China National Medical Products Administration Approves Descovy® (Emtricitabine, Tenofovir Alafenamide) for the Treatment of HIV-1 Infection

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– Fixed-Dose Combination HIV Treatment Backbone Can Be Paired with Range of Third Agents –

FOSTER CITY, Calif.--(BUSINESS WIRE)--Dec. 4, 2018-- Gilead Sciences, Inc. (NASDAQ: GILD) today announced that the China National Medical Products Administration (NMPA) has approved Descovy® (emtricitabine 200 mg/tenofovir alafenamide 10 mg and emtricitabine 200 mg/tenofovir alafenamide 25 mg, F/TAF), a fixed-dose combination for the treatment of HIV. In China, Descovy is indicated in combination with other antiretroviral agents for the treatment of human immunodeficiency virus type 1 (HIV-1) in adults and adolescents (aged 12 years and older with body weight at least 35 kg).

In the United States, Descovy has a boxed warning in its product label regarding the risk of post treatment acute exacerbation of hepatitis B. See below for U.S. important safety information, indication, and limitations of use.

TAF is a novel, targeted prodrug of tenofovir that has demonstrated antiviral efficacy similar to Gilead's TDF (tenofovir disoproxil fumarate 300 mg) but at one-tenth of the dose. Data show that because TAF has greater plasma stability and more efficiently delivers tenofovir to peripheral blood mononuclear cells compared to TDF, it can be given at a lower dose, resulting in less tenofovir in the bloodstream. In clinical trials, TAF demonstrated improved renal and bone laboratory safety parameters compared to TDF.

"Advances in HIV therapies have changed the way physicians think about long-term care. As the number of people aging with HIV continues to grow, it is critical that treatments are designed to help address evolving health needs," said Professor Li Taisheng, Peking Union Medical College Hospital. "As an effective HIV treatment backbone with a demonstrated renal and bone safety profile, Descovy may help support the long-term needs of a range of appropriate patients living with HIV."

In 2017, there were 134,512 people newly diagnosed with HIV in China. The number of diagnoses has increased significantly in recent years, partially due to expanded screening. At the same time, the number of people living with HIV and receiving antiretroviral treatment has also increased steadily. The government of China has provided free antiretroviral treatment to all persons living with HIV since 2003.

"With this approval, Descovy joins Genvoya® as another TAF-based treatment option available in China to help address the needs of people living with HIV," said John McHutchison, AO, MD, Chief Scientific Officer, Head of Research and Development, Gilead Sciences. "The components of Descovy, used together with other antiretroviral agents as part of either a single or multi tablet regimen, offer physicians and patients an effective treatment combination that has the potential to improve health."

The approval of Descovy is supported by 144-week data from two pivotal Phase 3 studies (Studies 104 and 111) in which the F/TAF-based regimen (administered as Genvoya; elvitegravir 150 mg/cobicistat 150 mg/emtricitabine 200 mg/tenofovir alafenamide 10 mg, E/C/F/TAF) met its primary objective of non-inferiority compared to an F/TDF-based regimen (administered as Stribild®; elvitegravir 150 mg/cobicistat 150 mg/emtricitabine 200 mg/tenofovir disoproxil fumarate 300 mg, E/C/F/TDF) among treatment naïve adult patients. Tests of certain renal and bone laboratory parameters favored the F/TAF-based regimen over the F/TDF-based regimen.

The approval also is supported by a Phase 3 study (Study 109) evaluating the F/TAF-based regimen (administered as Genvoya) among virologically suppressed adult patients who switched from F/TDF-based regimens. In the study, the F/TAF-based regimen was found to be statistically non-inferior to the F/TDF-based regimens and demonstrated improvements in certain bone and renal laboratory parameters compared to the F/TDF-based regimens. Additionally, the

approval is supported by data from Phase 3 studies evaluating the F/TAF-based regimen (administered as Genvoya) among virologically suppressed adults with mild-to-moderate renal impairment and among treatment naïve adolescents.

Descovy received marketing approval from the U.S. Food and Drug Administration (FDA) and the European Commission in 2016. In the U.S., only the emtricitabine 200 mg/tenofovir alafenamide 25 mg dosage form is approved.

Descovy does not cure HIV infection or AIDS.

U.S. Important Safety Information for Descovy

BOXED WARNING: POST TREATMENT ACUTE EXACERBATION OF HEPATITIS B

- **Descovy is not approved for the treatment of chronic hepatitis B virus (HBV) infection and the safety and efficacy of Descovy have not been established in patients coinfected with HIV-1 and HBV. 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 and/or tenofovir disoproxil fumarate (TDF), and may occur with discontinuation of Descovy. Hepatic function should be monitored closely with both clinical and laboratory follow-up for at least several months in patients who are coinfected with HIV-1 and HBV and discontinue Descovy. If appropriate, initiation of anti-hepatitis B therapy may be warranted.**

Warnings and precautions

- **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 emtricitabine and tenofovir alafenamide with elvitegravir and cobicistat, there have been no cases of Fanconi syndrome or proximal renal tubulopathy (PRT). Do not initiate Descovy 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 Descovy in patients who develop clinically significant decreases in renal function or evidence of Fanconi syndrome.
  Renal monitoring: In all patients, monitor CrCl, urine glucose, and urine protein prior to initiating and during therapy. In patients with chronic kidney disease, additionally monitor serum phosphorus.
- **Lactic acidosis and severe hepatomegaly with steatosis:** Fatal cases have been reported with the use of nucleoside analogs, including emtricitabine and TDF. Discontinue Descovy 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 reaction** (incidence ≥10%; all grades) in clinical studies was nausea (10%).

Drug interactions

- **Prescribing information:** Consult the full prescribing information for Descovy for more information on potentially significant drug interactions, including clinical comments.
- **Metabolism:** Drugs that inhibit P-gp can increase the concentrations of components of Descovy. Drugs that induce P-gp can decrease the concentrations of components of Descovy, which may lead to loss of efficacy and development of resistance.
- **Drugs affecting renal function:** Coadministration of Descovy with drugs that reduce renal function or compete for active tubular secretion may increase concentrations of emtricitabine and tenofovir and the risk of adverse reactions.

Dosage and administration

- **Dosage:** Patients weighing at least 35 kg: 1 tablet taken orally once daily with or without food.
- **Renal impairment:** Not recommended in patients with CrCl <30 mL/min.
- **Testing prior to initiation:** Test patients for HBV infection and assess CrCl, urine glucose and urine protein.

Pregnancy and lactation

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

U.S. Indication for Descovy

Descovy (emtricitabine 200 mg/tenofovir alafenamide 25 mg) is indicated in combination with other antiretroviral (ARV) agents for the treatment of HIV-1 infection in patients weighing at least 35 kg.

Limitations of Use:

Descovy is not indicated for use as pre-exposure prophylaxis (PrEP) to reduce the risk of acquiring HIV-1 infection.

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.

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 risk that physicians may not see the benefits of prescribing Descovy for the treatment of HIV-1 infection and the possibility of unfavorable results from ongoing and additional clinical trials involving Descovy. 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 September 30, 2018, 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 Descovy, Genvoya, and Stribild, including **BOXED WARNINGS** is available at www.gilead.com.*

Descovy, Genvoya, and Stribild are registered trademarks of Gilead Sciences, Inc., or its related companies.

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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