Table S1. Genetic and clinical features of the patients

Patient	Syndrome[a]	Gene	Mutations	Age (yr)	Sex	Origin	Infections					References
							Pneumococcus	*Staphylococcus*	*Salmonella*[b]	*Mycobacteria*[c]	*Candida*	
1	MPPBI	*IRAK4*	E402X	11	M	Spain	+	–	–	–	–	Ku et al.[d]
2	MPPBI	*IRAK4*	1-1096_40+23del	11	M	Israel	+	–	–	–	–	Ku et al.
3[e]	MPPBI	*IRAK4*	M1V/1188+520A>G	3	F	Slovenia	–	–	–	–	–	Ku et al.
4	MPPBI	*IRAK4*	1189-1G>T/1188+520A>G	10	M	Hungary	+	–	–	–	–	Ku et al.
5	MPPBI	*IRAK4*	Q293X	33	F	UK	+	–	–	–	–	Ku et al.
6	MPPBI	*IRAK4*	Q293X	28	M	Canada	+	–	–	–	–	Ku et al.
7	MPPBI	*MYD88*	L93P/R196C	4	F	Turkey	+	–	–	–	–	unpublished data
8	MPPBI	*MYD88*	R196C	16	F	Portugal	+	–	+	–	–	unpublished data
9	MPPBI	*MYD88*	R196C	10	M	Portugal	+	+	+	–	–	unpublished data
10	MSMD	*IL12B*	297del8	7	M	Tunisia	–	–	*Se*	–	–	This report
11	MSMD	*IL12B*	297del8	24	M	Tunisia	–	–	–	–	–	This report
12	MSMD	*IL12RB1*	1791+2T>G	12	F	Spain	–	–	–	*Mtb*	–	Caragol et al.[f]
13	MSMD	*IL12RB1*	1791+2T>G	20	F	Spain	–	–	*Se*	*Mtb*	–	Caragol et al.
14	MSMD	*IL12RB1*	1791+2T>G	22	F	Spain	–	–	–	–	–	Caragol et al.
15	MSMD	*IL12RB1*	628-644dup	12	M	Turkey	–	–	–	BCG	–	Tanir et al.[g]
16	MSMD	*IL12RB1*	628-644dup	3	M	Turkey	–	–	–	–	+	Tanir et al.

17	MSMD	*IL12RB1*	Q32X	12	F	France	–	–	–	BCG	–	Fieschi et al[h]
18	MSMD	*IL12RB1*	K305X	29	F	Morocco	–	–	*St*	BCG	–	Fieschi et al.
19	MSMD	*IL12RB1*	700+362_1619-944del	11	F	Israel	–	–	–	–	–	Scheuerman et al.[i]
20	MSMD	*IL12RB1*	C198R	15	M	Turkey	–	–	–	BCG	–	Lichtenauer-Kaligis et al.[j]
21	MSMD	*IL12RB1*	R173P	14	M	Turkey	–	–	*Se*	–	–	This report
22	MSMD	*IL12RB1*	1745-46delinsCA/ 1483+182_1619-1073del	37	F	France	–	–	+	BCG	–	Fieschi et al.
23	MSMD	*IL12RB1*	C198R	8	F	Turkey	–	–	–	–	–	This report
24	MSMD	*IL12RB1*	C198R	4	M	Turkey	–	–	+	BCG	–	This report
25	MSMD	*IL12RB1*	Y367C	8	M	Cameroon	–	–	*Sd*	BCG	–	Fieschi et al.
26	MSMD	*IL12RB1*	1791+2T>G	24	F	Sri Lanka	–	–	–	BCG	–	Fieschi et al.
27	CE	*TGFB1*	R218C	31	F	France	–	–	–	–	–	Campos-Xavier et al.[k]
28	CE	*TGFB1*	R218C	62	F	France	–	–	–	–	–	Campos-Xavier et al.
29	CE	*TGFB1*	R218C	53	M	France	–	–	–	–	–	Campos-Xavier et al.
30	MLS	*TGFBR1*	K333Q	7	F	France	–	–	–	–	–	This report
31	MLS	*TGFBR2*	R537C	34	M	France	–	–	–	–	–	Mizuguchi et al.[l]
32	MLS	*TGFBR2*	C394W	41	F	France	–	–	–	–	–	This report
33	MLS	*TGFBR2*	C394W	14	F	France	–	–	–	–	–	This report
34	MLS	*TGFBR2*	C394W	10	F	France	–	–	–	–	–	This report
35	AD-HIES	*STAT3*	V463del	34	F	France	–	+	–	–	–	This report

36	AD-HIES	*STAT3*	V463del	8	M	France	+	+	–	–	+	This report
37	AD-HIES	*STAT3*	V463del	9	F	France	–	+	–	–	–	This report
38	AD-HIES	*STAT3*	K709E	17	M	France	–	+	–	–	+	This report
39	AD-HIES	*STAT3*	T412S	19	F	France	–	+	–	–	–	This report
40	AD-HIES	*STAT3*	V463del	37	F	Pakistan	–	+	–	–	+	This report
41	AD-HIES	*STAT3*	V463del	9	M	Pakistan	+	+	–	–	+	This report
42	AD-HIES	*STAT3*	K642E	36	M	France	–	+	–	–	+	This report
43	AD-HIES	*STAT3*	R382W	28	F	France	–	+	–	–	+	This report
44	AD-HIES	*STAT3*	R382Q	19	M	Turkey	–	+	–	–	+	This report
45	AD-HIES	*STAT3*	R382W	21	F	France	+	+	–	–	+	This report
46	AD-HIES	*STAT3*	R382W	16	M	Algeria	+	+	–	–	+	This report
47	AD-HIES	*STAT3*	R382W	23	M	France	+	+	–	–	+	This report
48	AD-HIES	*STAT3*	V463del	28	M	France	–	+	–	–	+	This report
49	AD-HIES	*STAT3*	N472D	17	M	France	–	+	–	–	+	This report
50	AD-HIES	*STAT3*	I665N	43	F	France	–	+	–	–	+	This report

[a]Shown are Mendelian predisposition to pyogenic bacterial infections (MPPBI), Mendelian susceptibility to mycobacterial diseases (MSMD), Camurati-Engelmann (CE) disease, Marfan-like syndromes (MLS), and AD-HIES.

[b]Infections caused by *Salmonella enteritidis* (*Se*), *Salmonella typhimurium* (*St*), and *Salmonella dublin* (*Sd*).

[c]Infections caused by Bacille Calmette-Guerin (BCG) or by *Mycobacterium tuberculosis* (*Mtb*).

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[e]Patient 3 suffered from invasive infection caused by *Pseudomonas aeruginosa*.

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Table S2. Percentage of CCR6-positive CD4 T cells in controls and STAT-3–deficient patients ex vivo

Patients and controls[a]	Age (yr)	$CCR6^+$ $CCR4^+$ $CD4^+$ T cells (%)	$CCR6^+$ $CCR4^-$ $CD4^+$ T cells (%)
P 35	7	4.4	0.5
P 36	9	5.7	0.5
P 37	34	6.7	1.1
P 38	16	8.7	7
P 46	16	8.9	1.4
Other patient[b]	7	4.7	2.4
Other patient[b]	15	3.1	0.2
Other patient[b]	21	4.9	0.5
C 1	5	7.8	1.5
C 2	7	6.8	6.5
C 3	7	6.6	8.8
C 4	7	11.1	6.2
C 5	12	16.6	15.2
C 6	13	6.8	12.2
C 7	16	8.4	18.5
C 8	unknown	8.3	11.8
C 9	unknown	10.9	20.3

[a]Eight STAT-3–deficient patients (P) and nine healthy controls (C) were studied.

[b]These patients, not described in Table S1, were not studied for IL-17 production.

Table S3. Percentage of CD4- and CD8-positive T cells in controls and patients ex vivo

Patient	**Gene**	**Age (yr)**	**Lymphocytes ($\times 10^9$ per µl)**	**$CD4^+$ (%)**	**$CD8^+$ (%)**
2	*IRAK4*	11	4.8	63	17
4	*IRAK4*	10	1.9	45	25
6	*IRAK4*	28	1.3	46	20
17	*IL12RB1*	12	Not done	35	19
18	*IL12RB1*	29	1.8	23	37
38	*STAT3*	17	1.3	37	21
39	*STAT3*	19	Not done	38	33
40	*STAT3*	37	2.9	41	23
41	*STAT3*	9	3.4	31	12
42	*STAT3*	36	0.8	46	20
43	*STAT3*	28	3	28	21
45	*STAT3*	21	2.6	40	34
46	*STAT3*	16	3.3	43	22
47	*STAT3*	23	1.5	35	24
49	*STAT3*	17	Not done	35	19
50	*STAT3*	43	1	39	21