**Title:** Filgotinib modulates inflammation-associated peripheral blood protein biomarkers in adults with active rheumatoid arthritis and prior inadequate response to methotrexate

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**Supplementary Table S1.** Biomarkers assessed in this study

| Vendor | Platform (panel) | Analytes | Matrix |
|---|---|---|---|
| Pacific Biosciences[a] | MSD | MIP-1α, MIP-1β, CXCL-10/IP-10, MCP-1, BAFF, IL-18 | EDTA plasma |
| | | MMP-1, MMP-3, VCAM-1, SAA, EGF, TNFR1 | Serum |
| | ELISA | BAFF, TRACP-5B | EDTA plasma |
| | | TNFα, sgp130, CXCL13/BCA-1, bone-specific alkaline phosphatase, MMP-7, YKL-40, LEPTIN, RESISTIN | Serum |
| | | NTX, CTX-1 | Urine |
| | Aushon | IL-2, IL-7, IL-23 | EDTA plasma |
| | | IFNγ, IL-1b, IL-4, IL-6, IL-10, IL-12p70 | Serum |
| | | GM-CSF, IL-17A, ICAM-1 | |
| | | VEGFA, GM-CSF, IL-5, IL-13 | |
| EA[b] | RNA-seq | | Whole blood PaxGene |

All biomarkers were assessed at baseline, week 4, and week 12. [a]n=568. [b]n=601.

BAFF, B-cell–activating factor; BCA, B-cell–attracting chemokine; CTX, collagen cross-linked C-telopeptide; CXCL, CXC motif chemokine ligand; EDTA, ethylenediaminetetraacetic acid; EGF, epidermal growth factor; ELISA, enzyme-linked immunosorbent assay; GM-CSF, granulocyte-macrophage colony-stimulating factor; ICAM, intercellular adhesion molecule; IFN, interferon; IL, interleukin; IP, inducible protein; MCP, monocyte chemoattractant protein; MIP, macrophage inflammatory protein; MMP, matrix metalloproteinase; MSD, Meso Scale Discovery; NTX, N-telopeptide of type 1 collagen; RNA-seq, ribonucleic acid sequencing; SAA, serum amyloid A; sgp, soluble glycoprotein; TNF, tumor necrosis factor; TNFR, TNF receptor; TRACP, tartrate-resistant acid phosphatase; VCAM, vascular cell adhesion protein; VEGFA, vascular endothelial growth factor A.

**Supplementary Table S2.** Baseline demographics and disease characteristics of FINCH 1 patients [1]

| | FIL200 n=475 | FIL100 n=480 | ADA n=325 | PBO n=475 | Total N=1755 |
|---|---|---|---|---|---|
| **Sex at birth,** female, n (%) | 379 (79.8) | 399 (83.1) | 266 (81.8) | 391 (82.3) | 1435 (81.8) |
| **Age,** years | 52 (12.8) | 53 (12.6) | 53 (12.9) | 53 (12.8) | 53 (12.7) |
| **Weight,** kg | 70.6 (17.5) | 69.9 (16.9) | 71.5 (17.4) | 70.6 (16.8) | 70.6 (17.1) |
| **BMI,** kg/m$^2$ | 26.7 (5.7) | 26.4 (5.8) | 26.9 (6.0) | 27.0 (5.9) | 26.7 (5.8) |
| **Race,** n (%) | | | | | |
| **White** | 312 (65.7) | 324 (67.5) | 229 (70.5) | 319 (67.2) | 1184 (67.5) |
| **Asian** | 122 (25.7) | 115 (24.0) | 65 (20.0) | 109 (22.9) | 411 (23.4) |
| **American Indian/Alaska Native** | 27 (5.7) | 27 (5.6) | 20 (6.2) | 29 (6.1) | 103 (5.9) |
| **Black/African American** | 6 (1.3) | 7 (1.5) | 10 (3.1) | 12 (2.5) | 35 (2.0) |
| **Other**[a] | 8 (1.7) | 6 (1.3) | 1 (0.3) | 5 (1.1) | 20 (1.1) |
| **Not permitted**[b] | 0 | 1 (0.2) | 0 | 1 (0.2) | 2 (0.1) |
| **Ethnicity**, n (%) | | | | | |
| **Not Hispanic or Latino** | 404 (85.1) | 399 (83.1) | 268 (82.5) | 400 (84.2) | 1471 (83.8) |
| **Duration of RA diagnosis,** years | 7.3 (7.4) | 8.5 (8.2) | 8.0 (7.4) | 7.3 (7.2) | 7.8 (7.6) |
| **hsCRP,** mg/L | 16.1 (21.0) | 16.7 (23.0) | 14.6 (18.0) | 16.3 (24.1) | 16.0 (21.9) |

| | | | | | |
|---|---|---|---|---|---|
| ⩾**6 mg/L,** n (%) | 298 (62.7) | 295 (61.5) | 197 (60.6) | 274 (57.7) | 1064 (60.6) |
| **RF positive,** n (%) | 352 (74.1) | 362 (75.4) | 241 (74.2) | 365 (76.8)[c] | 1320 (75.2)[c] |
| **Anti-CCP positive,** n (%) | 380 (80.0) | 381 (79.4) | 253 (77.8)[d] | 378 (79.6) | 1392 (79.3)[d] |
| **RF and anti-CCP positive,** n (%) | 331 (69.7) | 332 (69.2) | 219 (67.4)[d] | 333 (70.1)[c] | 1215 (69.2)[c,d] |
| **mTSS units**[e] | 32.5 (47.9) | 36.7 (53.1) | 34.8 (55.0) | 31.6 (53.2) | 33.8 (52.1) |
| **Erosion score >0,** n (%)[f] | 399 (84.0) | 411 (85.6) | 277 (85.2) | 404 (85.1) | 1491 (85.0) |
| **JSN score** | 18.5 (25.6) | 19.9 (27.3) | 19.6 (28.2) | 17.6 (26.9) | 18.8 (26.9) |
| **bDMARD naïve,** n (%) | 458 (96.4) | 464 (96.7) | 317 (97.5) | 469 (98.7) | 1708 (97.3) |
| **MTX dose,** mg/week[g] | 15.3 (4.9) | 15.5 (4.8) | 15.4 (4.8) | 14.9 (4.5) | 15.3 (4.8) |
| **Concurrent oral steroids,** n (%) | 229 (48.2) | 229 (47.7) | 140 (43.1) | 217 (45.7) | 815 (46.4) |
| **Steroid dose,** mg/day[h] | 6.2 (3.4) | 6.1 (2.5) | 5.9 (2.2) | 5.9 (2.5) | 6.0 (2.8) |
| **Concurrent antimalarials,** n (%) | 64 (13.5) | 59 (12.3) | 39 (12.0) | 63 (13.3) | 225 (12.8) |
| **DAS28(CRP)** | 5.8 (0.9) | 5.7 (1.0) | 5.7 (0.9) | 5.7 (0.9) | 5.7 (0.9) |
| **SDAI** | 41.2 (12.3) | 40.2 (12.8) | 40.6 (11.9) | 41.2 (12.4) | 40.8 (12.4) |
| **CDAI** | 39.5 (11.9) | 38.6 (12.2) | 39.2 (11.5) | 39.6 (11.7) | 39.2 (11.8) |
| **SJC66** | 15 (8.5) | 15 (8.5) | 16 (8.4) | 16 (8.5) | 16 (8.5) |
| **TJC68** | 25 (13.5) | 25 (13.4) | 24 (13.2) | 24 (13.5) | 24 (13.4) |
| **SGA, VAS,** mm | 67 (19.2) | 65 (19.7) | 67 (19.1) | 68 (18.7) | 67 (19.2) |
| **PGA, VAS,** mm | 66 (16.0) | 65 (16.5) | 67 (15.5) | 66 (16.2) | 66 (16.1) |
| **Pain, VAS,** mm | 65 (20.4) | 64 (20.1) | 64 (19.5) | 66 (19.0) | 65 (19.8) |
| **HAQ-DI** | 1.6 (0.6) | 1.6 (0.6) | 1.6 (0.6) | 1.6 (0.6) | 1.6 (0.6) |

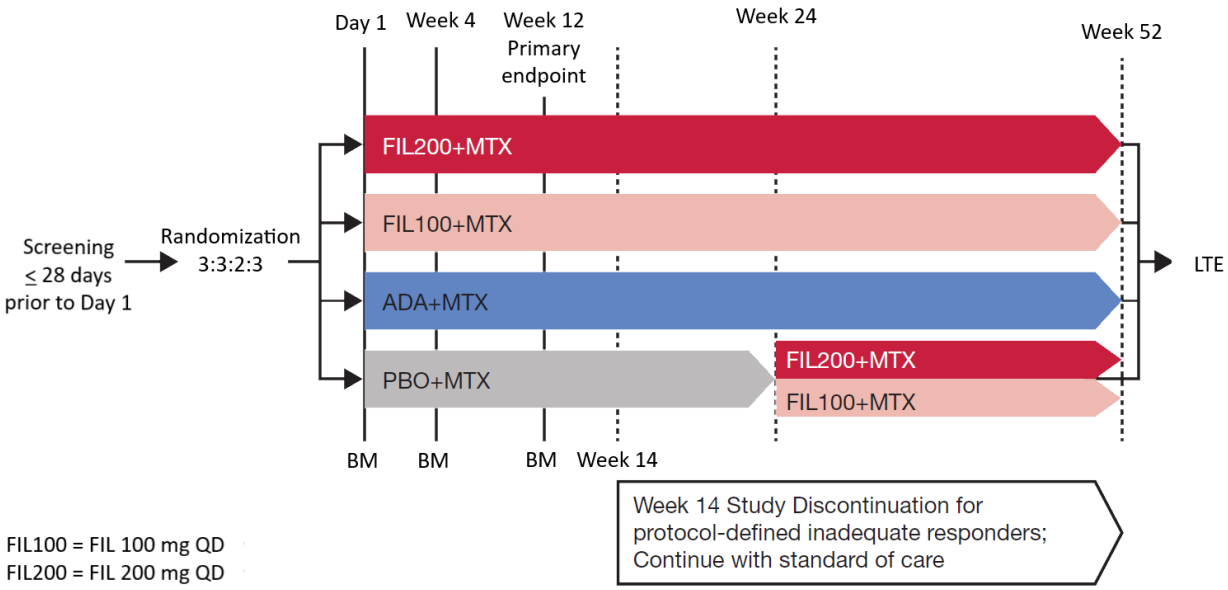
| | | | | | |
|---|---|---|---|---|---|
| **SF-36 PCS**[i] | 33.4 (7.2) | 33.6 (7.8) | 32.8 (7.7) | 32.9 (7.1) | 33.2 (7.4) |
| **SF-36 MCS**[i] | 43.9 (10.4) | 44.6 (10.4) | 44.1 (10.4) | 43.4 (11.0) | 44.0 (10.6) |
| **FACIT-F**[j] | 27.6 (10.7) | 27.8 (10.6) | 27.2 (10.2) | 26.9 (10.3) | 27.4 (10.5) |

Data are mean (SD) unless otherwise stated.

[a]Includes patients recorded as Native Hawaiian/Pacific Islander and "Other." [b]Not permitted=local regulators did not allow collection of race or ethnicity information. [c]n=1 missing. [d]n=2 missing. [e]FIL200, n=467; FIL100, n=471; ADA, n=319; PBO, n=466. [f]FIL200, n=8 missing; FIL100, n=9 missing; ADA, n=6 missing; PBO, n=9 missing. [g]FIL100, n=479; ADA, n=324. [h]FIL200, n=226; FIL100, n=229; ADA, n=140; PBO, n=217. [i]FIL200, n=473; FIL100, n=479; ADA, n=323; PBO, n=474. [j]FIL200, n=472; FIL100, n=477; ADA, n=319; PBO, n=469.

ADA, adalimumab; bDMARD, biologic disease-modifying antirheumatic drug; BMI, body mass index; CCP, cyclic citrullinated protein antibody; CDAI, Clinical Disease Activity Index; DAS28(CRP), Disease Activity Score in 28 Joints with C-reactive protein; FACIT-F, Functional Assessment of Chronic Illness Therapy-Fatigue; FIL, filgotinib; HAQ-DI, Health Assessment Questionnaire–Disability Index; hsCRP, high-sensitivity C-reactive protein; JSN, joint space narrowing; MCS, Mental Component Summary; mTSS, modified total Sharp score; MTX, methotrexate; PBO, placebo; PCS, Physical Component Summary; PGA, Physician's Global Assessment; RA, rheumatoid arthritis; RF, rheumatoid factor; SD, standard deviation; SDAI, Simplified Disease Activity Index; SF-36, Short Form-36; SGA, Subject's Global Assessment; SJC66, swollen joint count of 66 joints; TJC68, tender joint count of 68 joints; VAS, visual analogue scale. Reproduced from Annals of the Rheumatic Diseases, Bernard Combe, et al., volume 80, pages 848-858, 2021, with permission from BMJ Publishing Group Ltd.

**Supplemental Figure S1.** FINCH 1 study design




ADA, adalimumab; BM, biomarker sampling; FIL, filgotinib; LTE, long-term extension study; MTX, methotrexate; PBO, placebo; QD, once daily.

## References

1. Combe B, Kivitz A, Tanaka Y, van der Heijde D, Simon JA, Baraf HSB, et al. Filgotinib versus placebo or adalimumab in patients with rheumatoid arthritis and inadequate response to methotrexate: a phase III randomised clinical trial. Ann Rheum Dis. 2021;80(7):848-58.