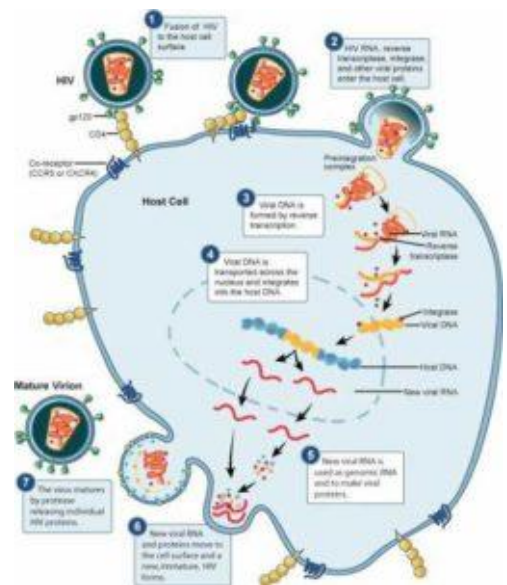
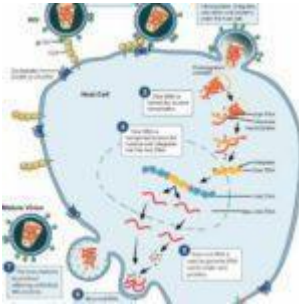


CD32: marker of HIV reservoir?



HIV lifecycle [NIAID]

Antiretroviral therapy (ART) has greatly transformed management of the HIV epidemic, from being a terminal illness leading to AIDS, to a manageable chronic disease. ART has been shown to reduce viral loads to undetectable levels, resulting in lower risk of HIV transmission. In spite of this, a cure for HIV is still needed. One of the major obstacles in the development of a cure, is the persistence of the HIV reservoir. To date CD4⁺ T cells are the only cell population proven to be the cellular reservoir of HIV. Identifying markers of the HIV-1⁺ reservoir would facilitate targeted design of an HIV cure that aims at clearing the HIV reservoir.

A study published by [Descours et al.,](#) in Nature last year,

identified CD32a as marker of the CD4 T cell HIV reservoir. This study showed that CD32a+ CD4 T cells are enriched in HIV DNA and inducible replication competent virus. Researchers from Universitat Autònoma de Barcelona (Spain) aimed to evaluate the role of CD32 during HIV-1 infection, as well as confirm that CD32 was indeed a marker of the CD4 T cell HIV reservoir.

Badia *et al.* observed that CD32 expression in non-specific stimulated CD4 T cells from HIV infected and uninfected individuals is highly correlated with the expression of the activation marker HLA-DR and to lesser extent CD69. They also showed that expression of CD32 increased in response to *in vitro* HIV stimulation, and phenotypic CD32 expression was not associated with preferential *in vitro* HIV infection. Finally, they showed that in 6 out of the 10 HIV+ individuals studied, the HIV-reservoir was proportionally higher in CD32- compared to CD32+ CD4 T cells, and no difference was observed between replication competent viruses from CD32- and CD32+ CD4 T cells.

In summary, the study highlighted does not support the recent finding by Descours *et al.*, stating that CD32 is marker of HIV reservoir, instead CD32 is a marker of activation. The exact role CD32 plays in establishing the HIV reservoir requires further studies.

Article: Badia *et al.*, [CD32 expression is associated to T-cell activation and is not a marker of the HIV-1 reservoir.](#) Nature Communication.

Article by Cheleka AM Mpande