



Informatics and Statistical  
Tools for Advancement  
of Research Success

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**D1.1: Introduce Previous Publications in the "Continuous Reporting Tool"**

**Project Deliverable**



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 952377.

<b>Deliverable</b>	D 1.1: Introduce Previous Publications in the “Continuous Reporting Tool”
<b>Project Title</b>	ERA Chair - Informatics and Statistical Tools for the Advancement of Research Success
<b>Project Acronym</b>	iSTARS
<b>Grant Agreement no.</b>	952377
<b>Contractual delivery date</b>	28 February 2021
<b>Work package</b>	WP1 Project Management
<b>Authors</b>	Ruy Ribeiro
<b>Dissemination Level</b>	Public

# Executive Summary

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This a new area for the School of Medicine, so there are very few publications in this field in the previous three years. For this reason, we implemented two search strategies on Web of Science.

The search criteria were:

- 1) ADDRESS: ((LISBON MED SCH OR FAC MED LISBOA OR UNIV LISBON FMUL OR FMUL OR HOSP SANTA MARIA OR CTR HOSP LISBOA NORTE OR SANTA MARIA UNIV HOSP OR SANTA MARIA HOSP OR HSM CHLN LISBON OR HSM OR IMM OR MOL MED INST OR INST MOL MED)) AND ADDRESS: (Portugal) AND ALL FIELDS: ("data science" OR "artificial intelligence" OR "medical informatics" OR "machine learning") AND PUBLICATION YEARS: (2020 OR 2019 OR 2018).

In this search we focus on keywords relevant for the iSTARS project “data science”, “artificial intelligence”, “medical informatics” and “machine learning. The results are in **Table 1**.

As this search only produced 13 results, we then conducted a search without constraining the topics, but rather including the scientists involved in the Laboratório de Biomatemática from the Instituto de Saúde Ambiental (ISAMB), where the project was conceived.

- 2) ADDRESS: (LISBON MED SCH OR FAC MED LISBOA OR UNIV LISBON FMUL OR FMUL OR HOSP SANTA MARIA OR CTR HOSP LISBOA NORTE OR SANTA MARIA UNIV HOSP OR SANTA MARIA HOSP OR HSM CHLN LISBON OR HSM OR IMM OR MOL MED INST OR INST MOL MED) AND ADDRESS: (Portugal) | Analysis: PUBLICATION YEARS: (2020 OR 2019 OR 2018) AND DOCUMENT TYPES: (ARTICLE OR REVIEW)

And within the results obtained for Faculdade de Medicina, we selected those articles produced by members of the “Laboratório de Biomatemática” and the iSTARS project, namely: Leonor Bacelar-Nicolau, António Vaz Carneiro, Paulo Nicola, Paulo Nogueira, Ruy Ribeiro. The results are in **Table 2**.

**Table 1**

<b>Authors</b>	<b>Article Title</b>	<b>Source Title</b>	<b>Type</b>	<b>Cited</b>	<b>Year</b>	<b>Vol</b>	<b>Issue</b>	<b>DOI</b>
Gameiro, J; Branco, T; Lopes, JÁ	Artificial Intelligence in Acute Kidney Injury Risk Prediction	JOURNAL OF CLINICAL MEDICINE	Review	5	2020	9	3	10.3390/jcm9030678
Chortis, V; Bancos, I; Nijman, T; Gilligan, LC; Taylor, AE; Ronchi, CL; et al.	Urine Steroid Metabolomics as a Novel Tool for Detection of Recurrent Adrenocortical Carcinoma	JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM	Article	8	2020	105	3	10.1210/clinem/dgz141
Campbell, PJ; Getz, G; Korbelt, JO; Stuart, JM; Jennings, JL; Stein, LD; et al	Pan-cancer analysis of whole genomes	NATURE	Article	225	2020	578	7793	10.1038/s41586-020-1969-6
Mursch-Edlmayr, AS; Ng, WS; Diniz-Filho, A; Sousa, DC; Arnold, L; Schlenker, MB; Duenas-Angeles, K; Keane, PA; Crowston, JG; Jayaram, H	Artificial Intelligence Algorithms to Diagnose Glaucoma and Detect Glaucoma Progression: Translation to Clinical Practice	TRANSLATIONAL VISION SCIENCE & TECHNOLOGY	Article	2	2020	9	2	10.1167/tvst.9.2.55
Machado, I; Toews, M; George, E; Unadkat, P; Essayed, W; Luo, J; Teodoro, P; Carvalho, H; Martins, J; Golland, P; Pieper, S; Frisken, S; Golby, A; Wells, W; Ou, YM	Deformable MRI-Ultrasound registration using correlation-based attribute matching for brain shift correction: Accuracy and generality in multi-site data	NEUROIMAGE	Article	3	2019	202		10.1016/j.neuroimage.2019.11.6094
de Almeida, AF; Moreira, R; Rodrigues, T	Synthetic organic chemistry driven by artificial intelligence	NATURE REVIEWS CHEMISTRY	Review	25	2019	3	10	10.1038/s41570-019-0124-0
Menden, MP; Wang, D; Mason, MJ; Szalai, B; Bulusu, KC; Guan, YF; et al.	Community assessment to advance computational prediction of cancer drug combinations in a pharmacogenomic screen	NATURE COMMUNICATIONS	Article	45	2019	10		10.1038/s41467-019-09799-2

Biswas, M; Kuppili, V; Saba, L; Edla, DR; Suri, HS; Cuadrado-Godia, E; Laird, JR; Marinho, RT; Sanches, JM; Nicolaides, A; Suri, JS	State-of-the-art review on deep learning in medical imaging	FRONTIERS IN BIOSCIENCE-LANDMARK	Review	32	2019	24		10.2741/4725
Monteiro, M; Fonseca, AC; Freitas, AT; Melo, TPE; Francisco, AP; Ferro, JM; Oliveira, AL	Using Machine Learning to Improve the Prediction of Functional Outcome in Ischemic Stroke Patients	IEEE-ACM TRANSACTIONS ON COMPUTATIONAL BIOLOGY AND BIOINFORMATICS	Article; Proceedings Paper	9	2018	15	6	10.1109/TCBB.2018.2811471
Machado, I; Toews, M; Luo, J; Unadkat, P; Essayed, W; George, E; Teodoro, P; Carvalho, H; Martins, J; Golland, P; Pieper, S; Frisken, S; Golby, A; Wells, W	Non-rigid registration of 3D ultrasound for neurosurgery using automatic feature detection and matching	INTERNATIONAL JOURNAL OF COMPUTER ASSISTED RADIOLOGY AND SURGERY	Article	15	2018	13	10	10.1007/s11548-018-1786-7
Rodrigues, T; Werner, M; Roth, J; da Cruz, EH; Marques, MC; Akkapeddi, P; Lobo, SA; Koeberle, A; Corzana, F; da Silva, EN; Werz, O; Bernardes, GJL	Machine intelligence decrypts lapachone as an allosteric 5lipoxygenase inhibitor	CHEMICAL SCIENCE	Article	26	2018	9	34	10.1039/c8sc02634c
Zhang, ZX; Mayer, G; Dauvilliers, Y; Plazzi, G; Pizza, F; Fronczek, R; et al.	Exploring the clinical features of narcolepsy type 1 versus narcolepsy type 2 from European Narcolepsy Network database with machine learning	SCIENTIFIC REPORTS	Article	1	2018	8		10.1038/s41598-018-28840-w
Machado, I; Toews, M; Luo, J; Unadkat, P; Essayed, W; George, E; Teodoro, P; Carvalho, H; Martins, J; Golland, P; Pieper, S; Frisken, S; Golby, A; Wells, W; Ou, YM	Deformable MRI-Ultrasound Registration via Attribute Matching and Mutual-Saliency Weighting for ImageGuided Neurosurgery	SIMULATION, IMAGE PROCESSING, AND ULTRASOUND SYSTEMS FOR ASSISTED DIAGNOSIS AND NAVIGATION	Proceedings Paper	3	2018	1104 2		10.1007/978-3-030-01045-4_20

**Table 2**

Authors	Article Title	Source Title	IF	Quart	Type	Cited	Year	Vol	Iss	DOI
Bacelar-Nicolau, L; Rodrigues, T; Fernandes, E; Lobo, MF; Nisa, CF; Azzone, V; TeixeiraPinto, A; Costa-Pereira, A; Normand, SLT; Miguel, JP	Picturing inequities for health impact assessment: linked electronic records, mortality and regional disparities in Portugal	IMPACT ASSESSMENT AND PROJECT APPRAISAL	1.551	Q2	Article	1	2018	36	1	10.1080/14615517.2017.13 64016
Cao, YF; Lei, X; Ribeiro, RM; Perelson, AS; Liang, J	Probabilistic control of HIV latency and transactivation by the Tat gene circuit	PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA	9.412	Q1	Article	8	2018	115	49	10.1073/pnas.1811195115
Cardozo, EF; Apetrei, C; Pandrea, I; Ribeiro, RM	The dynamics of simian immunodeficiency virus after depletion of CD8+cells	IMMUNOLOGICAL REVIEWS	13.939	Q1	Review	3	2018	285	1	10.1111/imr.12691
Costa, T; Lopes, E; Alarcao, V; Nogueira, P; Carreira, M	SAIMI study - Teeth brushing habits among immigrant children and adolescents from the indian subcontinent in Lisbon	REVISTA PORTUGUESA DE ESTOMATOLOGIA MEDICINA DENTARIA E CIRURGIA MAXILOFACIAL		Q4	Article	0	2018	259	2	10.24873/j.rpemd.2018.09. 225

Ferreira-Dos-Santos, G; Sousa, DC; Costa, J; Vaz-Carneiro, A	Analysis of the Cochrane Review: Pregabalin for Pain in Fibromyalgia in Adults. Cochrane Database Syst Rev. 2016; 9: CD011790 and 2016; 4: CD009002	ACTA MEDICA PORTUGUESA	0.628	Q3	Review	2	2018	31	7-8	10.20344/amp.10433
Ke, RA; Li, H; Wang, SY; Ding, WG; Ribeiro, RM; Giorgi, EE; Bhattacharya, T; Barnard, RJO; Hahn, BH; Shaw, GM; Perelson, AS	Superinfection and cure of infected cells as mechanisms for hepatitis C virus adaptation and persistence	PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA	9.412	Q1	Article	6	2018	115	30	10.1073/pnas.1805267115
Leal, I; Sousa, DC; Costa, J; Vaz-Carneiro, A	Analysis of the Cochrane Review: Cortisteroid Implants for Chronic Non-Infectious Uveitis	ACTA MEDICA PORTUGUESA	0.628	Q3	Review	0	2018	31	5	10.20344/amp.10660
Lopes, C; Torres, D; Oliveira, A; Severo, M; Guiomar, S; Alarcao, V; Ramos, E; Rodrigues, S; Vilela, S; Oliveira, L; Mota, J; Teixeira, PJ; Nicola, PJ; Soares, S; Andersen, LF	National Food, Nutrition, and Physical Activity Survey of the Portuguese General Population (2015-2016): Protocol for Design and Development	JMIR RESEARCH PROTOCOLS		Q4	Article	25	2018	7	2	10.2196/resprot.8990
Minskaia, E; Saraiva, BC; Soares, MMV; Azevedo, RI; Ribeiro, RM; Kumar, SD; Vieira, AIS; Lacerda, JF	Molecular Markers Distinguishing T Cell Subtypes with TSDR Strand-Bias Methylation	FRONTIERS IN IMMUNOLOGY	5.085	Q1	Article	6	2018	9		10.3389/fimmu.2018.02540
Murray, JM; Ribeiro, RM	Special Issue Mathematical Modeling of Viral Infections	VIRUSES-BASEL	3.816	Q1	Editorial Material	0	2018	10	6	10.3390/v10060303

Perelson, AS; Ribeiro, M	Introduction to modeling viral infections and immunity	IMMUNOLOGICAL REVIEWS	13.939	Q1	Editorial Material	6	2018	285	1	10.1111/imr.12700
Policicchio, BB; Cardozo, EF; Sette, P; Xu, CL; Haret-Richter, G; Dunsmore, T; Apetrei, C; Pandrea, I; Ribeiro, RM	Dynamics of Simian Immunodeficiency Virus Two-Long-Terminal-Repeat Circles in the Presence and Absence of CD8(+) Cells	JOURNAL OF VIROLOGY	4.501	Q1	Article	3	2018	92	13	10.1128/JVI.02100-17
Policicchio, BB; Sette, P; Xu, CL; Haret-Richter, G; Dunsmore, T; Pandrea, I; Ribeiro, RM; Apetrei, C	Emergence of resistance mutations in simian immunodeficiency virus (SIV)-infected rhesus macaques receiving non-suppressive antiretroviral therapy (ART)	PLOS ONE	2.740	Q1	Article	1	2018	13	2	10.1371/journal.pone.0190908
Romero-Severson, EO; Ribeiro, RM; Castro, M	Noise Is Not Error: Detecting Parametric Heterogeneity Between Epidemiologic Time Series	FRONTIERS IN MICROBIOLOGY	4.236	Q1	Article	1	2018	9		10.3389/fmicb.2018.01529
Sivanandham, R; Brocca-Cofano, E; Krampe, N; Falwell, E; Venkatraman, SMK; Ribeiro, RM; Apetrei, C; Pandrea, I	Neutrophil extracellular trap production contributes to pathogenesis in SIV-infected nonhuman primates	JOURNAL OF CLINICAL INVESTIGATION	11.864	Q1	Article	10	2018	128	11	10.1172/JCI99420
Staats, R; Rodrigues, R; Barros, A; Bacelar-Nicolau, L; Aguiar, M; Fernandes, D; Moreira, S; Simoes, A; Silva Santos, B; Rodrigues, JV; Barbara, C; de Almeida, AB; Moita, LF	Decrease of perforin positive CD3(+)gamma delta-T cells in patients with obstructive sleep disordered breathing	SLEEP AND BREATHING	2.162	Q2	Article	5	2018	22	1	10.1007/s11325-017-1602-6
Vaidya, NK; Ribeiro, RM; Liu, PH; Haynes, BF; Tomaras, GD; Perelson, AS	Correlation Between Anti-gp41 Antibodies and Virus Infectivity Decay During Primary HIV-1 Infection	FRONTIERS IN MICROBIOLOGY	4.236	Q1	Article	5	2018	9		10.3389/fmicb.2018.01326



Vieira, MB; Alves, M; Costa, J; Vaz-Carneiro, A	Analysis of the Cochrane Review: Antibiotics for Asymptomatic Bacteriuria. Cochrane Database Syst Rev.2015;4:CD009534.	ACTA MEDICA PORTUGUESA	0.628	Q3	Review	0	2018	31	2	10.20344/amp.10077
Vieira-Sousa, E; Canhao, H; Alves, P; Rodrigues, AM; Teixeira, F; TavaresCosta, J; et al.	The GO-DACT protocol: a multicentre, randomized, doubleblind, parallel-group study to compare the efficacy of golimumab in combination with methotrexate (MTX) versus MTX monotherapy, in improving dactylitis and enthesitis, in MTX-naive psoriatic arthritis patients	ACTA REUMATOLOGICA PORTUGUESA	1.183	Q3	Article	2	2018	43	2	
Alarcao, V; StefanovskaPetkovska, M; Virgolino, A; Santos, O; Ribeiro, S; Costa, A; Nogueira, P; Pascoal, PM; Pintassilgo,S; Machado, FL	Fertility, Migration and Acculturation (FEMINA): a research protocol for studying intersectional sexual and reproductive health inequalities	REPRODUCTIVE HEALTH	2.177	Q1	Article	1	2019	16	1	10.1186/s12978-019-0795-5
Augusto, GF; Silva, A; Pereira, N; Fernandes, T; Leca, A; Valente, P; Cale, E; Aguiar, BA; Martins, A; Palminha, P; Vinagre, E; Cordeiro, R; Lopo, S; Nogueira, P.	Report of simultaneous measles outbreaks in two different health regions in Portugal, February to May 2017: lessons learnt and upcoming challenges	EUROSURVEILLANCE	6.454	Q1	Article	2	2019	24	3	10.2807/1560-7917.ES.2019.24.3.1800026
Borges, J; Rosa, MV; Fernandes, RM; Nogueira, PJ; Bandeira, T	Hospital admissions in children with acute respiratory disease in Portugal	PULMONOLOGY	2.778	Q3	Letter	0	2019	25	2	10.1016/j.pulmoe.2018.12.004
Carvalho-dos-Santos, R; Delgado, RM; Ferreira-dos-Santos, G; Vaz-Carneiro, A	Analysis of the Cochrane Review: Exercise-Based Cardiac Rehabilitation for Coronary Heart Disease. Cochrane Database Syst Rev. 2016;1:CD001800	ACTA MEDICA PORTUGUESA	0.628	Q3	Review	1	2019	32	7-8	10.20344/amp.11898

Goiana-da-Silva, F; Cruze-Silva, D; Allen, L; Gregorio, MJ; Severo, M; Nogueira, PJ; et al.	Modelling impacts of food industry co-regulation on noncommunicable disease mortality, Portugal	BULLETIN OF THE WORLD HEALTH ORGANIZATION	6.960	Q1	Article	3	2019	97	7	10.2471/BLT.18.220566
Kaderali, L; Theis, F; Ganusov, VV; Ciupe, SM; Mehr, R; Ribeiro, RM; Hernandez-Vargas, EA	Editorial: Integrative Computational Systems Biology Approaches in Immunology and Medicine	FRONTIERS IN MICROBIOLOGY	4.236	Q1	Editorial Material	1	2019	9		10.3389/fmicb.2018.03338
Madeira, T; PeixotoPlacido, C; Sousa-Santos, N; Santos, O; Alarcao, V; et al	Malnutrition among older adults living in Portuguese nursing homes: the PEN-3S study	PUBLIC HEALTH NUTRITION	3.182	Q1	Article	5	2019	22	3	10.1017/S1368980018002318
Nobre, MD; Salvado, F; Nogueira, P; Rocha, E; Ilg, P; Malo, P	A Prognostic Model for the Outcome of Nobel Biocare Dental Implants with Peri-Implant Disease after One Year	JOURNAL OF CLINICAL MEDICINE	3.303		Article	2	2019	8	9	10.3390/jcm8091352
Soares, MV; Azevedo, RI; Ferreira, IA; Bucar, S; Ribeiro, AC; Vieira, A; et al	Naive and Stem Cell Memory T Cell Subset Recovery Reveals Opposing Reconstitution Patterns in CD4 and CD8 T Cells in Chronic Graft vs. Host Disease	FRONTIERS IN IMMUNOLOGY	5.085	Q1	Article	6	2019	10		10.3389/fimmu.2019.00334
Bousquet, J; Anto, JM; Bachert, C; Haahtela, T; Zuberbier, T; Czarlewski, W; et al.	ARIA digital anamorphosis: Digital transformation of health and care in airway diseases from research to practice	ALLERGY	8.706	Q1	Review	0	2020			10.1111/all.14422
Cardozo, EF; Ji, D; Lau, G; Schinazi, RF; Chen, GF; Ribeiro, RM; Perelson, AS	Disentangling the lifespans of hepatitis C virus-infected cells and intracellular vRNA replication complexes during direct-acting antiviral therapy	JOURNAL OF VIRAL HEPATITIS	3.561	Q1	Article	2	2020	27	3	10.1111/jvh.13229
Fernandes, J; Fialho, M; Santos, R; Peixoto Placido, C; Madeira, T; Sousa-Santos, N; Virgolino, A; Santos, O; Carneiro, AV	Is olive oil good for you? A systematic review and meta-analysis on anti-inflammatory benefits from regular dietary intake	NUTRITION	3.639	Q2	Review	10	2020	69		10.1016/j.nut.2019.110559

Ferreira, RJ; Nogueira, T; da Silva, VD; Linan Pinto, M; Sousa, J; Pereira, AM; et al.	A school-based intervention for a better future: study protocol of Sintra Grows Healthy	BMC PUBLIC HEALTH	2.521	Q1	Article	0	2020	20	1	10.1186/s12889-020-09715-0
Madeira, T; PeixotoPlacido, C; Sousa-Santos, N; Santos, O; Alarcao, V; Nicola, PJ; Lopes, C; Clara, JG	Geriatric Assessment of the Portuguese Population Aged 65 and Over Living in the Community: The PEN-3S Study	ACTA MEDICA PORTUGUESA	0.628	Q3	Article	1	2020	33	7-8	10.20344/amp.12832
Madeira, T; PeixotoPlacido, C; Sousa-Santos, N; Santos, O; Costa, J; Alarcao, V; Nicola, PJ; Severo, M; Lopes, C; Clara, JG	Association between living setting and malnutrition among older adults: The PEN-3S study	NUTRITION	3.639	Q2	Article	0	2020	73		10.1016/j.nut.2019.110660
Martins, J; Marques, A; Teixeira, PJ; Mota, J; Lopes, C; Nicola, PJ	Socio-demographic factors associated with physical activity and sitting time patterns in adults: An analysis based on the Portuguese Food, Nutrition and Physical Activity Survey	EUROPEAN JOURNAL OF SPORT SCIENCE	2.781	Q1	Article	1	2020			10.1080/17461391.2020.1736643
Nogueira, PJ; Nobre, MD; Costa, A; Ribeiro, RM; Furtado, C; Nicolau, LB; Camarinha, C; Luis, M; Abrantes, R; Carneiro, AV	Reply to Comment on Nogueira, PJ, et al. The Role of Health Preconditions on COVID-19 Deaths in Portugal: Evidence from Surveillance Data of the First 20293 Infection Cases. J. Clin. Med. 2020, 9, 2368	JOURNAL OF CLINICAL MEDICINE	3.303		Editorial Material	0	2020	9	11	10.3390/jcm9113449
Nogueira, PJ; Nobre, D; Nicola, PJ; Furtado, C; Carneiro, AV	Letter to the Editor about the Article: Excess Mortality Estimation During the COVID-19 Pandemic: Preliminary Data from Portugal <a href="https://doi.org/10.20344/amp.13928">https://doi.org/10.20344/amp.13928</a> Reply	ACTA MEDICA PORTUGUESA	0.628	Q3	Letter	0	2020	33	7-8	10.20344/amp.14378

Nogueira, PJ; Nobre, MD; Nicola, PJ; Furtado, C; Vaz Carneiro, A	Reply to a Comment Published on Acta Med Port 2020; May 25; doi:10.20344/amp.14155 about the Article Published on Acta Med Port 2020; Apr 27; doi:10.20344/amp.13928	ACTA MEDICA PORTUGUESA	0.628	Q3	Letter	1	2020	33	9	10.20344/amp.14378
Pessoa, E; Barbara, C; Viegas, L; Costa, A; Rosa, M; Nogueira, P	Factors associated with in-hospital mortality from community-acquired pneumonia in Portugal: 2000-2014	BMC PULMONARY MEDICINE	2.813	Q1	Article	1	2020	20	1	10.3390/jcm9082450
Santos, CD; das Neves, RC; Ribeiro, RM; Caneiras, C; Rodrigues, F; Spruit, MA; Barbara, C	Novel Input for Designing Patient Tailored Pulmonary Rehabilitation: Telemonitoring Physical Activity as a Vital Sign-SMARTREAB Study	JOURNAL OF CLINICAL MEDICINE	3.303		Article	1	2020	9	8	10.1080/10550887.2020.1800889
Staats, R; Rodrigues, R; Barros, A; Bacelar Nicolau, L; Aguiar, M; Fernandes, D; et al	Role of CD3(+) $\gamma$ delta-T cells in the association of obstructive sleepdisordered breathing and cancer	SLEEP AND BREATHING	2.162	Q2	Letter	1	2020	24	4	10.1007/s11325-019-01842-2
Torrado, M; Bacelar-Nicolau, L; Skryabin, V; Teixeira, M; Eusebio, S; Ouakinin, S	Emotional dysregulation features and problem gambling in university students: a pilot study	JOURNAL OF ADDICTIVE DISEASES	0.815	Q2	Article	1	2020	38	4	10.1080/10550887.2020.1800889
Vieira-Sousa, E; Alves, P; Rodrigues, AM; Teixeira, F; Tavares-Costa, J; Bernardo, A; et al.	GO-DACT: a phase 3b randomised, double-blind, placebo-controlled trial of GOlimumab plus methotrexate (MTX) versus placebo plus MTX in improving DACTylitis in MTX-naive patients with psoriatic arthritis	ANNALS OF THE RHEUMATIC DISEASES	16.102	Q1	Article	1	2020	79	4	10.1136/annrheumdis-2019-2165