Gilead and Vir Biotechnology Establish Clinical Collaboration to Explore Combination Strategies for Functional Cure for Chronic Hepatitis B Virus

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– First Phase 2 clinical trial to combine immunomodulation and antigen suppression approaches in HBV cure research –

FOSTER CITY, Calif. and SAN FRANCISCO, Jan. 12, 2021 (GLOBE NEWSWIRE) -- Gilead Sciences, Inc. (NASDAQ: GILD) and Vir Biotechnology, Inc. (NASDAQ: VIR) today announced that the companies have entered into a clinical collaboration to evaluate novel therapeutic combination strategies aimed at developing a functional cure for chronic hepatitis B virus (HBV).

The companies plan to initiate a Phase 2 trial evaluating combination therapy for both treatment-experienced and treatment-naïve people living with HBV. The multi-arm trial will evaluate different combinations of selgantolimod, Gilead's investigational TLR-8 agonist; VIR-2218, Vir's investigational small interfering ribonucleic acid (siRNA); and a commercially-sourced, marketed PD-1 antagonist. People in the trial with HBV treatment experience may also receive Gilead's Vemlidy ® (tenofovir alafenamide fumarate, TAF). The primary outcome of the study will be the proportion of patients achieving a functional cure, defined as an off-therapy loss of hepatitis B surface antigen (HBsAg) and HBV DNA from the serum.

Both companies retain full rights to their individual product candidates and will discuss the potential path forward for any future combination studies based on the outcome of the Phase 2 trial.

"Gilead has a two-decade commitment to people with hepatitis B and we have worked tirelessly to bring new treatments forward with the goal of helping to improve their lives," said Anuj Gaggar, vice president, Clinical Research, Virology at Gilead Sciences. "We believe that selgantolimod and VIR-2218 have the potential to be best-in-class therapeutics and could provide a compelling new combination approach to a functional cure for HBV."

"We are enthusiastic about this collaboration," said Phil Pang, M.D., Ph.D., chief medical officer of Vir Biotechnology. "We believe a functional cure for the majority of patients will require a reduction of the levels of circulating viral proteins together with an immune boost to stimulate the production of new T-cells that can bring the infection under control. We believe that this collaboration with Gilead adds a novel and significant new combination to our efforts to find a cure for HBV."

HBV affects more than 290 million people worldwide. Globally, HBV is a leading cause of liver cancer and each year it is estimated that more than 800,000 people die of HBV-related liver disease. While current antiviral therapies result in sustained HBV viral suppression, they rarely completely clear the virus and therefore people with HBV require lifelong therapy.

The safety and efficacy of selgantolimod and VIR-2218 have not been established. They are investigational compounds, not approved by the U.S. Food and Drug Administration (FDA) or any other regulatory authority.

U.S. Important Safety Information and Indication for VEMLIDY

IMPORTANT SAFETY INFORMATION
BOXED WARNING: POST TREATMENT SEVERE ACUTE EXACERBATION OF HEPATITIS B

- **Discontinuation of anti-hepatitis B therapy, including VEMLIDY, may result in severe acute exacerbations of hepatitis B. Hepatic function should be monitored closely with both clinical and laboratory follow-up for at least several months in patients who discontinue anti-hepatitis B therapy, including VEMLIDY. If appropriate, resumption of anti-hepatitis B therapy may be warranted.**

Warnings and Precautions

- **Risk of Development of HIV-1 Resistance in HBV/HIV-1 Coinfected Patients:** Due to this risk, VEMLIDY alone should not be used for the treatment of HIV-1 infection. Safety and efficacy of VEMLIDY have not been established in HBV/HIV-1 coinfected patients. HIV antibody testing should be offered to all HBV-infected patients before initiating therapy with VEMLIDY, and, if positive, an appropriate antiretroviral combination regimen that is recommended for HBV/HIV-1 coinfected patients should be used.
- **New Onset or Worsening Renal Impairment:** Cases of acute renal failure and Fanconi syndrome have been reported with the use of tenofovir prodrugs. In clinical trials of VEMLIDY, there have been no cases of Fanconi syndrome or proximal renal tubulopathy (PRT). Patients with impaired renal function and/or taking nephrotoxic agents (including NSAIDs) are at increased risk of renal-related adverse reactions. Discontinue VEMLIDY in patients who develop clinically significant decreases in renal function or evidence of Fanconi syndrome. Monitor renal function in all patients – See Dosage and Administration.
- **Lactic Acidosis and Severe Hepatomegaly with Steatosis:** Fatal cases have been reported with the use of nucleoside analogs, including tenofovir DF. Discontinue VEMLIDY if clinical or laboratory findings suggestive of lactic acidosis or pronounced hepatotoxicity develop, including hepatomegaly and steatosis in the absence of marked transaminase

elevations.

Adverse Reactions
Most common adverse reactions (incidence ≥5%; all grades) were headache, abdominal pain, cough, back pain, fatigue, nausea, arthralgia, diarrhea, and dyspepsia.

Drug Interactions

- Coadministration of VEMLIDY with drugs that reduce renal function or compete for active tubular secretion may increase concentrations of tenofovir and the risk of adverse reactions.
- Coadministration of VEMLIDY is not recommended with the following: oxcarbazepine, phenobarbital, phenytoin, rifabutin, rifampin, rifapentine, or St. John's wort. Such coadministration is expected to decrease the concentration of tenofovir alafenamide, reducing the therapeutic effect of VEMLIDY. Drugs that strongly affect P-glycoprotein (P-gp) and breast cancer resistance protein (BCRP) activity may lead to changes in VEMLIDY absorption.

Consult the full prescribing information for VEMLIDY for more information on potentially significant drug interactions, including clinical comments.

Dosage and Administration

- **Testing Prior to Initiation:** HIV infection.
- **Prior to or when initiating, and during treatment:** On a clinically appropriate schedule, assess serum creatinine, estimated creatinine clearance, urine glucose, and urine protein in all patients. In patients with chronic kidney disease, also assess serum phosphorus.
- **Dosage in Adults:** 1 tablet taken once daily with food.
- **Renal Impairment:** Not recommended in patients with end stage renal disease (ESRD; eCrCl <15 mL/min) who are not receiving chronic hemodialysis; in patients on chronic hemodialysis, on hemodialysis days, administer VEMLIDY after completion of hemodialysis treatment.
- **Hepatic Impairment:** Not recommended in patients with decompensated (Child-Pugh B or C) hepatic impairment.

INDICATION
VEMLIDY is indicated for the treatment of chronic hepatitis B virus (HBV) infection in adults with compensated liver disease.

Please click here to see full Prescribing Information for VEMLIDY, including **BOXED WARNING**.

About Gilead Sciences
Gilead Sciences, Inc. is a research-based biopharmaceutical company that discovers, develops and commercializes innovative medicines in areas of unmet medical need. The company strives to transform and simplify care for people with life-threatening illnesses around the world. Gilead has operations in more than 35 countries worldwide, with headquarters in Foster City, California. For more information on Gilead Sciences, please visit the company's website at www.gilead.com.

About Vir Biotechnology

Vir Biotechnology is a clinical-stage immunology company focused on combining immunologic insights with cutting-edge technologies to treat and prevent serious infectious diseases. Vir has assembled four technology platforms that are designed to stimulate and enhance the immune system by exploiting critical observations of natural immune processes. Its current development pipeline consists of product candidates targeting SARS-CoV-2, hepatitis B virus, influenza A, human immunodeficiency virus and tuberculosis. For more information, please visit www.vir.bio.

Gilead Forward-Looking Statements

This press release includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that are subject to risks, uncertainties and other factors, including the risk that Gilead may not realize the potential benefits of the collaboration with Vir Biotechnology, the possibility of unfavorable results from clinical trials involving Vemlidy and selgantolimod and the possibility that Gilead may be unable to initiate or complete one or more of such trials in the currently anticipated timelines or at all. Further, it is possible that Gilead may make a strategic decision to discontinue development of selgantolimod and any combination therapies, or that the parties may make a strategic decision to discontinue their collaboration at any time, and as a result, selgantolimod and any combination therapies may never be successfully commercialized. These risks, uncertainties and other factors could cause actual results to differ materially from those referred to in the forward-looking statements. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. The reader is cautioned not to rely on these forward-looking statements. These and other risks are described in detail in Gilead's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020, as filed with the U.S. Securities and Exchange Commission. All forward-looking statements are based on information currently available to Gilead, and Gilead assumes no obligation to update any such forward-looking statements.

Vir Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "aim," "will," "may," "potential," "plan," "promising" and similar expressions (as well as other words or expressions referencing future events, conditions, or circumstances) are intended to identify forward-looking statements. These forward-looking statements are based on Vir's expectations and assumptions as of the date of this press release. Each of these forward-looking statements involves risks and uncertainties. Actual results may differ materially from these forward-looking statements. Forward-looking statements contained in this press release include statements regarding the clinical collaboration between Vir and Gilead Sciences, the ability to develop a functional cure for chronic HBV, the initiation of a Phase 2 trial of VIR-2218 to evaluate it as a combination therapy, VIR-2218's ability to stimulate an effective immune response and the effects of including ESC+. Many factors may cause differences between current expectations and actual results, including unexpected safety, tolerability, or immunogenicity data or results

observed during the Phase 2 trial, challenges in clinical site activation rates or clinical trial enrollment rates that are lower than expected, the failure to achieve the primary outcome of the study, changes in expected or existing competition, delays in or disruptions to Vir's business or clinical trials due to the COVID-19 pandemic, geopolitical changes, or other external factors, and unexpected litigation or other disputes. Other factors that may cause actual results to differ from those expressed or implied in the forward-looking statements in this press release are discussed in Vir's filings with the U.S. Securities and Exchange Commission, including the section titled "Risk Factors" contained therein. Except as required by law, Vir assumes no obligation to update any forward-looking statements contained herein to reflect any change in expectations, even as new information becomes available.

*U.S. Prescribing Information for Vemlidy including **BOXED WARNING**, is available at www.gilead.com.*

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