Vertex Presents Data Demonstrating Significant Benefits of Long-Term Treatment With CFTR Modulators at the European Cystic Fibrosis Conference

June 9, 2023

-Interim results of largest real-world study of TRIKAFTA® (elexacaftor/tezacaftor/ivacaftor and ivacaftor) showed sustained improvement in lung function, reduction in pulmonary exacerbations frequency and lower rates of lung transplant and death for people with cystic fibrosis-

- Twelve presentations add to the body of evidence supporting the use of CFTR modulators for all eligible people with cystic fibrosis-

BOSTON--(BUSINESS WIRE)--Jun. 9, 2023-- Vertex Pharmaceuticals Incorporated (Nasdaq: VRTX) today announced that 12 scientific abstracts on the company's portfolio of cystic fibrosis (CF) medicines were presented at this year's European Cystic Fibrosis Society's (ECFS) 46th European Cystic Fibrosis Conference held June 7-10, 2023, in Vienna, Austria. Together, the data presented show the long-term benefits of treatment with CFTR modulators as well as the importance of treating the underlying cause of CF as early in life as possible. Key data presented at this year's conference are highlighted below.

Vertex presented an interim analysis (IA) of a registry-based study of real-world data collected from people with CF and treated with TRIKAFTA® (elexacaftor/tezacaftor/ivacaftor and ivacaftor), also known in the European Union and in the U.K. as KAFTRIO® (ivacaftor/tezacaftor/elexacaftor) in combination with ivacaftor, including over 16,000 people with CF from the Cystic Fibrosis Foundation Patient Registry (CFFPR) and nearly 3,000 from the German CF Registry. This ongoing five-year post-authorization study (abstract WS16.03) is the largest real-world study of people with CF treated with TRIKAFTA® to date. The IA showed clinically significant disease-modifying benefits for TRIKAFTA®, including improved lung function and a 79% reduction of pulmonary exacerbations in the U.S. and 83% in Germany overall compared to pre-TRIKAFTA® baseline. The rate of death was 72% lower in the U.S. and 82% lower in Germany, the rate of lung transplant was 85% lower in the U.S. and 100% lower in Germany, compared to 2019 (pre-TRIKAFTA®) U.S. CFFPR and German CF Registry populations. No new safety concerns were identified.

Vertex also presented final results of the nearly four-year TRIKAFTA® open-label follow-up study of the Phase 3 pivotal trials in people with CF ages 12 years and older with at least one *F508del* mutation in the *CFTR* gene (Late Breaking Science; Workshop 15). The results of this study are unprecedented, showing for the first time that treatment with TRIKAFTA® resulted in no decline in lung function over a four-year period.

"CFTR modulators markedly improve clinical outcomes of people living with CF as demonstrated in the large and growing quantity of data presented at ECFS this year," said Professor Isabelle Fajac, Professor of Physiology, Cochin Hospital, Assistance Publique-Hôpitaux de Paris, Université Paris Cité, Paris, France. "The data on TRIKAFTA in particular demonstrate that this medicine improves lung function sustainably and in a real-world setting. It also reduces the risks of pulmonary exacerbation, death and lung transplant, and it is generally well tolerated."

Additional Presentations

Other Vertex presentations at the conference this year include:

- Abstract EPS6.05 entitled "A Phase 3b study of the effects of elexacaftor/tezacaftor/ivacaftor (ELX/TEZ/IVA) on cough and physical activity in people with cystic fibrosis (CF)"
- Abstract WS05.04 entitled "Safety and efficacy of ivacaftor (IVA) in children aged 1 to <4 months with cystic fibrosis assessed with an innovative clinical trial design"
- Late Breaking Science (Workshop 15) abstract entitled "LONGITUDE: An observational study of the long-term effectiveness of ivacaftor/tezacaftor/elexacaftor in people with cystic fibrosis using data from the United Kingdom Cystic Fibrosis Registry"
- Abstract WS16.02 entitled "Real-world (RW) clinical effectiveness of elexacaftor/tezacaftor/ivacaftor (ELX/TEZ/IVA) in children with cystic fibrosis aged 6-11 years: interim results from the HELIO study"
- Abstract P117 entitled "A longitudinal study on the impact of ELX/TEZ/IVA treatment on quality of life in people with cystic fibrosis in the real world"
- Abstract P118 entitled "Real-world impact of ELX/TEZ/IVA on quality of life of children with CF aged 6-11 years and primary caregivers in the UK: MAGNIFY, a prospective, observational, noninterventional study"

- Abstract WS05.03 entitled “A Phase 3b study of the effects of elexacaftor/tezacaftor/ivacaftor (ELX/TEZ/IVA) on glucose tolerance in people with cystic fibrosis (CF) and abnormal glucose metabolism”
- Abstract WS16.04 entitled “Benefits of lumacaftor/ivacaftor (LUM/IVA) initiation in children with CF aged 2 through 5 years: Interim results from an ongoing registry-based study”
- Abstract WS16.05 entitled “Long-Term Impact of Ivacaftor (IVA) in People with Cystic Fibrosis in Ireland”
- Late Breaking Science (Workshop 15) abstract entitled “Effects of elexacaftor/tezacaftor/ivacaftor (ELX/TEZ/IVA) treatment on markers of inflammation in people with cystic fibrosis (CF)”

About Cystic Fibrosis

Cystic fibrosis (CF) is a rare, life-shortening genetic disease affecting more than 88,000 people globally. CF is a progressive, multi-organ disease that affects the lungs, liver, pancreas, GI tract, sinuses, sweat glands and reproductive tract. CF is caused by a defective and/or missing CFTR protein resulting from certain mutations in the *CFTR* gene. Children must inherit two defective *CFTR* genes — one from each parent — to have CF, and these mutations can be identified by a genetic test. While there are many different types of *CFTR* mutations that can cause the disease, the vast majority of people with CF have at least one *F508del* mutation. *CFTR* mutations lead to CF by causing CFTR protein to be defective or by leading to a shortage or absence of CFTR protein at the cell surface. The defective function and/or absence of CFTR protein results in poor flow of salt and water into and out of the cells in a number of organs. In the lungs, this leads to the buildup of abnormally thick, sticky mucus, chronic lung infections and progressive lung damage that eventually leads to death for many patients. The median age of death is in the early 30s.

About TRIKAFTA® (elexacaftor/tezacaftor/ivacaftor and ivacaftor)

In people with certain types of mutations in the *CFTR* gene, the CFTR protein is not processed or folded normally within the cell, and this can prevent the CFTR protein from reaching the cell surface and functioning properly. TRIKAFTA® (elexacaftor/tezacaftor /ivacaftor and ivacaftor) is an oral medicine designed to increase the quantity and function of the CFTR protein at the cell surface. Elexacaftor and tezacaftor work together to increase the amount of mature protein at the cell surface. Ivacaftor, which is known as a CFTR potentiator, is designed to facilitate the ability of CFTR proteins to transport salt and water across the cell membrane. The combined actions of elexacaftor, tezacaftor and ivacaftor help hydrate and clear mucus from the airways.

U.S. INDICATION AND IMPORTANT SAFETY INFORMATION FOR TRIKAFTA® (elexacaftor/tezacaftor/ivacaftor and ivacaftor)

TRIKAFTA is a prescription medicine used for the treatment of cystic fibrosis (CF) in patients aged 2 years and older who have at least one copy of the F508del mutation in the cystic fibrosis transmembrane conductance regulator (CFTR) gene or another mutation that is responsive to treatment with TRIKAFTA. Patients should talk to their doctor to learn if they have an indicated CF gene mutation. It is not known if TRIKAFTA is safe and effective in children under 2 years of age.

Before taking TRIKAFTA, patients should tell their doctor about all of their medical conditions, including if they: have kidney problems, have or have had liver problems, are pregnant or plan to become pregnant because it is not known if TRIKAFTA will harm an unborn baby, or are breastfeeding or planning to breastfeed because it is not known if TRIKAFTA passes into breast milk.

Tell your doctor about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

TRIKAFTA may affect the way other medicines work, and other medicines may affect how TRIKAFTA works. The dose of TRIKAFTA may need to be adjusted when taken with certain medicines. Patients should ask their doctor or pharmacist for a list of these medicines if they are not sure.

Patients should especially tell their doctor if they take: antibiotics such as rifampin or rifabutin; seizure medicines such as phenobarbital, carbamazepine, or phenytoin; St. John’s wort; antifungal medicines including ketoconazole, itraconazole, posaconazole, voriconazole, or fluconazole; antibiotics including telithromycin, clarithromycin, or erythromycin.

Patients should avoid food or drink that contains grapefruit while they are taking TRIKAFTA.

TRIKAFTA can cause serious side effects, including:

Liver damage and worsening of liver function in people with severe liver disease that can be serious and may require transplantation. Liver damage has also happened in people without liver disease.

High liver enzymes in the blood, which is a common side effect in people treated with TRIKAFTA**.** These can be serious and may be a sign of liver injury. The patient’s doctor will do blood tests to check their liver before they start TRIKAFTA, every 3 months during the first year of taking TRIKAFTA, and every year while taking TRIKAFTA. Patients should call their doctor right away if they have any of the following symptoms of liver problems: pain or discomfort in the upper right stomach (abdominal) area; yellowing of the skin or the white part of the eyes; loss of appetite; nausea or vomiting; dark, amber-colored urine.

Abnormality of the eye lens (cataract) has been noted in some children and adolescents treated with TRIKAFTA. If the patient

is a child or adolescent, their doctor should perform eye examinations before and during treatment with TRIKAFTA to look for cataracts.

The most common side effects of TRIKAFTA include headache, upper respiratory tract infection (common cold) including stuffy and runny nose, stomach (abdominal) pain, diarrhea, rash, increase in liver enzymes, increase in a certain blood enzyme called creatine phosphokinase, flu (influenza), inflamed sinuses, and increase in blood bilirubin.

Patients should tell their doctor if they have any side effect that bothers them or that does not go away. These are not all the possible side effects of TRIKAFTA. For more information, patients should ask their doctor or pharmacist. **Please click here to see the full U.S. Prescribing Information for TRIKAFTA (elexacaftor/tezacaftor/ivacaftor and ivacaftor).**

About Vertex

Vertex is a global biotechnology company that invests in scientific innovation to create transformative medicines for people with serious diseases. The company has multiple approved medicines that treat the underlying cause of cystic fibrosis (CF) — a rare, life-threatening genetic disease — and has several ongoing clinical and research programs in CF. Beyond CF,Vertex has a robust clinical pipeline of investigational small molecule, mRNA, cell and genetic therapies (including gene editing) in other serious diseases where it has deep insight into causal human biology, including sickle cell disease, beta thalassemia, APOL1-mediated kidney disease, acute and neuropathic pain, type 1 diabetes and alpha-1 antitrypsin deficiency.

Founded in 1989 in Cambridge, Mass., Vertex's global headquarters is now located in Boston's Innovation District and its international headquarters is in London. Additionally, the company has research and development sites and commercial offices in North America, Europe, Australia and Latin America. Vertex is consistently recognized as one of the industry's top places to work, including 13 consecutive years on Science magazine's Top Employers list and one of Fortune’s 100 Best Companies to Work For. For company updates and to learn more about Vertex's history of innovation, visit www.vrtx.com or follow us on Facebook, Twitter, LinkedIn, YouTube and Instagram.

Special Note Regarding Forward-Looking Statements

This press release contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995, as amended, including, without limitation, statements made by Professor Isabelle Fajac in this press release, and statements regarding the potential benefits, safety and efficacy of our medicines, and our plans to present data about our medicines at the ECFS European Cystic Fibrosis Conference. While Vertex believes the forward-looking statements contained in this press release are accurate, these forward-looking statements represent the company's beliefs only as of the date of this press release and there are a number of risks and uncertainties that could cause actual events or results to differ materially from those expressed or implied by such forward-looking statements. Those risks and uncertainties include, among other things, that data from the company's development programs may not support registration, approval or further development of its compounds due to safety, efficacy or other reasons, risks related to approval and commercialization of our medicines, and other risks listed under the heading “Risk Factors” in Vertex's most recent annual report and subsequent quarterly reports filed with the Securities and Exchange Commission (SEC) and available through the company's website at www.vrtx.com and on the SEC’s website at www.sec.gov. You should not place undue reliance on these statements or the scientific data presented. Vertex disclaims any obligation to update the information contained in this press release as new information becomes available.

(VRTX-GEN)

View source version on businesswire.com: https://www.businesswire.com/news/home/20230608005667/en/

Vertex Pharmaceuticals Incorporated
Investors:
InvestorInfo@vrtx.com
or
617-961-7163

Media:
mediainfo@vrtx.com
or
U.S.: 617-341-6992
or
International: +44 20 3204 5275

Source: Vertex Pharmaceuticals Incorporated