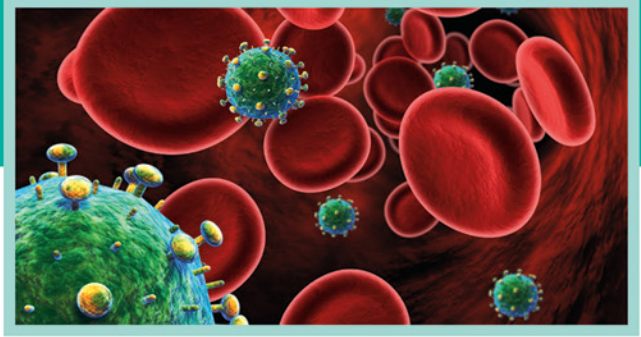
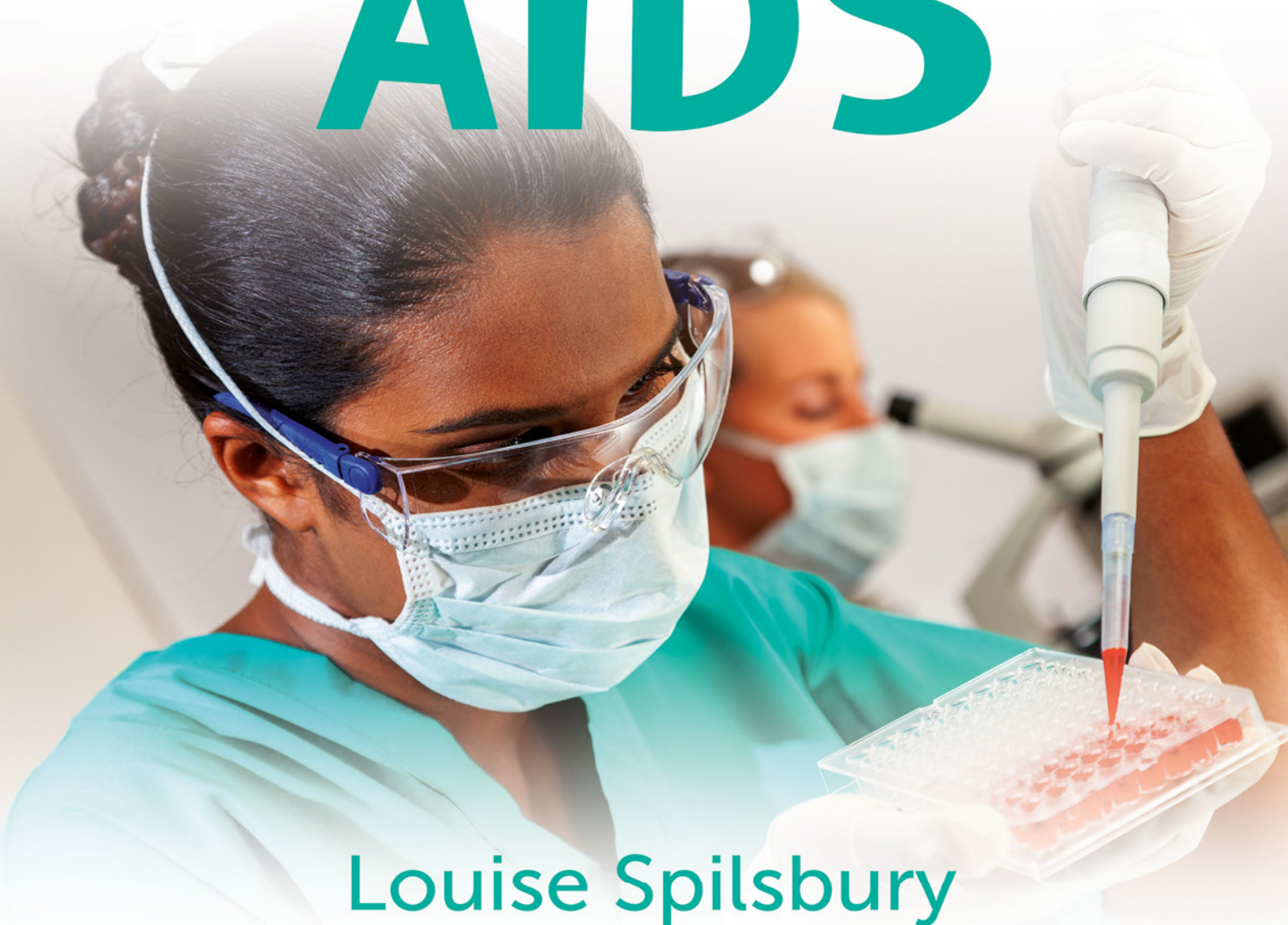


Wars Waged Under the Microscope



The War Against **AIDS**



Louise Spilsbury

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The Enemy

AIDS stands for Acquired Immunodeficiency Syndrome. It describes a set of potentially deadly symptoms, or signs of illness, which a person may have after their immune system has been damaged by the human immunodeficiency virus (HIV).

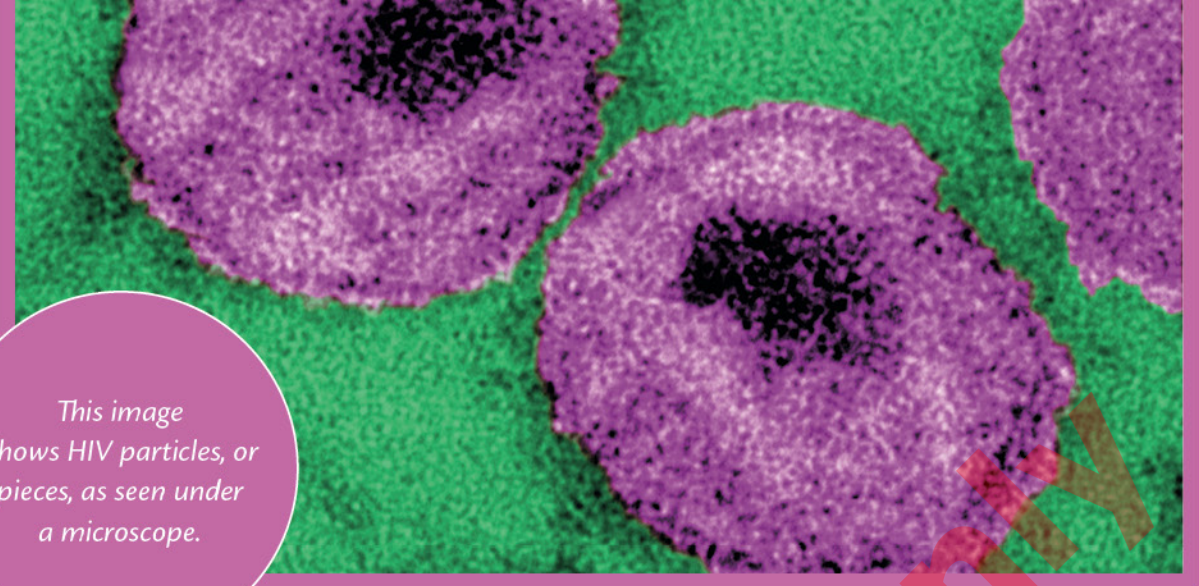
A virus is a tiny organism that can be seen only under a microscope, a device that magnifies things so that they can be studied easily.

HIV Positive

When people test positive for HIV, we say they are HIV positive. The vast majority of these people will have the virus for the rest of their lives. There is currently no cure for HIV. However, today HIV/AIDS is not the deadly killer that it was when first recognized in the 1980s. Thankfully, there are now many ways in which

HIV-positive people can manage their condition. With the right drugs and lifestyle choices, they can live long and healthy lives.

More than two-thirds of all people in the world who have HIV live in eastern and southern Africa. Mothers who are positive can pass the virus on to their children when they are born.

A microscopic image showing several HIV particles, which are spherical with a textured surface, set against a green background.

This image shows HIV particles, or pieces, as seen under a microscope.

Living with AIDS

People do not develop AIDS immediately after testing positive. This is because the virus may not attack their immune system for months or years after a positive test result. It is only when the virus begins to attack a person's immune system that they develop AIDS.

There are treatments to stop those living with HIV from developing AIDS. However, once a person with HIV has AIDS, it is highly unlikely they will recover. Usually, they die after developing different kinds of diseases, which take advantage of a weak immune system. These AIDS-related illnesses include unusual **cancers**, and a disease called tuberculosis (TB) that affects the **respiratory system**.

*"...being HIV positive is not a death sentence. The **eradication** of HIV/AIDS like any other disease will require a **collective** response."*

**Oche Otorkpa, Researcher, School of Public Health,
Texila American University**

The Battle Begins

Scientists believe that AIDS probably began in the 1920s as a virus that affected chimpanzees in West Central Africa. They believe that the chimpanzees carried a version of an immunodeficiency virus called simian immunodeficiency virus (SIV). The virus probably crossed over to humans when people hunted and ate the animals. After SIV jumped from chimpanzees to humans, it evolved, or changed, into HIV.

A Brand-New Threat

The virus did not have a great impact on the world until 1981. Suddenly, seemingly healthy young people in the United States started dying after a mysterious disease attacked their immune systems. People were terrified of this new, frightening disease, and scientists raced to try to identify it.



Today, people around the world are aware of AIDS and what causes it. However, it has taken many years to bring about this understanding of the disease.

Identifying the Enemy

Doctors studying the disease in Los Angeles and New York City discovered unusual infections in their patients. These included rare types of **pneumonia** and cancer, which were unusual to see in healthy young people. This suggested that their immune systems were not working as they should. At that time, all the patients were homosexual, or gay, men.

Naming the Enemy

Gradually, more cases of the disease were reported around the world. Then, in mid-1982, scientists realized the disease was also spreading among groups of people other than gay men, such as patients who had **blood transfusions**. They realized it was spreading through bodily fluids, such as blood and **semen**. By September that year, the disease was officially named Acquired Immunodeficiency Syndrome, or AIDS. It was not until January 1983 that the disease was also reported among the female partners of men who had AIDS.



Sometimes, people lose a lot of blood, usually through an accident or during surgery. Blood transfusions replace this lost blood.

UNDER THE MICROSCOPE



Virology is the branch of science that deals with the study of viruses. In 1984, two teams of virologists, one in France and one in the United States, made a huge breakthrough when they identified the cause of AIDS: HIV. HIV was found in **samples** of **white blood cells** taken from a person who had AIDS. The scientists used special techniques to isolate, or separate, parts of the virus and a powerful **electron microscope** to identify them. This microscope can see inside the structure of viruses.

The Spread of AIDS

When doctors first started studying HIV/AIDS in 1981, all their patients were homosexual men who had unprotected sex with other men. This led to the mistaken idea that the cause of the condition was sexual, and that only gay men could get it. For that reason, the syndrome became briefly known as gay-related immune deficiency (GRID).



*In the early 1980s, misunderstandings about how HIV was spread meant many people mistakenly believed it was a threat only to homosexual men. This led to a big increase in **discrimination** against the gay community.*

The Hardest Hit

While AIDS was at first wrongly believed to be a gay-only disease, it devastated gay communities. Once it took hold in the 1980s, the disease became an **epidemic** among gay men. At first, scientists struggled to understand and deal with the mysterious new disease. They had no effective treatments for it, and as a result many gay men died. To date, the **Centers for Disease Control and Prevention (CDC)** estimates that 46 percent of all people throughout the world who have died from AIDS have been gay men. Many scientists argue that the lessons to be learned from the AIDS **pandemic** are that we must be determined in our efforts to identify and cure new diseases.



CASE STUDY:

FACING THE ENEMY

The American playwright Larry Kramer was living in New York City when the disease that would become known as AIDS seemed to rapidly sicken people there. He was angry that his friends died from the disease and that governments and scientists were slow to research and find a solution to the deadly illness.

In 1982, before AIDS even had a name, Kramer set up Gay Men's Health Crisis (GMHC). This was the first group to offer support to people living with and affected by HIV. On the day the group opened a hotline, it received more than 100 calls asking for help. Then, in 1987, Kramer helped to found ACT UP, or the AIDS Coalition to Unleash Power. This group staged protests calling for research into medicines to treat HIV, and to make these drugs available more quickly and at a price everyone could afford.

Larry Kramer and other campaigners forced politicians to respond to the AIDS crisis and drug companies to treat the disease as an urgent area of research.

