

Suppl. Table 1: panel of genes tested with targeted next-generation sequencing

<i>ACPF5</i>	<i>HAVCR2</i>	<i>LPIN2</i>	<i>NLRP12</i>	<i>PSMB8</i>	<i>SH3BP2</i>	<i>TNFRSF6</i>
<i>ADAR1</i>	<i>HGNC</i>	<i>LRBA</i>	<i>NOD2</i>	<i>PSMB9</i>	<i>SLC29A3</i>	<i>TNFRSF9</i>
<i>AP1S3</i>	<i>IFIH1</i>	<i>MEFV</i>	<i>OAS1</i>	<i>PSMG2</i>	<i>SOCS1</i>	<i>TNFSF6</i>
<i>CARD14</i>	<i>IKKBK</i>	<i>MVK</i>	<i>PI3KCD</i>	<i>PSTPIP1</i>	<i>STAT1</i>	<i>TREX1</i>
<i>CECR1</i>	<i>IL10</i>	<i>NALP3</i>	<i>PIK3R1</i>	<i>PTEN</i>	<i>STAT3</i>	<i>TRIM22</i>
<i>COPA</i>	<i>IL10RA</i>	<i>NEMO</i>	<i>PLCG2</i>	<i>RAG1</i>	<i>STING</i>	<i>TYK2</i>
<i>CTLA4</i>	<i>IL10RB</i>	<i>NFKB1</i>	<i>POLA1</i>	<i>RNASEH2A</i>	<i>TMEM173</i>	<i>USP18</i>
<i>DDX58</i>	<i>IL1RN</i>	<i>NFKBIA</i>	<i>PSMA3</i>	<i>RNASEH2B</i>	<i>TNFAIP3</i>	
<i>DNASE1L3</i>	<i>IL36RN</i>	<i>NLR4</i>	<i>PSMB4</i>	<i>RNASEH2C</i>	<i>TNFRSF11A</i>	
<i>DNASE2</i>	<i>LIG4</i>	<i>NLRP1</i>	<i>PSMB8</i>	<i>SAMHD1</i>	<i>TNFRSF1A</i>	

Suppl. Table 2: Characteristics of psoriatic arthritis in patients with and without variants in *AP1S3*

Characteristic	at least one variant in <i>AP1S3</i> (N=5)	no variant in <i>AP1S3</i> (N=115)	OR (95% CI)	<i>p</i> *
Psoriasis – no (%)	5 (100)	91 (79.13)	2.94 (0.16-55.15)	0.2534
Pustular psoriasis – no (%)	4 (80)	10 (8.7)	42 (4.27-413)	<0.0001 (***)
Nail psoriasis – no (%)	0 (0)	9 (7.83)	1.02 (0.05-19.88)	0.5154
Oligoarthritis – no (%)	2 (40)	29 (25.22)	1.98 (0.31-12.43)	0.4597
Polyarthritis – no (%)	2 (40)	52 (45.22)	0.81 (0.13-5.02)	0.8184
Axial SpA – no (%)	1 (20)	34 (29.57)	0.6 (0.06-5.53)	0.645
Enthesitis – no (%)	1 (20)	34 (29.57)	0.6 (0.06-5.53)	0.645
Anterior uveitis – no (%)	0 (0)	6 (5.2)	1.53 (0.08-30.82)	0.6003
IBD – no (%)	0 (0)	5 (4.35)	1.83 (0.09-37.42)	0.6339
Dactylitis – no (%)	0 (0)	11 (9.57)	0.83 (0.04-15.93)	0.4681
Other autoimmune disorder – no (%)	2 (40)	34 (29.57)	1.59 (0.25-9.94)	0.618

CI, confidence interval; IBD, inflammatory bowel disease; N, total number; no, number; OR, odds ratio; SpA, spondyloarthritis
p* < 0.001 *

Suppl. Table 3: Characteristics of psoriatic arthritis in patients with and without variants in *PLCG2*

Characteristic	at least one variant in <i>PLCG2</i> (N=4)	no variant in <i>PLCG2</i> (N=116)	OR (95% CI)	<i>p</i>
Psoriasis – no (%)	3 (75)	93 (80.17)	0.74 (0.07-7.47)	1
Pustular psoriasis – no (%)	0 (0)	14 (12.07)	0.79 (0.04-15.37)	1
Nail psoriasis – no (%)	0 (0)	9 (7.75)	1.23 (0.06-25.17)	1
Oligoarthritis – no (%)	2 (50)	29 (25)	3 (0.4-22.28)	0.2742
Polyarthritis – no (%)	1 (25)	53 (45.69)	0.4 (0.04-3.92)	0.6263
Axial SpA – no (%)	1 (25)	33 (28.45)	0.8 (0.08-8)	1
Enthesitis – no (%)	1 (25)	33 (28.45)	0.8 (0.08-8)	1
Anterior uveitis – no (%)	0 (0)	6 (5.17)	1.89 (0.09-39)	1
IBD – no (%)	1 (25)	3 (2.59)	9.33 (0.79-110.8)	0.1584
Dactylitis – no (%)	0 (0)	11 (9.48)	1.02 (0.05-20.17)	1
Other autoimmune disorder – no (%)	1 (25)	34 (29.3)	0.77 (0.08-7.68)	1

CI, confidence interval; IBD, inflammatory bowel disease; N, total number; no, number; OR, odds ratio; SpA, spondyloarthritis

Suppl. Table 4: Characteristics of psoriatic arthritis in patients with and without variants in *NOD2*

Characteristic	at least one variant in <i>NOD2</i> (N=3)	no variant in <i>NOD2</i> (N=117)	OR (95% CI)	<i>p</i> *
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Psoriasis – no (%)	3 (100)	93	1.83 (0.09-36.74)	1
Pustular psoriasis – no (%)	0 (0)	14 (11.97)	1.02 (0.05-20.78)	1
Nail psoriasis – no (%)	0 (0)	9 (7.69)	1.63 (0.08-34.01)	1
Oligoarthritis – no (%)	1 (33.33)	30 (25.64)	1.45 (0.13-16.58)	1
Polyarthritis – no (%)	2 (66.67)	52 (44.44)	2.5 (0.22-28.36)	0.5876
Axial SpA – no (%)	0 (0)	35 (29.91)	0.33 (0.02-6.6)	0.5551
Enthesitis – no (%)	0 (0)	35 (29.91)	0.33 (0.02-6.6)	0.5551
Anterior uveitis – no (%)	0 (0)	6 (5.13)	3.43 (0.15-79.14)	1
IBD – no (%)	2 (66.67)	3 (2.56)	76 (5.31-108.7)	0.0041 (**)
Dactylitis – no (%)	0 (0)	11 (9.4)	1.32 (0.06-27.27)	1
Other autoimmune disorder – no (%)	1 (33.33)	35 (29.91)	1.22 (0.11-13.92)	1

CI, confidence interval; IBD, inflammatory bowel disease; N, total number; no, number; OR, odds ratio; SpA, spondyloarthritis
*p < 0,01 **

Suppl. Table 5: Treatment of psoriatic arthritis in patients with or without variants in genes associates with autosomal dominant autoinflammatory disorders at last follow-up visit

variable	at least one variant in an AD-AID/IEI-associated gene (N=20)	no variant an AD-AID/IEI-associated gene (N=100)	OR (95% CI)	p ⁺
NSAID-based – no (%)	2 (10)	10 (10)	1 (0.2-4.96)	1
csDMARDs-based – no (%)	8 (40)	33 (33)	1.35 (0.5-3.63)	0.6087
TNFi-based – no (%)	5 (25)	22 (22)	1.18 (0.39-3.61)	0.7732
IL-17i-based – no (%)	3 (15)	16 (16)	0.93 (0.24-3.53)	1
JAKi-based – no (%)	2 (10)	8 (8)	1.28 (0.25-6.52)	0.6722
IL-12/23i-based – no (%)	0 (0)	6 (6)	0.35 (0.02-6.55)	0.5878
Other treatment – no (%)	0 (0)	5 (5)	0.42 (0.02-7.97)	0.5885
Treatment escalation/change due to disease activity – no (%)	6 (30)	13 (13)	2.87 (0.94-8.79)	0.0875
CRP (mg/L) – median (IQR)	5.2 (1.42-25.2)	1.4 (0.7-4.12)	NA	0.0042 (**)
CRP > 5 mg/l – no (%)	10 (50)	14 (14)	6.14 (2.16-17.43)	0.0009 (***)
CRP > 10 mg/l – no (%)	6 (30)	9 (9)	4.33 (1.34-14.05)	0.0191 (*)

BASDAI, Bath Ankylosing Spondylitis Disease Activity Index; CI, confidence interval; CRP, c reactive protein; csDMARDs, conventional synthetic disease-modifying antirheumatic drug; Disease Activity Score-28 with CRP; IL-12/23i, interleukin 12/23 inhibitor; IL-17i, interleukin 17 inhibitor; JAKi, Janus kinase inhibitor; N, total number; NA, not applicable; no, number; NSAID, non-steroidal anti-inflammatory drugs; OR, odds ratio; TNFi, tumor necrosis factor inhibitor
*p < 0.05 *, p < 0,01 **, p < 0.001 ***