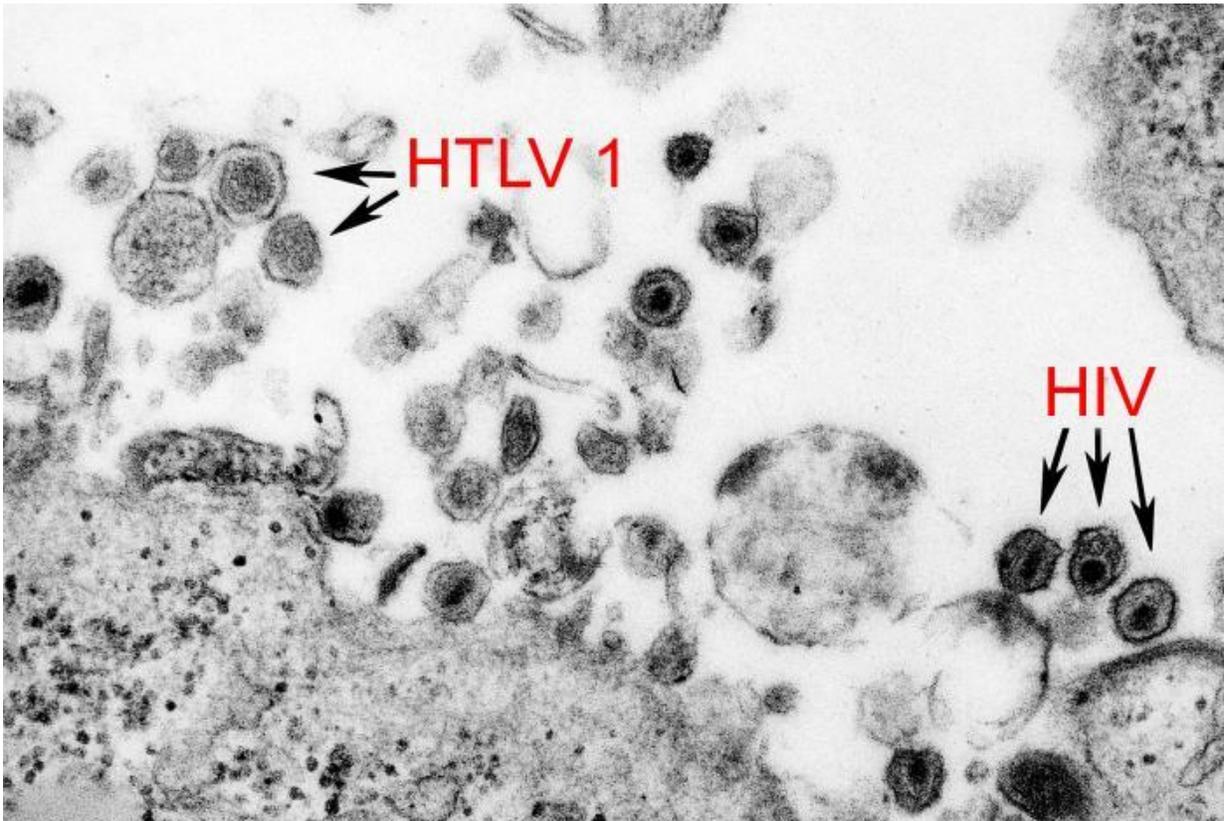


## Virologists call for worldwide effort to eradicate HTLV-1 virus

May 28 2018, by Bob Yirka

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This image revealed the presence of both the human T-cell leukemia type-1 virus (HTLV-1), (also known as the human T lymphotropic virus type-1 virus), and the human immunodeficiency virus (HIV). Human T-cell leukemia virus type-1 (HTLV-1), a human oncoretrovirus, is the etiologic agent of adult T-cell leukemia, and of tropical spastic paraparesis/HTLV-1-associated myelopathy. Two closely related retroviruses, HIV-1 and HIV-2, have been identified as causing AIDS in different geographic regions. HIV-1 causes most cases of AIDS in the U.S., with only a few cases of HIV-2 having been found in the U.S.

Epidemiologically, HIV-2 has been found to be mostly an infection of persons from West Africa. Credit: Centers for Disease Control and Prevention's Public Health Image Library

A pair of noted virologists has sent [a letter](#) to the director of the World Health Organization calling for a stronger effort to eradicate HTLV-1—a retrovirus that, among other things, is a cause of adult leukemia. In their letter, Fabiola Martin, with The University of Queensland and Robert Gallo with the University of Maryland School of Medicine, suggest that it is time the world community paid more attention to the virus and the harm it is doing. The letter was signed by 58 other virologists. Kai Kupferschmidt a contributing correspondent for *Science Health* offers a [commentary](#) on the letter in the journal *Science* and explains why they wrote it.

Scientists have known about HTLV-1 since 1980, Kupferschmidt explains. It was the first human retrovirus ever discovered (Gallo was part of that team) and its discovery led to better understanding HIV. Since that time, researchers have found that in addition to being a cause of adult T-cell leukemia, it can also cause tropical spastic paraparesis, a disease that is similar to multiple sclerosis. There is also some evidence that it might be behind some other health problems related to immunity or inflammatory diseases.

Kupferschmidt notes that the virus does not lead to a huge number of human deaths, which explains why it has been underreported. But, he also notes, it is a major threat because of the large numbers of [infected people](#). Most people who are infected develop few if any symptoms. But they are able to pass it on to others in the same ways as HIV, via semen, blood transfusions and breast milk. And other than Japan and Australia, most of the people infected live in poor countries, often in remote areas.

Millions are believed to be infected in remote parts of Brazil, for example, and recent estimates have shown that roughly half of the adults living in aboriginal communities in Australia are infected.

But the virus is easily reduced. Rates dropped from 7.2 percent, for example, to just 1 percent in Japan's Nagasaki region after an eradication program was instituted. This is why the researchers penned their [letter](#) and why virologists around the world are supporting them by calling for routine testing in [health](#) clinics around the globe. There is no reason not to, they point out, as infections could be drastically reduced through a concerted effort.

**More information:** Fabiola Martin et al. Time to eradicate HTLV-1: an open letter to WHO, *The Lancet* (2018). [DOI: 10.1016/S0140-6736\(18\)30974-7](https://doi.org/10.1016/S0140-6736(18)30974-7)

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