Gilead Presents New Data on Biktarvy® for the Treatment of HIV in Women and in Virologically Suppressed Patients With Known Resistance

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FOSTER CITY, Calif.--(BUSINESS WIRE)--Jul. 22, 2019-- Gilead Sciences, Inc. (NASDAQ: GILD) today presented findings from two Phase 3 trials – a trial demonstrating the effectiveness of switching to Biktarvy (bictegravir 50mg/emtricitabine 200mg/tenofovir alafenamide 25mg tablets, B/F/TAF) in women, and a trial evaluating the potential for the single tablet regimen to be an effective treatment option in virologically suppressed patients with known resistance to nucleo(s)tide or non-nucleo(s)tide reverse transcriptase inhibitors (NRTIs or NNRTIs). The use of Biktarvy in patients with known drug resistance is investigational. These data were presented at the 10thInternational AIDS Society Conference on HIV Science (IAS 2019) being held in Mexico City.

“These data presented at IAS provide new information about the treatment of HIV among women and patients with known drug resistance,” said Diana Brainard, MD, Senior Vice President, HIV and Emerging Viruses, Gilead Sciences. “The studies further demonstrate the potential for Biktarvy to be an important treatment option for appropriate patients.”

In the United States, Biktarvy is indicated as a complete regimen for the treatment of HIV-1 infection in adults or pediatric patients weighing at least 25 kg who have no antiretroviral treatment history. While Biktarvy is also indicated for adults and pediatric patients weighing at least 25 kg who are virologically suppressed and on a stable antiretroviral regimen, these patients must have no history of treatment failure and no known substitutions associated with resistance to the individual components of Biktarvy. On June 18, 2019, the U.S. Food and Drug Administration (FDA) approved labeling revisions to Biktarvy, expanding the patient population to include HIV-1 infected pediatric patients weighing at least 25 kg. Biktarvy has a Boxed Warning in its U.S. product label regarding the risk of post-treatment acute exacerbation of hepatitis B. See below for Important Safety Information.

Key abstracts for Biktarvy data presented at IAS 2019 include:

Oral Presentation MOAB0106: Longer-term (96-week) efficacy and safety of switching to bictegravir/emtricitabine/tenofovir alafenamide (B/F/TAF) in women

This international multicenter, randomized, open-label Phase 3 trial evaluated 470 virologically suppressed women on a baseline regimen of either Genvoya® (elvitegravir/cobicistat/F/TAF; 150/150/200/10 mg), elvitegravir/cobicistat/F/TDF (150/150/200/300 mg) or atazanavir+ritonavir+F/TDF (300+100+200/300 mg) who switched 1:1 from these baseline regimens to Biktarvy. The primary endpoint for this study conducted exclusively in women, was previously presented, and demonstrated noninferior maintained virologic suppression, with a low frequency of serious adverse events and no emergent resistance at Week 48. All participants, including those on baseline regimens, switched to Biktarvy through Week 96.

At Week 96, 99.5 percent of women who received Biktarvy throughout the study duration and 98.5 percent of women who switched to Biktarvy at Week 48 maintained virologic suppression (missing=excluded; M=E), with no development of treatment-emergent resistance. Biktarvy was also shown to be well-tolerated with low frequencies of serious adverse events.

“Despite the fact that women account for the majority of new HIV infections globally, they remain largely underrepresented in HIV clinical trials,” said Cissy Kityo, MD, Executive Director, Joint Clinical Research Centre in Uganda, and lead study investigator. “The findings from this study conducted exclusively in women yield important long-term data on the safety, tolerability and efficacy of Biktarvy in this important patient population.”

Oral Presentation MOAB0105: Switching to a single-tablet regimen bictegravir, emtricitabine, and tenofovir alafenamide (B/F/TAF) from dolutegravir (DTG) plus emtricitabine and either tenofovir alafenamide or tenofovir disoproxil fumarate (F/TAF or F/TDF)

This ongoing, randomized, double-blinded Phase 3 study evaluated 565 virologically suppressed adults who switched 1:1 from a regimen of DTG+F/TAF (50+200/25 mg) or DTG+F/TDF (50+200/300 mg) to DTG+F/TAF or Biktarvy for 48 weeks. Unlike previous studies – which excluded participants with known resistance – participants in this study with prior resistance to NRTIs, NNRTIs and/or protease inhibitors (PIs) could enroll. Only those participants with documented integrase inhibitor resistance were excluded, and 24 percent of participants had resistance to NRTIs. The study’s primary endpoint was the proportion of participants with HIV-1 RNA ≥ 50 c/ml at Week 48.

At Week 48, 0.4 percent (n=284) of participants on Biktarvy had HIV-1 RNA ≥ 50 c/ml, compared to 1.1 percent of participants on DTG+F/TAF (n=281) (snapshot algorithm), demonstrating noninferiority. In addition, at Week 48, no treatment-emergent resistance was detected, and no participants with pre-existing NRTI resistance mutations had HIV RNA >50 c/mL.

The use of Biktarvy in patients with known drug resistance is investigational and has not been determined to be safe or efficacious and is not approved by the U.S. FDA.

Biktarvy does not cure HIV infection or AIDS.

IMPORTANT U.S. SAFETY INFORMATION AND INDICATION FOR BIKTARVY
BOXED WARNING: POST TREATMENT ACUTE EXACERBATION OF HEPATITIS B

- **Severe acute exacerbations of hepatitis B have been reported in patients who are coinfected with HIV-1 and HBV and have discontinued products containing emtricitabine (FTC) and/or tenofovir disoproxil fumarate (TDF), and may occur with discontinuation of Biktarvy. Closely monitor hepatic function with both clinical and laboratory follow-up for at least several months in patients who are coinfected with HIV-1 and HBV and discontinue Biktarvy. If appropriate, anti-hepatitis B therapy may be warranted.**

Contraindications

- **Coadministration:** Do not use Biktarvy with dofetilide or rifampin.

Warnings and precautions

- **Drug interactions:** See Contraindications and Drug Interactions sections. Consider the potential for drug interactions prior to and during Biktarvy therapy and monitor for adverse reactions.
- **Immune reconstitution syndrome,** including the occurrence of autoimmune disorders with variable time to onset, has been reported.
- **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 Biktarvy, there have been no cases of Fanconi syndrome or proximal renal tubulopathy (PRT). Do not initiate Biktarvy in patients with estimated creatinine clearance (CrCl) <30 mL/min. Patients with impaired renal function and/or taking nephrotoxic agents (including NSAIDs) are at increased risk of renal-related adverse reactions. Discontinue Biktarvy in patients who develop clinically significant decreases in renal function or evidence of Fanconi syndrome.
  Renal monitoring: Prior to or when initiating Biktarvy and during therapy, assess serum creatinine, CrCl, urine glucose, and urine protein in all patients as clinically appropriate. In patients with chronic kidney disease, also assess serum phosphorus.
- **Lactic acidosis and severe hepatomegaly with steatosis:** Fatal cases have been reported with the use of nucleoside analogs, including FTC and TDF. Discontinue Biktarvy 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) in clinical studies through week 96 were diarrhea (6%), nausea (6%), and headache (5%).

Drug interactions

- **Prescribing information:** Consult the full prescribing information for Biktarvy for more information on Contraindications, Warnings, and potentially significant drug interactions, including clinical comments.
- **Enzymes/transporters:** Drugs that induce P-gp or induce both CYP3A and UGT1A1 can substantially decrease the concentration of components of Biktarvy. Drugs that inhibit P-gp, BCRP, or inhibit both CYP3A and UGT1A1 may significantly increase the concentrations of components of Biktarvy. Biktarvy can increase the concentration of drugs that are substrates of OCT2 or MATE1.
- **Drugs affecting renal function:** Coadministration of Biktarvy with drugs that reduce renal function or compete for active tubular secretion may increase concentrations of FTC and tenofovir and the risk of adverse reactions.

Pregnancy and lactation

- **Pregnancy:** There is insufficient human data on the use of Biktarvy during pregnancy. An Antiretroviral Pregnancy Registry (APR) has been established. Available data from the APR for FTC shows no difference in the rates of birth defects compared with a US reference population.
- **Lactation:** Women infected with HIV-1 should be instructed not to breastfeed, due to the potential for HIV-1 transmission.

Dosage and administration

- **Dosage:** 1 tablet taken once daily with or without food.
- **Renal impairment:** Not recommended in patients with CrCl <30 mL/min.
- **Hepatic impairment:** Not recommended in patients with severe hepatic impairment.
- **Prior to or when initiating:** Test patients for HBV infection.
- **Prior to or when initiating, and during treatment:** As clinically appropriate, assess serum creatinine, CrCl, urine glucose, and urine protein in all patients. In patients with chronic kidney disease, assess serum phosphorus.

INDICATION

Biktarvy is indicated as a complete regimen for the treatment of HIV-1 infection in adults and pediatric patients weighing at least 25 kg who have no antiretroviral (ARV) treatment history or to replace the current ARV regimen in those who are virologically suppressed (HIV-1 RNA <50 copies per mL) on a stable ARV regimen with no history of treatment failure and no known resistance to any component of Biktarvy.

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 nearly 30 years, Gilead has been a leading innovator in the field of HIV, driving advances in treatment, prevention, testing and linkage to care, and cure research. Today, it's estimated that more than 12 million people living with HIV globally receive antiretroviral therapy provided by Gilead or one of the company's manufacturing partners.

For more information on Gilead Sciences, please visit the company's website at www.gilead.com.

Forward-Looking Statement

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 possibility of unfavorable results from ongoing and additional clinical trials involving Biktarvy. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. These risks, uncertainties and other factors could cause actual results to differ materially from those referred to in the 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 March 31, 2019, 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.

*U.S. full Prescribing Information for Biktarvy and Genvoya, including **BOXED WARNINGS**, is available at www.gilead.com.*

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For more information on Gilead Sciences, please visit the company's website at www.gilead.com, follow Gilead on Twitter (@GileadSciences) or call Gilead Public Affairs at 1-800-GILEAD-5 or 1-650-574-3000.

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