ABSTRACT NUMBER: 1821

# Filgotinib, an Oral, Selective Janus Kinase 1 Inhibitor, Is Effective in Psoriatic Arthritis Patients with an Inadequate Response to Conventional Disease-Modifying Anti-Rheumatic Drugs: Results from a Randomized, Placebo-Controlled, Phase 2 Study

**Philip J. Mease**[1], Dafna D Gladman[2], Filip van Den Bosch[3], Anna Rychlewska-Hanczewska[4], Anna Dudek[5], Chantal Tasset[6], Luc Meuleners[6], Pille Harrison[7], Robin Besuyen[6], Rebecca Kunder[8], Neelufar Mozaffarian[8], Laura C. Coates[9] and Philip Helliwell[10], [1]Swedish Medical Centre and University of Washington, United States of America, Seattle, WA, [2]Department of Medicine, Toronto Psoriatic Arthritis Research Program, University of Toronto, Toronto Western Hospital, Toronto, ON, Canada, [3]Department of Rheumatology, University of Ghent, Ghent, Belgium, Ghent, Belgium, [4]ai centrum medyczne sp.z o.o.sp.k., Poznan, Poland, Poznan, Poland, [5]Centrum Medyczne AMED, Warszawa, Poland, Warszawa, Poland, [6]Galapagos NV, Mechelen, Belgium, Mechelen, Belgium, [7]Galapagos NV, Mechelen, Belgium, [8]Gilead Sciences, Inc., Foster City, CA, [9]Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, Oxford, United Kingdom, [10]Leeds Institute of Rheumatic and Musculoskeletal Medicine, University of Leeds, UK, Leeds, United Kingdom

**Meeting:** 2018 ACR/ARHP Annual Meeting

**Keywords:** Janus kinase (JAK) and psoriatic arthritis

## SESSION INFORMATION

**Date:** Monday, October 22, 2018

**Session Type:** ACR Plenary Session

**Session Title:** 4M042 ACR Abstract: Plenary Session II (1816–1821)

**Session Time:** 11:00AM-12:30PM

**Background/Purpose:**

Filgotinib (FIL) is an orally administered, selective Janus Kinase 1 (JAK1) inhibitor in development for inflammatory diseases. The efficacy and safety of FIL was evaluated in patients (pts) with active psoriatic arthritis (PsA) who had an inadequate response (IR) to conventional disease-modifying anti-rheumatic drugs (cDMARDs).

**Methods:**

This was a 16-week, randomized, placebo (PBO)-controlled, double-blind, multicenter, Phase 2 study. Eligible pts had PsA (meeting CASPAR criteria) for ≥12 weeks, active arthritis (≥5 tender and ≥5 swollen joints), prior/current plaque psoriasis, IR to ≥1 cDMARD and prior exposure to ≤ 1 TNF-inhibitor. Pts were allowed to continue cDMARDs during the trial.

Pts were randomized 1:1 to FIL 200mg once daily (qd) or PBO. Disease activity was assessed at screening, baseline and weeks 1, 2, 4, 8, 12 and 16. The primary endpoint was the percentage of pts achieving a 20% American College of Rheumatology (ACR20) response at week 16. Secondary endpoints included the proportion of pts achieving ACR50/70, improvement from baseline in HAQ-DI,

Minimal Disease Activity (MDA), 75% reduction in the Psoriasis Area and Severity Index (PASI75), Leeds Enthesitis Index (LEI) and Leeds Dactylitis Index (LDI).

**Results:**

Of 131 pts randomized, 124 pts (94.7%) completed the study. Demographics and baseline disease characteristics were similar between the 2 groups: mean age 50 years, 50.4% female, mean duration of PsA 7 years, mean HAQ-DI 1.40, mean PASI 11.3 (in pts with ≥3% body surface area (BSA)).

For FIL and PBO pts respectively, ACR20 response at week 16 was achieved by 80.0% and 33.3% (p<0.0001), MDA was achieved by 23.1% and 9.1% (p=0.0212), HAQ-DI change from baseline was -0.57 and -0.28 (p=0.0009) and PASI75 was achieved by 45.2% and 15.0% (p=0.0034).

| **Week 16, %, NRI** | **Filgotinib 200mg qd** | **Placebo** | **p-value** |
|---|---|---|---|
| **All randomized and exposed pts** | **N=65** | **N=66** | |
| ACR20 | 80.0 | 33.3 | <0.0001 |
| ACR50 | 47.7 | 15.2 | <0.0001 |
| ACR70 | 23.1 | 6.1 | 0.0037 |
| HAQ-DI improvement from baseline≥0.35 | 65.1 | 41.9 | 0.0085 |
| MDA | 23.1 | 9.1 | 0.0212 |
| **Pts with baseline BSA≥3%** | **N=42** | **N=40** | |
| PASI75 | 45.2 | 15.0 | 0.0034 |
| **Pts with baseline LEI>0** | **N=33** | **N=43** | |
| LEI resolution (LEI=0) | 51.5 | 25.6 | 0.0089 |
| **Pts with baseline LDI>0** | **N=19** | **N=27** | |
| LDI resolution (LDI=0) | 73.7 | 65.5 | 0.6310 |

*NRI: non-responder imputation*

Adverse event (AE) rates (FIL: 56.9%; PBO: 59.1%), infection rates (FIL: 21.5%; PBO: 21.2%) and discontinuation rates (FIL: 7.7%; PBO: 3%) were similar between the groups. There were 2 serious AEs; 1 hip fracture (PBO) and 1 pneumonia (FIL), which was the only serious infection and the only fatal outcome in the study. There were no malignancies/lymphomas, venous thromboembolic events or opportunistic infections (including tuberculosis). There was 1 case of Herpes zoster, confined to a single dermatome (FIL). One patient permanently discontinued the FIL treatment for safety reason (endometrial hypertrophy).

Safety laboratory results over 16 weeks in the FIL group included increased hemoglobin (+6 g/L), decreased platelets (-16 GI/L), stable NK cell counts, and increased total cholesterol (+0.45 mmol/L), mainly driven by increased HDL (+0.37 mmol/L) with a 15% decrease in LDL/HDL ratio vs. baseline.

**Conclusion:**

FIL showed superior efficacy versus PBO in pts with PsA, by ACR20 response and by secondary outcomes. No new safety signals were identified.

**Disclosure: P. J. Mease**, AbbVie, Amgen, BMS, Celgene, Janssen, Lilly, Novartis, Pfizer, Sun, UCB, 2,AbbVie, Amgen, BMS, Celgene, Galapagos, Janssen, Lilly, Novartis, Pfizer, Sun, UCB, 5,AbbVie, Amgen, BMS, Celgene, Genentech, Janssen, Novartis, Pfizer, UCB, 8; **D. D. Gladman**, Abbvie, Amgen, BMS, Celgene, Galapagos, Gilead, Janssen, Eli Lilly, Novartis, Pfizer, UCB, 5,Abbvie, Amgen, Celgene, Eli Lilly, Novartis, Pfizer, UCB, 2; **F. van Den Bosch**, AbbVie, Bristol-Myers Squibb, Celgene, Eli Lilly and Co., Janssen, Merck, Novartis, Pfizer, Sanofi, UCB, 5, 8,AbbVie, Janssen, Merck, UCB, 2; **A. Rychlewska-Hanczewska**, None; **A. Dudek**, None; **C. Tasset**, Galapagos NV, 1, 3; **L. Meuleners**, Galapagos, 3; **P. Harrison**, Galapagos NV, 3; **R. Besuyen**, Galapogos, 3, 5; **R. Kunder**, Gilead Science, Inc, 1, 3; **N. Mozaffarian**, Gilead Science Inc, 1, 3; **L. C. Coates**, Abbvie, Celgene, Novartis, Pfizer, 2,Abbvie, Amgen, BMS, Celgene, Galapagos, Janssen, Lilly, MSD, Novartis, Pfizer, Prothena, Sun Pharma, UCB, 5,Abbvie, Celgene, Janssen, Lilly, Novartis, UCB, 8; **P. Helliwell**, AbbVie, Janssen, 2,AbbVie, Amgen, Janssen, Novartis, Pfizer Inc, ucb, 9.

**To cite this abstract in AMA style:**

Mease PJ, Gladman DD, van Den Bosch F, Rychlewska-Hanczewska A, Dudek A, Tasset C, Meuleners L, Harrison P, Besuyen R, Kunder R, Mozaffarian N, Coates LC, Helliwell P. Filgotinib, an Oral, Selective Janus Kinase 1 Inhibitor, Is Effective in Psoriatic Arthritis Patients with an Inadequate Response to Conventional Disease-Modifying Anti-Rheumatic Drugs: Results from a Randomized, Placebo-Controlled, Phase 2 Study [abstract]. *Arthritis Rheumatol.* 2018; 70 (suppl 10). https://acrabstracts.org/abstract/filgotinib-an-oral-selective-janus-kinase-1-inhibitor-is-effective-in-psoriatic-arthritis-patients-with-an-inadequate-response-to-conventional-disease-modifying-anti-rheumatic-drugs-results-from-a/. Accessed September 14, 2018.

---