

## Frequently asked questions

### HVTN 140/HPTN 101 study

Version 1.0 – Last updated June 29, 2021

#### 1. What is the HVTN 140/HPTN 101 study?

HVTN 140/HPTN 101 tests three antibodies against HIV. The antibodies are called PGDM1400LS, PGT121.414.LS and VRC07-523LS. Since antibodies are part of how the body naturally protects against infections, these antibodies cannot cause HIV.

Antibodies are one of the natural ways that our bodies fight infection. Giving people antibodies to prevent infection has been an accepted medical practice for more than 100 years. For example, doctors give people antibodies to prevent infections like hepatitis A or B and chicken pox. Some antibodies that are used for preventing infections are made in laboratories. Manufactured antibodies have been used to prevent a dangerous respiratory infection in infants called RSV, and to treat diseases such as COVID-19, rheumatoid arthritis and breast cancer.

The study antibodies were developed from antibodies discovered in the blood of people who were living with HIV. Some antibodies made by people living with HIV can block (neutralize) many different strains of HIV. These are called broadly neutralizing antibodies, or bnAbs (pronounced “bee-nabs”). These antibodies attack HIV by attaching to key spots on the surface of the virus and blocking it from infecting human cells. The three study antibodies attach to different spots on HIV’s surface. Some of these natural bnAbs have been copied and made in a lab to create the study antibodies. The study antibodies have been shown to block many different global HIV strains in laboratory tests.

Because no single bnAb discovered so far can block all global strains of HIV, scientists think that using combinations of different bnAbs may block more HIV strains. They think that using combinations may be more effective to prevent HIV.

In this study, the PGDM1400LS study antibody will be tested by itself at different doses and in combination with the PGT121.414.LS and VRC07-523LS antibodies. The study antibodies will be given by intravenous (IV) (into the vein) or subcutaneous (SC) (under the skin) infusion.

This study is expected to take about 14 months.

## 2. What organizations are involved in this study?

The Division of AIDS (DAIDS), which is part of the National Institute of Allergy and Infectious Diseases (NIAID) at the U.S. National Institutes of Health (NIH), is paying for this study. NIAID, the HIV Vaccine Trials Network (HVTN), and the HIV Prevention Trials Network (HPTN) developed this study. The study antibodies were provided by DAIDS and the Dale and Betty Bumpers Vaccine Research Center (VRC), which is also part of NIAID.

The HVTN and HPTN are both international collaborations of scientists, educators, and community members searching for effective ways to prevent HIV. The HVTN focuses on safe and effective HIV vaccines, while the HPTN focuses on other HIV prevention methods such as pre-exposure prophylaxis and treatment as prevention. The HVTN and HPTN are funded by NIAID.

## 3. Why is this study being done?

The main goals of this study are to see if the study antibodies are safe to give to people, and whether people are able to take the antibodies without becoming too uncomfortable.

Other questions we are trying to answer with this study are:

- Is the new PGDM1400LS study antibody safe to give to people at different doses?
- Are the 3 study antibodies safe to give to people together at different doses?
- How much of the study antibodies remain in the body as time passes?
- How do people's immune systems respond to the study antibodies? (Your immune system protects you from disease.)
- Does the method of giving the antibodies (IV or SC infusion) change the body's response?

## 4. When and where will this study be done?

The study is expected to begin enrolling participants in September 2021. The study will be conducted at the following clinical research sites (CRSs) in the United States and sub-Saharan Africa:

### United States:

- Atlanta, GA – Hope Clinic CRS
- Nashville, TN – Vanderbilt University CRS
- Newark, NJ – Rutgers New Jersey Medical School CRS
- San Francisco, CA – Bridge HIV CRS
- Washington, DC – George Washington University CRS

**Kenya:**

- Kericho– KEMRI CRS

**South Africa:**

- Cape Town – Groote Shuur CRS
- Durban– eThekweni CRS
- Johannesburg– Ward 21 CRS
- Soweto – Bara

**Zimbabwe:**

- Harare – Seke South CRS
- Harare – Spilhaus CRS
- Harare – Milton Park CRS

**5. How many people will be in this study, and who can join?**

The study will involve 95 participants.

To join this study, a person must be healthy, between 18 and 50 years old, and not have HIV. They cannot be pregnant or breastfeeding. There are also other criteria that must be met. We will ask people about their medical history, give them a physical exam, and take blood and urine samples for testing. We will also ask people about their sexual activity and drug use.

**6. Are the study antibodies safe?**

We do not know all the risks of the study antibodies. That is why one purpose of this study is to test whether the study antibodies are safe when given to more people. PGDM1400LS has not been given to people before, but a very closely related antibody, PGDM1400, has been given to a small number of people alone and in combination with other antibodies in previous studies. PGT121.414.LS and VRC07-532LS have been given individually, together, and in other antibody combinations to a small number of people. No one in the earlier studies had any serious health problems related to the PGDM1400, PGT121.414.LS or VRC07-523LS antibodies. However, no other studies in people have tested the combination of these three specific antibodies used in this study. There is always the possibility that there could be problems no one expects. That is why one purpose of this study is to test whether the study antibodies are safe when given to more people. Each participant's health will be watched closely throughout the study.

The antibodies used in this study are not made from live HIV, killed HIV, or HIV-infected human cells. They cannot cause HIV or AIDS.

**7. Can these study antibodies protect participants from getting HIV?**

We don't know if these study antibodies will prevent HIV in people and this study is not designed to answer that question. Participants should not expect to be protected from HIV by the study antibodies.

For this reason, participants in this study will be counseled on how to avoid behaviors that will put them at risk of HIV.

**8. How long will it take to find out if the study antibodies work?**

The results of this study will help researchers know if they should do more studies using combinations of these study antibodies. These additional studies would see if the study antibodies are safe in larger groups of people. Future studies would also give us a better understanding of whether the combinations of antibodies might be able to prevent HIV. If more studies are done, it could take several years to find out if the study antibodies work to prevent HIV.

**9. How will the health and rights of participants be protected?**

Protecting the health and respecting the rights of participants are top priorities for everyone in the HVTN and HPTN. Without volunteers, we would never be able to find new methods for preventing HIV.

A first step in protecting the rights of study participants is to give them information about the study before they join. Clinic staff will give people information about the study products and procedures, the possible risks and benefits to participants, and the rights that they have. These include the right to receive any new information about the study that could affect whether they want to stay in it, and the right to leave the study at any time.

During the study, the clinic staff will monitor participants to make sure the study antibodies are not causing any health problems. The clinic staff will also ask participants about any social problems they may experience from being in the study. If a participant has a health or social problem related to being in the study, clinic staff will help them.

There are several groups involved in protecting participants' rights and well-being:

- A study safety review team and an independent safety monitoring board regularly look at the health information from the study to decide whether it appears safe to continue giving the study antibody infusions.
- Institutional Review Boards (IRBs) or Ethics Committees (ECs) review and monitor the study plan for each clinic doing the study, including the information that is given to people about the study, study progress, and health problems in participants. The IRBs/ECs also look at whether participant rights are being respected.
- The US Food & Drug Administration (FDA) also reviews the study. The FDA enforces US laws about research in humans and the use of study products in research.
- The South African Health Products Regulatory Authority (SAHPRA) also reviews the study. SAHPRA regulates all health products, including clinical trials.

- Regulatory authorities in other African countries may also review the study.
- Each study clinic has a Community Advisory Board (CAB). Its members are local people who bring the concerns and interests of the community and study participants to the researchers. CAB members are part of the team that develops each study. They also help develop or review the information that is given to participants.

**10. Could the study antibodies cause a positive result on an HIV test?**

An HIV antibody test is the usual way to test for HIV. We have used several common HIV antibody tests on blood samples containing different amounts of a of the study antibodies, VRC07-523LS, PGDM1400LS and PGT121.414.LS. These tests show that very high blood levels of the VRC07-523LS and PGDM1400LS antibodies can cause positive or uncertain results on a few brands of HIV tests. Such high levels might exist for a short time after a person gets the study antibody. This means that for a few days after getting VRC07-523LS or PGDM1400LS, certain HIV tests might say a person has HIV when they really don't. The PGT121.414LS antibody did not react with any of the HIV antibody tests. We do not know if different brands of tests will have similar results for the study antibodies or if real-world experiences will be the same as what we saw in the lab studies. Because of this, we still ask study participants to only get HIV tests at the study clinic while they are enrolled in the study. We use tests that can always tell the difference between true HIV acquisition and a positive result that is caused by the study antibodies.

**11. Where can I find more information?**

About HIV vaccine clinical studies: [www.clinicaltrials.gov](http://www.clinicaltrials.gov)

About the HIV Vaccine Trials Network: [www.hvtn.org](http://www.hvtn.org)

About the HIV Prevention Trials Network: [www.hptn.org](http://www.hptn.org)

If you have additional questions that were not answered by this document, please ask us.