



Assembly Bio Webcast

**Gilead Sciences Development Partnership for
Next-Generation Antiviral Therapeutics**

October 17, 2023

Nasdaq: ASMB

Today's Speakers



Jason Okazaki

President & Chief Executive Officer
Assembly Bio



William Delaney, PhD

Chief Scientific Officer
Assembly Bio



Cautionary Note Regarding Forward-Looking Statements

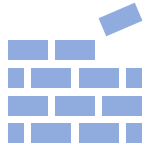
The information in this presentation contains forward-looking statements that are subject to certain risks and uncertainties that could cause actual results to materially differ. These risks and uncertainties include: Assembly Bio's ability to realize the potential benefits of its collaboration with Gilead, including all financial aspects of the collaboration and equity investments; Assembly Bio's ability to initiate and complete clinical studies involving its therapeutic product candidates, including studies contemplated by Assembly Bio's collaboration with Gilead, in the currently anticipated timeframes or at all; the occurrence of any event, change or other circumstance that could give rise to the termination of Assembly Bio's collaboration with Gilead; safety and efficacy data from clinical or nonclinical studies may not warrant further development of Assembly Bio's product candidates; clinical and nonclinical data presented at conferences may not differentiate Assembly Bio's product candidates from other companies' candidates; results of nonclinical studies may not be representative of disease behavior in a clinical setting and may not be predictive of the outcomes of clinical studies; and other risks identified from time to time in Assembly Bio's reports filed with the U.S. Securities and Exchange Commission (the SEC). You are urged to consider statements that include the words may, will, would, could, should, might, believes, hopes, estimates, projects, potential, expects, plans, anticipates, intends, continues, forecast, designed, goal or the negative of those words or other comparable words to be uncertain and forward-looking. Assembly Bio intends such forward-looking statements to be covered by the safe harbor provisions contained in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. More information about Assembly Bio's risks and uncertainties are more fully detailed under the heading "Risk Factors" in Assembly Bio's filings with the SEC, including its most recent Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. Except as required by law, Assembly Bio assumes no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise.



The Partnership Combines Gilead's Pioneering Vision with Assembly's Deep R&D Expertise to Bring Next-Gen Virology Medicines to Patients



Brings together the two team's knowledge and expertise in antiviral research, clinical development, and commercialization



Strengthened portfolio with two programs targeting HSV and transplant associated herpesviruses received from Gilead



Extends Assembly's cash runway with total upfront cash payment and equity investment of \$100 million, plus potential future payments receivable from Gilead



Leader in antivirals, with a track record in developing transformative medicines, cures and access strategies



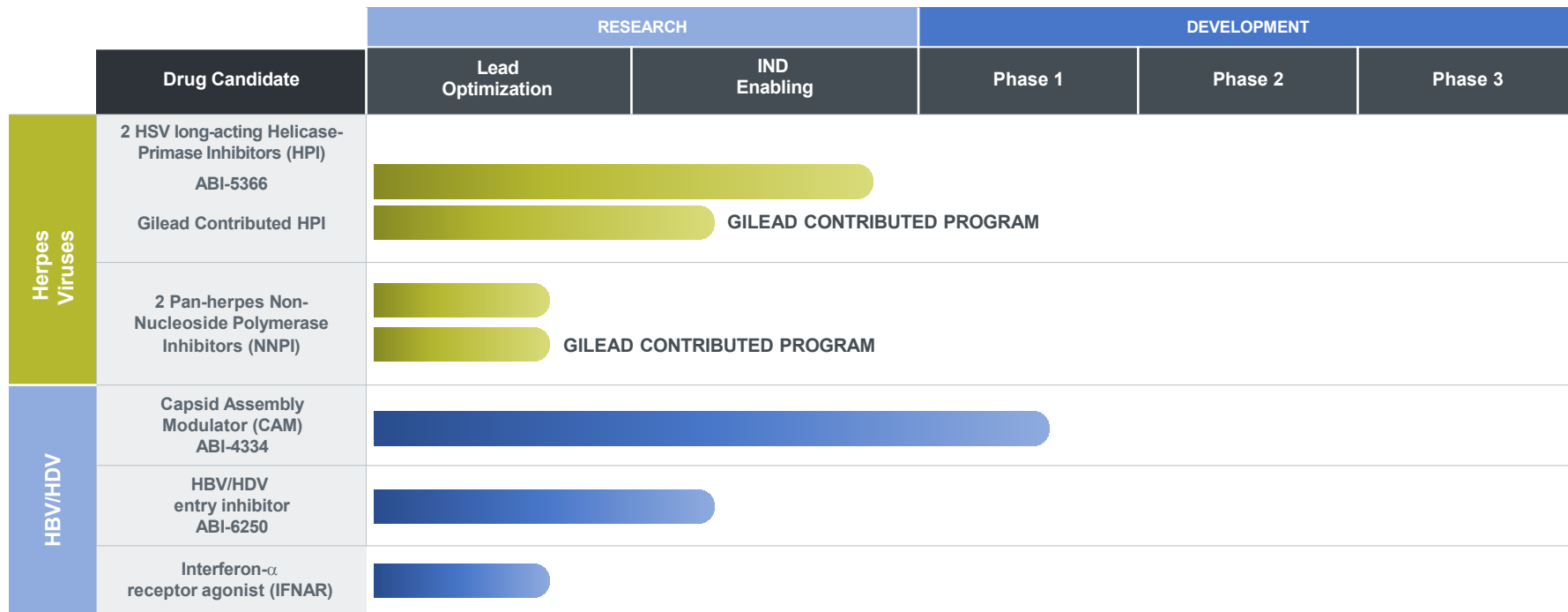
Innovative medicines have transformed the lives of those living with viral hepatitis, having developed a cure for hepatitis C while continuing to develop new treatments for chronic hepatitis B and D



Deep R&D expertise and agile, experienced team that has rapidly discovered and developed a promising portfolio of compounds designed to address unmet needs in herpesviruses and hepatitis B and D



Bringing Next Generation Therapeutics to Patients with Serious Viral Diseases



Anticipate four development candidates in the clinic by end of 2024



Overview of the Assembly – Gilead Partnership

Scope of Partnership

- 12-year collaboration
- Assembly contributes its current portfolio, including ABI-4334 (HBV), ABI-5366 (HSV), ABI-6250 (HDV) and its pan-herpes polymerase inhibitor program
- Gilead contributes two programs targeting HSV and transplant-associated herpesviruses
- Gilead receives opt-in rights to all programs, including future Assembly programs during collaboration

Topline Economics

Total upfront consideration	\$100mm	<ul style="list-style-type: none">• Upfront cash payment: \$85 million• Equity Investment: \$15 million
Contingent opt-in fees and milestones	per program	<ul style="list-style-type: none">• Opt-in fees starting at \$45M, plus• Up to \$330 million in regulatory and commercial milestones after opt-in
Collaboration Extension Fees	\$75 million on the third, fifth and seventh years of the collaboration	
Royalties	From the high single digits to high teens depending on the clinical stage of the program at the time of the opt-in	

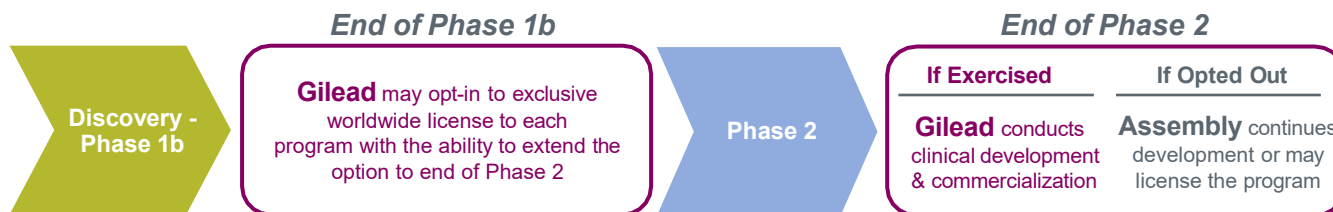
Equity and Board Representation

- Gilead equity investment represents 19.9% of the outstanding voting stock of Assembly at a premium to Assembly's 30-day volume-weighted average price
- Subject to certain conditions, Gilead has agreed to purchase additional shares to reach 29.9% of the outstanding voting stock of Assembly
- Gilead to receive two Assembly board seats



Overview of the Assembly – Gilead Partnership

Assembly primarily responsible for discovery and development efforts, for programs (including the two Gilead programs) prior to Gilead's potential opt-in



If Gilead opts in, Assembly may elect to share profits and costs on a 60% (Gilead)/ 40% (Assembly) split in the US in lieu of royalties, and US co-promotion for future programs



Q&A



Assembly Bio Webcast

**Gilead Sciences Development Partnership for
Next-Generation Antiviral Therapeutics**

October 17, 2023

Nasdaq: ASMB