

Assembly Biosciences to Present Data at Upcoming International Herpesvirus Workshop and EASL International Liver Congress™ 2023

June 7, 2023

- -- International Herpesvirus Workshop will feature oral and poster presentations of preclinical data from ABI-5366, Assembly Bio's first herpesvirus development candidate --
- -- Five posters accepted for presentation at EASL 2023 highlight the latest data from pipeline in hepatitis B and hepatitis D viruses

SOUTH SAN FRANCISCO, Calif., June 07, 2023 (GLOBE NEWSWIRE) -- Assembly Biosciences, Inc. (Nasdaq: ASMB), a biotechnology company developing innovative antiviral therapeutics targeting serious viral diseases, today announced that the company will present data from its herpes simplex virus (HSV), hepatitis D virus (HDV) and hepatitis B virus (HBV) pipeline programs at upcoming medical congresses. Assembly Bio's abstract for ABI-5366 has been accepted for oral and poster presentation at the International Herpesvirus Workshop, taking place in Missoula, Montana, July 15-19, 2023. Five abstracts have been accepted for poster presentation at the International Liver Congress™, the Annual Meeting of the European Association for the Study of the Liver (EASL) taking place in Vienna, Austria, June 21-24, 2023, including one poster presentation selected for inclusion in the Best of EASL Congress summary.

International Herpesvirus Workshop 2023

For the first time, Assembly Bio will present data highlighting the preclinical characterization of ABI-5366, a long-acting HSV helicase inhibitor targeting high-recurrence genital herpes and the company's first development candidate for herpesviruses.

"We are excited to present these data describing ABI-5366's compelling preclinical profile, including low nanomolar potency in vitro against both HSV-1 and HSV-2, the potential for long-acting oral administration and non-GLP safety data to date showing that the candidate has been well tolerated," said William Delaney, PhD, chief scientific officer of Assembly Bio. "High-recurrence genital herpes remains an important unmet need that has not had a significant therapeutic advancement in decades. We continue to actively progress our IND-enabling studies, with initiation of GLP toxicity studies targeted for early Q3 2023, and we expect to enter the clinic in the first half of next year."

Details of the presentations are as follows:

ABI-5366:

• **Oral and Poster Presentation:** Pre-clinical characterization of ABI-5366: a highly potent long-acting helicase-primase inhibitor for the treatment of high-recurrence genital herpes

Presenter: Heidi Contreras, PhD, Assembly Bio

Oral Session Date and Time: 4C - Immunity and Vaccines, July 19 at 11:00 AM MDT

Poster Session Date and Time: Not Yet Available

EASL International Liver Congress™ 2023

At EASL, Assembly Bio will present new preclinical data from its novel small molecule HBV and HDV oral entry inhibitors supporting advancement of the program towards a candidate nomination. The EASL presentations also include the first conference presentations of data from two clinical studies of the company's highly potent, next-generation HBV core inhibitors, the Phase 1a study of ABI-4334, Assembly Bio's most potent core inhibitor with the potential for a best-in-class profile, and the Phase 1b study of ABI-H3733 in patients with chronic HBV infection. The latter poster was selected for inclusion in the Best of EASL Congress summary and a Session Poster Tour.

"We are also looking forward to sharing the latest data from our HBV and HDV pipeline at EASL's annual International Liver Congress," continued Dr. Delaney. "These data highlight the promise of our small molecule HBV/HDV entry program, from which we anticipate nominating a development candidate this year, and reinforce the potential of next-generation core inhibitors in efforts to achieve HBV cure."

Details of poster presentations are as follows:

Small-Molecule HBV/HDV Viral Entry Inhibitor:

• Poster SAT-195: A novel class of orally-available small molecules potently inhibiting hepatitis B and D virus entry

Presenter: Marc P. Windisch, PhD, Assembly Bio

Session: Viral Hepatitis B and D: New therapies, unapproved therapies or strategies

Date and Time: June 24 at 9:00 AM CEST

Next-Generation Core Inhibitors:

Poster SAT-168: Safety, pharmacokinetics, and antiviral activity of the next-generation hepatitis B core inhibitor ABI-H3733
in patients with hepatitis B e antigen negative chronic hepatitis B infection: preliminary results from a randomized, blinded,
Phase 1b study

Presenter: Edward J. Gane, MBCHB, MD, FRACP, MNZM, University of Auckland, Auckland, New Zealand

Session: Viral Hepatitis B and D: New therapies, unapproved therapies or strategies

Date and Time: June 24 at 9:00 AM CEST

Session Poster Tour: June 23 at 16:15 PM CEST, at the Viral Hepatitis track hub

• Poster SAT-186: The safety and pharmacokinetics of ABI-4334, a novel next-generation HBV core inhibitor: interim results from a phase 1 study in healthy volunteers

Presenter: Edward J. Gane, MBCHB, MD, FRACP, MNZM, University of Auckland, Auckland, New Zealand

Session: Viral Hepatitis B and D: New therapies, unapproved therapies or strategies

Date and Time: June 24 at 9:00 AM CEST

 Poster WED-114: Next generation core inhibitors ABI-H3733 and ABI-4334 have significantly improved potency and target coverage for both antiviral and cccDNA formation activities compared to first-generation core inhibitors

Presenter: Kathryn M. Kitrinos, PhD, Assembly Bio **Session:** Viral Hepatitis B and D: Clinical aspects **Date and Time:** June 21 at 9:00 AM CEST

Vebicorvir:

• Poster SAT-174: Vebicorvir, entecavir, and pegylated interferon in patients with hepatitis B e antigen positive chronic

hepatitis B virus infection: findings from a phase 2, randomized open-label study in China

Presenter: Grace Wang, MD, Assembly Bio

Session: Viral Hepatitis B and D: New therapies, unapproved therapies or strategies

Date and Time: June 24 at 9:00 AM CEST

About Assembly Biosciences

Assembly Biosciences is a biotechnology company dedicated to the development of innovative small molecule antiviral therapeutics designed to change the path of serious viral diseases and improve the lives of patients worldwide. Led by an accomplished team of leaders in virologic drug development, Assembly Bio is committed to improving outcomes for patients struggling with the serious, chronic impacts of herpesvirus, hepatitis B virus (HBV) and hepatitis delta virus (HDV) infections. 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 maintain financial resources necessary to continue its clinical studies and fund business operations; Assembly Bio's ability to initiate and complete clinical studies involving its therapeutic product candidates, including studies contemplated by Assembly Bio's collaboration agreements, in the currently anticipated timeframes; 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.

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