

## **MEDICAL BREAKTHROUGHS**

### **RESEARCH SUMMARY**

TOPIC: CMV...SIV...PREVENTING HIV  
REPORT: MB #4954

**HIV BACKGROUND:** HIV is the human immunodeficiency virus that attacks the body's immune system. HIV can develop into AIDS, **acquired immunodeficiency syndrome**, which is a more deadly virus. Currently, there is no effective cure. Once the patient develops HIV, they have it for life. HIV can be controlled with proper medical care, and patients can live a long life and protect their partners from contracting the disease through treatments. The stages of HIV are Acute HIV Infection, Chronic HIV Infection, and Acquired Immunodeficiency Syndrome (AIDS). If a patient gets to the third stage of HIV, AIDS, then their life expectancy drastically falls because their immune system is highly compromised. (Source: <https://www.cdc.gov/hiv/basics/whatishiv.html>)

**HIV DIAGNOSING:** Symptoms of HIV are fever, chills, rash, night sweats, muscle aches, sore throat, fatigue, swollen lymph nodes, and mouth ulcers. Patients can have flu-like symptoms develop after two to four weeks after being exposed to the virus. The only way to be sure it is the HIV virus causing these symptoms is to get tested. Getting tested for HIV is not only important for the patient but also any partners the patient may have currently or in the future. People should also get tested regularly for HIV because the virus can show no symptoms and remain dormant in the patient's system. (Source: <https://www.cdc.gov/hiv/basics/whatishiv.html>)

**HIV NEW TREATMENT:** There is currently no vaccine that will prevent HIV; however, scientists are working to develop a vaccine because it could also help prevent the spread of AIDS. New findings for HIV prevention have been found. Rather than a daily oral pill, which people are likely to miss at times, more stable alternatives have been suggested that are less frequent and therefore do not rely on the patient as much. Some of these alternatives are a monthly insertable vaginal ring, injections that could provide HIV prevention lasting one, two, or six months, implants that slowly release an HIV prevention drug for up to one year, or an oral pill that could provide protection for 30 days. These options could make protection more convenient for the patient and in turn provide a lower risk of spreading the disease. Researchers are also continuing to study monoclonal antibodies and whether they can be used to create a vaccine for HIV. They are still exploring how different combinations of several antibodies may work together in order to create a long-term preventative dosage for the HIV virus. (Source: <https://www.hiv.gov/blog/final-hiv-prevention-treatment-research-highlights-croi-2021-video>)

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**If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting Marjorie Bekaert Thomas at [mthomas@ivanhoe.com](mailto:mthomas@ivanhoe.com)**