

# An Editorial Note on HIV

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## Editorial

Human immunodeficiency viruses (HIV) are two Lentivirus (a retrovirus subgroup) species that infect people. They lead to acquired immunodeficiency syndrome (AIDS), a disorder in which the immune system gradually fails, allowing life-threatening opportunistic infections and malignancies to flourish. Depending on the HIV subtype, the typical survival duration after infection with HIV is estimated to be 9 to 11 years without therapy. HIV is a sexually transmitted infection that is spread through contact with or transmission of blood, pre-ejaculate, sperm, and vaginal fluids.

"Acquired immunodeficiency syndrome" is the acronym for "acquired immunodeficiency syndrome." HIV infection has progressed to this stage. A CD4 count of less than 200 cells per cubic millimetre is used by doctors to diagnose AIDS. They may also diagnose AIDS if a person has opportunistic infections, cancers associated with AIDS, or both. If a person with HIV is not treated, AIDS will most likely develop as the immune system breaks down. Advances in antiretroviral therapy, on the other hand, have made the progression to AIDS less common.

Helper T cells (particularly CD4+ T cells), macrophages, and dendritic cells are all essential cells in the human immune system that are infected by HIV. HIV infection causes a reduction in CD4+ T cells through a variety of mechanisms, including pyroptosis of abortively infected T cells, apoptosis of uninfected bystander cells, direct viral killing of infected cells, and CD8+ cytotoxic lymphocytes that recognise infected cells killing infected CD4+ T cells. Cell-mediated immunity is lost when CD4+ T cell levels fall below a crucial threshold and the body becomes increasingly vulnerable to opportunistic infections, leading to the development of AIDS. [1-5]

HIV is a member of the Lentivirus genus, which belongs to the Retroviridae family. Many morphologies and biological features are shared by lentiviruses. Lentiviruses infect a wide range of organisms and are known for causing long-

term diseases with a protracted incubation time. Lentiviruses are enclosed RNA viruses that are single-stranded and positive-sense. The viral RNA genome is transformed (reverse transcribed) into double-stranded DNA upon entry into the target cell by a virally encoded enzyme, reverse transcriptase, which is delivered with the viral genome in the virus particle. A virally encoded enzyme, integrase, and host co-factors subsequently import the resultant viral DNA into the cell nucleus and integrate it into the cellular DNA. The virus may become dormant after integration, allowing the virus and its host cell to be undetected by the immune system for an indefinite period of time.

## Conflict Of Interest

None

## References

1. Ager, Ann, H. Angharad Watson, Sophie C. Wehenkel, and Rebar N. Mohammed. "Homing to solid cancers: a vascular checkpoint in adoptive cell therapy using CAR T-cells." *Biochem. Soc. Trans.* 44 (2016): 377-385.
2. Ahmad, Zuhaida Asra, Swee Keong Yeap, Abdul Manaf Ali and Wan Yong Ho et al. "scFv antibody: principles and clinical application." *Clin. Exp. Immunol.* 2012 (2012).
3. Akinrinmade, Olusiji A., Sandra Jordaan, Dmitriy Hristodorov, Radoslav Mladenov and Neelakshi Mungra et al. "Human MAP tau based targeted cytolytic fusion proteins." *Biomedicines* 5(2017): 36.
4. Allen, Barry J. "Can  $\alpha$ -radioimmunotherapy increase efficacy for the systemic control of cancer?" *Immunotherapy* 3 (2011): 455-458.
5. Allen, Theresa M. "Ligand-targeted therapeutics in anticancer therapy." *Nat. Rev. Cancer.* 2 (2002): 750-763.

**How to cite this article:** Sing, Abhilasha. "An Editorial Note on HIV." *J Infect Dis Med* 7 (2022): 215.

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**Received** 08 January, 2022, Manuscript No. jidm- 22-53125; **Editor assigned:** 10 January, 2022, PreQC No. P-53125; **Reviewed:** 14 January 2022 QC No. Q-53125; **Revised:** 21 January, 2022, Manuscript No. R-53125; **Published:** 26 January, 2022, DOI: 10.37421/2576-1420.22.7.215