Table 1

		Group1		Group2		Group3		Group4	
		Tramadol	Naproxen	Tramadol	Diclofenac	Tramadol	Cox-2 inhibitor	Tramadol	Codeine
All-cause Mortality	OA (n)	13798	13798	17675	17675	17039	17039	7813	7813
	Death (n)	296	246	439	345	402	267	168	199
	Rate (/1000 PY)	21.5	17.8	24.8	19.5	23.6	15.7	21.5	25.5
	HR (95% CI)	1.2 (1.0-1.4)	1.0	1.3 (1.1-1.5)	1.0	1.5 (1.3-1.8)	1.0	0.8 (0.7-1.0)	1.0
CVD	OA (n)	11708	11708	14924	14924	14779	14779	6809	6809
	CVD (n)	309	319	410	349	404	353	156	164
	Rate (/1000 PY)	26.4	27.3	27.5	23.4	27.3	23.9	22.9	24.1
	HR (95% CI)	1.0 (0.9-1.1)	1.0	1.2 (1.1-1.3)	1.0	1.2 (1.0-1.3)	1.0	0.9 (0.8-1.1)	1.0
VTE	OA (n)	13472	13472	17230	17230	16699	16699	7660	7660
	VTE (n)	41	37	60	40	70	40	28	30
	Rate (/1000 PY)	3.0	2.8	3.5	2.3	4.2	2.4	3.7	3.9
	HR (95% CI)	1.2 (0.9-1.6)	1.0	1.5 (1.1-1.9)	1.0	1.7 (1.3-2.3)	1.0	1.0 (0.7-1.4)	1.0
HFx	OA (n)	13378	13378	17216	17216	16670	16670	7593	7593
	HFx (n)	66	49	88	59	91	60	35	40
	Rate (/1000 PY)	5.0	3.7	5.1	3.4	5.5	3.6	4.6	5.3
	HR (95% CI)	1.4 (1.0-1.8)	1.0	1.5 (1.2-1.9)	1.0	1.5 (1.2-1.9)	1.0	0.9 (0.7-1.2)	1.0

Disclosure of Interests: None declared

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OP0192

PSORIATIC ARTHRITIS IS ASSOCIATED WITH A METABOLICALLY ADVERSE BODY COMPOSITION PROFILE PREDICTIVE OF GREATER CHD AND TYPE 2 DIABETES RISK – MRI FINDINGS FROM THE IMAPA AND UK BIOBANK STUDIES

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Background: Increased Body Mass Index (BMI) is associated with Psoriatic Arthritis (PsA) but with uncertain pathophysiological significance. BMI does not reflect body fat distribution, but fat storage site is important as increased ectopic fat including visceral adipose tissue (VAT), liver fat, and muscle fat infiltration (MFI), are associated with increased type 2 diabetes and coronary heart disease (CHD) risk¹. To date no study has compared detailed body composition in PsA with the general population and other metabolic diseases.

Objectives: 1. To characterize the body composition profile of PsA compared to age, sex, and BMI-matched metabolic disease free (MDF) individuals, and type 2 diabetes. 2. To relate body composition to risk of type 2 diabetes and CHD in PsA versus MDF controls.

Methods: MRI body composition profiles were available for 29 PsA participants in the IMAPA study². After excluding 3 participants with concomitant type 2 diabetes, body composition was compared in 26 PsA participants with 130 age, sex, and BMI-matched healthy MDF controls (matched 1:5) and 454 individuals with type 2 diabetes from UK Biobank, using Wilcoxon signed-rank test. Analyses were repeated adjusted for age, sex, and BMI. The propensity of PsA patients to develop CHD or type 2 diabetes based on their body composition profile was compared to that of matched MDF controls.

Results: PsA participants had significantly more ectopic fat including greater visceral adipose tissue (VAT) volume and liver fat percentage compared to MDF controls (table 1, figure 1A). This difference persisted after adjustment for age, sex, and BMI. Individuals with PsA shared a similar body composition to type 2 diabetes (table 1, figure 1B). Body composition-predicted propensity for CHD or type 2 diabetes was 1.3 and 1.8 times higher, respectively, for PsA compared to matched MDF controls.

Figure 1. Body Composition Profiles of IMAPA PsA participants (pink) versus A. UK Biobank matched MDF controls (green), and B. type 2 diabetes (T2D) (green).

Table 1. Comparison of body composition parameters in PsA, MDF controls, and type 2 diabetes

Variable	PsA	MDF controls	p-value*	Adj. p value**	Type 2 diabetes	p-value†	Adj. p value‡
Age (years)	56.0 (9.0)	57.4 (6.5)	0.766	-	65.4 (6.9)	< 0.001	-
BMI (kg/m ²)	31.2 (6.4)	30.5 (5.3)	0.799	-	29.9 (5.2)	0.397	-
VAT (L)	5.89 (2.10)	4.34 (1.83)	<0.001	<0.001	5.93 (2.56)	0.662	0.301
Visceral fat index (L/m ²)	2.06 (0.73)	1.52 (0.64)	<0.001	<0.001	2.03 (0.84)	0.337	0.175
Abdominal subcutaneous adipose tissue (L)	10.48 (4.90)	9.42 (4.86)	0.288	0.071	8.58 (3.93)	0.109	0.339
Abdominal fat index (L/m ²)	5.87 (2.39)	4.93 (2.29)	0.084	<0.001	5.04 (1.92)	0.052	0.024
Liver fat (%)	8.88 (4.42-13.18)	3.29 (1.98-7.25)	0.002	0.002	6.13 (2.77-11.63)	0.392	0.656
MFI (%)	7.74 (2.57)	7.43 (1.95)	0.748	0.292	8.61 (2.29)	0.736	0.191

Values are mean (SD) (liver fat, median (IQR)). *PsA vs. MDF controls. **PsA vs. MDF controls adjusted for age, sex, and BMI. †PsA vs. Type 2 diabetes. ‡ PsA vs. Type 2 diabetes adjusted for age, sex, and BMI.

Conclusion: This is the first study to report that individuals with PsA have a body composition profile associated with an adverse metabolic phenotype, with greater VAT and ectopic liver fat than the general population and more similar to that of type 2 diabetes, in line with their greater cardiometabolic risk. These data mandate a revision of the management approach to PsA that includes attention to weight loss interventions.

References:

- [1] Linge et al. Body Composition Profiling in the UK Biobank Imaging Study. *Obesity*. 2018;26(11):1785
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Dendritic cells as therapeutics

OP0193

BIIB059, A HUMANIZED MONOCLONAL ANTIBODY TARGETING BDCA2 ON PLASMACYTOID DENDRITIC CELLS (PDC), SHOWS DOSE-RELATED EFFICACY IN THE PHASE 2 LILAC STUDY IN PATIENTS (PTS) WITH ACTIVE CUTANEOUS LUPUS ERYTHEMATOSUS (CLE)

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Background: CLE represents an unmet medical need with no approved therapy. BIIB059, a humanized monoclonal antibody, binds to BDCA2 and inhibits pro-inflammatory mediators production, including type I interferons. BIIB059 was evaluated in Phase 1 studies NCT02106897 and NCT03224793. LILAC is a 2-part Phase 2 study: Part A enrolled SLE pts; Part B enrolled pts with active CLE (NCT02847598).

Objectives: Evaluate efficacy and safety of BIIB059 in pts enrolled in Part B at Week 16, end of treatment (EOT) period.

Methods: Pts with active CLE, SCLE and/or CCLE and adjudicated Cutaneous Lupus Disease Area and Severity Index – Activity (CLASI-A) ≥8 were enrolled and randomized to receive either BIIB059 (50, 150 or 450mg) or placebo (PBO) s.c. Q4W. Primary endpoint was dose response defined by % change in CLASI-A score from baseline (BL) to Week 16. Secondary endpoints included CLASI-50 response rate and ≥ 7-point reduction in CLASI-A score from baseline to EOT. Adverse events and serious adverse events were recorded throughout the study.

Results: 132 pts with active CLE were randomized. The study met its primary endpoint, demonstrating a dose response (p= 0.0005) and a statistically significant difference in % change from BL in CLASI-A score in BIIB059-treated pts vs PBO. Table 1 and Table 2 summarize efficacy and safety results, respectively.

Conclusion: BIIB059 administration to pts with active CLE resulted in statistically significant dose-related improvement in disease activity vs PBO with no untoward safety signals. Further development of BIIB059 in CLE is warranted.

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Table 1. Efficacy Endpoints

	BIIB059									
	PBO	50 mg			150 mg			450 mg		
	LS Mean (SE)	LS Mean (SE)	LSMD* from PBO (95% CI)	P val.	LS Mean(SE)	LSMD* from PBO (95% CI)	P val.	LS Mean (SE)	LSMD* from PBO (95% CI)	P val.
Primary Endpoint										
CLASI-A % change from BL	-14.5 (6.4)	-40.8 (7.5)	-26.3 (-45.7; -7.0)	0.008	-47.9 (7.4)	-33.5 (-52.7; -14.3)	0.001	-43.5 (5.5)	-28.0 (-44.5; -11.5)	0.001
Secondary Endpoints										
	n(%)	n(%)	LSMD* from PBO (95% CI)	P val.	n(%)	LSMD* from PBO (95% CI)	P val.	n(%)	LSMD* from PBO (95% CI)	P val.
Prop. of participants achieving CLASI 50	7/32 (21.9%)	10/26 (38.5%)	15.8% (-7; 39)	0.133	11/25 (44.0%)	21 (-2.8; 45)	0.059	20/43 (46.5%)	23 (3; 44)	0.024
Prop. of participants achieving a ≥7-point CLASI-A reduction from BL	7/32 (21.9%)	9/26 (34.6%)	12.3 (-11.3; 35.8)	0.228	12/25 (48.0%)	22.2 (-2.0; 46.3)	0.055	18/43 (41.8%)	16.8 (-6.7; 40.4)	0.048

*LSMD=LS Mean Difference