Making HIV History: Johnson & Johnson’s Search for an HIV Vaccine

The Janssen Pharmaceutical Companies of Johnson & Johnson have been working for more than 25 years to #makeHIVhistory through a passionate pursuit of innovative prevention and treatment programs.

The search for an HIV vaccine began the moment the virus was discovered in 1983. But developing a vaccine has been highly challenging. Today, Janssen and its partners are making progress in this quest.

The HIV Challenge

1981
First reports of disease that would become known as AIDS (Acquired Immune Deficiency Syndrome)¹

1983
Discovery of Human Immunodeficiency Virus (HIV) as cause of AIDS²

Today
38 million people living with HIV worldwide⁴
1.7 million people newly acquired HIV in 2019

Need for a Vaccine
Experts agree a preventive vaccine is needed to turn the tide of the HIV epidemic⁵
- Would be a new type of HIV prevention tool that isn’t dependent on good compliance by the recipient
- Janssen’s ultimate goal is a global vaccine to prevent infection caused by multiple HIV strains worldwide

Mosaic Vaccine Concept
“Mosaic-based” vaccine regimens contain mosaic immunogens
- These are molecules capable of producing an immune response against many HIV strains
- Some of these immunogens are delivered via an adenovirus vector – a common cold virus genetically engineered to be harmless
- Different vaccine components are administered at different time points (“heterologous” approach)
- Ultimate goal: a vaccine that elicits durable protective immunity against HIV
Global Clinical Program

Janssen has the only preventive HIV vaccine in late-stage clinical development, with two large-scale efficacy studies – Mosaico and Imbokodo – underway.

2 late-stage studies for mosaic-based HIV vaccine regimens
13 countries
4 continents
6,000+ target enrollment

“Our vision is to achieve a world without HIV. This will require a preventative HIV vaccine.”

Paul Stoffels, MD
Vice Chairman of the Executive Committee & Chief Scientific Officer, Johnson & Johnson

Deeper Dive

Phase 1/2a
Early-stage studies APPROACH, TRAVERSE and ASCENT demonstrated safety and a strong immune response for mosaic-based vaccine regimens

Phase 2b
Imbokodo is testing whether a mosaic vaccine can prevent HIV infection in 2,600 young women aged 18-35 in southern African countries

Phase 3
Mosaico, the only Phase 3 study of an HIV vaccine in the world today, will test whether a mosaic vaccine can prevent HIV infection in 3,800 men who have sex with men (MSM) and transgender individuals aged 18-60 in Europe and the Americas

Bringing It All Together

AdVac® viral vector technology to deliver mosaic immunogens
Versatile manufacturing platform to upscale vaccine production
State-of-the-art Vaccines Launch Facility
Janssen’s expert teams of scientists and researchers
Global research and funding partners

Leaders of Janssen’s HIV vaccine development program (clockwise from top left):
Paul Stoffels, MD, Johan Van Hoof, MD, Maria Grazia Pau and Hanneke Schuitemaker, PhD

3 WHO. Global Health Observatory (GHO) data.
4 UNAIDS. 2020 Fact Sheet.