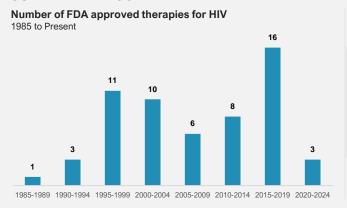
# **ADVANCEMENTS IN HIV**

# A DEEP-DIVE IN FUTURE LANDSCAPE

Human immunodeficiency virus (HIV), a virus that attacks the body's immune system, currently affects ~39 Mn people globally. Existing HIV treatment is complex and has several side effects. However, the future pipeline is focusing on developing monotherapies with unique Mechanism of Actions, such as a CCR5 antagonist, to reduce complexity and make treatments safer. Additionally, several deals and mergers are taking place in the space, aiming to reduce costs and increase effectiveness.

### **CURRENT LANDSCAPE**



- The current treatment for HIV includes anti-retroviral therapy (ART). Recently approved medications for HIV include:
  - Fostemsavir (Attachment inhibitor) 2020
  - Cabotegravir (INSTI) 2021
  - · Cabenuva (Combination HIV medication) 2021
- The major drivers for the new HIV treatment are the need for simpler HIV treatment regimens and minimal side effects.
- Key players such as ViiV Healthcare and Johnson & Johnson are involved in these approvals. The approved medications were shown to have fewer side effects and the capability to be effective against drug-resistant HIV.

### **FUTURE LANDSCAPE**

In 2023, ~115 trials were initiated for new drug therapies by players such Gilead, Merck and Abbvie. About 70% of HIV developmental drugs are small molecules due to their easy targeting, development, and administration.



### **Trials Based on Therapy Type**

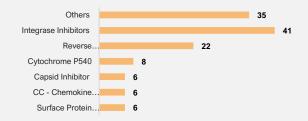
Several monotherapy trials such as HOPE, MERIT, and SINGLE are underway with an aim to reduce side effects and increase affordability.



# No. of trials according to therapy type 13 93 Small Molecules Antibodies Others

#### **Mechanism of Action**

Integrase inhibitors are heavily researched due to >90% patients achieving undetectable virus load in clinical trials.



## **ART Underdevelopment**

Product	Class Type	Company	Development Phase
Islatravir	NRTTI (Nucleoside Analogue Reverse Transcriptase Inhibitors)	Merck	Phase III
Lenacapavir	Capsid inhibitor	Gilead	Phase II/III
Albuvirtide	Fusion inhibitor	Frontier	Phase II/III
Leronlimab	CCR5 antagonist	CytoDyn	Phase II/III
UB-421	CD4 attachment inhibitor	United Biomedical	Phase II/III
STP0404	Integrase inhibitor	ST Pharm Co., Ltd. Phase I	

### **RECENT DEALS IN HIV SPACE**

The deals and mergers in the HIV space are being driven by various factors such as increasing prevalence of disease, rising cost of HIV medication, and the need for new and more effective treatments.

Deals	Description	
Cipla AUROBINDO	In March 2023, GSK signed a deal with three companies – Aurobindo Pharma, Cipla and Viatris – allowing them to make inexpensive generic version of its long-acting HIV preventive medicine, Cabotegravir, and would be available to lower income countries by 2026.	
Healthcare medicines patent pool	In July 2022, ViiV Healthcare and the Medicines Patent Pool signed a new voluntary licensing agreement to expand access to innovative long-acting HIV prevention medicine for Sub-Saharan African and other underdeveloped countries.	
GILEAD • MERCK	In March 2021, Gilead and Merck announced an agreement to jointly develop and co- commercialize long-acting, investigational treatment combinations of Lenacapavir and Islatravir in HIV.	

The development of new ARTs is an important area of research for HIV. With continued innovation, new ARTs may be developed that are more effective, have fewer side effects, and are more affordable and accessible.

Right from understanding key issues to advising you through the right set of insights and recommendations, Aranca provides research, consolidation, and insightful analysis to aid in-depth understanding of therapy and effective decision-making.

# **HOW CAN ARANCA HELP?**

01	<b>Epidemiological Analysis:</b> Prevalence and diagnosis of diseases based on geography, gender, race, and ethnicity, etc.	02	<b>Diagnosis and Treatment Paradigm:</b> Analysis of diagnosis and treatment algorithm adopted in clinical practice
03	Current and Future Landscape: Current treatments and latest pipeline landscape assessment for a particular therapy area	04	Humanistic, Economic Burden, and Unmet Need Analysis: Impact of a disease on patients' mental and economic well-being
05	<b>Health Technology Assessment:</b> Analysis of various HTA decisions published by different countries		

