Assembly Biosciences Exercises U.S. Profit-Share Option with Gilead for HSV Helicase-Primase Inhibitor Program

September 8, 2026

– Assembly Bio to share 40% of U.S. development costs and profits for helicase-primase inhibitor program for recurrent genital herpes –

– Cash runway remains projected into 2029, including the first $75 million collaboration extension fee from Gilead payable in Q4 2026 –

SOUTH SAN FRANCISCO, Calif., Sept. 08, 2026 (GLOBE NEWSWIRE) -- Assembly Biosciences, Inc. (Nasdaq: ASMB), a biotechnology company developing innovative therapeutics targeting serious viral and liver diseases, today announced it has exercised its option to share 40% of the development costs and profits in the United States for its herpes simplex virus (HSV) helicase-primase inhibitor (HPI) program for recurrent genital herpes under its collaboration agreement with Gilead Sciences, Inc. (Gilead). This decision follows Assembly Bio's receipt and review of Gilead's complete development plan and budget for the program.

Pursuant to the terms of the collaboration agreement, Gilead retains sole right and responsibility for further clinical development and commercialization of the HSV HPI program, which includes both GS-1179 and GS-5366. Assembly Bio is eligible to receive up to $280 million in regulatory and commercial milestones and tiered royalties on net sales outside the U.S. ranging from the high single-digits to low teens. Assembly Bio's participation in the U.S. profit share is subject to certain opt-out and conversion rights of either party, which may result in a transition to up to $330 million in regulatory and commercial milestones and tiered royalties on net sales ranging from the high single-digits to low teens.

"Exercising this option underscores our confidence in the HSV HPI program and the meaningful opportunity it represents for Assembly Bio," said Jason Okazaki, chief executive officer and president of Assembly Bio. "Based on the clinical data generated to date and Gilead's development plan, we believe the HSV HPI program is positioned to deliver on its significant potential for patients suffering from recurrent genital herpes, while also offering the possibility of benefiting broader patient populations."

Under the development plan, GS-1179 is expected to advance into a Phase 2 clinical trial in participants with recurrent genital herpes by the end of 2026, with potential evaluation as part of a combination strategy with HIV pre-exposure prophylaxis (PrEP). Assembly Bio's share of U.S. profits and costs in the HSV HPI program would apply to expanded uses, with economics for any combination approach allocated under the collaboration agreement based on the relative contribution of the applicable program components.

Including the first $75 million option continuation payment due from Gilead in the fourth quarter of 2026 following the third anniversary of the collaboration agreement, Assembly Bio continues to expect its current cash, cash equivalents and marketable securities will fund operations into 2029.

About GS-1179
GS-1179, formerly ABI-1179, is an investigational helicase-primase inhibitor being developed for HSV infections. It was advanced through early clinical stage development under Assembly Bio's collaboration with Gilead. HSV helicase-primase inhibitors target an enzyme complex essential for viral replication and represent a mechanism distinct from currently available nucleoside analog therapies. GS-1179 was selected for advancement by Gilead in the HSV HPI program based on encouraging Phase 1b results and its potential to support once-weekly oral dosing.

About Assembly Biosciences
Assembly Biosciences is a biotechnology company developing innovative small-molecule therapeutics aimed at advancing the treatment paradigm of serious viral and liver diseases and improving the lives of patients worldwide. Led by an accomplished leadership team in antiviral and liver disease drug development, Assembly Bio is committed to improving outcomes for people living with the chronic impacts of herpesvirus, hepatitis delta virus (HDV) infections, cholestatic liver diseases and hepatitis B virus (HBV). For more information, visit assemblybio.com.

Forward-Looking Statements
The information in this press release 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, including studies conducted by Gilead, in the currently anticipated timeframes or at all; safety and efficacy data from clinical or nonclinical studies may not warrant further development of product candidates; clinical and nonclinical data may not differentiate product candidates from other companies' candidates; Assembly Bio's ability to maintain financial resources and secure additional funding necessary to continue its research activities, clinical studies and other business operations; potential effects of changes in government regulation; 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.

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