

Supplementary materials

Table S1. List of Independent Ethics Committees or Institutional Review Boards

SELECT-PsA 1

Country	Independent ethics committee or institutional review board
Argentina	Comité de Ética CAICI-CIAP Comité de Ética de la Investigación del Instituto de Rehabilitación Psicofísica (IREP) Comité de Ética Dr. Claude Bernard Comité de Ética en Investigación / Comité de Docencia e Investigación del Hospital Gral. de Agudos J. M. Ramos Meija Comité Independiente de Ética para Ensayos en Farmacología Clínica Fundación de Estudios Farmacológicos y de Medicamentos
Australia	Bellberry Limited Human Research Ethics Committee Central Adelaide Local Health Network Human Research Ethics Committee
Belarus	Center for Examinations and Tests in Healthcare of the Ministry of Health Republic of Belarus Ethics Committee at the Brest Regional Hospital Ethics Committee at the City Clinical Hospital No. 1 Ethics Committee at the Grodno Regional Hospital
Belgium	Ethic Committee of Grand Hôpital de Charleroi
Bosnia and Herzegovina	Ethic Committee of the Clinical Center University of Sarajevo Ethic Committee University Clinical Center of the Republic of Srpska Ethics Committee of the University Clinical Hospital Mostar
Brazil	Comitê de Ética em Pesquisa da Associação Hospitalar Moinhos de Vento Comitê de Ética em Pesquisa da Faculdade de Medicina do ABC Comitê de Ética em Pesquisa do HC da FMRP Comitê de Ética em Pesquisa do Hospital Alberto Rassi - CEPHGG Comitê de Ética em Pesquisa do Hospital de Clínicas de Porto Alegre Comitê de Ética em Pesquisa do Hospital Universitário de Universidade Federal de Juiz de Fora

Comitê de Ética em Pesquisa do Instituto de Ciências Farmacêuticas (ICF)
Comitê de Ética em Pesquisa do Sistema de Saude Mãe de Deus
Comitê de Ética em Pesquisa em Seres Humanos da Irmandade da
Santa Casa de Misericórdia de São Paulo
Comitê de Ética em Pesquisa em Seres Humanos do HC/UFPR
Comissão Nacional de Ética em Pesquisa (CONEP)

Bulgaria

Bulgarian Drug Agency
Ethics Committee at Medical Center Synexus Sofia EOOD
Ethics Committee for Multicenter Trials
Local Ethics Committee at Diagnostic Consultative Center Equita, EOOD
Local Ethics Committee at Medical Center Excelsior OOD
Local Ethics Committee at MHAT Plovdiv AD
Local Ethics Committee at Multiprofile Hospital for Active Treatment - Sofia at
Military Medical Academy
Local Ethics Committee at UMHAT Sv. Ivan Rilski

Canada

Advarra IRB Services (Institutional Review Board Services)

Chile

Comité de Ética de Investigación Servicio de Salud – Metropolitano Norte
Comité Ético Científico SSMC

China

Clinical Medical Ethics Committee of The First Affiliated Hospital of Bengbu
Medical College
Clinical Trials Ethics Committee of West China Hospital, Sichuan University
Drug Clinical Trial Ethics Committee of Ningbo First Hospital
Ethics Committee of Affiliated Hospital of Inner Mongolia Medical University
Ethics Committee of Affiliated Hospital of Nantong University
Ethics Committee of Changhai Hospital
Ethics Committee of Linyi People's Hospital
Ethics Committee of People's Hospital of Xinjiang Uygur
Ethics Committee of The First Affiliated Hospital of BaoTou Medical College
Ethics Committee of The First Affiliated Hospital of Kunming Medical University
Ethics Committee of The First Affiliated Hospital of Shantou University Medical
College

Medical Ethics Committee of The First Affiliated Hospital of Soochow University
Medical Ethics Committee of Zhuzhou Central Hospital
Peking University Third Hospital Medical Science Research Ethics Committee

Colombia	Comité de Ética de la Investigación Riesgo de Fractura Comité de Ética en Investigación de Servimed E.U. Comité de Ética en Investigación en el Área de la Salud de la Universidad de Norte Comité de Ética para la Investigación Clínica-CEIC de la Fundación Centro de Investigación Clínica, CIC Comité de Investigaciones y ética en Investigaciones Hospital Pablo Tobón Uribe
Croatia	Sredisnje eticko povjerenstvo (Central Ethics Committee)
Czech Republic	Etická komise Fakultni nemocnice Brno
Estonia	Tallinn Medical Research Ethics Committee
Germany	Ethikkommission an der Technischen Universität Dresden Ethik-Kommission der Ärztekammer Westfalen-Lippe und der Westfälischen Wilhelms-Universität Ethik-Kommission des Fachbereichs Medizin Universitätsklinikum der Goethe-Universität Klinikum der J. W. Goethe Universität Ethik-Kommission des Fachbereichs Medizin Ethikkommission der Medizinischen Fakultät und am Universitätsklinikum Tübingen
Greece	Hospital Scientific Committee, General Hospital of Athens Attikon Hospital Scientific Committee, General Hospital of Athens Laiko Hospital Scientific Committee, University General Hospital of Heraklion Hospital Scientific Committee, University General Hospital of Larissa Mezzourlo National Organization of Medicines (EOF) and National Ethics Committee (EED)
Hong Kong	Institutional Review Board of the University of Hong Kong/Hospital Authority Hong Kong West Cluster (HKU/HA HKW IRB) Joint Chinese University of Hong Kong - New Territories East Cluster Clinical & Research Ethics Committee (NTEC CREC)

New Territories West Cluster Clinical & Research Ethics Committee (NTWC
CREC)

Hungary	Budai Irgalmasrendi Kórház Intézeti Kutatásetikai Bizottság Békés Megyei Központi Kórház, Pándy Kálmán Tagkórház Debreceni Egyetem Klinikai Központ Regionális Tudományos és Kutatásetikai Bizottság Egészségügyi Tudományos Tanács Klinikai Farmakológiai Etikai Bizottság Gróf Esterházy Kórház és Rendelőintézeti Szakrendelő Intézményl Kutatás Etikai Bizottság Szent János Kórház és Észak-Budai Egyesített Kórházak Szent Margit Kórház
Ireland	Clinical Research Ethics Committee of the Cork Teaching Hospitals (CREC)
Israel	Ethics Committee of Sheba Medical Center Ethics Committee of Tel Aviv Sourasky Medical Center Ethics Committee of The Lady Davis Carmel Medical Center
Italy	A.O.U. Ospedali Riuniti Umberto I Comitato Etico Catania 1 Comitato Etico dell'Università Campus Bio-Medico di Roma Comitato Etico Provinciale Comitato Etico Regionale (CER) delle Marche Comitato Etico Università' Federico II
Japan	Fukuoka University Hospital Institutional Review Board Hospital of the University of Occupational and Environmental Health Institutional Review Board Mie University Hospital Institutional Review Board Nagoya City University Graduate School of Medical Sciences Nagoya City University Hospital Institutional Review Board National Hospital Organization Osaka Minami Medical Center Institutional Review Board St. Luke's International Hospital Institutional Review Board

Latvia	Ethics Committee for Clinical Research at Pauls Stradins Clinical University Hospital Development Society
Lithuania	Lithuanian Bioethics Committee
Malaysia	Medical Research and Ethics Committee Kementerian Kesihatan Malaysia d/a Kompleks Institut Kesihatan Negara Medical Research and Ethics Committee Secretariat of National Institutes of Health (NIHSEC) c/o Institute for Health Management
Mexico	Comité de Investigación de Christus Muguerza del Parque S.A. de C.V Comité de Investigación del Instituto Jalisciense de Investigación Clínica S.A. de C.V. Comité de Investigación Hospital Hispano S.A. de C.V.
New Zealand	Health and Disability Ethics Committee (HDEC)
Norway	Regional komiteer for medisinsk og helsefaglig forskningsetikk (REK), Midt- Norge
Poland	Komisja Bioetyczna przy Okręgowej Izbie Lekarskiej w Krakowie
Portugal	Comissão de Ética para a Investigação Clínica - CEIC
Romania	Comisia Nationala de Bioetica a Medicamentului si a Dispozitivelor Medicale National Agency for Medicines and Medical Devices
Russia	Ethics Committee of Kazan State University Ethics Council at LLC Family Outpatient Clinic #4 Ethics Council at the Ministry of Health of the Russian Federation Medical Center Healthy Family, LLC Moscow City Ethics Committee State budgetary institution
Serbia	Ethics Committee of Institute for Rheumatology Ethics Committee of Medical Military
Singapore	Centralised Institutional Review Board (CIRB)
Slovakia	Etická komisia Trenčianskeho samosprávneho kraja Lokalna Etická komisia Úrad Trnavského samosprávneho kraja Multicentrická Etická komisia Zilinskeho samosprávneho kraja
Slovenia	Komisija Republike Slovenije za medicinsko etiko, Ministrstvo za zdravje

South Africa	Pharma Ethics University of Pretoria Faculty of Health Sciences Research Ethics Committee University of Pretoria and Pretoria Academic Hospital University of the Witwatersrand, Human Research Ethics Committee (Medical)
South Korea	Institutional Review Board of Ajou University Hospital Institutional Review Board of Inha University Hospital
Spain	Comité Autonómico de Ética de la Investigación de Galicia (CAEI de Galicia)
Switzerland	Cantonal Commission for Ethics and Research (CCER) Cantonal Human Research Ethics Committee of Vaud (CER-VD) Ethikkommission Nordwest und Zentralschweiz (EKNZ) Ethikkommission Ostschweiz (EKKOS) Kantonsspital St. Gallen
Taiwan	Chang Gung Medical Foundation Institutional Review Board China Medical University Hospital Research Ethics Committee Chung Shan Medical University Hospital Institutional Review Board National Taiwan University Hospital Research Ethics Committee Taipei Veterans General Hospital Institutional Review Board
The Netherlands	Medisch Ethische Toetsingscommissie EMC
Turkey	Hacettepe Üniversitesi Etik Kurulları ve Komisyonları Hacettepe Üniversitesi Klinik Araştırmalar Etik Kurulu
Ukraine	Ethics and Deontology Commission of GI L.T. Malaya Therapy National Institute of NAMS of Ukraine Ethics Commission at Communal Nonprofit Enterprise of Kharkiv Regional Council Regional Clinical Hospital Ethics Commission at Kyiv Railway Clinical Hosp No. 2 of Branch Health Center of the Joint Stock Company Ukrainian Railway Ethics Commission at Medical Center of LLC Medbud-Clinic Ethics Commission at Medical Center of Private Higher Educational Institute, Institute of General Practice Family Medicine Ethics Commission at Municipal Institution of Kyiv Regional Council Kyiv Regional Clinical Hospital

Ethics Commission of LLC Revmocentr

Local Ethic Commission at Lviv Regional Clinical Hospital

Local Ethic Commission of SI NSC-Acedemician M.D. Strazhesko Institute of Cardiology of NAMS of Ukraine

Local Ethic Commission of Vinnytsia Regional Clinical Hospital n.a. M.I. Pyrogov

Multifield Medical Centre of Odesa National Medical University

United Kingdom	London - London Bridge Research Ethics Committee
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United States of America	Advarra Biomedical Research Alliance of New York (BRANY) Institutional Review Board Darmouth-Hitchcock Health Human Research Protection Program IRBMED Johns Hopkins Medicine Institutional Review Boards MetroHealth Medical Center Institutional Review Board Kalispell Regional Medical Center Institutional Review Board Ochsner Clinic Foundation Institutional Review Board Quorum Review Sacramento VA Medical Center Research Service Schulman Institutional Review Board St. Luke's Hospital of Duluth Institutional Review Board Sturdy Memorial Hospital The Partners Human Research Committee (PHRC) Trinity Hospital Institutional Review Board Tufts Health Sciences Institutional Review Board UCLA Office of Human Research Protection Program Western Institutional Review Board
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SELECT-PsA 2

Country	Independent ethics committee or institutional review board
Australia	Bellberry Limited Human Research Ethics Committee Central Adelaide Local Health Network Research Office Royal Adelaide Hospital
Belgium	Commissie voor Medische Ethiek Universitair Ziekenhuis Gent
Brazil	CEP Universidade Federal de Uberlândia- Pró Reitoria de Pesquisa e Pós Graduação Comitê de Ética em Pesquisa da Faculdade de Medicina do ABC Comitê de Ética em Pesquisa do HC da FMRP Comitê de Ética em Pesquisa do Hospital Alberto Rassi - CEPHGG Comitê de Ética em Pesquisa do Hospital de Clínicas de Porto Alegre Comitê de Ética em Pesquisa do Sistema de Saude Mãe de Deus Comissão de Ética para Análise de Projetos de Pesquisa do HCFMUSP - CAPPesq Comissão Nacional de Ética em Pesquisa (CONEP)
Canada	Advarra IRB Services (Institutional Review Board Services)
Chile	Comité de Ética de Investigación Servicio de Salud – Metropolitano Norte Comité Ético Científico SSMC
Czech Republic	Eticka komise Fakultni nemocnice Brno
France	Comité de Protection des Personnes Nord-Ouest III
Greece	Hospital Scientific Committee, General Hospital of Athens Laiko Hospital Scientific Committee, Naval Hospital of Athens Hospital Scientific Committee, University General Hospital of Larissa Mezourlo National Organization of Medicines (EOF) and National Ethics Committee (EED)
Hungary	Budai Irgalmasrendi Kórház Intézeti Kutatásetikai Bizottság Debreceni Egyetem Klinikai Központ Regionális Tudományos és Kutatásetikai Bizottság Egészségügyi Tudományos Tanács Klinikai Farmakológiai Etikai Bizottság

Gróf Esterházy Kórház és Rendelőintézeti Szakrendelő Intézmény
Kutatás Etikai Bizottság

Győr-Moson-Sopron Megyei Petz Aladár Megyei Oktató Kórház, Győr,
Regionális Tudományos és Kutatásetikai Bizottsága

MÁV Kórház es Rendelőintézet Intézeti Kutatásetikai Bizottság

Szent János Kórház és Észak-Budai Egyesített Kórházak

Szent Margit Kórház Intézményi Kutatásetikai Bizottság

Italy

Comitato Etico Catania 1

Comitato Etico dell'Area Vasta Emilia Nord

Comitato Etico dell'Università Campus Bio-Medico di Roma

Comitato Etico indipendente di Area Vasta Emilia Centro

Comitato Etico Indipendente presso la Fondazione PTV Policlinico Tor
Vergata

Comitato Etico Milano Area 2

Comitato Etico Regionale (CER) delle Marche

Comitato Etico Università' Federico II

Japan

Asahikawa Medical University Hospital Institutional Review Board

Daido Hospital Institutional Review Board

Fukuoka University Hospital Institutional Review Board

Hospital of the University of Occupational and Environmental Health
Institutional Review Board

Kansai Medical University Hospital Institutional Review Board

Keio University Hospital Institutional Review Board

Kitakyushu Municipal Medical Center Institutional Review Board

Kouseikai Sone Clinic Institutional Review Board

Mie University Hospital Institutional Review Board

Nagoya City University Hospital Institutional Review Board

National Hospital Organization Osaka Minami Medical Center
Institutional Review Board

Nippon Life Saiseikai Public Interest Foundation Nippon Life Hospital
Institutional Review Board

Osaka City University Hospital Institutional Review Board

Review Board of Human Rights and Ethics for Clinical Studies
Institutional Review Board

St. Luke's International Hospital Institutional Review Board

Tohoku University Hospital Institutional Review Board

New Zealand	Health and Disability Ethics Committee (HDEC)
Portugal	Comissão de Ética para a Investigação Clínica - CEIC
South Korea	Institutional Review Board of Ajou University Hospital Institutional Review Board of Inha University Hospital
Spain	Comité Autonómico de Ética de la Investigación de Galicia (CAEI de Galicia)
The Netherlands	Medisch Ethische Toetsingscommissie EMC
United Kingdom	London - London Bridge Research Ethics Committee
United States of America	Advarra Schulman Institutional Review Board Stanford Institutional Review Board Trinity Hospital Institutional Review Board Western Institutional Review Board

TABLE S2 ACR20/50/70 responders at week 24

Parameter	Monotherapy			Combination therapy with MTX			Combination therapy with any nbDMARD (including MTX)		
	PBO	UPA 15 mg QD	UPA 30 mg QD	PBO	UPA 15 mg QD	UPA 30 mg QD	PBO	UPA 15 mg QD	UPA 30 mg QD
ACR20 at week 24, n/N (%)	45/188 (23.9)	109/189 (57.7)	138/197 (70.1)	144/342 (42.1)	266/353 (75.4)	253/341 (74.2)	189/447 (42.3)	331/451 (73.4)	328/444 (73.9)
ACR50 at week 24, n/N (%)	14/188 (7.4)	80/189 (42.3)	92/197 (46.7)	66/342 (19.3)	182/353 (51.6)	186/341 (54.5)	86/447 (19.2)	226/451 (50.1)	243/444 (54.7)
ACR70 at week 24, n/N (%)	2/188 (1.1)	43/189 (22.8)	59/197 (29.9)	16/342 (4.7)	96/353 (27.2)	116/341 (34.0)	22/447 (4.9)	121/451 (26.8)	147/444 (33.1)

ACR20/50/70: 20%/50%/70% improvement in American College of Rheumatology response criteria; MTX: methotrexate; nbDMARD: non-biologic DMARD; PBO: placebo; QD: once daily; UPA: upadacitinib.

TABLE S3 Study-specific analysis for selected efficacy outcomes in patients who were DMARD-IR

SELECT-PsA 1									
Parameter	Monotherapy			Combination therapy with MTX			Combination therapy with any nbDMARD (including MTX)		
	Placebo N=76	UPA 15 mg QD N=76	UPA 30 mg QD N=77	Placebo N=267	UPA 15 mg QD N=279	UPA 30 mg QD N=268	Placebo N=347	UPA 15 mg QD N=353	UPA 30 mg QD N=346
ACR20 at week 12, <i>n</i> (%)	23/76 (30.3)	48/76 (63.2)	59/77 (76.6)	99/267 (37.1)	207/279 (74.2)	211/268 (78.7)	130/347 (37.5)	255/353 (72.2)	273/346 (78.9)
ACR50 at week 12, <i>n</i> (%)	6/76 (7.9)	27/76 (35.5)	35/77 (45.5)	40/267 (15.0)	109/279 (39.1)	142/268 (53.0)	50/347 (14.4)	134/353 (38.0)	184/346 (53.2)
ACR70 at week 12, <i>n</i> (%)	0/76	13/76 (17.1)	17/77 (22.1)	8/267 (3.0)	45/279 (16.1)	72/268 (26.9)	10/347 (2.9)	54/353 (15.3)	90/346 (26.0)
MDA at week 24, <i>n</i> (%)	2/76 (2.6)	24/76 (31.6)	33/77 (42.9)	41/267 (15.4)	105/279 (37.6)	122/268 (45.5)	50/347 (14.4)	133/353 (37.7)	159/346 (46.0)
Patients achieving sIGA 0/1 and ≥2-point improvement at week 16, <i>n</i> (%)	5/63 (7.9)	24/56 (42.9)	39/67 (58.2)	25/204 (12.3)	92/215 (42.8)	107/203 (52.7)	29/250 (11.6)	111/266 (41.7)	136/257 (52.9)
Change from baseline in patient assessment of pain (NRS) at week 12, LS mean (95% CI)	-0.8 (-1.3, -0.2)	-2.2 (-2.7, -1.7)	-2.7 (-3.2, -2.2)	-1.1 (-1.4, -0.8)	-2.3 (-2.6, -2.1)	-2.9 (-3.1, -2.6)	-1.0 (-1.3, -0.8)	-2.3 (-2.5, -2.1)	-2.8 (-3.0, -2.5)
Change from baseline in HAQ-DI at week 12, LS mean (95% CI)	-0.20 (-0.31, -0.09)	-0.41 (-0.52, -0.30)	-0.52 (-0.63, -0.41)	-0.11 (-0.17, -0.05)	-0.44 (-0.50, -0.39)	-0.46 (-0.52, -0.41)	-0.12 (-0.17, -0.07)	-0.42 (-0.47, -0.36)	-0.46 (-0.51, -0.41)

SELECT-PsA 2									
Parameter	Monotherapy			Combination therapy with MTX			Combination therapy with any nbDMARD (including MTX)		
	Placebo N=112	UPA 15 mg QD N=113	UPA 30 mg QD N=120	Placebo N=75	UPA 15 mg QD N=74	UPA 30 mg QD N=73	Placebo N=100	UPA 15 mg QD N=98	UPA 30 mg QD N=98
ACR20 at week 12, n (%)	24/112 (21.4)	63/113 (55.8)	80/120 (66.7)	21/75 (28.0)	44/74 (59.5)	43/73 (58.9)	27/100 (27.0)	57/98 (58.2)	59/98 (60.2)
ACR50 at week 12, n (%)	3/112 (2.7)	29/113 (25.7)	49/120 (40.8)	4/75 (5.3)	30/74 (40.5)	26/73 (35.6)	7/100 (7.0)	38/98 (38.8)	33/98 (33.7)
ACR70 at week 12, n (%)	0/112	9/113 (8.0)	22/120 (18.3)	0/75	6/74 (8.1)	12/73 (16.4)	1/100 (1.0)	9/98 (9.2)	14/98 (14.3)
MDA at week 24, n (%)	3/112 (2.7)	28/113 (24.8)	41/120 (34.2)	2/75 (2.7)	17/74 (23.0)	17/73 (23.3)	3/100 (3.0)	25/98 (25.5)	22/98 (22.4)
Patients achieving sIGA 0/1 and at least a 2-point improvement at week 16, n (%)	6/87 (6.9)	32/97 (33.0)	41/95 (43.2)	7/60 (11.7)	22/58 (37.9)	18/53 (34.0)	9/76 (11.8)	31/74 (41.9)	25/69 (36.2)
Change from baseline in Patient assessment of pain (NRS) at week 12, LS Mean (95% CI)	-0.5 (-0.9, -0.1)	-1.7 (-2.2, -1.3)	-2.7 (-3.0, -2.3)	-0.5 (-1.0, -0.0)	-2.3 (-2.8, -1.9)	-2.5 (-3.0, -2.0)	-0.5 (-0.9, -0.1)	-2.2 (-2.6, -1.7)	-2.4 (-2.8, -2.0)
Change from baseline in HAQ-DI at week 12, LS Mean (95% CI)	-0.09 (-0.18, -0.00)	-0.24 (-0.32, -0.16)	-0.47 (-0.55, -0.39)	-0.08 (-0.19, 0.02)	-0.42 (-0.52, -0.32)	-0.34 (-0.44, -0.24)	-0.10 (-0.20, -0.01)	-0.37 (-0.47, -0.28)	-0.34 (-0.43, -0.24)

ACR: American College of Rheumatology; CI: confidence interval; HAQ-DI: Health Assessment Questionnaire-Disability Index; LS: least squares; MDA, minimal disease activity; MTX: methotrexate; nbDMARD: non-biologic DMARD; QD: every day; UPA: upadacitinib.