

# Research shows treating HIV-AIDS with interleukin-2 is ineffective

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An international research team has demonstrated that treating HIV-AIDS with interleukin-2 (IL-2) is ineffective. As a result, the researchers recommend that clinical trials on this compound be stopped. Their finding was published in the *New England Journal of Medicine* in an article co-authored by 14 researchers, including Dr. Jean-Pierre Routy of the Research Institute of the McGill University Health Centre (RI-MUHC).

IL-2 is currently used as a complement to highly [active antiretroviral therapy](#) (known as HAART), which is administered to patients with HIV-AIDS. Since HAART controls replication of viruses in the blood, doctors thought that IL-2 would help regenerate more CD4+ immune cells, which serve as an indicator of viral progression. It was thought that IL-2 increased the [natural immunity](#) of patients by helping immune cells mature and multiply.

"Our results show that IL-2 has no effect on the development of AIDS or on patient survival," says Dr. Routy. "More precisely, while the presence of IL-2 leads to a faster increase of CD4+ immune cells, these cells are less functional than the CD4+ cells that regenerate naturally in patients who do not receive IL-2. This means that IL-2 treatment provides no benefit and does not prevent AIDS-related infectious diseases."

"For the first time, a study has shed light on recurring questions concerning the value of biological markers and their limitations in assessing patient health," explains Dr. Routy. "Our challenge now will be

to develop tests that assess the function of [immune cells](#) and not simply their quantity. This will ensure that [HIV](#) treatments indeed have a clinical benefit for patients."

This 8-year study involved over 5000 patients in 25 countries, and was one of the largest ever conducted on HIV-AIDS. "The fact that data from developing countries was used in biomedical research on innovative compounds is very revolutionary in the history of HIV-AIDS research," explains Dr. Routy.

Source: McGill University Health Centre ([news](#) : [web](#))

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