# U.S. FDA Approves Pfizer's CIBINQO® (abrocitinib) for Adults with Moderate-to-Severe Atopic Dermatitis

Friday, January 14, 2022 - 03:30pm

CIBINQO is a once-daily oral treatment with proven efficacy to manage symptoms for adults who have not yet found relief with current options

NEW YORK--(BUSINESS WIRE)-- Pfizer Inc. (NYSE: PFE) announced today that the United States (U.S.) Food and Drug Administration (FDA) approved CIBINQO® (abrocitinib), an oral, once-daily, Janus kinase 1 (JAK1) inhibitor, for the treatment of adults living with refractory, moderate-to-severe atopic dermatitis (AD) whose disease is not adequately controlled with other systemic drug products, including biologics, or when use of those therapies is inadvisable.

CIBINQO is approved at the recommended doses of 100 mg and 200 mg, with the 200 mg dose being recommended for patients who are not responding to the 100 mg dose. Additionally, a 50 mg dose was approved to treat moderate-to-severe AD specifically in patients with moderate renal impairment (kidney failure), certain patients receiving treatment with inhibitors of cytochrome P450 (CYP) 2C19, or patients who are known or suspected to be poor metabolizers of CYP2C19. For patients with moderate renal impairment who are not responding to 50 mg once daily, 100 mg once daily may also be prescribed.

"The reality for patients living with chronic inflammatory skin disease such as moderate-to-severe atopic dermatitis is that many experience debilitating symptoms that are not managed by current treatment options. Today's approval of CIBINQO will provide an important new oral option that could help those who have yet to find relief," said Jonathan Silverberg, MD, PhD, MPH, Department of Dermatology, The George Washington University School of Medicine and Health Sciences. "In multiple large-scale clinical trials, CIBINQO demonstrated strong efficacy at clearing skin, improving itch, and managing the extent and severity of eczema, offering a benefit-risk profile that supports the use of this treatment in the FDA-approved patient population."

The FDA approval was based on results of five clinical trials from a large-scale clinical trial program of more than 1,600 patients. The safety and efficacy of CIBINQO was evaluated in three randomized, placebo-controlled, Phase 3 trials. Additionally, safety was evaluated through a randomized, placebo-controlled, dose-ranging trial and an ongoing long-term open-label extension trial. Across the trials, CIBINQO demonstrated a consistent safety profile and profound improvements in skin clearance, extent of disease, and severity, as well as rapid improvement in itch after two weeks, for some people living with AD versus placebo. In addition, a higher proportion of subjects treated with CIBINQO in two monotherapy trials achieved improvement in itching at week 12 compared to placebo.

"The FDA's approval offers hope to the millions of patients across the U.S. who are suffering daily with an immuno-inflammatory condition that can cause intense and persistent itching, pain, discomfort, and distress if left uncontrolled," said Mike Gladstone, Global President of Pfizer Inflammation & Immunology. "CIBINQO, an efficacious once-daily pill, is a medical breakthrough made possible by Pfizer researchers and the people

living with moderate-to-severe atopic dermatitis who participated in our clinical trials."

"Atopic dermatitis is so much more than just a rash, and it goes beyond the surface of the skin. It's a chronic condition that can both significantly disrupt patients' daily lives and negatively impact their emotional well-being," said Julie Block, President and CEO, National Eczema Association. "We appreciate Pfizer's commitment to this resilient patient community and eagerly await the positive impact CIBINQO could have on the treatment landscape for moderate-to-severe atopic dermatitis."

The most common adverse events reported in ?5% of patients with CIBINQO included nasopharyngitis (12.4% with CIBINQO 100 mg, 8.7% with CIBINQO 200 mg, and 7.9%, with placebo), nausea (6%, 14.5%, and 2.1%, respectively), and headache (6%, 7.8%, and 3.5%, respectively).

The full prescribing information for CIBINQO can be found <u>here</u>. CIBINQO will be made available in the coming weeks.

#### Additional Details on the CIBINQO Clinical Trial Program

Five clinical trials in the CIBINQO JAK1 Atopic Dermatitis Efficacy and Safety (JADE) global development program were included in the New Drug Application (NDA) to support the FDA approval.

The safety and efficacy of CIBINQO was evaluated in three Phase 3, randomized, placebo-controlled clinical trials. The trials evaluated measures of improvements in skin clearance, itch, disease extent, and severity, including the Investigator Global Assessment (IGA), Eczema Area and Severity Index (EASI), and Peak Pruritus Numerical Ratings Scale (PP-NRS). In each of the trials, over 40% of patients had prior exposure to a systemic therapy:

- JADE MONO-1 and JADE MONO-2: A pair of randomized, double-blind, placebo-controlled trials designed to evaluate the efficacy and safety of two doses (100 mg and 200 mg once daily) of CIBINQO monotherapy in 778 patients 12 years of age and older with moderate-to-severe AD. The trials assessed the co-primary endpoints of IGA and EASI-75 responses at Week 12.
- JADE COMPARE: A randomized, double-blind, placebo-controlled trial designed to evaluate the efficacy and safety of two doses (100 mg and 200 mg once daily) of CIBINQO in 837 adult patients with moderate-to-severe AD on background topical medicated therapy. The trial also included an active control arm with dupilumab, a biologic treatment administered by subcutaneous injection, compared with placebo. The trial assessed the co-primary endpoints of IGA and EASI-75 responses at Week 12.

Select findings for CIBINQO 100 mg, 200 mg, and placebo follow (\*p<0.01 or \*\*p<0.001):

- JADE MONO-1:
  - IGA Response Rate (Week 12): 24%\*, 44%\*\*, and 8%, respectively
  - EASI-75 Response Rate (Week 12): 40%\*\*, 62%\*\*, and 12%, respectively
- JADE MONO-2
  - o IGA Response Rate (Week 12): 28%\*\*, 38%\*\*, and 9%, respectively
  - EASI-75 Response Rate (Week 12): 44%\*\*, 61%\*\*, and 10%, respectively
- JADE COMPARE
  - o IGA Response Rate (Week 12): 36%\*\*, 47%\*\*, and 14%, respectively
  - EASI-75 Response Rate (Week 12): 58%\*\*, 68%\*\*, and 27%, respectively

Safety was additionally evaluated through a randomized dose-ranging trial and a long-term, open-label, extension trial (JADE EXTEND).

#### U.S. IMPORTANT SAFETY INFORMATION

## WARNING: SERIOUS INFECTIONS, MORTALITY, MALIGNANCY, MAJOR ADVERSE CARDIOVASCULAR EVENTS, AND THROMBOSIS

#### **Serious Infections**

Patients treated with CIBINQO may be at increased risk for developing serious infections that may lead to hospitalization or death. The most frequent serious infections reported with CIBINQO were herpes simplex, herpes zoster, and pneumonia.

If a serious or opportunistic infection develops, discontinue CIBINQO and control the infection.

Reported infections from Janus kinase (JAK) inhibitors used to treat inflammatory conditions:

- Active tuberculosis, which may present with pulmonary or extrapulmonary disease. Test for latent TB before and during therapy; treat latent TB prior to use. Monitor all patients for active TB during treatment, even patients with initial negative, latent TB test.
- Invasive fungal infections, including cryptococcosis and pneumocystosis. Patients with invasive fungal infections may present with disseminated, rather than localized, disease.
- Bacterial, viral (including herpes zoster), and other infections due to opportunistic pathogens.

Avoid use of CIBINQO in patients with an active, serious infection, including localized infections. The risks and benefits of treatment with CIBINQO should be carefully considered prior to initiating therapy in patients with chronic or recurrent infections or those who have resided or traveled in areas of endemic tuberculosis or endemic mycoses.

Patients should be closely monitored for the development of signs and symptoms of infection during and after treatment with CIBINQO, including the possible development of tuberculosis in patients who tested negative for latent tuberculosis infection prior to initiating therapy.

Consider yearly screening for patients in highly endemic areas for TB. CIBINQO is not recommended for use in patients with active TB. For patients with a new diagnosis of latent TB or prior untreated latent TB, or for patients with a negative test for latent TB but who are at high risk for TB infection, start preventive therapy for latent TB prior to initiation of CIBINQO.

Viral reactivation, including herpes virus reactivation (eg, herpes zoster, herpes simplex), was reported in clinical studies with CIBINQO. If a patient develops herpes zoster, consider interrupting CIBINQO until the episode resolves. Hepatitis B virus reactivation has been reported in patients receiving JAK inhibitors. Perform viral hepatitis screening and monitoring for reactivation in accordance with clinical guidelines before starting therapy and during therapy with CIBINQO. CIBINQO is not recommended for use in patients with active hepatitis B or hepatitis C.

#### **Mortality**

In a large, randomized postmarketing safety study in rheumatoid arthritis (RA) patients 50 years of age and older with at least one cardiovascular risk factor comparing another JAK inhibitor to TNF blocker treatment, a higher rate of all-cause mortality (including sudden cardiovascular death) was observed with the JAK inhibitor. CIBINQO is not approved for use in RA patients.

#### **Malignancies**

Malignancies, including non-melanoma skin cancer (NMSC), were reported in patients treated with CIBINQO. Lymphoma and other malignancies have been observed in patients receiving JAK inhibitors used to treat inflammatory conditions. Perform periodic skin examination for patients who are at increased risk for skin cancer. Exposure to sunlight and UV light should be limited by wearing protective clothing and using broad-spectrum sunscreen.

In a large, randomized postmarketing safety study of another JAK inhibitor in RA patients, a higher rate of malignancies (excluding non-melanoma skin cancer [NMSC]) was observed in patients treated with the JAK inhibitor compared to those treated with TNF blockers. CIBINQO is not approved for use in RA patients. A higher rate of lymphomas was observed in patients treated with the JAK inhibitor compared to those treated with TNF blockers. A higher rate of lung cancers was observed in current or past smokers treated with the JAK inhibitor compared to those treated with TNF blockers. Patients who are current or past smokers are at additional increased risk.

Consider the benefits and risks for the individual patient prior to initiating or continuing therapy with CIBINQO, particularly in patients with a known malignancy (other than a successfully treated NMSC), patients who develop a malignancy when on treatment, and patients who are current or past smokers.

#### **Major Adverse Cardiovascular Events**

Major adverse cardiovascular events were reported in patients treated with CIBINQO. In RA patients 50 years of age and older with at least one cardiovascular risk factor treated with another JAK inhibitor, a higher rate of major adverse cardiovascular events (MACE) (defined as cardiovascular death, myocardial infarction, and stroke), was observed when compared with TNF blockers. CIBINQO is not approved for use in RA patients. Patients who are current or past smokers are at additional increased risk. Discontinue CIBINQO in patients that have experienced a myocardial infarction or stroke.

Consider the benefits and risks for the individual patient prior to initiating or continuing therapy with CIBINQO, particularly in patients who are current or past smokers and patients with other cardiovascular risk factors. Patients should be informed about the symptoms of serious cardiovascular events and the steps to take if they occur.

#### **Thrombosis**

Deep vein thrombosis (DVT) and pulmonary embolism (PE) have been reported in patients treated with CIBINQO. Thrombosis, including PE, DVT, and arterial thrombosis have been reported in patients receiving JAK inhibitors used to treat inflammatory conditions. Many of these adverse reactions were serious and some resulted in death. In RA patients 50 years of age and older with at least one cardiovascular risk factor treated with another JAK inhibitor, a higher rate of overall thrombosis, DVT, and PE were observed when compared with TNF blockers. CIBINQO is not approved for use in RA patients.

Avoid CIBINQO in patients that may be at increased risk of thrombosis. If symptoms of thrombosis occur, discontinue CIBINQO and treat patients appropriately.

#### Contraindication

CIBINQO is contraindicated in patients taking antiplatelet therapies, except for low-dose aspirin (?81 mg daily), during the first 3 months of treatment.

#### **Laboratory Abnormalities**

<u>Hematologic Abnormalities</u>: Treatment with CIBINQO was associated with an increased incidence of thrombocytopenia and lymphopenia. Prior to CIBINQO initiation, perform a complete blood count (CBC). CBC evaluations are recommended at 4 weeks after initiation and 4 weeks after dose increase of CIBINQO. Discontinuation of CIBINQO therapy is required for certain laboratory abnormalities.

<u>Lipid Elevations</u>: Dose-dependent increase in blood lipid parameters were reported in patients treated with CIBINQO. Lipid parameters should be assessed approximately 4 weeks following initiation of CIBINQO therapy, and thereafter patients should be managed according to clinical guidelines for hyperlipidemia. The effect of these lipid parameter elevations on cardiovascular morbidity and mortality has not been determined.

#### **Immunizations**

Prior to initiating CIBINQO, complete all age-appropriate vaccinations as recommended by current immunization guidelines, including prophylactic herpes zoster vaccinations. Avoid vaccination with live vaccines immediately prior to, during, and immediately after CIBINQO therapy.

#### **Renal Impairment**

Avoid use in patients with severe renal impairment or end stage renal disease, including those on renal replacement therapy.

#### **Hepatic Impairment**

Avoid use in patients with severe hepatic impairment.

#### **Adverse Reactions**

Most common adverse reactions (?1%) in subjects receiving 100 mg and 200 mg include: nasopharyngitis, nausea, headache, herpes simplex, increased blood creatinine phosphokinase, dizziness, urinary tract infection, fatigue, acne, vomiting, oropharyngeal pain, influenza, gastroenteritis.

Most common adverse reactions (?1%) in subjects receiving either 100 mg or 200 mg also include: impetigo, hypertension, contact dermatitis, upper abdominal pain, abdominal discomfort, herpes zoster, and thrombocytopenia.

#### **Use in Pregnancy**

Available data from pregnancies reported in clinical trials with CIBINQO are not sufficient to establish a drug-associated risk for major birth defects, miscarriage, or other adverse maternal or fetal outcomes. Advise females of reproductive potential that CIBINQO may impair fertility.

There will be a pregnancy exposure registry that monitors pregnancy outcomes in women exposed to CIBINQO during pregnancy. Pregnant women exposed to CIBINQO and health care providers are encouraged to call 1-877-311-3770.

#### Lactation

Advise women not to breastfeed during treatment with CIBINQO and for one day after the last dose.

#### **Indication**

CIBINQO is indicated for the treatment of adults with refractory, moderate to severe atopic dermatitis whose disease is not adequately controlled with other systemic drug products, including biologics, or when use of those therapies is inadvisable.

Limitations of Use: CIBINQO is not recommended for use in combination with other JAK inhibitors, biologic immunomodulators, or with other immunosuppressants.

### **About CIBINQO** ® (abrocitinib)

CIBINQO is an oral small molecule that selectively inhibits Janus kinase (JAK) 1. Inhibition of JAK1 is thought to modulate multiple cytokines involved in pathophysiology of AD, including interleukin IL-4, IL-13, IL-22, and thymic stromal lymphopoietin (TSLP).

In addition to receiving regulatory approval in the U.S., CIBINQO has received marketing authorization in the European Union, Great Britain, Japan, Korea, the United Arab Emirates, Norway, Iceland, and Singapore.

#### **About Atopic Dermatitis**

AD is a chronic skin disease characterized by inflammation of the skin and skin barrier defects. i,ii Most people know AD is a skin condition. But many don't realize it can be caused in part by an abnormal immune response beneath the skin. This dysregulated immune response is thought to contribute to inflammation within the skin and the signs of AD on the surface. Lesions of AD are characterized by erythema (red/pink or discolored skin patches, depending on normal skin color), itching, lichenification (thick/leathery skin), induration (hardening)/papulation (formulation of papules), and oozing/crusting. i,ii

AD is one of the most common inflammatory skin diseases, affecting approximately 5-10% of adults in the U.S. iii,iv Approximately 1 in 3 adults with AD have moderate-to-severe disease. V,vi

#### **About Pfizer Inflammation & Immunology**

At Pfizer Inflammation & Immunology, we strive to deliver breakthroughs that enable freedom from day-to-day suffering for people living with autoimmune and chronic inflammatory diseases, which can be debilitating, disfiguring and distressing, dramatically affecting what they can do. With a focus on immuno-inflammatory conditions in Rheumatology, Gastroenterology and Medical Dermatology, our current portfolio of approved medicines and investigational molecules spans multiple action and delivery mechanisms, from topicals to small molecules, biologics and biosimilars. The root cause of many immunological diseases is immuno-inflammation, which requires specifically designed agents. Our differentiated R&D approach resulted in one of the broadest pipelines in the industry, where we purposefully match molecules to diseases where we believe they can make the biggest difference. Building on our decades-long commitment and pioneering science, we continue to advance the standard of care for patients living with immuno-inflammatory diseases and are working hand-in-hand with patients, caregivers and the broader healthcare community on healthcare solutions for the many challenges of managing chronic inflammatory diseases, allowing patients to live their best lives.

#### Pfizer Inc.: Breakthroughs that Change Patients' Lives

At Pfizer, we apply science and our global resources to bring therapies to people that extend and significantly improve their lives. We strive to set the standard for quality, safety, and value in the discovery, development, and manufacture of health care products, including innovative medicines and vaccines. Every day, Pfizer colleagues work across developed and emerging markets to advance wellness, prevention, treatments, and cures that challenge the most feared diseases of our time. Consistent with our responsibility as one of the world's premier innovative biopharmaceutical companies, we collaborate with health care providers, governments, and

local communities to support and expand access to reliable, affordable health care around the world. For more than 170 years, we have worked to make a difference for all who rely on us. We routinely post information that may be important to investors on our website at <a href="www.pfizer.com">www.pfizer.com</a>. In addition, to learn more, please visit us on <a href="www.pfizer.com">www.pfizer.com</a> and follow us on Twitter at <a href="www.pfizer.news">@Pfizer</a> and <a href="www.pfizer.news">@Pfizer</a>. LinkedIn, <a href="www.pouTube">YouTube</a> and like us on Facebook at Facebook.com/Pfizer.

**DISCLOSURE NOTICE:** The information contained in this release is as of January 14, 2022. Pfizer assumes no obligation to update forward-looking statements contained in this release as the result of new information or future events or developments.

This release contains forward-looking information about CIBINQO (abrocitinib), including its potential benefits, an approval in the U.S. and anticipated product availability, that involves substantial risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. Risks and uncertainties include, among other things, the uncertainties inherent in research and development, including the ability to meet anticipated clinical endpoints, commencement and/or completion dates for our clinical trials, regulatory submission dates, regulatory approval dates and/or launch dates, as well as the possibility of unfavorable new clinical data and further analyses of existing clinical data; the risk that clinical trial data are subject to differing interpretations and assessments by regulatory authorities; whether regulatory authorities will be satisfied with the design of and results from our clinical studies; whether and when drug applications may be filed in any other jurisdictions for any potential indication for CIBINQO; whether and when any such other applications that may be pending or filed for CIBINOO may be approved by regulatory authorities, which will depend on myriad factors, including making a determination as to whether the product's benefits outweigh its known risks and determination of the product's efficacy and, if approved, whether CIBINQO will be commercially successful; decisions by regulatory authorities impacting labeling, manufacturing processes, safety and/or other matters that could affect the availability or commercial potential of CIBINQO; uncertainties regarding the commercial or other impact of the results of Janus kinase (JAK) inhibitor studies and data and actions by regulatory authorities based on analysis of such studies and data, which will depend, in part, on benefit-risk assessments and labeling determinations; uncertainties regarding the impact of COVID-19 on our business, operations, and financial results; and competitive developments.

A further description of risks and uncertainties can be found in Pfizer's Annual Report on Form 10-K for the fiscal year ended December 31, 2020 and in its subsequent reports on Form 10-Q, including in the sections thereof captioned "Risk Factors" and "Forward-Looking Information and Factors That May Affect Future Results", as well as in its subsequent reports on Form 8-K, all of which are filed with the U.S. Securities and Exchange Commission and available at <a href="https://www.sec.gov">www.sec.gov</a> and <a href="https://wwww.sec.gov">www.sec.gov</a> and <a href="https://www.sec.gov">

<sup>&</sup>lt;sup>i</sup> Hanifin JM, Reed ML. A population-based survey of eczema in the United States. Dermatitis. 2007;18(2):82-91.

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<sup>&</sup>lt;sup>1V</sup> Kim BE, Leung DYM. Significance of Skin Barrier Dysfunction in Atopic Dermatitis. Allergy Asthma Immunol Res. 2018;10(3):207-215. doi:10.4168/aair.2018.10.3.207.

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vi Chiesa Fuxench ZC, Block JK, Boguniewicz M, et al. Atopic dermatitis in America study: a cross-sectional study examining the prevalence and disease burden of atopic dermatitis in the US adult population. J Invest Dermatol. 2019;139(3):583-590.

Media Relations: +1 (212) 733-1226 PfizerMediaRelations@Pfizer.com

Investor Relations: +1 (212) 733-4848 IR@Pfizer.com

Source: Pfizer Inc.