NEW EFFECTIVE TREATMENTS FOR PSORIATIC ARTHRITIS PATIENTS
Promising data to support two new drug classes

Madrid, Spain, 16 June 2017: The results of two studies presented today at the Annual European Congress of Rheumatology (EULAR) 2017 press conference revealed promising data supporting two new drug classes for the treatment of psoriatic arthritis (PsA).\(^1\)\(^2\)

New agents working on different inflammatory aspects of PsA are needed in the treatment of PsA patients living with this chronic immune-mediated disease, which involves both joint and skin symptoms.\(^3\)\(^4\)

In the first study, in patients with active PsA who had not previously been prescribed an anti-TNF treatment, tofacitinib (an oral Janus kinase inhibitor under investigation for the treatment of PsA), was superior to placebo in ACR20\(^*\) response rates and change from baseline in the HAQ-DI\(^†\) score at 3 months. Tofacitinib demonstrated superiority to placebo as early as week 2, and this was maintained for 12 months. No new safety risks were identified compared to previous studies in other indications.\(^1\)

In the second study, in patients with active PsA and 3% or more of their body surface area affected by plaque psoriasis despite current or previous treatment with standard-of-care therapies, including anti-TNF treatments, guselkumab demonstrated significant improvement in joint symptoms, physical function, psoriasis, enthesitis\(^‡\), dactylitis\(^§\) and quality of life. Guselkumab, a fully human monoclonal antibody targeting IL-23, in this Phase 2 study for the treatment of PsA, was well tolerated with no unexpected safety findings in this patient population.\(^2\) Guselkumab is now being pursued in a Phase 3 development programme for psoriatic arthritis.

**Tofacitinib Phase 3 Results positive for treating PsA**

\(^*\) ACR20 – a 20% improvement in tender and swollen joint counts, along with a 20% improvement in 3 of the 5 remaining ACR core measures: patient and physician global assessments, pain, disability, and blood test of an acute-phase reactant

\(^†\) Health Assessment Questionnaire Disability Index – a self-reported assessment of disability

\(^‡\) Inflammation of the sites where tendons or ligaments insert into bone

\(^§\) Inflammation of a finger or toe
At month 3, tofacitinib 5 and 10 mg twice-daily showed a statistically significant improvement compared to placebo as measured by the ACR20 response (p≤0.05 and p<0.0001 respectively), and change from baseline in the HAQ-DI score (p≤0.05 and p<0.001).

“Despite the differences emerging in the pathophysiology of PsA and rheumatoid arthritis, tofacitinib, which works on many different cytokines, shows efficacy in the treatment of both conditions,” said lead author Professor Philip J. Mease from the Swedish-Providence St. Joseph Health Systems and University of Washington School of Medicine, Seattle, US. “Since tofacitinib is a tablet and not an injection, once it receives regulatory approval, it is likely to be popular with both physicians and patients,” he added.

Tofacitinib 5 and 10 mg twice-daily was superior to placebo for ACR20 response rates at week 2 (p<0.001 and p<0.0001 respectively) with responses maintained to 12 months. Greater efficacy was also seen for adalimumab vs. placebo.

More than 91% of patients were radiographic non-progressors at 12 months. Safety findings were similar between the treatment groups at 12 months. The most common adverse events were upper respiratory tract infection (7.5–10.6%), nasopharyngitis (7.5–11.5%) and headache (3.8–10.6%).

Eligible patients in this randomised, placebo- and active-controlled, 12-month Phase 3 trial had a PsA diagnosis for at least 6 months, fulfilled CASPAR criteria**, had active arthritis (at least 3 tender/painful and at least 3 swollen joints) and active plaque psoriasis at screening, inadequate response to at least 1 csDMARD††, and were tumour necrosis factor-inhibitor (TNFi)-naive.

422 patients were randomised 2:2:2:1:1 to tofacitinib 5 or 10 mg twice daily, adalimumab 40 mg subcutaneous injection every 2 weeks, or placebo (advancing to tofacitinib 5 or 10 mg twice-daily at 3 months). Stable treatment with 1 csDMARD was required. 96.9% of patients were white and 53.3% were female; mean age was 47.9 years. 96.2% and 88.4% of patients completed 3 and 12 months respectively.

Guselkumab improved PsA symptoms, physical function and quality of life

** CASPAR criteria -- a new set of validated classification criteria for PsA
†† csDMARD -- conventional synthetic disease-modifying antirheumatic drug
In this Phase 2a study, significantly more guselkumab-treated patients achieved ACR 20/50/70‡‡ responses and Psoriasis Area Severity Index§§ (PASI) 75/90/100 responses at week 24. Nearly 40% of patients in the active group, vs. 6.3% in the placebo arm, achieved PASI 100 (completely clear skin) at week 24.

“Guselkumab, which targets IL-23, appears to be a promising new treatment of PsA,” said lead author Professor Atul Deodhar from Oregon Health & Science University, Portland, US. “Although anti-TNF treatments have revolutionised the management of psoriatic arthritis, new next-generation therapies are needed in the treatment of this disease,” he added.

As early as 4 weeks into treatment, 21% in the guselkumab group had a significant treatment effect on ACR20 response, compared to zero in the placebo group (p<0.001). The ACR response in the active arm increased with time, with 58% of subjects reaching a 20% improvement in joint symptoms at week 24, versus 18.4% of those on placebo (p<0.001). Fourteen percent of patients on guselkumab achieved PASI 100 (completely clear skin) at week 24.

Resolved enthesitis occurred in 29.0% of those patients with enthesitis at baseline in the placebo group at week 24, versus 56.6% on guselkumab (p=0.012). The percentage resolution from baseline to week 24 for dactylitis (in those patients with dactylitis at baseline) was 17.4% of patients on placebo, versus 55.2% on guselkumab (p<0.001). And the percentage of patients achieving minimal disease activity at week 24 was 2% for placebo compared to 23% in the guselkumab group (p=0.001).

Patients in the active arm also seemed to experience mental benefits, with significantly higher scores on the SF-36*** mental component summary (p=0.002), in addition to significantly higher physical component scores (p<0.001).

Guselkumab was well tolerated; through week 24, the proportion of patients with at least 1 adverse event was comparable between the two groups (guselkumab 36.0% vs. placebo 32.7%). Infections were the most common adverse events (guselkumab 17.0% vs. placebo 20.4%). The researchers reported no serious infections, cancer or death during the 24 weeks of the study.

This Phase 2a, randomised, double-blind, placebo-controlled multicentre study included 149 active PsA patients. Patients had psoriasis plaques covering three percent or more of their body surface

‡‡ ACR2050/70 – a 20%/50%/70% improvement in tender and swollen joint counts, along with a 20%/50%/70% improvement in 3 of the 5 remaining ACR core measures: patient and physician global assessments, pain, disability, and blood test of an acute-phase reactant
§§ PASI -- assessment of the severity of lesions and area affected as a single score
*** SF36 questionnaire -- a 36-item, patient-reported survey of patient health
area, despite standard-of-care treatment, which in some patients included anti-TNF agents. In a 2:1 ratio, patients received either 100 mg guselkumab given subcutaneously, or placebo at baseline and week four; then, every eight weeks through week 44.

Patients in both arms who had less than a 5 percent improvement from baseline in swollen and tender joint counts by week 16 could qualify for early escape and switch to open-label therapy with ustekinumab. All remaining placebo patients crossed over to the guselkumab arm at week 24.

Baseline demographics and ACR component measures were generally similar between the two groups. Four (8.2%) of the patients in the placebo group and 9 (9.0%) of patients in the guselkumab group had been previously exposed to an anti-TNF agent.

PsA disease information
PsA, an inflammatory arthritis associated with psoriasis, causes joint pain and swelling and leads to joint damage and long-term disability. Psoriasis occurs in 1-3% of the population; the estimated prevalence of PsA among psoriasis patients varies widely from 6–42%, due to heterogeneity in study methods and the lack of widely accepted classification or diagnosis criteria. Due to dual skin and joint involvement, patients with PsA experience further impairment and consequently a lower quality of life compared with patients with psoriasis alone.

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NOTES TO EDITORS:
For further information on this study, or to request an interview with the study lead, please do not hesitate to contact the EULAR congress Press Office in the Goya Room at the IFEMA, Madrid during EULAR 2017 or on:

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About Rheumatic and Musculoskeletal Diseases
Rheumatic and musculoskeletal diseases (RMDs) are a diverse group of diseases that commonly affect the joints, but can also affect the muscles, other tissues and internal organs. There are more than 200 different RMDs, affecting both children and adults. They are usually caused by problems of the immune system, inflammation, infections or gradual deterioration of joints, muscle and bones.
Many of these diseases are long term and worsen over time. They are typically painful and limit function. In severe cases, RMDs can result in significant disability, having a major impact on both quality of life and life expectancy.

About ‘Don't Delay, Connect Today!’

‘Don't Delay, Connect Today!’ is a EULAR initiative that unites the voices of its three pillars, patient (PARE) organisations, scientific member societies and health professional associations - as well as its international network - with the goal of highlighting the importance of early diagnosis and access to treatment. In Europe alone, over 120 million people are currently living with a rheumatic disease (RMD), with many cases undetected. The ‘Don't Delay, Connect Today’ campaign aims to highlight that early diagnosis of RMDs and access to treatment can prevent further damage, and also reduce the burden on individual life and society as a whole.

About EULAR

The European League Against Rheumatism (EULAR) is an umbrella organisation which represents scientific societies, health professional associations and organisations for people with rheumatic and musculoskeletal diseases throughout Europe. EULAR aims to reduce the burden of rheumatic and musculoskeletal diseases on individuals and society and to improve the treatment, prevention and rehabilitation of rheumatic and musculoskeletal diseases. To this end, EULAR fosters excellence in education and research in the field of rheumatology. It promotes the translation of research advances into daily care and fights for the recognition of the needs of people with musculoskeletal diseases by the governing bodies in Europe through advocacy action.

To find out more about the activities of EULAR, visit: www.eular.org

References

1 Mease PJ, Hall S, FitzGerald O, 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 disease-modifying antirheumatic drugs (csDMARDs): a randomised, placebo-controlled, Phase 3 trial. EULAR 2017; Madrid: Abstract OP0216