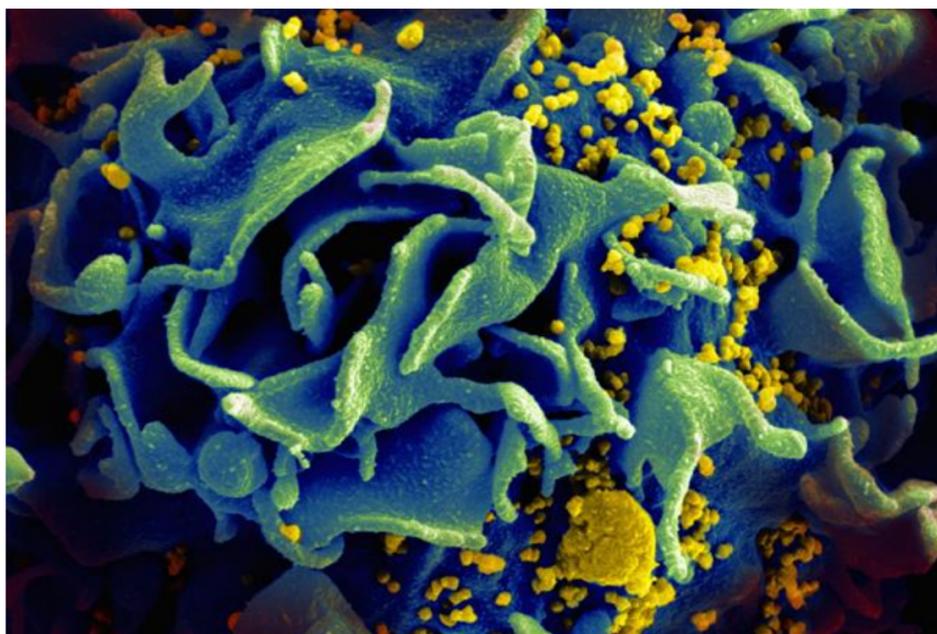


## GWU participates in 'promising' HIV vaccine study



D.C.'s George Washington University School of Medicine and Health Sciences is one of four sites across the country in which a preliminary component of an experimental HIV vaccine is being given to volunteer participants in a study aimed at reversing years of failed attempts to develop an effective HIV vaccine by pursuing what study sponsors say is a new, promising approach.

The study, which involves 56 healthy, HIV-negative volunteer participants, is being conducted by the nonprofit scientific research organization known as IAVI and the biotechnology company Moderna, which developed one of the coronavirus vaccines now being used throughout the world.

In a Jan. 27 joint statement, IAVI and Moderna said their study is part of a Phase 1 trial designed to test newly developed experimental HIV vaccine antigens to determine if they will lead to the development of an effective HIV vaccine.

According to scientific literature, antigens are substances such as bacteria, viruses, and chemicals that induce the body to release antibodies that fight off infections. The statement by IAVI and Moderna says a vaccine technology developed by Moderna to use another component of the human body called messenger RNA or mRNA to strengthen a potential vaccine's ability to fight off infection by HIV is also a part of this vaccine study.

"We are tremendously excited to be advancing this new direction in HIV vaccine design with Moderna's mRNA platform," Mark Feinberg, president and CEO of IAVI, says in the statement. "The search for an HIV vaccine has been long and challenging and having new tools in terms of immunogens and platforms could be the key to making rapid progress toward an urgently needed, effective HIV vaccine," he says in the statement.

The statement says that scientific teams at IAVI and the biotechnology firm Scripps Research helped to develop the HIV vaccine antigens being tested in the trials taking place at the GW School of Medicine and Health Sciences and at locations in Atlanta, Ga., Seattle, Wash., and San Antonio, Tex.

It says the trial involving the 56 volunteer participants — who are divided among the four sites — began on Jan. 27 and is being funded by the Bill & Melinda Gates Foundation.

Among those calling the IAVI-Moderna trial an important step in HIV vaccine development is Carl Dieffenbach, director of the Division of AIDS at the National Institute of Allergies and Infectious Diseases (NIAID), which is part of the U.S. National Institutes of Health.

"This is a variation of a theme," Dieffenbach told the Washington Blade. "IAVI in collaboration with NIH did a version of this study already with a protein form of this immunogen," Dieffenbach said. He said that study worked out well and was published in a scientific journal.

"What's unique about this latest study is they're using RNA to deliver the vaccine rather than a protein," said Dieffenbach. "So, this is an important step for us in the vaccine field, that they can now compare the protein to the RNA."

Dieffenbach said the IAVI-Moderna trial is taking place after two other recently completed HIV vaccine studies involving human trials that NIAID was involved in resulted in findings that the two experimental HIV vaccines were ineffective. He said a third HIV vaccine study NIAID is involved in that is taking place in the U.S. and South America is expected to be completed in about a year.

The ongoing study in the Americas involves men who have sex with men and transgender individuals as those participating in that vaccine trial, he said.

Dieffenbach said in addition to the vaccine studies, NIAID is monitoring at least two studies of medication aimed at curing HIV. One of the studies was conducted by HIV researcher Dr. Timothy Schacker, who serves as Vice Dean for research at the University of Minnesota Medical School.

Schacker arranged for human trials of people who are HIV positive and taking standard anti-retroviral HIV medication to be given an experimental HIV cure medication developed by the biotechnology company ImmunityBio called Anktiva, according to a Jan. 31 statement released by ImmunityBio.

The statement says the trials showed promising results in the ability of Anktiva to induce the immune system of HIV-positive patients under standard HIV treatment who participated in the study to "kill" the latent or "hidden" HIV in their body that would otherwise reactivate and cause illness if they stopped taking HIV medication.

The goal of the development of Anktiva is to "rid the body of the virus for good and eliminate the need for antiretroviral therapy," the company's statement says.

Dieffenbach said his office was also monitoring an HIV cure study being conducted by the Rockville, Md., based genetic engineering company called American Gene Technologies. The company is conducting a human trial for a therapeutic treatment it has developed that's intended to enable the immune system of HIV-positive people to permanently eliminate HIV from their bodies. The company has said it was hopeful that early results of the effectiveness of the treatment would become available this year.