



## Pathogenesis and Treatment of HIV-1 Infection

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### Message from the Guest Editor

Over the years, numerous analyses have been carried out with the aim of strengthening the immune response and finding a therapeutic solution to protect against HIV; however, there is still no definitive cure. HIV-1 enters the central nervous system (CNS), where perivascular macrophages and microglia are infected. This situation is aggravated by the complex nature of HIV, which is characterized by genetic diversity, high mutation rates, and issues of antiretroviral drug toxicity and viral resistance. Many molecular studies have demonstrated the importance of studying concepts such as the pivotal role of microglia and the adaptive immune response in the CNS and phagocytosis, neuropathogenesis and the viral proteins involved in the CNS as an anatomical reservoir, as well as the involvement of oxidative stress mechanisms and the role of HIV-induced ROS in the development of HIV-associated neurocognitive disorders. Crucial HIV-1 pathogenicity factors must be known in order to identify molecular pathways that could serve as potential therapeutic targets for the treatment of this disease.





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## Message from the Editor-in-Chief

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