

Transcript of GAY.COM chat

Dr. Susan Buchbinder is the Director of HIV Research for the San Francisco Dept. of Public Health. This is a transcript of a question-and-answer hour about HIV Vaccines that was held on Gay.com

Dr. Susan: We've been testing vaccines to prevent HIV vaccine infection since the late 1980s and have just launched a new study in San Francisco. This exciting study is being conducted by a collaboration of scientists and community members in 28 cities. It's called the Step Study. And we're testing an HIV vaccine to see whether it can prevent infection or disease in people who are HIV negative.

Q: Is there anything in the works for people who are infected with HIV?

Dr. Susan: Yes, some of the same types of vaccines are being tested in people with HIV infection to find out whether it can be used to delay the need for anti-HIV medications. But the studies we're doing in the HIV vaccine trials network are focused on HIV-negative people.

Q: Are people going to have unprotected sex just so you can see if your vaccine works?

Dr. Susan: NEVER. It's a really common question, but our goal is to prevent HIV infections in everyone, in all of our volunteers.

Q: What is this new vaccine?

Dr. Susan: This is a vaccine that's been developed by Merck. It's made from a weakened form of a cold virus. It doesn't cause colds, but it's a way to teach the body's immune system to fight HIV.

Q: Could you explain how it works?

Dr. Susan: The weakened cold virus is used to carry synthetic copies of pieces of HIV inside the cells that then train the body's immune system to fight HIV. It's very important to know that these vaccines can never cause HIV infection.

Q: How long ago was it developed?

Dr. Susan: Merck has been working on this type of vaccine for several years, but this latest vaccine has been tested in humans for a couple of years. You should know that tests are always done extensively in animals BEFORE it's tested in humans to be sure the vaccine looks safe before it's given to people.

Q: Would pharmaceutical companies patent the rights to the vaccine, and would people have to pay for it?

Dr. Susan: Yes, that's very likely to happen. Once we're lucky enough to find an HIV vaccine that works. However, this group (Merck) and many others are working together to make these vaccines accessible worldwide once we find vaccines that can protect people.

As far as costs, we don't know yet what the strategies for paying would be. It's likely that larger groups, including insurance companies and the World Bank, will work together to help provide vaccines where they are most needed.

Q: Does it work on the animals?

Dr. Susan: They do test these vaccines to see if they work on animals before they test on humans. The problem is HIV doesn't infect animals and cause disease. So, what I can tell you about this vaccine is that when a similar vaccine was made just for monkeys, the monkeys were protected from getting sick. But we don't know whether it will work the same way in people, which is why we're doing this study.

Q: What's the immunological role of CD8+ cells on this vaccine?

Dr. Susan: That's a very good and sophisticated question. Just to get everyone up to speed, CD8+ cells are thought to be very important in protecting people from becoming infected or getting sick with HIV, and this vaccine seems to work by training CD8+ cells.

Q: Volunteers who take this vaccine could show up as a false positive on a standard HIV test. How do they know then whether they've really been infected? Is there a test that can differentiate between a false positive and a real positive?

Dr. Susan: That's a great question. For this particular vaccine, this isn't the problem because it only trains the immune system to recognize inner HIV proteins, not the proteins that cope with the outer envelope. So it can be differentiated very easily by licensed antibody tests. But we take great care in the vaccine trial to give everyone counseling and linkages to reduce their risk and to give them accurate results about their infection status.

Q: How long did it take you to detect the first immuno-response on these patients?

Dr. Susan: We can detect a response to the vaccine within a couple of weeks within the first dose of the vaccine, but we think we can give this particular vaccine the best shot (pun intended) of working by giving three shots over six months.

Q: You mentioned that Canada was participating in the study, but I don't see Canada mentioned on the HVTN site.

Dr. Susan: This is a collaboration between HVTN and Merck. So some of the sites are HVTN sites, but some are working directly with Merck. The Canada site is a Merck site, in Toronto. You can find a list of sites at StepStudies.com. For San Francisco vaccine info, you can go to SFisReady.org

Q: How do you measure that immune response?

Dr. Susan: We measure the immune response through blood tests. We're looking for CD4+ and/or CD8+ cells that are targeted against HIV. We're also looking at HIV antibodies.

Q: Can you explain what the HVTN is and the work that they do?

Dr. Susan: It is the HIV Vaccine Trials Network. It's a collaborative group of scientists, staff and community members located around the world on five continents. Our goal is to test HIV vaccines to prevent infection or disease. This really is a collaboration between scientists and the communities they serve. You can learn more on our Web site, www.HVTN.org.

Q: So I would like to participate in this, but I'm curious about the side effect that may occur after the injection -- i.e., any possibility that my body will react to the inactivated vaccines?

Dr. Susan: First, it's important to know that the vaccine can never cause HIV infection. One of the primary goals of the study is to test for safety, so while this vaccine has been given to hundreds of volunteers already, we'll be closely measuring safety in our new volunteers.

The usual reactions are a sore arm, low grade fever or an achy feeling. But this happens only in a minority of people. It's very similar to other kinds of vaccines you may have gotten. This vaccine is actually a weakened cold virus.

And again, one of things we're studying is safety because we want to know what kinds of side effects these vaccines can cause, but similar kinds of vaccines without the HIV information included have been given to millions of military recruits to protect them against colds. This is just one of many HIV vaccine studies we're doing.

If you'd like to volunteer in San Francisco, you can call us at (415) 554-9068. Before we do any procedures, we go through a very detailed explanation about the vaccine and the procedures. This is called informed consent.

Q: Could the vaccine lead to the cure?

Dr. Susan: We're testing the vaccines to see if they can prevent infection or disease, but they are also being tested for treatment.

Q: Is it designed to be effective in preventing all types of HIV?

Dr. Susan: We don't know yet whether it will prevent HIV, and if so, whether it will prevent many types of HIV. When we say types of HIV, I'm talking about the different subtypes of HIV that exist around the world, and which are sometimes called CLADES.

While this vaccine is based on the subtype of HIV most common throughout North and South America and Western Europe, people who receive this vaccine do seem also to generate some immune responses to other types of HIV common in Africa and Asia.

Q: Could you please assure me that my body will not react to the vaccines really badly -- i.e., (that I won't have a) fever for days?

Dr. Susan: Our experience so far is that when people have fevers, they only last for a few days. It's something we follow very closely. And then remember, this cold virus vaccine can't reproduce in people, so it can't even cause a cold.

Q: When will the vaccine be available?

Dr. Susan: This is the first step in testing the vaccine -- that's why they call it the Step Study. If this looks promising, larger studies will be done that could be used to license the vaccine and make it available.

Q: Often when receiving a flu vaccine, some people actually develop the flu. What are the chances of this happening with an HIV vaccine?

Dr. Susan: There's no way the HIV vaccine could cause HIV. It doesn't contain any live or killed HIV. But you could get symptoms of a mild case of the flu. Most people don't get those symptoms -- and when they do, it lasts only a few days and it's very mild.

Q: Could the virus be produced with the super HIV?

Dr. Susan: NO -- not with these types of vaccines. While some people are studying vaccines based on killed HIV or weakened HIV, those studies are being done only on animals and are unlikely ever to be done on people.

Q: How do you test it? Expose me to HIV and see if I am immune?

Dr. Susan: Our goal is to protect people from HIV. We do everything for all of our study volunteers to keep them from being infected with HIV. The problem is, we know that despite our best efforts and often theirs, sometimes people do still become infected with HIV. We're trying to see if the vaccine can make that even less likely to happen.

Q: So is this a modified cold virus vaccine with the HIV genetic information on it?

Dr. Susan: Yes, but only information about some of the proteins on the inside of HIV. That's why this could never cause HIV infection, and people's immune response to the vaccine is very different from the usual response someone would have from an HIV antibody test. This means we can tell the difference between people who get the vaccine and those who become infected.

Q: When will the vaccine be available?

Dr. Susan: It's important to know that although there are thousands of people working on developing an HIV vaccine that protects people from infection or disease, we do not have that vaccine yet. But you can help us get there by calling us and finding out more about our studies.

In San Francisco, our phone number is (415) 554-9068. The San Francisco Web site is www.sFisReady.org. The nationwide the Web site is www.stepstudies.com.

Dr. Susan: I really appreciate your coming here to find out more about HIV vaccines. We hope you'll be in touch with us at our San Francisco location or at your local Step Studies site.