cytomegalovirus (HCMV) is classified as a beta herpesvirus that undergoes latency, is ubiquitous in the general population, and can cause life-threatening disease in individuals who have a dysfunctional immune system. Most babies around the world with congenital HCMV disease are born to women who were seropositive prior to conception. Clinically, there are a number of antiviral medications used to treat acute HCMV disease. However, during pregnancy and under conditions of immune suppression, antivirals are not the standard of care. Therefore, the development of novel vaccines to prevent HCMV infections is vital, particularly in specific patient populations such as pregnant people, especially adolescent girls less than 20 years of age who are at risk of primary infection, the elderly, and those with compromised immune systems. Safe and effective vaccines for HCMV has been elusive; however, recent innovations in mRNA technologies and proteomics have advanced the field.



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Message from the Editor-in-Chief

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