



Advances in Viral Protein Structure and Function

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Message from the Guest Editor

Dear Colleagues,

Viral proteins are essential components of the virus life cycle, playing key roles in various stages, such as virus attachment, entry, replication, and assembly. The unique architecture of viral proteins enables specific structures that facilitate their functions. Structural proteins contribute to the formation of the viral capsid or envelope, while non-structural proteins are involved in processes such as replication and the modulation of host cell machinery.

Viral proteins play a pivotal role in evading the host immune defense by interfering with the detection and destruction of virus-infected cells. Immune evasion proteins can reduce antigen presentation at the cell surface by interfering with the MHC class I signaling pathway, leading to less CD8+ T-cell recognition. Moreover, understanding viral proteins' structural and functional aspects is not only a major factor for the development of novel anti-viral treatments but is also central to vaccine development. This has been demonstrated by recent advancements in a structure-based vaccine concept for respiratory syncytial virus (RSV).





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Message from the Editor-in-Chief

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