Pfizer Announces Results from Phase 3 OPAL Clinical Development Program Investigating XELJANZ® (Tofacitinib Citrate) for Psoriatic Arthritis

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Detailed Results from Two Phase 3 Studies Featured in Oral & Poster Presentations at 2016 ACR/ARHP Annual Meeting

"Tofacitinib, if approved, may be an important treatment option for people with active psoriatic arthritis."

Pfizer Inc. (NYSE:PFE) announced today that new results from the Phase 3 **O**ral **P**soriatic **A**rthritis Tria**L** (OPAL) studies, Broaden and Beyond, will be presented at the 2016 ACR/ARHP Annual Meeting (November 11-16, Washington, DC). OPAL Broaden and OPAL Beyond evaluated the efficacy and safety of XELJANZ[®] (tofacitinib citrate) in adult patients with active psoriatic arthritis (PsA) who had an inadequate response (IR) to conventional synthetic disease-modifying antirheumatic drugs (csDMARDs) or to tumor necrosis factor inhibitors (TNFis), respectively. Detailed results from OPAL Broaden will be presented during a plenary session [#2983] for the first time at ACR/ARHP. Additionally, results from OPAL Beyond will be presented during a late-breaking abstract poster session [#10L].

"Psoriatic arthritis is a chronic condition that can have a significant and potentially debilitating impact on people with the disease, who currently have limited treatment options," said Michael Corbo, Chief Development Officer, Inflammation & Immunology, Pfizer Global Product Development. "As the only JAK inhibitor being investigated in psoriatic arthritis, tofacitinib, if approved, would provide patients and healthcare professionals the first medicine in a new class to treat this disease. We continue to progress the OPAL clinical development program globally and look forward to possible future regulatory filings."

OPAL Broaden and OPAL Beyond met their primary efficacy endpoints showing a statistically significant improvement with tofacitinib 5 mg and 10 mg twice daily (BID) compared to treatment with placebo at three months as measured by American College of Rheumatology 20 (ACR20) response (OPAL Broaden: p?0.05 and p<0.0001; OPAL Beyond: p<0.0001, respectively), and change from baseline in Health Assessment Questionnaire Disability Index (HAQ-DI) score (OPAL Broaden: p?0.05 and p<0.001; OPAL Beyond: p<0.0001 and p<0.001, respectively). ^{1a,2a}

OPAL Broaden, which was a 12-month duration trial with a three month placebo-controlled period, evaluated the efficacy and safety of tofacitinib 5 mg (n=107) and 10 mg (n=104) BID compared to placebo (n=105) in adult patients with active PsA who had an IR to at least one csDMARD and who were TNFi-naïve. ^{1b,1c} OPAL Broaden included an active control arm of adalimumab 40 mg (n=106) administered subcutaneously every two weeks (q2 wk). The study was not designed for non-inferiority or superiority comparisons between adalimumab

and tofacitinib. OPAL Beyond, a six-month duration trial with a three month placebo-controlled period, evaluated the efficacy and safety of tofacitinib 5 mg (n=131) and 10 mg (n=132) BID compared to placebo (n=131) in adult patients with active PsA who had an IR to at least one TNFi. DPAL Beyond focused exclusively on the TNFi-IR patient population. In both studies, patients who were initially randomized to placebo advanced to tofacitinib 5 or 10 mg BID in a blinded manner at three months.

Efficacy Results

In OPAL Broaden, 50.5% and 60.6% of patients achieved an ACR20 response with tofacitinib 5 mg and 10 mg BID, respectively, compared to 33.3% of patients taking placebo at three months. ^{1d} Patients taking adalimumab 40 mg q2 wk achieved an ACR20 response rate of 51.9%. ^{1d} In OPAL Beyond, 49.6% and 47.0% of patients achieved ACR20 response with tofacitinib 5 mg and 10 mg BID, respectively, compared to 23.7% of patients taking placebo at three months. ^{2c} In both studies, changes from baseline in HAQ-DI score were statistically significantly greater with tofacitinib 5 mg and 10 mg BID compared to placebo at three months. ^{1d,2c}

"The findings from OPAL Broaden and OPAL Beyond showed that treatment with tofacitinib improved symptoms and decreased disease activity in patients with active psoriatic arthritis who do not respond well to currently available therapies, including DMARDs and TNFis," said Philip Mease, M.D., Swedish Medical Center and University of Washington. "Tofacitinib, if approved, may be an important treatment option for people with active psoriatic arthritis."

Safety Findings

The most common adverse events (AEs) in OPAL Broaden and OPAL Beyond over 12 and six months, respectively, were upper respiratory tract infection, nasopharyngitis and headache. ^{1e,2d} In OPAL Broaden and OPAL Beyond, serious AEs were reported in 3.8% and 6.1% of patients taking tofacitinib 10 mg BID, and 7.5% and 3.8% of patients taking tofacitinib 5 mg BID. Among patients who received placebo for the first three months and then switched to tofacitinib, 5.8% and 3.0% of patients who went to tofacitinib 5 mg BID and 7.5% and 1.5% of patients who went to tofacitinib 10 mg BID, at 12 and six months respectively, experienced serious AEs. ^{1f,2e} In OPAL Broaden, serious AEs were reported in 8.5% of patients taking adalimumab q2 wk. ^{1f} Overall safety findings in these studies were consistent with those observed in the broader rheumatology clinical development program for tofacitinib. ^{1g,2f}

About Psoriatic Arthritis

Psoriatic arthritis (PsA) is a chronic inflammatory multisystem disease.³ PsA causes joint pain and stiffness, skin and nail psoriasis, swollen toes and fingers, persistent painful tendonitis and irreversible joint damage.⁴ An estimated three million people in the U.S. and Europe combined have active PsA.⁵ Disease prevalence may even be higher because it is often misdiagnosed or goes undiagnosed altogether.^{6,7}

About XELJANZ (tofacitinib citrate) and XELJANZ XR (tofacitinib citrate) extended-release

 $XELJANZ^{\circledR}/XELJANZ~XR^{\circledR}$ (to facitinib citrate) is a prescription medicine called a Janus kinase (JAK) inhibitor. XELJANZ is not currently approved for the treatment of psoriatic arthritis.

Pfizer is committed to advancing the science of JAK inhibition and enhancing understanding of XELJANZ through a robust clinical development program. The efficacy and safety profile of XELJANZ has been studied in approximately 6,300 patients with moderate to severe rheumatoid arthritis (RA), amounting to more than 21,000 patient-years of drug exposure in the global clinical development program.⁸

XELJANZ/XELJANZ XR U.S. Label Information

XELJANZ (tofacitinib citrate)/XELJANZ XR (tofacitinib citrate) extended-release is a prescription medicine called a Janus kinase (JAK) inhibitor. XELJANZ/XELJANZ XR is used to treat adults with moderately to severely active rheumatoid arthritis in which methotrexate did not work well. XELJANZ/XELJANZ XR may be used as a single agent or in combination with methotrexate (MTX) or other non-biologic disease-modifying antirheumatic drugs (DMARDs). Use of XELJANZ/XELJANZ XR in combination with biologic DMARDs or potent immunosuppressants, such as azathioprine and cyclosporine, is not recommended.

- It is not known if XELJANZ/XELJANZ XR is safe and effective in people with hepatitis B or C.
- XELJANZ/XELJANZ XR is not for people with severe liver problems.
- It is not known if XELJANZ/XELJANZ XR is safe and effective in children.

Important Safety Information

- XELJANZ/XELJANZ XR can lower the ability of the immune system to fight infections. Some people can have serious infections while taking XELJANZ/XELJANZ XR, including tuberculosis (TB), and infections caused by bacteria, fungi, or viruses that can spread throughout the body. Some people have died from these infections. Healthcare providers should test patients for TB before starting XELJANZ/XELJANZ XR, and monitor them closely for signs and symptoms of TB and other infections during treatment. People should not start taking XELJANZ/XELJANZ XR if they have any kind of infection unless their healthcare provider tells them it is okay.
- People may be at a higher risk of developing shingles.
- XELJANZ/XELJANZ XR may increase the risk of certain cancers by changing the way the immune system works. Lymphoma and other cancers, including skin cancers, can happen in patients taking XELJANZ/XELJANZ XR.
- The risks and benefits of treatment should be considered prior to initiating XELJANZ/XELJANZ XR in patients with chronic or recurrent infection; who have been exposed to tuberculosis; with a history of a serious or an opportunistic infection; who have resided or traveled in areas of endemic tuberculosis or endemic mycoses; or with underlying conditions that may predispose them to infection.
- Viral reactivation, including cases of herpes virus reactivation (e.g., herpes zoster), was observed in clinical studies with XELJANZ.
- Use of live vaccines should be avoided concurrently with XELJANZ/XELJANZ XR. Update immunizations in agreement with current immunization guidelines prior to initiating XELJANZ/XELJANZ XR therapy.
- Some people who have taken XELJANZ with certain other medicines to prevent kidney transplant rejection have had a problem with certain white blood cells growing out of control (Epstein Barr virus-associated post-transplant lymphoproliferative disorder).
- Some people taking XELJANZ/XELJANZ XR can get tears in their stomach or intestines. This happens most often in people who also take nonsteroidal anti-inflammatory drugs (NSAIDs), corticosteroids, or methotrexate.
- XELJANZ/XELJANZ XR should be used with caution in patients who may be at increased risk for gastrointestinal perforation (e.g., patients with a history of diverticulitis), or who have a narrowing within their digestive tract. Patients should tell their healthcare provider right away if they have fever and stomach-area pain that does not go away or a change in bowel habits.
- XELJANZ/XELJANZ XR can cause changes in certain lab test results including low blood cell counts, increases in certain liver tests, and increases in cholesterol levels. Healthcare providers should do blood tests before starting patients on XELJANZ/XELJANZ XR and while they are taking XELJANZ/XELJANZ XR, to check for these side effects. Normal cholesterol levels are important to good

heart health. Healthcare providers may stop XELJANZ/XELJANZ XR treatment because of changes in blood cell counts or liver test results.

- Use of XELJANZ/XELJANZ XR in patients with severe hepatic impairment is not recommended.
- Patients should tell their healthcare providers if they plan to become pregnant or are pregnant.

It is not known if XELJANZ/XELJANZ XR will harm an unborn baby. To monitor the outcomes of pregnant women exposed to XELJANZ/XELJANZ XR, a registry has been established. Physicians are encouraged to register patients and pregnant women are encouraged to register themselves by calling 1-877-311-8972.

- Patients should tell their healthcare providers if they plan to breastfeed or are breastfeeding. Patients and their healthcare provider should decide if they will take XELJANZ/XELJANZ XR or breastfeed. They should not do both.
- In carriers of the hepatitis B or C virus (viruses that affect the liver), the virus may become active while using XELJANZ/XELJANZ XR. Healthcare providers may do blood tests before and during treatment with XELJANZ/XELJANZ XR.
- Common side effects include upper respiratory tract infections (common cold, sinus infections), headache, diarrhea, and nasal congestion, sore throat, and runny nose (nasopharyngitis).

Please click the direct link to the full prescribing information for XELJANZ/XELJANZ XR, including boxed warning and Medication Guide: http://labeling.pfizer.com/ShowLabeling.aspx?id=959.

Working together for a healthier world®

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. Our global portfolio includes medicines and vaccines as well as many of the world's best-known consumer health care products. 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 150 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 www.pfizer.com. In addition, to learn more, please visit us on www.pfizer.com and follow us on Twitter at @Pfizer and @PfizerNews, LinkedIn, YouTube and like us on Facebook at Facebook.com/Pfizer.

DISCLOSURE NOTICE: The information contained in this release is as of November 15, 2016. 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 XELJANZ (tofacitinib citrate)/XELJANZ XR (tofacitinib citrate) extended-release, including a potential new indication for XELJANZ for the treatment of psoriatic arthritis and their potential benefits, 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, without limitation, the ability to meet anticipated trial commencement and completion dates and regulatory submission dates, as well as the possibility of unfavorable clinical trial results, including unfavorable new clinical data and additional analyses of existing clinical data; uncertainties regarding the commercial success of XELJANZ and XELJANZ XR; whether and when any applications for the potential new indication may be filed with regulatory authorities in any jurisdictions; whether and when regulatory authorities in any jurisdictions may approve such applications and/or any other applications that are pending (including the marketing authorization application

currently under review by the European Medicines Agency for the treatment of patients with moderate to severe RA who have had an inadequate response or intolerance to methotrexate) or may be filed for XELJANZ or XELJANZ XR, which will depend on the assessment by such regulatory authorities of the benefit-risk profile suggested by the totality of the efficacy and safety information submitted; decisions by regulatory authorities regarding labeling and other matters that could affect the availability or commercial potential of XELJANZ/XELJANZ XR; 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, 2015 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 www.sec.gov and www.pfizer.com.

¹ PJ Mease, S Hall, O FitzGerald, et al. Efficacy and Safety of Tofacitinib, an Oral Janus Kinase Inhibitor, or Adalimumab in Patients with Active Psoriatic Arthritis and an Inadequate Response to Conventional Synthetic DMARDs: A Randomized, Placebo-Controlled, Phase 3 Trial.

a. Results. Pg 2. Para 2. Ln 3-6.

b. Background/Purpose. Pg 2. Para 1. Ln 2-3.

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g. Conclusion. Pg 2. Para 3. Ln 3-4.

² DD Gladman, et al. Efficacy and Safety of Tofacitinib, an Oral Janus Kinase Inhibitor, in Patients with Active Psoriatic Arthritis and an Inadequate Response to Tumor Necrosis Factor Inhibitors: OPAL Beyond, a Randomized, Double Blind, Placebo-Controlled, Phase 3 Trial.

a. Results. Pg 2. Para 2. Ln 3-4.

b. Background/Purpose. Pg 1. Para 1. Ln 2-4.

c. Pg 5. Table 2. Efficacy endpoints at Month 3 and Month 6.

d. Results. Pg 2. Para 2. Ln 8-10.

e. Pg 6. Table 3. Safety summary to Month 6.

f. Conclusion. Pg 2. Para 3. Ln 4-5.

³ Ritchlin CT, Kavanaugh A, Gladman DD, et al. Treatment recommendations for psoriatic arthritis. Ann Rheum Dis. 2009;68(9):1387-1394.

⁴ National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), National Institutes of Health, US Department of Health and Human Services. Psoriatic arthritis overview. NIH publication 14–AR-8001. http://www.niams.nih.gov/health_info/Psoriatic_Arthritis/psoriatic-arthritis.pdf. Published October 2014.

⁵ Data on File. Decision Resources Group. Table 1-4: Number of Total Prevalent Cases of Psoriatic Arthritis in the Major Pharmaceutical Markets, 2013-2023. United States and Europe, 2016.

⁶ Helliwell P, Coates L, Chandran V, et al. Qualifying unmet needs and improving standards of care in psoriatic arthritis. Arthritis Care Res (Hoboken). 2014;66(12):1759-1766. Page 1/Paragraph 1/Introduction/Lines 1-3

⁷ Van de Kerkhof PCM, Reich K, Kavanaugh A, et al. Physician perspectives in the management of psoriasis and psoriatic arthritis: results from the population-based Multinational Assessment of Psoriasis and Psoriatic Arthritis survey. J Eur Acad Dermatol Venereol. 2015;29:2002–2010.

⁸ Pfizer Data on File.

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