A 'public' target for HIV

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Individuals produce unique sets of antibodies in response to HIV infection. That diversity—and the ability of the human immunodeficiency virus to rapidly change its protein coat to avoid detection—has stymied efforts to develop an anti-HIV vaccine.

Now Ivelin Georgiev, Ph.D.,and colleagues have identified common antibody sequences in several individuals infected by HIV, raising hopes for the eventual development of a vaccine that can prevent the spread of the AIDS virus.

Using sophisticated gene amplification and sequencing methods, the researchers performed sequence analysis of the antibody repertoire, or the full range of antibodies, isolated from the blood of eight HIV-infected donors from the Centre for the AIDS Programme of Research in South Africa.

Their findings, published May 31 in the journal *Cell Host & Microbe*, suggest that a number of common or "public" HIV-reactive antibody sequences can be detected in multiple individuals and that these sequences may be key to developing a successful vaccine strategy.

More information: Ian Setliff et al. Multi-Donor Longitudinal Antibody Repertoire Sequencing Reveals the Existence of Public Antibody Clonotypes in HIV-1 Infection, *Cell Host & Microbe* (2018). DOI: 10.1016/j.chom.2018.05.001

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