Macrophage Immune Cells Are Also a Part of the HIV Reservoir

HIV cure research has principally focused on latently infected CD4 cells as the backbone of the viral reservoir.

February 19, 2019 By Benjamin Ryan

For the first time, researchers have reported that macrophage immune cells are a component of the viral reservoir, aidsmap reports.

HIV cure research has principally focused on latently infected CD4 cells as the backbone of the reservoir. Because these cells are not replicating, they remain under the radar of standard antiretroviral treatment, which works only on replicating cells.

Publishing their findings in Nature Microbiology, researchers studied urethral tissue from 20 people with HIV who were born male and were undergoing gender confirmation surgery. All participants had a fully suppressed viral load in their plasma.

The study authors found that HIV was integrated into the latently infected urethralmacrophage cells. After these cells were treated with the macrophage activator lipopolysaccharide, meant to get the cells to start replicating again, they began producing viable copies of the virus. The scientists also treated the latent macrophage cells with a CD4 cell activator, phytohaemagglutinin, which did not prompt them to replicate.

These findings suggest that experimental HIV cure therapies that use only drugs to reverse the latency of infected CD4 cells may miss the part of the reservoir found in macrophages.

To read the aidsmap article, click here.

To read the study abstract, click here.

© 2026 Smart + Strong All Rights Reserved.