Agenda

Introduction
Daniel O’Day, Chairman and CEO

HIV Commercial
Janet Dorling, SVP Global Commercial Product Strategy

HIV Treatment & PrEP
Jared Baeten, VP HIV Clinical Development

HIV Cure
Tomas Cihlar, SVP Research Virology

Virology R&D
Frank Duff, SVP Virology Therapeutic Area Head

Open Q&A

Throughout this presentation, investigational products and programs that are part of Gilead’s pipeline are discussed. Please note that these investigational products or uses are not approved by the FDA, and their safety and efficacy have not been established. For more information about Gilead’s approved products referenced in the presentation, please view the full U.S. Prescribing Information, available on Gilead.com.
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Introduction

Daniel O’Day
Chairman and
Chief Executive Officer
Gilead’s Innovation in Virology Has Helped Millions

Transform HIV into a preventable or chronic condition
>13M PLWH & PWBP have accessed a Gilead medicine¹,²

Provide first highly effective cure for Hepatitis C Virus (HCV)
>5M people treated globally²

Deliver first treatment for patients hospitalized with COVID-19
~10M people treated globally; available in 120+ countries²

¹Number of HIV treatments & medicines for prevention Gilead has enabled access to. ²Represents medicines (HIV treatment & medicines for prevention, HCV medicines, Veklury/remdesivir) made available by Gilead, its distributors and voluntary licensees. Note: PLWH – Persons living with HIV; PWBP – People who benefit from PrEP; PrEP – Pre-exposure prophylaxis.
Our Proud Legacy of Innovation in Virology...

![Timeline and Product Launches Diagram](image-url)

**Virology: First Global Product Launches**

- **1987**: Founded
- **2001**: Viread, Emtriva, Hepsera
- **2003**: Atripla
- **2005**: Truvada
- **2007**: Sovaldi, Complera
- **2009**: Truvada 2, Sovaldi, Genvoya
- **2011**: Vemlidy, Epclusa
- **2013**: Vosevi
- **2015**: Descovy, Vosevi
- **2017**: Epclusa
- **2019**: Veklury, Hepcludex 4
- **2021**: #1 Prescribed HIV Treatment Regimen Ever 1

1. This information is an estimate derived from the use of information under license from the following IQVIA Information service: Weekly NPA MD Q421. IQVIA expressly reserves all rights, including rights of copying, distribution and republication. 2. First global launch for HIV prevention (not treatment). 3. Descovy (emtricitabine 200mg/tenofovir alafenamide 20mg) approved for treatment in 2016 and PrEP in 2019. 4. Hepcludex (bulevirtide) is conditionally authorized by the European Commission for treatment of chronic HDV. Its safety and efficacy have not been established in the United States or in other regions where it has not received regulatory approval. Images not actual size. All product names are trademarks of Gilead Sciences, Inc. or one of its related companies.
... Positions Gilead With Unique Strengths for Success

Unparalleled Antiviral Expertise

4,000+ full time employees across research, development, manufacturing, commercial, and more

Small Molecule Formulation, Combination Capabilities

World-class medicinal chemistry, formulation development, and combination capabilities; first single tablet regimens in HIV and HCV

Industry-Leading Access and Patient Reach Programs

Ongoing commitment to achieving Health Equity in the US and globally with our medicines in >125 countries
Gilead Committed to Addressing Unmet Medical Needs

Focus for Today

HIV
- HIV Treatment
- HIV Prevention
- HIV Cure

Viral Hepatitis
- HCV Eradication (cure achieved)
- HBV Cure
- HDV Treatment and Cure

Emerging and Other Viruses
- COVID-19
- Other Pandemic Viruses
- Respiratory Viruses
- Herpes Viruses
Helping to End the HIV Epidemic

Focused on Person-Centered Innovation

Treatment + Prevention
Gilead is pioneering long-acting therapies that require less frequent dosing to provide the best options to complement once-daily orals and reach more people.

Cure
Discovering a cure for HIV is highly aspirational yet achievable. Gilead has the most comprehensive cure development program and is advancing with speed and conviction.

Advancing Health Equity and Access Around the Globe
Increasing awareness, reducing stigma and disparities in care, and supporting local communities will enable today’s therapies to have a bigger impact.

Strengthened by Collaborations and Community Partnerships

VISION
End the HIV Epidemic for Everyone, Everywhere
Gilead’s Virology Deep Dive: Key Takeaways

**Gilead’s HIV business is strong and sustainable**
- Biktarvy and long-acting (when launched) will drive HIV growth through 2020s
- Biktarvy patent extends through 2033
- More convenient dosing from mid 2020s expected to accelerate PrEP growth

**We are investing to remain #1 in HIV**
- Person-centered approach: focused on variety of unmet needs around dosing
- 8 internal long-acting partner candidates for lenacapavir
- Most robust portfolio of HIV cure assets in the industry

**We are a leader in scientific innovation**
- For the first time, sharing insights today into some of our 14+ investigational programs that target all stages of the entire HIV lifecycle

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Note: Lenacapavir is an investigational agent and is not approved by any regulatory authority for any use; safety and efficacy are not established. PrEP - Pre-exposure prophylaxis.
Unfortunately, HIV is Still a Global Growing Epidemic

<table>
<thead>
<tr>
<th>HIV Treatment Market</th>
<th>HIV PrEP Market (U.S.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
<td></td>
</tr>
<tr>
<td>3.1M people living in G9 countries with HIV (37M globally)</td>
<td>1.2M people who would benefit from PrEP</td>
</tr>
<tr>
<td><strong>Need</strong></td>
<td></td>
</tr>
<tr>
<td>32% are not virally suppressed in G9 countries</td>
<td>75% are not using PrEP in the U.S.</td>
</tr>
<tr>
<td><strong>Growth</strong></td>
<td></td>
</tr>
<tr>
<td>&gt;60K new HIV infections each year in G9 countries (1.5M globally)</td>
<td>&gt;100% PrEP usage to more than double by 2030</td>
</tr>
<tr>
<td>~2-3% YoY PLWH increase in the U.S.</td>
<td></td>
</tr>
</tbody>
</table>

Gilead is Leading in HIV Treatment...

- $8.6B Biktarvy FY21 sales; 19% YoY growth
- ~1% Biktarvy EU & U.S. share growth QoQ
- Highest market share ever for any regimen in the U.S. at 42%¹
- #1 prescribed therapy for new starts and switches in the U.S.²
- #1 prescribed therapy for new starts in the EU³
- Recommended for initial therapy in all major markets⁴

¹ This information is an estimate derived from the use of information under license from the following IQVIA information service: NPA Weekly, Descovy, Truvada and gF/TDF PrEP Volume excluded. IQVIA expressly reserves all rights, including rights of copying, distribution and republication. New entrants include 2 new branded HIV treatments launched in the past 36 months. Based on the mixed reimbursement model, injectable products will flow through both retail and non-retail channels and could cause underrepresentation in retail data due to buy and bill option. Note: This information is an estimate derived from the use of information under license from the following IQVIA information service: NPA and LAAD. IQVIA expressly reserves all rights, including rights of copying, distribution and republication.² Weekly IQVIA NPA MD Q421. ³ Ipsos Chart Audit. ⁴ For most PLWH. Source: U.S. Health & Human Services Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents (January 2022), International AIDS Society (IAS)-USA Saag et al (2020), European AIDS Clinical Society Guidelines Version 11.0 (October 2021). ¥ Reflects HIV treatment regimen market share in the U.S. Source: IQVIA NPA MD Regimen Market (NRTI Market, excl. PrEP + 2-Drug Combos).
... Committed to Addressing Remaining Unmet Needs

**Current Unmet Need**

- ~60% of people living with HIV (PLWH) say less frequent dosing is greatest need¹
- Longer dosing intervals to address emotional and logistical challenges
- Subcutaneous administration preferred to intramuscular due to pain²
- Every 3 or 6 month injection preferred; linked to routine physician visits³

**Potential Solutions in Our Pipeline**

- **Daily Oral STR**: Most PLWH served
- **Weekly Oral**: Virally Suppressed, Treatment Experienced not yet served
- **Every 3 Months**: Not yet served
- **Every 6 Months**: Not yet served

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Future of HIV Treatment is Focused on Customization

Major Market Dynamics Expected to be Driven by Innovation From Our Pipeline

Daily Oral:
- Biktarvy sets the standard of care through 2030 and beyond

Long Acting
- Potential for LEN to be standard of care backbone given multiple dosing options and clinical profile
- Expected pipeline launches driving long-acting adoption:
  - LEN HTE 6-month injectable
  - LEN + partner combination 3-month injectable
  - LEN + partner combination 6-month injectable
  - LEN + partner combination once weekly oral

Note: Lenacapavir is an investigational agent and is not approved by any regulatory authority for any use; its safety and efficacy are not established. MTR = Multi-tablet regimen; HTE = Heavily treatment-experienced; LA = Long-acting; LEN = Lenacapavir; SOC = Standard of care; Q3M = Every 3 months; Q6M = Every 6 months.
HIV Development Portfolio is Broadest in Industry

<table>
<thead>
<tr>
<th>Market Segments</th>
<th>GILEAD</th>
<th>Company 1</th>
<th>Company 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Oral</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Virally Suppressed, Treatment Experienced</td>
<td>✔</td>
<td>✗</td>
<td>?</td>
</tr>
<tr>
<td>Weekly Oral</td>
<td>✔</td>
<td>?</td>
<td>✗</td>
</tr>
<tr>
<td>Q3M</td>
<td>✔</td>
<td>?</td>
<td>✔</td>
</tr>
<tr>
<td>Q6M</td>
<td>✔</td>
<td>✗</td>
<td>?</td>
</tr>
</tbody>
</table>

No other portfolio addresses all market needs

- ✔ Confirmed asset in development
- ✗ Uncertain on development; not disclosed; paused development
- ✗ No asset/combo

Note: Q3M - Every 3 months; Q6M - Every 6 months.
Gilead is Leading in the Growing Prevention Market

- $1B U.S. FY21 sales
- ~20% YoY growth in U.S. PrEP market from 2020 to 2021
- Market returned to growth and above pre-pandemic levels
- Descovy is the #1 prescribed PrEP medication by U.S. HIV specialists\(^1\)
- Prevention is critical to goal of ending HIV epidemic

\(\sim 45\%\)

Descovy PrEP share in U.S. 2021\(^2\)

\(^1\) This information is an estimate derived from the use of information under license from the following IQVIA information service: LAAD Weekly for the period 12 June 2020 to 26 November 2021. IQVIA expressly reserves all rights, including rights of copying, distribution and republication. \(^2\) Reflects HIV PrEP regimen market share in the U.S. based on Weekly IQVIA NPA/NSP. Note: PrEP - Pre-exposure prophylaxis.
PrEP Market Growth Accelerates with Long-Acting Options

“You really have to take the pills every day, and I just could not do that.”
- Discontinued PrEP User

Current uptake limited by:
- Daily oral adherence and persistence, especially in younger people
- Real or perceived stigma: partners, family, community, healthcare services
- Health system demands

With longer-acting oral and injectable options:
- Surveyed PWBP suggest PrEP utilization would more than double\(^1\) overall to 50%+
- Transition from daily orals (including Descovy) to a Q6M regimen

\(^1\) HIV Prevention Research, 2020. Note: Lenacapavir is an investigational agent and is not approved by any regulatory authority for any use; its safety and efficacy are not established. PrEP - Pre-exposure prophylaxis; PWBP - People who benefit from PrEP; Q6M - Every 6 months.
HIV: Sustainable Revenue Through 2030 & Beyond

- Standard of care for HIV treatment and PrEP with Biktarvy and Descovy
- Annual treatment market growth ~2-3%
- PrEP YoY market growth ~20% in 2021
- Generics capturing ~10% total market in the U.S.

- Biktarvy remains daily oral standard of care for treatment through 2030+
- Lenacapavir potential to be standard of care for long-acting treatment and PrEP
- Annual treatment market growth ~2-3%
- PrEP usage to more than double to 50+% by 2030
- Generics capturing ~15% total market in the U.S.

Note: PrEP - Pre-exposure prophylaxis.
Gilead’s Strategy to End the HIV Epidemic

**Focused on Person-Centered Innovation**

**Treatment + Prevention**
Gilead is pioneering long-acting therapies that require less frequent dosing to provide the best options to complement once-daily orals and reach more people.

**Cure**
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VISION
End the HIV Epidemic for Everyone, Everywhere
Gilead is Leveraging a Legacy of HIV Innovation

>13M PLWH & PWBP have accessed a Gilead medicine¹

1st
First Single Tablet Regimen for HIV Treatment

Atripla
(efavirenz 600mg/emtricitabine 200mg/tenofovir disoproxil fumarate 300mg)

First Daily Oral Medication for HIV Prevention

Truvada (emtricitabine 200mg/tenofovir disoproxil fumarate 300mg)

BIKTARVY® #1 U.S. Prescribed HIV Treatment Regimen Ever²

BIKTARVY®
(bictegravir 50mg/emtricitabine 200mg/tenofovir alafenamide 15mg)

2001 - 2004
2006 - 2012
2015 - 2016
2018 - 2019

2001 – 2004

2006
HIV Treatment
1 pill/day

2012
HIV Prevention
1 pill/day

2022+
Long-Acting Options for Treatment and Prevention

2012
HIV Prevention
1 pill/day

2018 - 2019

#1 U.S. Prescribed

Viread
(efavirenz 600mg/emtricitabine 200mg/tenofovir disoproxil fumarate 300mg)

Atripla
(efavirenz 600mg/emtricitabine 200mg/tenofovir disoproxil fumarate 300mg)

Complera
(emtricitabine 200mg/tenofovir alafenamide 15mg)

Genvoya
(efavirenz 600mg/emtricitabine 200mg/tenofovir disoproxil fumarate 300mg)

Descovy
(bictegravir 50mg/emtricitabine 200mg/tenofovir alafenamide 15mg)

Stribild
(efavirenz 600mg/emtricitabine 200mg/tenofovir alafenamide 15mg)

Note:
Atripla (efavirenz 600mg/emtricitabine 200mg/tenofovir disoproxil fumarate 300mg), Truvada (emtricitabine 200mg/tenofovir disoproxil fumarate 300mg), and Biktarvy (bictegravir 50mg/emtricitabine 200mg/tenofovir alafenamide 15mg).

Pill images not actual size. This slide is based on U.S. Food and Drug Administration approval dates. ¹ Number of HIV treatments/prevention Gilead has enabled access to: represents medicines (treatment & prevention) made available by Gilead, its distributors and voluntary licensees. ² This information is an estimate derived from the use of information under license from the following IQVIA information service: IQVIA NPA Weekly, for WE 28 January 2022. IQVIA expressly reserves all rights, including rights of copying, distribution and republication. Note: Atripla (efavirenz 600mg/emtricitabine 200mg/tenofovir disoproxil fumarate 300mg), Truvada (emtricitabine 200mg/tenofovir disoproxil fumarate 300mg), and Biktarvy (bictegravir 50mg/emtricitabine 200mg/tenofovir alafenamide 15mg).
Biktarvy Sets the Bar for HIV Treatment

Study 1490

% Participants Achieving/Maintaining Undetectable Viral Load

<table>
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<tr>
<th>Week</th>
<th>n</th>
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<tr>
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<tr>
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<tr>
<td>216</td>
<td>219</td>
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Study 1489

% Participants Achieving/Maintaining Undetectable Viral Load

<table>
<thead>
<tr>
<th>Week</th>
<th>n</th>
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<tbody>
<tr>
<td>0</td>
<td>314</td>
</tr>
<tr>
<td>24</td>
<td>305</td>
</tr>
<tr>
<td>48</td>
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<td>72</td>
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<tr>
<td>96</td>
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<td>120</td>
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<td>144</td>
<td>261</td>
</tr>
<tr>
<td>168</td>
<td>254</td>
</tr>
<tr>
<td>192</td>
<td>237</td>
</tr>
<tr>
<td>216</td>
<td>220</td>
</tr>
</tbody>
</table>

• ≥98% of participants through 5 years achieved and maintained an undetectable viral load

• 5-year data reinforce **efficacy, safety and durability of Biktarvy** & highlight the potential role in meeting the long-term treatment needs of a diverse group of people living with HIV

• **ZERO** cases of treatment failure due to resistance detected through 5 years

Note: Data from two Phase 3 studies evaluating the safety and efficacy of Biktarvy compared with dolutegravir-containing regimens (ABC/DTG/3TC; DTG+F/TAF) for the treatment of HIV infection in adults new to HIV therapy. Analysis missing-excluded. Biktarvy (bictegravir 50mg/emtricitabine 200mg/tenofovir alafenamide 25mg).
Descovy: Long-Term Efficacy for HIV Prevention

- **F/TAF HIV incidence rates low through >144 weeks of follow-up:** 99.7% remained HIV negative
- **98%** of participants in the F/TAF arm chose to continue F/TAF in the Open Label phase

Note: Data from Phase 3 DISCOVER study evaluating the safety and efficacy of Descovy compared with Truvada for the prevention of HIV infection in adults. Descovy (emtricitabine [F] 200mg/tenofovir alafenamide [TAF] 25mg). Source: Mayer et al. Lancet. 2020; Ogbuagu et al. Lancet HIV 2021, Ramgopal et al. IDWeek 2021; Cox et al. CROI 2021; Gilead data on file. MSM - Men who have sex with men; OL - Open-label; QD - Once-daily; TGW - Transgender women
Lenacapavir (LEN) is a small molecule capsid inhibitor with:
• Exceptional potency (EC$_{50}$ = 100 pM)
• Multimodal mechanism
• Excellent clinical pharmacokinetics
• Flexible dosing profile (oral or injectable) and long half-life

Treatment
• LEN needs to be paired with a long-acting partner agent for treatment

Prevention
• LEN being tested as 6-month injection monotherapy for prevention

Note: Lenacapavir is an investigational agent and is not approved by any regulatory authority for any use; its safety and efficacy are not established.
HIV Treatment
Lenacapavir: Robust Virologic Suppression for Persons with Multi-Drug Resistance

HTE PLWH with limited treatment options due to multi-drug resistance

• **83%** virologic suppression at Week 52, in combination with an OBR
• Clinically meaningful increases in CD4 counts
• **1** discontinuation; generally well tolerated

![Efficacy in Randomized Cohort (n=36)](chart)

- **83%** virologic suppression at Week 52
- **86%** virologic suppression at Week 52
- **14%** virologic failure at Week 52
- **11%** virologic failure at Week 52
- **3%** no virologic data
- **3%** no virologic data

Participants, %

<table>
<thead>
<tr>
<th></th>
<th>50 c/mL</th>
<th>200 c/mL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virologic Suppression</td>
<td>30</td>
<td>31</td>
</tr>
<tr>
<td>Virologic Failure</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>No Virologic Data</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: CROI 2022

Note: CAPELLA is a Phase 2/3, double-blinded, placebo-controlled global multicenter study designed to evaluate the antiviral activity of investigational, long-acting HIV-1 capsid inhibitor lenacapavir administered every six months as a subcutaneous injection in heavily treatment-experienced people with multi-drug resistant HIV-1 infection. Lenacapavir is an investigational agent and is not approved by any regulatory authority for any use; its safety and efficacy are not established. HTE - Heavily treatment-experienced; LEN - Lenacapavir; OBR - Optimized background regimen; PLWH - Persons living with HIV.
Promising 1-Year Lenacapavir Treatment Efficacy

Antiretroviral for naïve patients

- Strong virologic suppression demonstrated for lenacapavir across various injectable and oral combinations
- Data support ongoing evaluation of LEN for HIV treatment in combination with other oral and injectable agents

<table>
<thead>
<tr>
<th>Participants with HIV-1 RNA &lt;50 copies/mL, %</th>
<th>Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>TG 1: LEN SC + F/TAF to LEN SC + TAF</td>
<td>90% (47/52)</td>
</tr>
<tr>
<td>TG 2: LEN SC + F/TAF to LEN SC + BIC</td>
<td>85% (45/53)</td>
</tr>
<tr>
<td>TG 3: LEN QD + F/TAF</td>
<td>85% (44/52)</td>
</tr>
<tr>
<td>TG 4: B/F/TAF</td>
<td>92% (23/25)</td>
</tr>
</tbody>
</table>

Source: CROI 2022

Note: CALIBRATE is an ongoing, phase 2, open-label, active-controlled study in treatment-naïve people with HIV-1 infection designed to evaluate the efficacy and safety profile of lenacapavir-containing regimens. Lenacapavir is an investigational agent and is not approved by any regulatory authority for any use; its safety and efficacy are not established. BIC, B - Bictegravir; F - Emtricitabine; LEN - Lenacapavir; QD - Once-daily; SC - Subcutaneous; TAF - Tenofovir alafenamide; TG - Treatment group.
Comprehensive Portfolio Spans Entire Virus Lifecycle

1. Virus Entry
2. Reverse Transcription
3. Nuclear Entry & Capsid Disassembly
4. Integration
5. Assembly & Budding
6. Maturation
Building Long-Acting Portfolio Around Lenacapavir

1 Virus Entry
GS-2872 + GS-5423 bNAb | Phase 1b
bNAb bNAb | Exploratory

2 Reverse Transcription
Islastravir
NRTI | Phase 2
GS-5894 NNRTI | Phase 1
GS-1614 NRTI | Pre-IND
LA Tenofovir NRTI | Discovery

3 5 Capsid Assembly, Transport and Disassembly
Lenacapavir
Class: CAI
Phase: 2-3, NDA
GS-4182 CAI | Pre-IND
Multiple Capsid Programs CAI | Discovery

4 Integration
LA Bictegravir INSTI | Phase 1
GS-6212 INSTI | Pre-IND
GS-1720 INSTI | Pre-IND

6 Maturation
GS-1156 PI | Discovery

Combining long-acting assets with complementary mechanisms across HIV lifecycle with lenacapavir offers potential best-in-disease portfolio.

1 Merck’s investigational Islatravir. Note: Lenacapavir is an investigational agent and is not approved by any regulatory authority for any use; its safety and efficacy are not established. bNAb - Broadly neutralizing antibody; CAI - Capsid assembly inhibitor; IND - Investigational new drug; INSTI - Integrase strand transfer inhibitor; LA - Long-acting; NDA - New drug application; NRTI - Nucleoside reverse transcriptase inhibitor; NNRTI - Non-nucleoside reverse transcriptase inhibitor; PI - Protease inhibitor. Program timelines pending resolution of FDA clinical holds on studies, including those evaluating (i) injectable lenacapavir and (ii) Islatravir.
**Strong Portfolio of Long-Acting Combination Options**

### Oral

<table>
<thead>
<tr>
<th>Dosing Every</th>
<th>Foundation</th>
<th>Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once-Daily</td>
<td>Lenacapavir</td>
<td>Bictegravir (Phase 1)</td>
</tr>
<tr>
<td>1 Week</td>
<td>Lenacapavir</td>
<td>INSTI Oral Preclinical</td>
</tr>
<tr>
<td></td>
<td>Lenacapavir</td>
<td>NNRTI (Phase 1)</td>
</tr>
<tr>
<td></td>
<td>Lenacapavir</td>
<td>Islatravir (Phase 2)</td>
</tr>
</tbody>
</table>

### Injectable

<table>
<thead>
<tr>
<th>Dosing Every</th>
<th>Foundation</th>
<th>Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3 Months</td>
<td>Lenacapavir</td>
<td>LA Bictegravir (Phase 1)</td>
</tr>
<tr>
<td>3 Months</td>
<td>Lenacapavir</td>
<td>INSTI Inj. Preclinical</td>
</tr>
<tr>
<td></td>
<td>Lenacapavir</td>
<td>NRTI Preclinical</td>
</tr>
<tr>
<td></td>
<td>Lenacapavir</td>
<td>Islatravir IND TBD</td>
</tr>
<tr>
<td>6 Months</td>
<td>Lenacapavir</td>
<td>2 bNAbbs (Phase 1b POC)</td>
</tr>
</tbody>
</table>

**Advancing 8 internal candidates as a partner agent for lenacapavir**

---

Note: Lenacapavir is an investigational agent and is not approved by any regulatory authority for any use; its safety and efficacy are not established. Merck’s islatravir is an investigational agent and is not approved by any regulatory authority for any use; its safety and efficacy are not established. Program timelines pending resolution of FDA clinical holds on studies, including those evaluating (i) injectable lenacapavir and (ii) islatravir. bNAb – Broadly neutralizing antibody; IND – Investigational New Drug; INSTI – Integrase strand transfer inhibitor; LA – Long-acting; NNRTI – Non-nucleoside reverse transcriptase inhibitor; NRTI – Nucleoside reverse transcriptase inhibitor; POC – Proof of concept.
BIC/LEN Combination Could Address Unmet Need

**HIV Population**

- **86%** Diagnosed
- **65%** On Therapy
- **56%** Virally Suppressed
- **6-8%** VS TE
- **2%** Heavily Treatment-Experienced

**6-8% Virally Suppressed, Treatment-Experienced (VS TE)**

- Population of PLWH on a complex, multi-tablet regimen, generally with a history of resistance due to prior virologic failure
- Examples of complex regimens: multi-tablet regimens without equivalent or similar STR options; regimens with twice-daily dosing, food requirements, or booster agents
- Current STRs are inadequate for this population
- HCPs recognize regimen simplification is an unmet need

**BIC/LEN components are well-suited for the VS TE indication: high genetic barrier INSTI paired with potential first-in-class capsid inhibitor**

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1 This information is an estimate derived from the use of information under license from the following IQVIA information service: Claims Data 2021. IQVIA expressly reserves all rights, including rights of copying, distribution and republication.

2 PrEP HCP Demand Research, 2020 & 2021. Note: Lenacapavir and the combination of lenacapavir and bictegravir are investigational agents that are not approved anywhere globally. BIC/LEN - bictegravir and lenacapavir; HCP - Healthcare provider; PLWH - Persons living with HIV; STR - Single tablet regimen.
GS-1720: Long-Acting Once-Weekly Oral INSTI

- An investigational once-weekly oral molecule in preclinical development
- **3-5x** more potent than bictegravir with comparable activity against common INSTI-resistant strains
- Excellent oral bioavailability, safety & pharmacokinetic profile in preclinical species, with projected human half life of 10 days

### Resistance Profile Comparable to Bictegravir

<table>
<thead>
<tr>
<th></th>
<th>Activity EC50, nM</th>
<th>Cytotoxicity CC50, nM</th>
<th>Range fold resistance</th>
<th>% with &lt; 5x resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS INSTI</td>
<td>0.8</td>
<td>11,500</td>
<td>0.3 - 25</td>
<td>67%</td>
</tr>
<tr>
<td>Bictegravir</td>
<td>2.8</td>
<td>3,100</td>
<td>0.3 - 26</td>
<td>90%</td>
</tr>
<tr>
<td>Cabotegravir</td>
<td>1.5</td>
<td>7,300</td>
<td>0.4 - 216</td>
<td>56%</td>
</tr>
</tbody>
</table>

*Profile against 54 patient-derived HIV isolates with INSTI resistance mutations (Monogram Bio)*

### Single Dose PK in Monkeys

Note: IND - Investigational New Drug; INSTI - Integrase strand transfer inhibitor.
GS-5894: Long-Acting Once-Weekly Oral NNRTI

- An investigational once-weekly oral molecule in clinical development
- Comparable or better in vitro potency profile relative to rilpivirine
- Improved in vitro resistance barrier compared to other NNRTIs
- Encouraging preclinical safety & projected human half-life of 77 hours

Phase 1 FPI Jan 2022

Comparison with Rilpivirine

<table>
<thead>
<tr>
<th>Activity EC50, nM</th>
<th>Cytotoxicity CC50, nM</th>
<th>In vitro metabolic clearance</th>
<th>Range Fold resistance</th>
<th>% with &lt; 5x resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS NNRTI</td>
<td>1.6</td>
<td>22,800</td>
<td>0.07</td>
<td>0.2 to 37</td>
</tr>
<tr>
<td>Rilpivirine</td>
<td>1.0</td>
<td>6,800</td>
<td>0.49</td>
<td>0.3 to &gt;80</td>
</tr>
</tbody>
</table>

1. In vitro human liver microsomal clearance using 3H-labeled compound
2. Resistance profile against 32 patient-derived HIV isolates with NNRTI resistance mutations (Monogram Bio)

In vitro Resistance Selection Studies

Note: FPI - First patient in; IND - Investigational New Drug; NNRTI - Non-nucleoside reverse transcriptase inhibitor.
GS-4182: Long-Acting Once-Weekly Oral LEN Prodrug

- An investigational once-weekly oral molecule in preclinical development
- Retains favorable aspects of LEN profile including once-weekly dosing
- **Expands options** for LEN to develop single-tablet regimens with broader range of antiretroviral partners
- **Once-monthly** oral dosing feasibility will be evaluated in Phase 1

IND targeted 1H23

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**Prodrug & LEN Schematic**

**Preclinical Findings**

<table>
<thead>
<tr>
<th></th>
<th>LEN Prodrug</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preclinical oral bioavailability</td>
<td>2 to 7%</td>
</tr>
<tr>
<td>Oral bioavailability in humans</td>
<td>10%</td>
</tr>
<tr>
<td>Dose/tablet size for oral once-weekly</td>
<td>300mg / 1500mg</td>
</tr>
</tbody>
</table>

1 Estimated parameter based on preclinical data.

Note: Lenacapavir is an investigational agent and is not approved by any regulatory authority for any use; its safety and efficacy are not established. IND - Investigational new drug; LEN - Lenacapavir; STR - Single tablet regimen.
### Strong Portfolio of Long-Acting Combination Options

<table>
<thead>
<tr>
<th>Oral</th>
<th>Injectable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dosing Every</strong></td>
<td><strong>Foundation</strong></td>
</tr>
<tr>
<td><strong>Once-Daily</strong></td>
<td><strong>Lenacapavir</strong></td>
</tr>
<tr>
<td><strong>1 Week</strong></td>
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<tr>
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<td><strong>Lenacapavir</strong></td>
</tr>
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#### Advancing 8 internal candidates as a partner agent for lenacapavir

Note: Lenacapavir is an investigational agent and is not approved by any regulatory authority for any use; its safety and efficacy are not established. Merck’s islatravir is an investigational agent and is not approved by any regulatory authority for any use; its safety and efficacy are not established. Program timelines pending resolution of FDA clinical holds on studies, including those evaluating (i) injectable lenacapavir and (ii) islatravir. bNAB – Broadly neutralizing antibody; IND – Investigational new drug; INSTI – Integrase strand transfer inhibitor; LA – Long-acting; NNRTI – Non-nucleoside reverse transcriptase inhibitor; NRTI – Nucleoside reverse transcriptase inhibitor; POC – Proof of concept.
GS-6212: Long-Acting Q3M Injectable INSTI

- An investigational Q3M injectable candidate in preclinical development
- Potent activity comparable to other INSTIs
- Comparable resistance profile; activity against common INSTI-resistant strains
- Favorable preclinical safety profile
- Projected human half life of 8 weeks

IND targeted mid-2022

Comparison to Approved INSTI

<table>
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<tr>
<th>Activity EC50, nM</th>
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<tbody>
<tr>
<td>GS INSTI</td>
<td>1.2</td>
<td>14,900</td>
<td>0.3 - 174</td>
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<td>1.5</td>
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*Profile against 54 patient-derived HIV isolates with INSTI resistance mutations (Monogram Bio)*

Single Dose PK in Monkeys

Note: IND - Investigational New Drug; INSTI - Integrase strand transfer inhibitor; PK - Pharmacokinetics; Q3M - Every 3 months.
GS-2872 & GS-5423: Long-Acting bNAbs

- Highly potent pair of investigational broadly neutralizing antibodies (bNAbs) licensed from Rockefeller University
- Engineered for extended half-life to allow Q6M dosing synchronized with LEN
- Combination of GS-2872 & GS-5423 estimated to have broad combined coverage
  > 90% sensitive to either
  > 50% sensitive to both

Note: Lenacapavir is an investigational agent and is not approved by any regulatory authority for any use; its safety and efficacy are not established. LEN - Lenacapavir; PK - Pharmacokinetics; Q6M - Every 6 months.
Note: Lenacapavir is an investigational agent and is not approved by any regulatory authority for any use; its safety and efficacy are not established. Program timelines pending resolution of FDA clinical holds on studies, including those evaluating injectable lenacapavir. ART - Antiretroviral therapy; bNAb - Broadly neutralizing antibody; PK - Pharmacokinetics.
# Strong Portfolio of Long-Acting Combination Options

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<td>Lenacapavir</td>
<td>NNRTI Phase 1</td>
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<td></td>
<td>Lenacapavir</td>
<td>Ilatravir Phase 2</td>
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## Injectable

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<td></td>
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<td>Ilatravir IND TBD</td>
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<td>6 Months</td>
<td>Lenacapavir</td>
<td>2 bNAbs Phase 1b POC</td>
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## Advancing 8 internal candidates as a partner agent for lenacapavir

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HIV PrEP
Lenacapavir for HIV PrEP

PrEP Clinical Studies

Phase 3

PURPOSE 1
in cisgender adolescent girls & young women

PURPOSE 2
in cisgender men, transgender women, transgender men, and gender non-binary people

Planned

PURPOSE 3
in U.S. women

PURPOSE 4
in persons who inject drugs

Note: Lenacapavir is an investigational agent and is not approved by any regulatory authority for any use; its safety and efficacy are not established.
Unique Aspects of the PURPOSE program

- Novel mechanism of action
- Participant focused trial design
- Diversify investigators and sites
- Multiple strategies for LEN differentiation
- Stakeholder engagement and global community advisory groups for each trial
- Inclusion of adolescents
- Inclusion of pregnant and lactating women
- Evaluation of drug exposure and DDIs with GAHT
- Longer dosing work (Q12M) ongoing
- Key performance indicators with age, race, gender goals

Note: Lenacapavir is an investigational agent and is not approved by any regulatory authority for any use; its safety and efficacy are not established. DDI - Drug-drug interaction; GAHT - Gender affirming hormone therapy; LEN - Lenacapavir; Q12M - Every 12 months.
Preclinical Proof of Concept Demonstrated for PrEP

Long-acting capsid inhibitor protects macaques from repeat SHIV challenges


January 27, 2022

Note: Lenacapavir is an investigational agent and is not approved by any regulatory authority for any use; its safety and efficacy are not established. PrEP - Pre-exposure prophylaxis; SC - Subcutaneous; SHIV - Simian-human immunodeficiency virus. Source: Vidal et al, Nature 2022.
HIV R&D Cure

Tomas Cihlar, PhD
SVP Research
Virology
25 Years of HIV Cure Research

1997
HIV latency identified

2009
The Berlin patient
Timothy Ray Brown
Hutter et al, NEJM 2009

2011
Martin Delaney
HIV Cure Collaboratories

2019
The London patient
Adam Castillejo
Gupta et al, Nature 2019

2016-21
Gilead funded
> $30M in HIV Cure grants

2022
U.S. patient
Hsu et al, CROI 2022

2022+
Multiple therapeutic modalities and combinations in clinical testing

Adapted from Sharon Lewin and IAS
Overcoming Challenges of HIV Cure

HIV integrates into human chromosomes, creating a latent reservoir that lives for decades

Latent virus eludes antiretroviral therapy and host immune responses

CD4 T cells

Infection

HIV

ART

Activation

Reduction

Eradiation

Cure

Remission

Latent reservoir

On ART

Off ART

Note: ART - Antiretroviral therapy.
A Comprehensive Scientific Strategy for Cure

Our strategy is focused on identifying and delivering an optimal therapeutic combination for an HIV functional cure.

1 Programs include collaborations with Aelix and Gristone. Gilead has the option for rights to the Hookipa program following certain development activities. 2 Zimberelimab currently in development for oncology indications. Note: bNAb - Broadly neutralizing antibody.
## Therapeutic Vaccine Collaborations

### Guiding principles

- **Maximize T cell responses**
  - Heterologous prime/boost

- **Ensure breadth**
  - Conserved antigens and epitopes

- **Optimize functionality**
  - Combination with immune modulators

### Table: Vaccine Collaborations

<table>
<thead>
<tr>
<th>Partner</th>
<th>Vaccine Vectors</th>
<th>Development status</th>
</tr>
</thead>
<tbody>
<tr>
<td>AELIX Therapeutics</td>
<td>ChAdOx1, MVA</td>
<td>Phase 2a ongoing in combination with vesatolimod (AELIX-003)</td>
</tr>
<tr>
<td>gritstone</td>
<td>ChAdV, Self-amplifying RNA</td>
<td>Phase 1 initiated in Q421</td>
</tr>
<tr>
<td>Hookipa Pharma</td>
<td>LCMV, PICV</td>
<td>Clinical study expected to initiate in 2023(^1)</td>
</tr>
</tbody>
</table>

---

\(^1\) Gilead has the option for rights to the Hookipa program following certain development activities. Note: ChAdOx1 - Chimp adenovirus Oxford 1; ChAdV - Chimp adenovirus; LCMV - Lymphocytic choriomeningitis virus; MVA - Modified Vaccinia Ankara; PICV - Pichinde virus.
Pre-Clinical Proof of Concept Driving the Strategy

Ongoing NHP combination studies
- Targeted cytokine + bNAb
- Tx Vaccine + CPI
- Vesatolimod + Tx Vaccine + CPI

Triple Combination Effective in SHIV-infected ART-suppressed Rhesus Monkeys

Note: Therapeutic vaccine candidates Ad26/MVA. ART - Antiretroviral therapy; CROI - Conference on Retroviruses and Opportunistic Infections; bNAb - Broadly neutralizing antibody; CPI - Checkpoint inhibitor; NHP - Non-human primates; SHIV - Simian-human immunodeficiency virus; VES - Vesatolimod.
Emerging Clinical Data Support Combination Studies

Individual components show efficacy trends

**Immune Modulation: Vesatolimod**


**Reservoir Reduction: bNAb**

- Mendoza et al. *Nature* 2018

**Tx Vaccination: Aelix AdV/MVA**

- Mothe et al. CROI 2021

### Collaborative studies are evaluating combinations

<table>
<thead>
<tr>
<th>Partner</th>
<th>Immune Modulator</th>
<th>bNAb</th>
<th>Therapeutic Vaccine</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dual Modality</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University Aarhus</td>
<td>Lefitolimod (TLR9)</td>
<td>3BNC117 + 10-1074</td>
<td>ChAdOx/MVA</td>
</tr>
<tr>
<td>Aelix</td>
<td>Vesatolimod (TLR7)</td>
<td></td>
<td>DNA/MVA</td>
</tr>
<tr>
<td><strong>Triple Modality</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UCSF</td>
<td>Lefitolimod (TLR9)</td>
<td>VRC07-523-LS + 10-1074</td>
<td></td>
</tr>
</tbody>
</table>

Note: Agents listed are investigational and are not approved by any regulatory authority for any use; their safety and efficacy are not established. bNAb - Broadly neutralizing antibody; ChAdOx1 - Chimp adenovirus Oxford 1; MVA - Modified Vaccinia Ankara; CROI - Conference on Retroviruses and Opportunistic Infections.
Gilead Has the Most Robust Portfolio of Cure Assets

<table>
<thead>
<tr>
<th>Number of Agents/Targets:</th>
<th>GILEAD</th>
<th>Company 1</th>
<th>Company 2</th>
<th>Company 3</th>
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</thead>
<tbody>
<tr>
<td>Latency Reversal</td>
<td>1</td>
<td>1</td>
<td></td>
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<tr>
<td>Immune Modulation</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Effector Antibodies for Reservoir Reduction</td>
<td>3</td>
<td>1</td>
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<tr>
<td>Therapeutic Vaccines</td>
<td>3</td>
<td></td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

- Clinical studies have demonstrated treatment with a single class does not lead to HIV remission or cure.
- Gilead has most comprehensive cure portfolio focused on finite combination therapy.
- Gilead proof of concept trials are anticipated to begin enrolling in 2023.
End the HIV epidemic for everyone, everywhere

- through unwavering promise to develop life-changing innovations
- commitment to optimize health outcomes and advance equitable care
- and transformative collaboration to help end HIV for all
Virology R&D

Frank Duff, MD
SVP Virology Therapeutic Area Head
Gilead Committed to Addressing Unmet Medical Needs

<table>
<thead>
<tr>
<th>HIV</th>
<th>Viral Hepatitis</th>
<th>Emerging and Other Viruses</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV Treatment</td>
<td>HCV Eradication (cure achieved)</td>
<td>COVID-19</td>
</tr>
<tr>
<td>HIV Prevention</td>
<td>HBV Cure</td>
<td>Other Pandemic Viruses</td>
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<tr>
<td>HIV Cure</td>
<td>HDV Treatment and Cure</td>
<td>Respiratory Viruses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Herpes Viruses</td>
</tr>
</tbody>
</table>
Pandemic Response Highlights Virology Leadership

Unprecedented speed to establish safety and efficacy
FDA approval within 8 months of initiating Gilead-sponsored studies

Unprecedented effort to scale up manufacturing & reduce manufacturing process from 12 months to 6 months

Faster Recovery
- 5 days shorter recovery time\(^1\)
- 50% higher rate of clinical improvement\(^2\)

Lower Disease Progression
- Fewer patients started on invasive mechanical ventilation or ECMO

Reduced Mortality in Real-World Studies\(^3\)
- HealthVerity: 23% Reduction\(^4\)
- Premier: 12% Reduction\(^5\)

Treated ~10M Patients Globally; Available in 120+ Countries

\(^1\) Relative Risk Reduction of 1.29, p<0.001; ACTT-1 (Feb 21-Apr 19, 2020).
\(^2\) Odds ratio for improvement, 1.5; 95% CI, 1.2 to 1.9; ACTT-1 (Feb 21-Apr 19, 2020).
\(^3\) The effect on mortality observed in other published studies has varied, by both result and analysis method. \(^4\) HR 0.77, 95% CI: 0.73, 0.81; HealthVerity (May 1, 2020-May 3, 2021). \(^5\) HR 0.88, p=0.0024; Premier Study (Aug-Nov 2020). Note: ECMO - Extracorporeal membrane oxygenation.
Expanding Options for Non-Hospitalized Patients

Veklury IV for 3 Days

- **87%** reduction in COVID-19 hospitalizations
- **81%** reduction in COVID-19 medically-attended visits
- **92%** greater probability of symptom alleviation observed in post-hoc analysis
- RDV had similar safety profile to placebo

Rapid uptake in global guidelines, including NIH, IDSA, France, Germany, Canada & Greece

Source: PINETREE

---

1 Composite endpoint of hospitalization or all-cause death by the Day 28 primary endpoint; no deaths were observed in either arm of the study through Day 28. Note: IDSA - Infectious Disease Society of America; IV - Intravenous; NIH - National Institutes of Health; RDV - Remdesivir.
Veklury Remains a Durable Option Against COVID-19

- Unique dual inhibition mechanism of viral RNA synthesis
- Broad spectrum antiviral activity
- High barrier to resistance
- Antiviral activity against all COVID-19 Variants of Concern

**Antiviral Research 198 (2022) 105247**

Very low levels of remdesivir resistance in SARS-COV-2 genomes after 18 months of massive usage during the COVID19 pandemic: A GISAID exploratory analysis

Daniele Focosi, Fabrizio Maggi, Scott McConnell, Aturo Casadevall

<table>
<thead>
<tr>
<th>Variant</th>
<th>Lineage</th>
<th>Nsp12 mutations</th>
<th>RDV EC\text{$_{50}$} µM</th>
<th>Conclusion</th>
</tr>
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<tbody>
<tr>
<td>WA1-2020</td>
<td>A</td>
<td>--</td>
<td>0.11</td>
<td>Active</td>
</tr>
<tr>
<td>Alpha</td>
<td>B.1.1.7</td>
<td>P323L</td>
<td>0.18</td>
<td>Active</td>
</tr>
<tr>
<td>Beta</td>
<td>B.1.351</td>
<td>P323L</td>
<td>0.14</td>
<td>Active</td>
</tr>
<tr>
<td>Gamma</td>
<td>P.1</td>
<td>P323L</td>
<td>0.097</td>
<td>Active</td>
</tr>
<tr>
<td>Delta</td>
<td>B.1.617.2</td>
<td>P323L/G671S</td>
<td>0.070</td>
<td>Active</td>
</tr>
<tr>
<td>Epsilon</td>
<td>B.1.429</td>
<td>P323L</td>
<td>0.21</td>
<td>Active</td>
</tr>
<tr>
<td>Omicron</td>
<td>B.1.1.529</td>
<td>P323L/F694Y</td>
<td>0.050</td>
<td>Active</td>
</tr>
</tbody>
</table>

Remdesivir has a high barrier to resistance and maintains in vitro activity against all major COVID-19 variants identified to date

Gilead is Continuing to Invest in Science to Fight COVID-19

**Novel Oral COVID Nucleoside**

GS-5245

Remdesivir active metabolite

Selective inhibition of viral RNA synthesis

IND filed Nov 2021
Phase 1 initiated Jan 2022
Pending data, registrational trial to start in 2H22

**Efficacy of oral treatment in COVID-19 animal models**

- **Mouse Lung**
  - 10 mg/kg BID
  - p = 0.0007
- **Ferret Nasal lavage**
  - 20 mg/kg QD
  - p < 0.0001
- **Monkey BALF**
  - 60 mg/kg QD
  - P = 0.0002

**Notes:**
- IND - Investigational New Drug
- LLOQ - Lower limit of quantification
# Advancing Pandemic Preparedness

<table>
<thead>
<tr>
<th>Virus</th>
<th>Partner/Collaborator</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marburg</td>
<td>[USAMRIID Logo]</td>
<td>Remdesivir IV 🍽️</td>
</tr>
<tr>
<td>MERS, SARS</td>
<td>[UNC Logo] [NIH Logo]</td>
<td>Remdesivir IV 🍽️</td>
</tr>
<tr>
<td>Nipah</td>
<td>[NIH Logo] [NIAID Logo]</td>
<td>Remdesivir IV 🍽️</td>
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<tr>
<td>Yellow fever</td>
<td>[UtahState University Logo]</td>
<td>Remdesivir IV 🍽️</td>
</tr>
<tr>
<td>Zika</td>
<td>[utmb Health Logo]</td>
<td>Novel mechanism</td>
</tr>
<tr>
<td>Entero/ polioviruses</td>
<td>-</td>
<td>2C Helicase inhibitor</td>
</tr>
<tr>
<td>Lassa</td>
<td>[University of Alberta Logo]</td>
<td>RNA pol inhibitor</td>
</tr>
</tbody>
</table>

1 Opportunity to explore oral nucleosides including GS-5245. Note: IND - Investigational New Drug; IV - Intravenous; MERS - Middle East Respiratory Syndrome; SARS - Severe Acute Respiratory Syndrome.
Global Leadership in Virology with Growing R&D Portfolio

**HIV**

**Treatment & Prevention**

- P3: LEN Q6M injectable HTE
- P3: LEN Q6M injectable PrEP
- P2: LEN Q6M VS
- P2: LEN+ISL QW oral (MRK)
- P1: LEN+BIC Q1-3M Inj.
- P1: LEN+bNAbS Q6M Inj.
- P1: LEN+BIC QD oral
- PC: INSTI Q3M injectable
- PC: NRTI Q3M injectable
- PC: INSTI QW oral
- PC: NRTI QW oral

**Cure**

- P2: Vesatolimod - TLR7
- P2: Lefitolimod - TLR9
- P2: Tx Vaccine (Aelix)
- P1: bNAbS combination
- P1: Tx Vaccine (Gritstone)
- PC: Targeted cytokines
- PC: Tx Vaccine (Hookipa)
- PC: bNAb3

**Viral Hepatitis**

**HBV**

- P2: Selgantolimod - TLR8
- P2: HBV siRNA (VIR)
- P1-3: Zimberelimab - PD-1*
- PC: Anti-pMHC Ab
- PC: HBsAg inhibitor
- PC: Tx Vaccine (Hookipa)

**HDV**

- P3: Hepcludex
- PC: Entry & replication inhibitors

**Emerging and Other Viruses**

**COVID-19**

- P1: GS-5245 oral nucleoside

**Pandemic and Emerging Viruses**

- PC: Remdesivir for pandemic viruses*
- PC: Flavivirus inhibitors
- PC: Enterovirus inhibitors

**Respiratory and Herpes Viruses**

- PC: Pan-respiratory nucleoside
- PC: RSV RNA pol inhibitor
- PC: Pan-herpes DNA pol inhibitor

Note: BIC - Bictegravir; bNAb - Broadly neutralizing antibody; LA - Long-acting; HBsAg - HBV surface antigen; HSV - Herpes simplex virus; HTE - Heavily treatment-experienced; INSTI - Integrase strand-transfer inhibitor; Inj. - Injectable; ISL - Islatravir; LEN - Lenacapavir; MRK - Merck; Nuc - Nucleoside; NRTI - Nucleoside reverse transcriptase inhibitor; NNRTI - Non-nucleoside reverse transcriptase inhibitor; PC - Pre-clinical; P1 - Phase 1; P2 - Phase 2; P3 - Phase 3; pMHC - Peptide-MHC; QD - Once-daily; QW - Once-weekly; Q3M - Every 3 months; Q6M - Every 6 months; RSV - Respiratory syncytial virus; Tx Vaccine - Therapeutic vaccine; VS - Virally suppressed.

*Filov-, paramyx-, corona-, flaviviruses.

* In oncology clinical trials

R&D partnership

Clinical collaboration