



# Pfizer Announces Detailed Pivotal Data for Investigational Compound Tofacitinib in Rheumatoid Arthritis to be Presented at American College of Rheumatology 2011 Annual Scientific Meeting

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First Presentation of Detailed Results of Remaining Three Phase 3 Pivotal Trials and Pooled Safety Data Confirms Previous Safety Profile and Efficacy Findings in Rheumatoid Arthritis

(BUSINESS WIRE)--Pfizer Inc. (NYSE:PFE) today announced that nine abstracts about tofacitinib (development code CP-690,550), an investigational, novel, oral JAK inhibitor being studied for the treatment of moderate-to-severe active rheumatoid arthritis (RA), will be presented at the American College of Rheumatology (ACR) 2011 Annual Scientific Meeting, which is being held November 5-9 in Chicago.

Detailed Results Being Presented for ORAL Standard, ORAL Scan and ORAL Step

ORAL Standard (A3921064) was a 12-month study in 717 patients that evaluated the efficacy and safety of tofacitinib, 5 and 10 mg BID (twice a day), and adalimumab as an active comparator, 40 mg subcutaneously every two weeks, versus placebo, all on background methotrexate (MTX), in patients with moderate-to-severe active RA who had an inadequate response to MTX. In the study, tofacitinib 5 mg and 10 mg BID met all primary efficacy endpoints, showing statistically significant changes versus placebo in

reducing signs and symptoms of RA, as measured by ACR20 response rates at six months; in improving physical function, as measured by mean change in HAQ-DI at three months; and in reducing disease activity, as measured by rates of DAS28-4(ESR) <2.6 at six months. Efficacy results for tofacitinib and adalimumab were numerically similar for all primary efficacy endpoints, although the study was not designed as a head-to-head superiority or non-inferiority comparison. [Presentation #408, Rheumatoid Arthritis Treatment – Small Molecules, Biologics, Therapy: Poster Session I, Sunday, November 6, 9:00 AM – 6:00 PM] ORAL Scan (A3921044) is an ongoing 24-month study of tofacitinib versus placebo, both on background MTX, in 797 patients with moderate-to-severe active RA who had an inadequate response to MTX. Planned 12-month analyses show that tofacitinib met all primary efficacy endpoints at the 10 mg BID dose, significantly reducing signs and symptoms of RA, as measured by ACR20 response rates at six months; reducing progression of structural damage, as measured by mean change from baseline in modified Total Sharp Score (mTSS) at six months; improving physical function, as measured by mean change in HAQ-DI at three months; and reducing disease activity, as measured by rates of DAS28-4(ESR) <2.6 at six months. For the 5 mg BID dose, the study met the endpoint for ACR20, but the difference from placebo in mTSS at six months did not reach statistical significance. Due to the pre-specified step-down statistical procedure, statistical significance was not declared for additional endpoints for the 5 mg dose. Secondary analyses of the ORAL Scan data showed that the proportion of patients with no radiographic progression (mTSS or erosion score change from baseline =0.5) was significantly greater than placebo for both doses. [Presentation #2592, Rheumatoid Arthritis Treatment – Small Molecules, Biologics, Therapy: Novel Compounds I, Wednesday, November 9, 9:15 – 9:30 AM] ORAL Step (A3921032) was a six-month study of tofacitinib versus placebo, both on background MTX, in 399 patients, and was the first study to evaluate the compound in patients with moderate-to-severe active RA in which patients were required to have had an inadequate response or lack of tolerance to tumor necrosis factor (TNF) inhibiting therapy. In this treatment-refractory patient population, tofacitinib 5 and 10 mg BID demonstrated significant and clinically meaningful improvements and met all primary efficacy endpoints, significantly reducing the signs and symptoms of RA as measured by ACR20; improving physical function, as measured by mean change in HAQ-DI; and reducing disease activity, as measured by rates of DAS28-4(ESR) <2.6, all at three months. Onset of efficacy, as measured by significant ACR20 responses versus placebo, was seen as early as week two. [Presentation #718, Plenary Session I, Sunday, November 6, 11:15 – 11:30 AM]

The overall safety profile of tofacitinib was consistent across the aforementioned trials. Most adverse events (AEs), of which infections were one of the most frequently reported,

were generally mild or moderate in severity. Serious adverse events (SAEs), including serious infections, and adverse events leading to discontinuation were infrequent. Decreases in mean neutrophil counts, increases in mean LDL and HDL cholesterol, and small increases in serum creatinine were observed. In ORAL Standard, AEs were evenly distributed across treatment groups; the proportion of patients who experienced an SAE was numerically higher in the tofacitinib groups compared to adalimumab.

#### First Analysis of All-Cause Mortality and Infections Across Phase 3 and Long-Term Extension Studies to be Presented

A total of 3,030 patients with RA from the Phase 3 studies and 3,227 from long-term extension (LTE) studies were included in the analyses, resulting in approximately 2,000 and 3,000 patient-years, respectively, of exposure to tofacitinib 5 or 10 mg BID with or without background disease-modifying antirheumatic drugs (DMARDs).

An analysis of the pooled safety data from these studies shows that the all-cause mortality incidence rate for all doses of tofacitinib was 0.572 per 100 patient-years (12 deaths per 2,098 patient-years) in the Phase 3 trials and 0.641 per 100 patient-years (20 deaths per 3,118 patient-years) in the LTE studies, which is consistent with the reported rates from individual clinical trials with biologic DMARDs in RA patients (0 – 7.41 per 100 patient-years).<sup>1</sup>

Concerning infections, the most common treatment-emergent infection AEs (more than five percent in any treatment group) in the LTE studies were nasopharyngitis, upper respiratory tract infection, urinary tract infection, bronchitis, herpes zoster and influenza. Infection AEs in Phase 3 studies were all less than five percent in any treatment group. In regard to serious infections, the pooled safety data show that the incidence rate for all doses of tofacitinib was 2.912 per 100 patient-years in the Phase 3 trials and 2.999 per 100 patient-years in the LTE studies, which is consistent with rates described in observational databases for TNF inhibiting therapies (2.6 – 10.5 per 100 patient-years).<sup>2</sup> Although the rate of serious infections among both doses was similar in Phase 3, serious infections occurred more frequently in the 10 mg dose relative to the 5 mg dose in the LTE studies. Events of opportunistic infections, including tuberculosis, were uncommon. [Presentation #409, Rheumatoid Arthritis Treatment – Small Molecules, Biologics, Therapy: Poster Session I, Sunday, November 6, 9:00 AM – 6:00 PM]

#### Additional Tofacitinib Data Provide More Details on Long-Term Treatment, Patient-Reported Outcomes and Studies in Japanese Patient Populations

The following data will also be presented:

36-month safety and efficacy data from open-label extension studies (A3921024 and A3921041) [Presentation #407, Rheumatoid Arthritis Treatment – Small Molecules, Biologics, Therapy: Poster Session I, Sunday, November 6, 9:00 AM – 6:00 PM] Sub-analyses of patient-reported outcomes for ORAL Sync (A3921046), one of the pivotal Phase 3 trials originally presented at EULAR 2011 [Presentation #2627, Rheumatoid Arthritis Treatment – Small Molecules, Biologics, Therapy: Novel Compounds II, Wednesday, November 9, 11:00 – 11:15 AM] Data in Japanese patients, including a 12-week Phase 2b monotherapy study (A3921040) [Presentation #2192, Rheumatoid Arthritis Treatment – Small Molecules, Biologics, Therapy: Poster Session III, Tuesday, November 8, 9:00 AM – 6:00 PM]; an analysis comparing monotherapy results between Japanese and global populations (A3921040); and analyses in a long-term extension study (A3921041) [Presentations #1213 and #1215, respectively, both being presented in Rheumatoid Arthritis Treatment – Small Molecules, Biologics, Therapy: Poster Session II, Monday, November 7, 9:00 AM – 6:00 PM]

## About Tofacitinib

Tofacitinib is a novel, oral Janus kinase (JAK) inhibitor that is being investigated as a targeted immunomodulator and disease-modifying therapy for RA. Unlike more recent therapies for RA, which are directed at extracellular targets such as pro-inflammatory cytokines, tofacitinib takes a novel approach, targeting the intracellular signaling pathways that operate as hubs in the inflammatory cytokine network.

Pfizer is studying tofacitinib for RA in the Phase 3 ORAL (Oral Rheumatoid Arthritis Phase 3 Trials) program, which included more than 350 locations in 35 countries worldwide. The ORAL Trials program consists of five completed studies and one ongoing Phase 3 clinical trial. In addition, tofacitinib is being investigated in two ongoing long-term open-label treatment studies. Close to 5,000 RA patients have been treated with tofacitinib in clinical trials.

Pfizer anticipates submitting regulatory applications for review in the U.S. and EU for tofacitinib for the treatment of moderate-to-severe active RA by the end of 2011. Pfizer is also studying orally administered tofacitinib in psoriasis, inflammatory bowel disease (ulcerative colitis and Crohn's disease) and renal transplant, and topical tofacitinib in both psoriasis and dry eye disease.

## About Rheumatoid Arthritis

Rheumatoid arthritis is a chronic inflammatory autoimmune disease that typically affects the hands and feet, although any joint lined by a synovial membrane may be affected. RA

affects approximately 1.3 million people in the U.S.<sup>3</sup> and 1 percent of the adult population worldwide.<sup>4</sup>

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DISCLOSURE NOTICE: The information contained in this release is as of September 7, 2011. 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 a product in development, tofacitinib, including its potential benefits as a treatment for rheumatoid arthritis, certain other diseases and renal transplant, and including the anticipated timing of regulatory submissions in the U.S. and EU for the treatment of moderate-to-severe rheumatoid arthritis, that involves substantial risks and uncertainties. Such risks and uncertainties include, among other things, the uncertainties inherent in research and development, including the ability of the Company to meet anticipated regulatory submission dates; decisions by regulatory authorities regarding whether and when to approve any drug applications that may be filed for tofacitinib as well as their decisions regarding labeling and other matters that could affect its availability or commercial potential; 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, 2010 and in its reports on Form 10-Q and Form 8-K.

1 Reference list available upon request.

2 Reference list available upon request.

3 Arthritis Today. "What is Rheumatoid Arthritis." Accessed 24 February 2011. Available at: <http://www.arthritistoday.org/conditions/rheumatoid-arthritis/all-about-ra/what-is-ra.php>.

4 Rubbert-Roth A, Finckh A. Treatment options in patients with rheumatoid arthritis failing initial TNF inhibitor therapy: a critical review. *Arthritis Res Ther.* 2009; 11(Suppl 1): S1. Published online 2009 April 6. doi: 10.1186/ar2662.

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