Study compares tests to detect acute HIV infection

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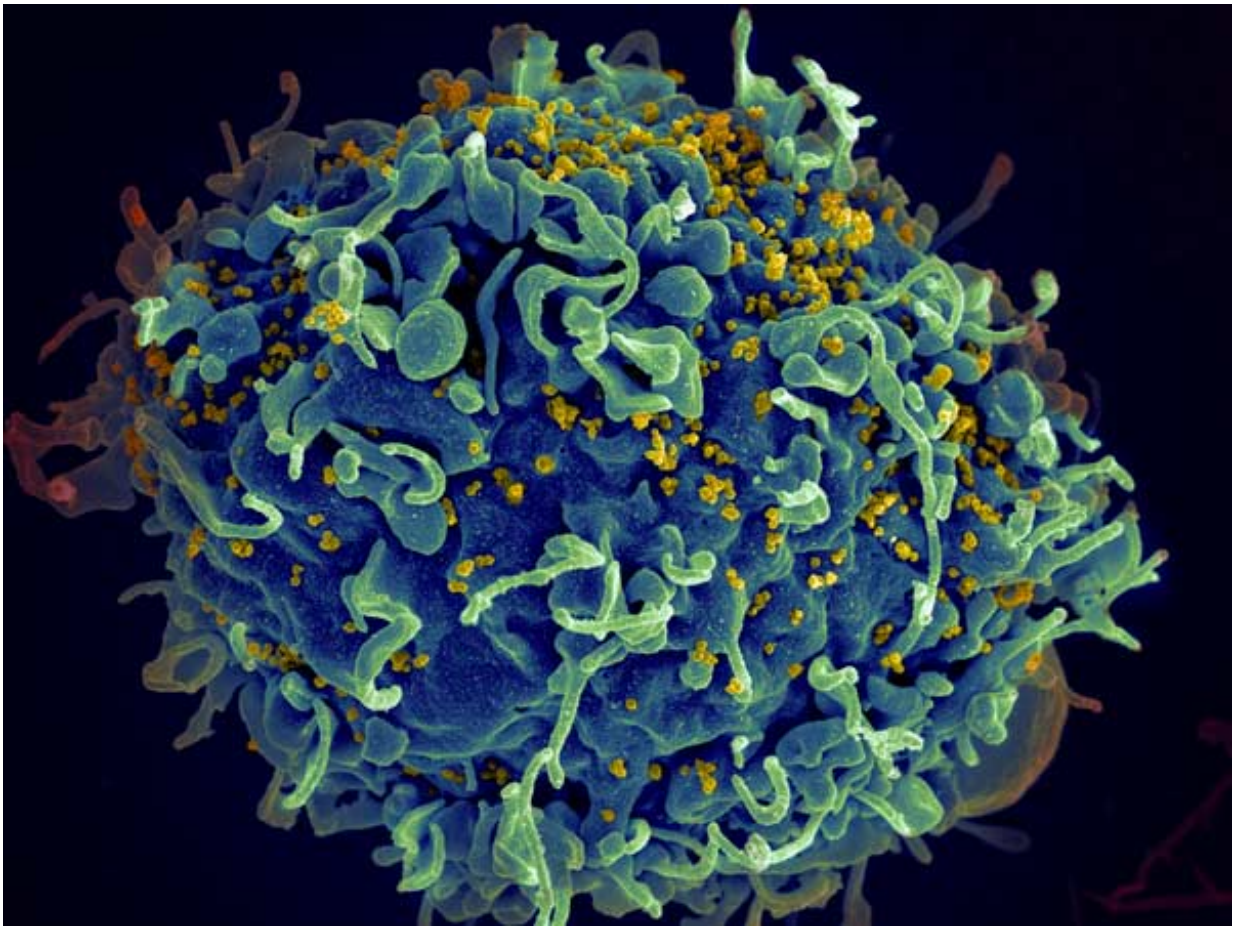

HIV (yellow) infecting a human immune cell. Credit: Seth Pincus, Elizabeth Fischer and Austin Athman, National Institute of Allergy and Infectious Diseases, National Institutes of Health

In a study appearing in the February 16 issue of *JAMA*, Philip J. Peters, M.D., of the Centers for Disease Control and Prevention, Atlanta, and colleagues evaluated the performance of an HIV antigen/antibody (Ag/Ab) combination assay to detect acute HIV infection (early infection) compared with pooled HIV RNA testing, the reference standard.

The study included 86,836 participants in a high-prevalence population from 7 sexually transmitted infection clinics and 5 community-based programs in New York, California, and North Carolina. Although acute HIV infection contributes disproportionately to onward HIV transmission, HIV testing has not routinely included screening for acute infection.

The researchers found that the HIV Ag/Ab combination assay in place of rapid HIV testing increased the absolute HIV diagnostic yield by 0.15 percent and diagnosed 82 percent of the acute HIV infections detectable by pooled RNA testing. Compared with rapid HIV testing alone, HIV Ag/Ab combination testing increased the relative HIV diagnostic yield (both established and acute HIV infections) by 10.4 percent and pooled HIV RNA testing increased the relative HIV diagnostic yield by 12.4 percent. "Alternative strategies such as using a laboratory-based HIV Ag/Ab combination assay that can detect acute infection should be considered in high-prevalence populations in the United States."

More information: *JAMA*, DOI: 10.1001/jama.2016.0286

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