FIGURE 1.

* P vs. baseline ≤ 0.05 , [fold difference] ≥ 1.4
 # P vs. placebo ≤ 0.05 , [fold difference] ≥ 1.4
 Error bars represent 2 standard errors of the mean ($\sim 95\%$ confidence interval)
 BL=Baseline, GUS=Guselkumab, PBO=Placebo, Wk=Week

FIGURE 2.

Error bars represent standard error of the mean
 Wk=Week

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OP0230

EFFICACY AND SAFETY OF TILDRAKIZUMAB, A HIGH-AFFINITY ANTI-INTERLEUKIN-23P19 MONOCLONAL ANTIBODY, IN PATIENTS WITH ACTIVE PSORIATIC ARTHRITIS IN A RANDOMISED, DOUBLE-BLIND, PLACEBO-CONTROLLED, MULTIPLE-DOSE, PHASE 2B STUDY

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Background: Tildrakizumab (TIL), a high-affinity anti-interleukin-23p19 monoclonal antibody, is approved to treat moderate to severe plaque psoriasis and is under investigation for treatment of psoriatic arthritis (PsA).¹

Objectives: To evaluate efficacy and safety of TIL up to week (W)52 in a randomised, double-blind, placebo-controlled, multiple-dose, phase 2b study in PsA (NCT02980692).

Methods: Patients (pts) ≥ 18 years with active PsA² were randomised 1:1:1:1 to TIL 200mg every 4 weeks (Q4W) to W52, TIL 200mg Q12W to W52, TIL 100mg Q12W to W52, TIL 20mg Q12W until W24 then TIL 200mg Q12W to W52, or placebo (PBO) Q4W until W24 then TIL 200mg Q12W to W52. Efficacy assessments included ACR20/50/70, 75%/90%/100% improvement in Psoriasis Area and Severity Index (PASI), proportion of pts with residual minimal disease activity (MDA) response; and mean change from baseline (BL) in HAQ-DI, Leeds Dactylitis Index (LDI, pts with BL LDI ≥ 1), and Leeds Enthesitis Index (LEI, pts with BL LEI ≥ 1) to W52. Treatment-emergent adverse events (TEAEs) were monitored.

Results: Of 500 pts screened, 391 were randomised and received ≥ 1 dose of drug. Proportions of ACR20/50/70 responders were superior with TIL vs PBO through W24; after W24 rates of responses further increased for TIL 20→200mg Q12W and PBO→200mg Q12W through W52 (Figure 1, 2). Other efficacy results are shown in Table. Overall from BL→W24/W25→W52, 50.4%/39.9% and 2.3%/1.0% of pts experienced a TEAE and serious AE, respectively. From BL→W24, 1 case of pyelonephritis and urinary tract infection was reported in the TIL 100mg Q12W arm and 1 case of chronic tonsillitis was reported in the TIL 20mg→200mg Q12W arm. During W25→W52, 1 malignancy (intraductal proliferative breast lesion) was reported with TIL 20mg→200mg Q12W. No deaths or major adverse cardiac events occurred.

Figure 1. ACR20/50/70 through W52

Figure 2. ACR20/50/70 through W24

*P<0.05; **P<0.001; ***P<0.0001 vs PBO.
 Missing responses were imputed as nonresponses.
 Q4W, every 4 weeks; Q12W, every 12 weeks; TIL, tildrakizumab.

Table. W52 clinical efficacy

	TIL 200mg Q4W n=78	TIL 200mg Q12W n=79	TIL 100mg Q12W n=77	TIL 20→ 200mg Q12W n=78	PBO→ TIL 200mg Q12W n=79
HAQ-DI, BL ^a	1.0 ± 0.6	1.0 ± 0.6	1.0 ± 0.7	1.1 ± 0.6	1.2 ± 0.6
W52 ^b	-0.5 ± 0.5	-0.5 ± 0.6	-0.5 ± 0.6	-0.5 ± 0.5	-0.5 ± 0.5
LEI, BL ^{a,c}	1.9 ± 2.0	1.5 ± 1.9	2.2 ± 2.1	2.2 ± 2.0	1.5 ± 1.9
W52 ^b	-1.3 ± 1.9	-1.0 ± 1.6	-1.7 ± 2.1	-1.2 ± 1.8	-1.2 ± 1.8
LDI, BL ^{a,d}	32.8 ± 32.9	61.3 ± 73.5	93.8 ± 146.5	71.4 ± 118.5	99.6 ± 170.7
W52 ^{b,d}	-21.4 ± 37.1	-42.1 ± 76.7	-41.6 ± 89.3	-56.5 ± 123.4	-81.5 ± 173.0
BL, W52 median ^d	21.8, 7.4	28.3, 3.2	32.1, 20.0	28.6, 0	34.0, 5.6
MDA ^e	56.9	64.4	45.0	47.1	42.0
PASI 100 ^e	54.0	44.4	43.9	47.5	35.0
PASI 90 ^e	72.0	80.6	58.5	55.0	50.0
PASI 75 ^e	82.0	94.4	82.9	75.0	67.5

^aBL mean ± SD. ^bMean change from BL ± SD. ^cPts with BL LEI ≥ 1 will be presented at EULAR.

^dPts with BL LDI ≥ 1 (n = 27, 21, 21, 19, 25) using nonresponder imputation. ^e% at W52

Missing data not imputed.

SD, standard deviation.

Conclusion: TIL was well tolerated and improved joint and skin manifestations of PsA through W52.

References:

- [1] Reich, et al. *Lancet* 2017;390:276–88.
[2] Taylor, et al. *Arthritis Rheum* 2006;54:2665–73.

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Rheumatoid arthritis - non biologic treatment and small molecules

OP0231

COMPARATIVE EFFECTIVENESS OF JAK-INHIBITORS, TNF-INHIBITORS, ABATACEPT AND IL-6 INHIBITORS IN AN INTERNATIONAL COLLABORATION OF REGISTERS OF RHEUMATOID ARTHRITIS PATIENTS (THE “JAK-POT” STUDY)

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Background: In many countries, JAK-inhibitors (JAKi) have only recently been approved as treatment for patients with rheumatoid arthritis (RA).

Objectives: To evaluate the effectiveness of JAKi compared to bDMARDs in RA patients in the real-world population in an international collaboration of registers (the “JAK-pot” collaboration).

Methods: Patients initiating either JAKi, TNFi, IL-6i or abatacept (ABA) during a time period when JAKi were available in each country (19 registers, Table) were included. We compared the effectiveness of JAKi and bDMARDs in terms of retention using crude and adjusted survival analysis. Missing covariates were imputed using multiple imputation.

Results: Among 25521 included patients, 6063 initiated a JAKi, 13879 a TNFi, 2348 ABA, and 3231 an IL-6i. Patients were on average 55 years old, with a mean disease duration 10 years, mostly seropositive (67%), female (77%) and with moderate disease activity at treatment initiation. The main reason of stopping treatment was ineffectiveness (49%), followed by adverse events (21%). Patients on JAKi were treated more often as monotherapy, had higher CRP and disease activity at baseline and had experienced more previous ts/ bDMARDs. Crude median retention was 1.4 (95% CI 1.2-1.5) years for JAKi, 1.6 (1.6-1.7) for TNFi, 1.5 (1.3-1.7) for IL6i and 1.1 (1.0-1.3) for ABA. After adjustment, the hazard ratio (HR) for discontinuation tended to be lower for JAKi (HR 0.86 (0.65-1.13)) compared to TNFi, but comparable for ABA (1.02 (0.94-1.10)) and IL6i (0.99 (0.88-1.10)) (Figure 1). HRs differed notably between countries (Figure 2).

Table 1. Registers

Country, register	N	JAKi, n (%)
Austria, BIOREG*		
Belgium, TARDIS	6288	2113 (33.6)
Canada, RHUMADATA	528	114 (21.6)
Czech Republic, ATTRA	374	253 (67.6)
Denmark, DANBIO	4721	506 (10.7)
Finland, ROB-FIN	807	234 (29.0)
Germany, RABBIT*		
Italy, GISEA	757	250 (33.0)
Israel, I-RECORD	400	94 (23.5)
Netherlands, METEOR	1642	4 (0.2)
Norway, NOR-DMARD	507	99 (19.5)
Portugal, REUMA.PT	797	44 (5.5)
Romania, RRRB	593	328 (55.3)
Russia, ARBITER	526	483 (91.8)
Slovenia, BIORX.SI	583	146 (25.0)
Spain, BIOBADASER	781	139 (17.8)
Switzerland, SCQM	2956	796 (26.9)
Turkey, TURKBIO	2150	397 (18.5)
UK, BSRBR	1111	63 (5.7)

*Registers planning to participate in future studies but not included yet