

7	Lange, et al	2005	Germany	Case-control	Cases: 10 Controls: 20	3 3	<p><b>Association of CD14 genotype with atopic dermatitis</b></p> <table border="1"> <thead> <tr> <th colspan="2">Children without atopic dermatitis (%)</th> <th colspan="2">Children with atopic dermatitis</th> <th>Total (%)</th> </tr> </thead> <tbody> <tr> <td>CC</td> <td>4 (13.3)</td> <td>5 (16.7)</td> <td>9 (30)</td> <td>14 (46.7) (p=0.017)</td> </tr> <tr> <td>CT</td> <td>3 (10.0)</td> <td>4 (13.3)</td> <td>7 (23.3)</td> <td></td> </tr> <tr> <td>TT</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total</td> <td>20 (66.6)</td> <td>10 (33.3)</td> <td>30 (100)</td> <td></td> </tr> </tbody> </table> <p>No significant associations between AE and any single polymorphism or haplotype of <i>CARD15</i>.</p>	Children without atopic dermatitis (%)		Children with atopic dermatitis		Total (%)	CC	4 (13.3)	5 (16.7)	9 (30)	14 (46.7) (p=0.017)	CT	3 (10.0)	4 (13.3)	7 (23.3)		TT					Total	20 (66.6)	10 (33.3)	30 (100)																												
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8	Weidinger, et al.	2005	Germany	Cross-sectional	Total: 866/1009 (M/F) AD: 242 (12.9%)	49.0																																																					
9	Weidinger, et al	2005	Germany	Case-control	Total: 185/269 (M/F)	44.17	<p><b>NOD1 haplotypes, haplotype frequencies with 95% CIs and association results</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Haplotype</th> <th colspan="2">Frequency</th> <th colspan="2">95% CI</th> <th rowspan="2">Association</th> </tr> <tr> <th>1-1</th> <th>1-2</th> <th>1-1</th> <th>1-2</th> </tr> </thead> <tbody> <tr> <td>G-A-T-G-T-A-T-A-C-A</td> <td>0.04093</td> <td>0.02801</td> <td>0.02801</td> <td>0.05385</td> <td>NS</td> </tr> <tr> <td>A-G-T-G-T-A-T-A-C-A *</td> <td></td> <td></td> <td></td> <td></td> <td>NS</td> </tr> <tr> <td>A-G-T-G-T-A-T-A-C-G</td> <td>0.07809</td> <td>0.06059</td> <td>0.06059</td> <td>0.09559</td> <td>NS</td> </tr> <tr> <td>G-A-T-A-C-C-G-T-A-C-G</td> <td>0.43251</td> <td>0.40020</td> <td>0.40020</td> <td>0.46483</td> <td>NS</td> </tr> <tr> <td>A-G-T-A-C-C-G-T-A-C-G</td> <td>0.05985</td> <td>0.04438</td> <td>0.04438</td> <td>0.07532</td> <td>AE, OR=0.12, P=.003</td> </tr> <tr> <td>G-A-C-A-C-C-G-C-G-T-G</td> <td>0.16114</td> <td>0.13716</td> <td>0.13716</td> <td>0.18512</td> <td>NS</td> </tr> <tr> <td>A-G-T-G-T-A-T-G-T-G</td> <td>0.03044</td> <td>0.01924</td> <td>0.01924</td> <td>0.04165</td> <td>NS</td> </tr> </tbody> </table>	Haplotype	Frequency		95% CI		Association	1-1	1-2	1-1	1-2	G-A-T-G-T-A-T-A-C-A	0.04093	0.02801	0.02801	0.05385	NS	A-G-T-G-T-A-T-A-C-A *					NS	A-G-T-G-T-A-T-A-C-G	0.07809	0.06059	0.06059	0.09559	NS	G-A-T-A-C-C-G-T-A-C-G	0.43251	0.40020	0.40020	0.46483	NS	A-G-T-A-C-C-G-T-A-C-G	0.05985	0.04438	0.04438	0.07532	AE, OR=0.12, P=.003	G-A-C-A-C-C-G-C-G-T-G	0.16114	0.13716	0.13716	0.18512	NS	A-G-T-G-T-A-T-G-T-G	0.03044	0.01924	0.01924	0.04165	NS
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10	Fölster-Holst, et al	2005	Germany	Case-control	Cases: 201 Controls: 368		<p><b>Case-control association of SPINK5 Asn368Ser, Asp386Asn and Glu420Lys alleles</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Variant</th> <th colspan="2">Cases (n=201)</th> <th colspan="2">Healthy controls (n= 368)</th> <th rowspan="2">Global <math>\chi^2</math></th> <th rowspan="2">P-value</th> <th rowspan="2">OR(95% CI)</th> </tr> <tr> <th>1-1</th> <th>1-2</th> <th>1-1</th> <th>1-2</th> </tr> </thead> <tbody> <tr> <td>Asn368Ser</td> <td>41 (0.20)</td> <td>106 (0.52)</td> <td>54 (0.24)</td> <td>196 (0.53)</td> <td>81 (0.22)</td> <td>2.25</td> <td>0.32 (0.066-1.07)</td> </tr> <tr> <td>Asp386Asn</td> <td>4 (0.02)</td> <td>31 (0.15)</td> <td>168 (0.82)</td> <td>72 (0.20)</td> <td>291 (0.78)</td> <td>1.86</td> <td>0.24 (0.057-1.18)</td> </tr> <tr> <td>Glu420Lys</td> <td>42 (0.21)</td> <td>106 (0.53)</td> <td>51 (0.26)</td> <td>90 (0.25)</td> <td>195 (0.53)</td> <td>82 (0.22)</td> <td>0.77 (0.37 (0.069-1.14))</td> </tr> </tbody> </table>	Variant	Cases (n=201)		Healthy controls (n= 368)		Global $\chi^2$	P-value	OR(95% CI)	1-1	1-2	1-1	1-2	Asn368Ser	41 (0.20)	106 (0.52)	54 (0.24)	196 (0.53)	81 (0.22)	2.25	0.32 (0.066-1.07)	Asp386Asn	4 (0.02)	31 (0.15)	168 (0.82)	72 (0.20)	291 (0.78)	1.86	0.24 (0.057-1.18)	Glu420Lys	42 (0.21)	106 (0.53)	51 (0.26)	90 (0.25)	195 (0.53)	82 (0.22)	0.77 (0.37 (0.069-1.14))																
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11	Novak, et al	2005	Germany	Case-control	Cases: 225 Controls: 175	30.8 41.0	<p><b>Results of association analyses of subtypes of AE with <i>IL18</i> SNPs</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Groups 1,2, and 3 vs group 4</th> <th rowspan="2">Trend test</th> <th rowspan="2">Odds ratio</th> <th colspan="2">Confidence interval of the odds ratios</th> </tr> <tr> <th>Lower</th> <th>Upper</th> </tr> </thead> <tbody> <tr> <td>Exon 1, 113G</td> <td>0.0011</td> <td>2.7627</td> <td>0.9071</td> <td>8.4140</td> </tr> <tr> <td>Exon 1, 127T</td> <td>0.0011</td> <td>2.7731</td> <td>0.9107</td> <td>8.4441</td> </tr> <tr> <td>Promoter 1, -137C</td> <td>0.0001</td> <td>4.2821</td> <td>1.2413</td> <td>14.7716</td> </tr> <tr> <td>Promoter 2, -132G</td> <td>0.5585</td> <td>0.386</td> <td>0.1114</td> <td>1.3400</td> </tr> <tr> <td>Promoter 2, -133G</td> <td>0.0111</td> <td>1.7426</td> <td>0.8116</td> <td>3.7416</td> </tr> </tbody> </table> <p>Allele and genotypes frequency of a polymorphism in the intragenic region between <i>SLC9A3R1</i> and <i>NAT9</i></p> <table border="1"> <thead> <tr> <th rowspan="2">Polymorphism G/A</th> <th colspan="2">Atopic dermatitis n (%)</th> <th rowspan="2">Normal control n (%)</th> <th rowspan="2">P-value</th> </tr> <tr> <th>145 (81)</th> <th>33 (19)</th> </tr> </thead> <tbody> <tr> <td>G</td> <td>181 (79)</td> <td>47 (21)</td> <td>145 (81)</td> <td>NS</td> </tr> <tr> <td>A</td> <td>47 (21)</td> <td>33 (19)</td> <td>33 (19)</td> <td></td> </tr> </tbody> </table>	Groups 1,2, and 3 vs group 4	Trend test	Odds ratio	Confidence interval of the odds ratios		Lower	Upper	Exon 1, 113G	0.0011	2.7627	0.9071	8.4140	Exon 1, 127T	0.0011	2.7731	0.9107	8.4441	Promoter 1, -137C	0.0001	4.2821	1.2413	14.7716	Promoter 2, -132G	0.5585	0.386	0.1114	1.3400	Promoter 2, -133G	0.0111	1.7426	0.8116	3.7416	Polymorphism G/A	Atopic dermatitis n (%)		Normal control n (%)	P-value	145 (81)	33 (19)	G	181 (79)	47 (21)	145 (81)	NS	A	47 (21)	33 (19)	33 (19)				
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12	Hosomi, et al	2005	Japan	Case-control	Cases: 114 Controls: 89	28.6 33.0																																																					
13	Tsunemi, et al	2004	Japan	Case-control	Cases: 137/56 (M/F) Controls: 89/69 (M/F)	27.4 (11-61) 24.2 (18-82)	<p><b>Genotype and allele frequencies of the -431C&gt;T single-nucleotide polymorphism of TARC gene in atopic dermatitis (AD) patients and controls</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Genotype</th> <th colspan="2">AD (n= 193)</th> <th colspan="2">Control (n= 158)</th> <th rowspan="2">P</th> </tr> <tr> <th>C/C</th> <th>C/T</th> <th>C/C</th> <th>C/T</th> </tr> </thead> <tbody> <tr> <td>C/C</td> <td>61 (31.6)</td> <td>61 (38.6)</td> <td>61 (38.6)</td> <td>61 (38.6)</td> <td>0.38</td> </tr> <tr> <td>C/T</td> <td>106 (54.9)</td> <td>79 (50.0)</td> <td>79 (50.0)</td> <td>79 (50.0)</td> <td></td> </tr> <tr> <td>T/T</td> <td>26 (13.5)</td> <td>18 (11.4)</td> <td>18 (11.4)</td> <td>18 (11.4)</td> <td></td> </tr> <tr> <td>Allele</td> <td>C 228 (59.1)</td> <td>T 201 (63.6)</td> <td>C 228 (59.1)</td> <td>T 201 (63.6)</td> <td>0.22</td> </tr> </tbody> </table>	Genotype	AD (n= 193)		Control (n= 158)		P	C/C	C/T	C/C	C/T	C/C	61 (31.6)	61 (38.6)	61 (38.6)	61 (38.6)	0.38	C/T	106 (54.9)	79 (50.0)	79 (50.0)	79 (50.0)		T/T	26 (13.5)	18 (11.4)	18 (11.4)	18 (11.4)		Allele	C 228 (59.1)	T 201 (63.6)	C 228 (59.1)	T 201 (63.6)	0.22																		
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14 Tsunemi, et al 2004 Japan Case-control Cases: 139/59 (M/F) 27.4 (11-61) Controls: 104/79 (M/F) 29.2 (18-82)

**Genotype frequencies of C1014T SNP of CCR4**

Genotype	AD (n=198)	Control (n=183)	P value
C/C	188 (94.9)	173 (94.5)	0.58
C/T	9 (4.5)	10 (5.5)	
T/T	1 (0.5)	0 (0.0)	

15 Vasilopoulos, et al 2004 UK Case-control Cases: 103 Controls: 261

**Allelic distribution of the SCCE AACCC insertion**

Control	AACC	Heterozygotes	AACC	Total
	96	105	60	261
	29	32	42	103
<b>Atopic dermatitis</b>	<b>OR (95% CI)</b>	<b>p-value</b>	<b>Analysis performed</b>	
OR <sub>HET</sub>	1.01 (0.57, 1.79)	NS	---	
OR <sub>HOM</sub>	2.32 (1.31, 4.11)	0.0037	---	
OR <sub>OVERALL</sub>	2.31 (1.42, 3.76)	0.0007	Trend (recessive model)	
OR <sub>OVERALL</sub>	1.48 (0.90, 2.44)	NS	Carriage (dominant model)	

16 Hosomi, et al 2004 Japan Case-control Cases: 101 Controls: 75

**Association study of IL4R promoter polymorphism**

Polymorphism	Allele	Atopic dermatitis		Normal control		P-value
		n	(%)	n	(%)	
-3112C>T	C	64	(32)	69	(46)	
	T	138	(68)	81	(54)	0.0075
	Genotype	CC	(14)	14	(19)	
		CT	(36)	41	(55)	
		TT	(51)	20	(26)	0.0018
-1803T>C	T	42	(21)	53	(35)	
	C	160	(79)	97	(65)	0.0034
	Genotype	TT	(4)	8	(11)	
		TC	(34)	37	(49)	
		CC	(63)	30	(40)	0.0038
-327C>A	C	29	(14)	46	(31)	
	A	173	(86)	104	(69)	0.00033
	Genotype	CC	(3)	8	(11)	
		CA	(23)	30	(40)	
		AA	(75)	37	(49)	0.00086
-326A>C	A	40	(20)	51	(34)	
	C	162	(80)	99	(66)	0.0031
	Genotype	AA	(4)	9	(12)	
		AC	(32)	33	(44)	
		CC	(65)	33	(44)	0.009
-186G>A	G	40	(20)	51	(34)	
	A	162	(80)	99	(66)	0.0031
	Genotype	GG	(4)	9	(12)	
		GA	(32)	33	(44)	
		AA	(65)	33	(44)	0.009
-184A>G	A	183	(91)	137	(91)	NS
	G	19	(9)	13	(9)	
	Genotype	AA	(84)	63	(84)	NS
		AG	(15)	11	(15)	
		GG	(2)	1	(1)	

**Frequency of proximal promoter haplotypes**

Haplotype	AD n (%)	control n (%)	P value	Pc value
α	162 (80)	99 (66)	0.0031	0.0093
β	29 (14)	46 (31)	0.00033	0.00099
γ	11 (6)	5 (3)	NS	NS

-327C>A, -326A>C, -186G>A, and -184A>G, appeared to form three haplotypes: α (...AC...A.A), β (...CA...G.A...), and γ (...AA...G.A).

17	Ahmad-Nejad, et al	2004	Germany	Case-control	Cases: 78 Controls: 39	29 (14-78) 32 (17-58)	
<b>Frequencies of TLR-2 and TLR-4 SNPs</b>							
					<b>Cases</b>	<b>Controls</b>	
					TLR-2 R753Q	9 (11.5)	1 (2.5)
					TLR-4 D299G	9 (12.0)	2 (5.0)
					T399I		
18	Hoffjan, et al	2004	USA	Cohort	Total: 207	0	
A borderline significant relationship between the CD/4 -159T allele and AD in the first year.							
19	Kabesch, et al	2004	Germany	Cross-sectional	Total: 560/588 (M/F)	9,5	
<b>SPINK5 G1258A polymorphism</b>							
					<b>AD</b>	<b>Asthma + AD</b>	
					no association	4.56 (1.37-15.12)	
20	Yang, et al	2004	Taiwan	Cross-sectional	Total: 667/666 (M/F)	19-49	
<b>IL-4 promoter : no relation, CTLA-4 : no relation</b>							
21	Vavilin, et al	2003	Russia	Case-control	Cases: 126 Controls: 199	1-15 1-15	
<b>Distribution of Alleles and Genotypes of GST in Children</b>							

Parameter	Control		AD
	nonatopic	randomized	
<b>Allele Frequency</b>			
GSTM1*0	0.643	0.624	0.661
GSTM1*1	0.357	0.376	0.339
GSTT1*0	0.333	0.436	0.512 (p<0.001)
GSTT1*1	0.667	0.564	0.488
GSTP1-Ile <sub>65</sub>	0.651	0.695	0.691
GSTP1-Val <sub>65</sub>	0.349	0.305	0.309
<b>Genotypes</b>			
GSTM1*0/0	0.414 (41)	0.39 (39)	0.437 (55)
GSTM1*	0.586 (58)	0.61 (61)	0.563 (71)
GSTT1*0/0	0.111 (11)	0.19 (19)	0.262 (33)
GSTT1+	0.889 (88)	0.81 (81)	0.738 (93)
GSTP1 Ile <sub>65</sub> /Ile <sub>65</sub>	0.333 (33)	0.483 (50)	0.461 (59)
GSTP1 Ile <sub>65</sub> /Val <sub>65</sub>	0.637 (63)	0.424 (39)	0.453 (56)
GSTP1 Val <sub>65</sub> /Val <sub>65</sub>	0.03 (3)	0.093 (11)	0.086 (11)

**Associations of Haplotypes with Predisposition to AD**

Haplotype	Frequency in groups		OR (CI)
	AD	nonatopic control	
M1 <sup>+</sup> /T1 <sup>+</sup> /P1 Ile <sup>+</sup> /Val	25	17	1.0
M1 <sup>+</sup> /T1 <sup>+</sup> /P1 Ile <sup>+</sup> /Ile	23 (p=0.149)	31	1.98 (0.81-4.89)
M1 <sup>+</sup> /T1 <sup>+</sup> /P1 Val/Val	6 (p=0.163)	3	2.7 (0.50-18.13)
M1 <sup>+</sup> /T1 <sup>+</sup> /P1 Ile/Ile	7 (p=0.054)	2	4.72 (0.78-49.47)
M1 <sup>+</sup> /T1 <sup>0</sup> /P1 Ile/Val	10 (p=0.163)	5	2.7 (0.71-11.33)
M1 <sup>+</sup> /T1 <sup>0</sup> /P1 Val/Val	0 (p=0.68)	0	1.35 (0.02-109.16)
M1 <sup>0</sup> /T1 <sup>+</sup> /P1 Ile/Ile	20 (p=0.159)	13	2.07 (0.79-5.52)
M1 <sup>0</sup> /T1 <sup>+</sup> /P1 Ile/Val	15 (p=0.85)	24	0.84 (0.33-2.12)
M1 <sup>0</sup> /T1 <sup>+</sup> /P1 Val/Val	4 (p=0.07)	0	6.74 (0.68-163.29)
M1 <sup>0</sup> /T1 <sup>0</sup> /P1 Ile/Ile	7 (p=0.021)	1	9.43 (1.06-438.6)
M1 <sup>0</sup> /T1 <sup>0</sup> /P1 Ile/Val	8 (p=0.067)	3	3.59 (0.74-22.89)
M1 <sup>0</sup> /T1 <sup>0</sup> /P1 Val/Val	1 (p=0.41)	0	2.7 (0.17-80.32)

**Genotype frequencies and P-values based on 2 x 3 tables of the IL-13 — 1024 polymorphism**

Genotype	NA-Controls (n=104)	AD-P (n=55)
CC	76 (73%)	28 (51%)
CT	26 (25%)	25 (45%)
TT	2 (2%)	2 (4%)
P		2.0E-02

**Odds ratios for the IL-13 — 1024 marker**

Cases/controls	C-positive vs rest		T-positive vs rest	
	OR	Fisher	OR	Fisher
AD-P/NA-Controls	0.52	4.3E-01	2.62	4.6E-03

**Allele and genotype frequencies of CCR3 in AD patients and controls and subjects**

Allele	AD (n=201)	Control (n=182)	P	Genotype	AD (n=201)	Control (n=182)	P
T	389 (96.8)	353 (97.0)	0.87	T/T	188 (93.5)	171 (94.0)	0.86
C	13 (3.2)	11 (3.0)		T/C	13 (6.5)	11 (6.0)	
				C/C	0 (0.0)	0 (0.0)	

**IL5 — 703 polymorphism in atopic dermatitis (AD) patients classified by blood eosinophil levels**

Subjects	Eosinophil (%)	n Allele frequency		P value	IL5 — 703C/T genotype			
		C	T		CC	CT	TT	
Controls		116	99 (43%)	133 (57%)	23 (20%)	53 (46%)	40 (34%)	
Total AD patients	< 7	451	403 (45%)	499 (55%)	0.5832	88 (20%)	227 (50%)	136 (30%)
	7-15	178	173 (43%)	233 (57%)	0.9879	34 (17%)	105 (52%)	64 (31%)
	> 15	70	155 (54%)	201 (56%)	0.8357	33 (19%)	89 (50%)	56 (31%)
					0.0247	21 (30%)	33 (47%)	16 (23%)
					0.0412	0.0247	0.0412	0.0476

**IL5 — 703 polymorphism in AD patients classified by serum IgE concentration**

Subjects	Serum IgE (U/ml)	n Allele frequency		P value	IL5 — 703C/T genotype			
		C	T		CC	CT	TT	
Controls		116	99 (43%)	133 (57%)	23 (20%)	53 (46%)	40 (34%)	
Total AD patients	< 500	451	403 (45%)	499 (55%)	0.5832	88 (20%)	227 (50%)	136 (30%)
	500-2000	144	110 (38%)	178 (62%)	0.3005	18 (13%)	74 (51%)	52 (36%)
	> 2000	93	83 (45%)	103 (55%)	0.6893	0.1642	16 (17%)	51 (55%)
					0.1161	0.0041	54 (26%)	102 (47%)
					0.1161	0.0041	54 (26%)	102 (47%)
					0.1161	0.0041	54 (26%)	102 (47%)

**Relative Risk of Asthma and Dermatitis in Children with Various GSTP1 Genotypes**

Genotype, disease	Total	Relative Risk	
		Nonsmokers	Passive smokers
GSTP1 Ile/Val	BA 0.69 (0.39-1.22)	AD 0.78 (0.28-2.15)	0.64 (0.32-1.30)
GSTP1 Ile/Ile	BA 0.51 (0.28-0.92)	AD 0.3 (0.10-0.85)	0.75 (0.35-1.60)
GSTP1 Val/Val	BA 1.24 (0.70-2.21)	AD 1.09 (0.38-3.10)	1.35 (0.66-2.70)
	AD 1.55 (0.85-2.81)		0.98 (0.45-2.10)
	AD 2.37 (0.59-13.70)		2.37 (0.4-24.7)
	AD 3.22 (0.81-18.40)		3.73 (0.7-37.9)

22 Hummelshøj, et al 2003 Denmark Case-control Cases: 55 Controls: 104

23 Tsunemi, et al 2003 Japan Case-control Cases: 142/59 (M/F) Controls: 103/79 (M/F)

24 Yamamoto, et al 2003 Japan Case-control Cases: 265/186 (M/F) Controls: 50/66 (M/F)

25 Safronova, et al 2003 Russia Case-control Cases: 117 Controls: 157

26 Brocvielle, et al 2003 France Case-control 22-59 20-54  
 Cases: 11/9 (M/F)  
 Controls: 11/9 (M/F)

**Distribution of acetylator phenotypes and genotypes**

	Atopic dermatitis (n=20)		Volunteers (n=20)		Total (n=40)	
	n	%	n	%	n	%
RA phenotype (rapid)	11	55	12	60	23	57.5
SA phenotype (slow)	8	40	8	40	16	40
IA phenotype (intermediate)	1	5	0	0	1	2.5
Total	20	100	20	100	40	100
<b>Homozygous RA</b>						
NAT2*4/NAT2*4	2	10	2	10	4	10
<b>Heterozygous RA</b>						
NAT2*4/NAT2*5	6	30	6	30	12	30
NAT2*4/NAT2*6	3	15	4	20	7	17.5
NAT2*4/NAT2*7	0	0	0	0	0	0
Total (RA)	11	55	12	60	23	57.5
<b>Homozygous SA</b>						
NAT2*5/NAT2*5	0	0	1	5	1	2.5
NAT2*6/NAT2*6	2	10	2	10	4	10
<b>Heterozygous SA</b>						
NAT2*5/NAT2*6	6	30	5	25	11	27.5
NAT2*5/NAT2*7	1	5	0	0	1	2.5
NAT2*6/NAT2*7	0	0	0	0	0	0
Total (SA)	9	45	8	40	17	42.5
Total (RA + SA)	20	100	20	100	40	100

27 Rafatpanah, et al 2003 UK Case-control 4 (3-10) 11 (9-13)  
 Cases: 64/49 (M/F)  
 Controls: 72/42 (M/F)

**Allele and genotype frequencies of GM-CSF polymorphisms**

	Total population		OR	P value
	Control	AD		
GM-CSF -677	63	113		
<b>Alleles</b>				
A	63 (50%)	161 (71%)	2.3 (1.4-3.6)	<.001
C	63 (50%)	65 (29%)	1.0	
<b>Genotype</b>				
AA	10 (16%)	54 (48%)	7.5 (2.2-25)	<.001
AC	43 (68%)	53 (47%)		
CC	10 (16%)	6 (5%)	1.0	
GM-CSF -1916	62	104		
<b>Alleles</b>				
T	64 (52%)	144 (69%)	1.9 (1.2-3.1)	.001
C	60 (48%)	64 (31%)	1.0	
<b>Genotype</b>				
TT	12 (19%)	49 (47%)	3.3 (1.5-7.2)	<.001
TC	40 (65%)	46 (44%)		
CC	10 (16%)	9 (9%)	1.0	

**Allele and genotype frequencies of TNF- $\alpha$  and IL-1 $\beta$  polymorphisms**

	Total population		P value
	Control	AD	
TNF- $\alpha$ (-308)	71	113	
Alleles			
A	32 (23%)	37 (16%)	.1
G	110 (77%)	189 (84%)	
Genotype			
AA	2 (3%)	5 (4%)	.08
AG	28 (39%)	27 (24%)	
GG	41 (58%)	81 (72%)	
IL-1 $\beta$			
Alleles			
X	43 (19%)	50 (23%)	.4
O	181 (81%)	168 (77%)	
Genotype			
XX	4 (4%)	10 (9%)	
XO	35 (31%)	30 (28%)	.8
OO	73 (65%)	69 (63%)	

**Prevalence of atopy and atopic diseases at 24 months of age in different genotype groups**

Phenotype	IL13Arg130Gln				IL13C-1112T				
	Arg/Arg	Arg/Gln	Gln/Gln	CC	CT	TT	CC	CT	TT
Probable asthma	7 (12/182)	9 (8/85)	14 (2/14)	7 (13/181)	9 (8/93)	11 (1/9)	6 (12/198)	13 (10/78)	8 (1/12)
Rhinitis without colds	14 (25/182)	7 (6/85)	21 (3/14)	14 (25/181)	9 (8/93)	0 (0/9)	10 (20/198)	9 (7/78)	33*(4/12)
Atopic dermatitis	6 (11/179)	16 (14/85)	7*(1/14)	9 (16/180)	11 (10/91)	0 (0/9)	8 (15/197)	13 (10/76)	17 (2/12)
Positive skin test	9 (17/182)	17 (14/85)	21*(3/14)	11 (19/180)	16 (15/92)	0 (0/9)	12 (23/197)	13 (10/77)	17 (2/12)

\*Relative risk Gln/Gln and Arg/Gln vs Arg/Arg=2.5 (95% CI=1.2-5.2, P=0.014).  
 †Relative risk Gln/Gln and Arg/Gln vs Arg/Arg=1.9 (95% CI=1.0-3.5, P=0.047).  
 ‡Relative risk TT vs CT and CC-3+ (95% CI=1.4-8.2, P=0.010).

28 He, et al. 2003 Canada Cohort Total: 368 birth

29 Reich, et al 2003 Germany Case-control Cases: 44/50 (M/F) Controls: 125/89 (M/F) 26.0 (6-63) 34.0 (18-82)

**Genotype frequencies in the investigated groups**

Locus	Genotype	Atopic dermatitis (n=94)			Controls (n=214)			OR	(95% CI)
		n	(%)	n	(%)				
TNF2A -238	G/G	86	(91.49)	195	(91.12)				
	G/A	7	(7.45)	18	(8.41)	1.02	(0.42-2.31)		
	A/A	1	(1.06)	1	(0.47)	1.05	(0.17-5.33)		
TNF2A -308	G/G	68	(72.34)	158	(73.83)				
	G/A	25	(26.60)	56	(26.17)	1.13	(0.64-1.98)		
	A/A	1	(1.06)	0	(0.00)	1.28	(0.41-3.95)		
IL10 -1082	A/A	18	(19.15)	49	(22.90)				
	A/G	53	(56.38)	118	(55.14)	1.15	(0.79-1.69)		
	G/G	23	(24.47)	47	(21.96)	1.32	(0.62-2.85)		
IL6 -174	C/C	19	(20.21)	44	(20.56)				
	C/G	48	(51.06)	104	(48.60)	0.97	(0.67-1.38)		
	G/G	27	(28.72)	66	(30.84)	0.93	(0.45-1.91)		
IL1B -511	C/C	36	(38.30)	94	(43.93)				
	C/T	48	(51.06)	102	(47.66)	1.21	(0.81-1.81)		
	T/T	10	(10.64)	18	(8.41)	1.47	(0.66-3.26)		
IL1B +3953	T/T	51	(54.26)	123	(57.48)				
	T/C	39	(41.49)	75	(35.05)	1.00	(0.66-1.51)		
	C/C	4	(4.25)	16	(7.47)	1.00	(0.43-2.27)		
IL1RN	1/1	39	(41.48)	105	(49.07)				
	1/2	41	(43.62)	76	(35.51)	1.05	(0.81-1.34)		
	1/3,5	4	(4.26)	8	(3.74)	1.10	(0.66-1.80)		
	2/2	10	(10.64)	22	(10.28)	1.15	(0.54-2.42)		
	2/3	0	(0.00)	3	(1.40)	1.21	(0.44-3.25)		



**Association between CARD15 polymorphisms and atopic diseases**

9-11

Total: 1872

Cross-sectional

Germany

2003

Kabesch, et al

32

Polymorphism	Atopic dermatitis (n=330/1747)
C2104 (Arg675Trp)	16.2% vs 18.5% NS
G2722C (Gly881Arg)	29.6% vs 18.5% 1.85 (1.10-3.13)
3020C	23.0% vs 18.5% NS

**CD14 genotype frequencies**

7

Cases: 184  
Controls: 119

Nested case-control

Germany

2003

Sengler, et al

33

Phenotype	Genotype (frequencies)		
	n	-159CC	-159CT -159TT
1.Asthma	84	0.27	0.51 0.21
2.Allergic rhinitis	80	0.20	0.58 0.23
3.Atopic dermatitis	184	0.26	0.52 0.22
4.Polysensitization age 7years	78	0.30	0.45 0.26
5.Polysensitization age 10years	89	0.28	0.46 0.26
6.IgE>85. percentile at ≥ two time-points	78	0.28	0.47 0.24
7.IgE<15. percentile at ≥ two time-points	77	0.33	0.51 0.17
8.Non-atopic controls	119	0.22	0.61 0.18

**Allele and genotype frequencies of IL-13 polymorphisms in AD patients and control subjects**

27.6 (11-61)

Cases: 130/55 (M/F)  
Controls: 102

Case-control

Japan

2002

Tsunemi, et al

34

SNPs	AD	Control	P value	AD	Control	P value
<i>A704C</i>						
A	236 (63.8)	141 (69.1)	0.20	A/A	72 (38.9)	52 (51.0)
C	134 (36.2)	63 (30.9)		A/C	92 (49.7)	37 (36.3)
				C/C	21 (11.4)	13 (12.7)
<i>C1103T</i>						
C	293 (79.2)	169 (82.8)	0.29	C/C	113 (61.1)	67 (65.7)
T	77 (20.8)	35 (17.2)		C/T	67 (36.2)	35 (34.3)
				T/T	5 (2.7)	0 (0.0)
<i>G4257A</i>						
G	224 (60.5)	144 (70.6)	0.016	G/G	64 (34.6)	50 (49.0)
A	146 (39.5)	60 (29.4)		G/A	96 (51.9)	44 (43.1)
				A/A	25 (13.5)	8 (7.8)

**Genotype frequencies of the 1188A/C SNP of IL12B**

Cases: 164  
Controls: 100

Case-control

Japan

2002

Tsunemi, et al

35

Genotype	AD (n=164)	Control (n=100)
AA	25 (15.2)	28 (28.0)
AC	84 (51.2)	45 (45.0)
CC	55 (33.5)	27 (27.0)

p=0.041

**Allele frequencies of the 1188A/C SNP of IL12B**

Allele	AD (n=164)	Control (n=100)
A	134 (40.9)	101 (50.5)
C	194 (59.1)	99 (49.5)

p=0.031



SNP site	Genotype	AD (n=140)	Control (n=140)	$\chi^2$	P
-426C>T	C/C	118 (84.3)	121 (86.4)	1.71	0.425
	C/T	21 (15.0)	16 (11.4)		
	T/T	1 (0.7)	3 (2.1)		
-384A>G	A/A	69 (49.3)	70 (50.0)	1.33	0.514
	A/G	58 (41.4)	62 (44.3)		
	G/G	13 (9.3)	8 (5.7)		
67G>A	G/G	118 (84.3)	110 (78.6)	5.75	0.056
	G/A	19 (13.6)	30 (21.4)		
	A/A	3 (2.1)	0 (0.0)		

Allele frequencies of the three SNP sites (-426C>T, -384A>G, 67G>A) of the cofxin gene in AD patients and controls

SNP site	Allele	AD (n=140)	Control (n=140)	$\chi^2$	P
-426C>T	C allele	257 (91.8)	258 (92.1)	0.024	0.876
	T allele	23 (8.2)	22 (7.9)		
-384A>G	A allele	196 (70.0)	202 (72.1)	0.313	0.576
	G allele	84 (30.0)	78 (27.9)		
67G>A	G allele	255 (91.1)	250 (89.3)	0.504	0.478
	A allele	25 (8.9)	30 (10.7)		

Associations of flexural eczema and early infection with the R551 polymorphism of the IL-4 receptor alpha chain (IL-4R $\alpha$ )

0

Total: 992

Cohort

UK

2002

Callard, et al

Flexural eczema	WT/WT		IL-4R $\alpha$ genotype		P*
	Prevalence	prevalence	R551/R551	prevalence	
<i>Child had rash in joints and creases</i>					
0-6 months % (n)	24.6 (245/994)	22.8 (137/602)	26.3 (89/339)	35.8 (19/53)	0.08
6-18 months % (n)	27.9 (271/970)	28.3 (168/593)	27.8 (91/327)	24.0 (12/50)	0.84
18-30 months % (n)	29.9 (279/934)	30.5 (174/571)	29.6 (93/314)	24.5 (12/49)	0.71
30-42 months % (n)	25.4 (234/921)	26.9 (152/566)	22.5 (69/307)	27.1 (13/48)	0.34
<i>Early infection</i>					
Antibiotics use in first 6 months % (n)	34.1 (341/999)	32.8 (198/604)	35.0 (119/340)	43.6 (24/55)	0.25
Flexural eczema between birth and 6months					
Not given antibiotics (0-6 months)		21.7 (88/405)	26.8 (59/220)	43.3 (13/30)	0.02
Given antibiotics (0-6 months)		25.0 (49/196)	25.4 (30/118)	26.1 (6/23)	0.99

Genotype and allele frequencies for RANTES -28 and -403, and MCP-1 -2518

Polymorphism	Population	Genotype		Allele 2	
		I1*	I2*	Total	frequencies
RANTES -28 C/G					
AEDS	120	8	0	128	3.1
Controls	284	19	0	303	3.1
RANTES -403 G/A					
AEDS	86	38	4	128	18.0
Controls	211	84	8	303	16.5
MCP-1 -2518 A/G					
AEDS	83	35	10	128	21.5
Controls	194	90	19	303	21.1

\*1=frequent allele; 2=rare allele

6.3 (3-18)

Cases: 68/60 (M/F)  
Controls: 303

Case-control

Hungary

2002

Kozma, et al

**Distribution of TAP1 alleles in atopic dermatitis patients**

Genotype frequencies	Patients (n=53)		Controls (n=184)		RR (95% CI)	P-value	Pe-value
	n	(%)	n	(%)			
TAP1*A/TAP1*A	34	(64.2)	113	(61.4)		NS	NS
TAP1*C/TAP1*C	0	(0.0)	1	(0.5)		NS	NS
TAP1*B/TAP1*B	2	(3.8)	4	(2.2)		NS	NS
TAP1*A/TAP1*C	1	(1.9)	6	(3.3)		NS	NS
TAP1*A/TAP1*B	2	(3.8)	11	(6.0)		NS	NS
TAP1*A/TAP1*B	14	(26.4)	49	(26.6)		NS	NS
Phenotype frequencies							
TAP1*A	50	(94.3)	173	(94.0)		NS	NS
TAP1*B	17	(34.0)	59	(32.1)		NS	NS
TAP1*C	3	(5.7)	18	(9.8)		NS	NS
Allele frequencies							
TAP1*A	84	(79.2)	286	(77.7)		NS	NS
TAP1*B	19	(17.9)	63	(17.1)		NS	NS
TAP1*C	3	(2.8)	19	(5.2)		NS	NS

**Distribution of TAP2 alleles in atopic dermatitis patients**

Genotype frequencies	Patients (n=53)		Controls (n=184)		RR (95% CI)	P-value	Pe-value
	n	(%)	n	(%)			
TAP2*A/TAP2*A	10	(18.9)	35	(19.0)		NS	NS
TAP2*A/TAP2*B	13	(24.5)	66	(35.9)		NS	NS
TAP2*A/TAP2*C	10	(18.9)	8	(4.3)	5.1163 (2.01-12.45)	0.002	0.028
TAP2*A/TAP2*E	3	(5.7)	9	(4.9)		NS	NS
TAP2*B/TAP2*B	6	(11.3)	17	(9.2)		NS	NS
TAP2*B/TAP2*E	3	(5.7)	12	(6.5)		NS	NS
TAP2*B/TAP2*G	0	(0.0)	3	(1.6)		NS	NS
TAP2*C/TAP2*C	1	(1.9)	1	(0.5)		NS	NS
TAP2*C/TAP2*D	0	(0.0)	2	(1.1)		NS	NS
TAP2*D/TAP2*E	0	(0.0)	1	(0.5)		NS	NS
TAP2*E/TAP2*E	1	(1.9)	1	(0.5)		NS	NS
TAP2*A/TAP2*G or TAP2*B/TAP2*C <sup>1</sup>	5	(9.4)	22	(12.0)		NS	NS
TAP2*B/TAP2*D or TAP2*E/TAP2*G <sup>1</sup>	1	(1.9)	4	(2.2)		NS	NS
TAP2*E/TAP2*D or TAP2*A/TAP2*D or TAP2*C/TAP2*E <sup>1</sup>	0	(0.0)	3	(1.6)		NS	NS
Phenotype frequencies							
TAP2*A	36	(67.9)	118	(64.1)		NS	NS
TAP2*B	22	(41.5)	98	(53.3)		NS	NS
TAP2*C	11	(20.8)	11	(6.0)	4.1190 (1.76-9.63)	0.003	0.027
TAP2*D	0	(0.0)	3	(1.6)		NS	NS
TAP2*E	7	(13.2)	23	(12.5)		NS	NS
TAP2*G	0	(0.0)	3	(1.6)		NS	NS
Allele frequencies							
TAP2*A	46	(43.4)	153	(41.6)		NS	NS
TAP2*B	28	(26.4)	115	(31.3)		NS	NS
TAP2*C	12	(11.3)	12	(3.3)	3.7872 (1.73-8.28)	0.003	0.027
TAP2*D	0	(0.0)	3	(0.8)		NS	NS
TAP2*E	8	(7.5)	24	(6.5)		NS	NS
TAP2*G	0	(0.0)	3	(0.8)		NS	NS

**Distribution of LMP2 alleles in atopic dermatitis patients**

	Patients (n=53)		Controls (n=184)		RR (95% CI)	P-value	Pe-value
	n	(%)	n	(%)			
<b>Genotype frequencies</b>							
LMP2*R/LMP2*R	32	(60.4)	113	(61.4)		NS	NS
LMP2*R/LMP2*H	20	(37.7)	64	(34.8)		NS	NS
LMP2*H/LMP2*H	1	(1.9)	7	(3.8)		NS	NS
<b>Phenotype frequencies</b>							
LMP2*R	52	(98.1)	173	(96.2)		NS	NS
LMP2*H	21	(39.6)	71	(38.6)		NS	NS
<b>Gene frequencies</b> (2n=106)							
LMP2*R	84	(79.2)	290	(78.8)		NS	NS
LMP2*H	22	(20.8)	78	(21.2)		NS	NS

**Distribution of LMP7 alleles in atopic dermatitis patients**

	Patients (n=53)		Controls (n=184)		RR (95% CI)	P-value	Pe-value
	n	(%)	n	(%)			
<b>Genotype frequencies</b>							
LMP7*A/LMP7*A	9	(17.0)	26	(14.1)		NS	NS
LMP7*A/LMP7*B	27	(50.9)	78	(42.4)		NS	NS
LMP7*B/LMP7*B	14	(26.4)	56	(30.4)		NS	NS
LMP7*B/LMP7*C	2	(3.8)	16	(8.7)		NS	NS
LMP7*C/LMP7*C	0	(0.0)	1	(0.5)		NS	NS
LMP7*D/LMP7*X	1	(1.9)	7	(3.8)		NS	NS
<b>Phenotype frequencies</b>							
LMP7*A	36	(67.9)	104	(56.5)		NS	NS
LMP7*B	43	(81.1)	150	(81.5)		NS	NS
LMP7*C	2	(3.8)	17	(9.2)		NS	NS
LMP7*D	1	(1.9)	7	(3.8)		NS	NS
<b>Allele frequencies</b> (2n=106)							
LMP7*A	45	(42.5)	130	(35.3)		NS	NS
LMP7*B	57	(53.8)	206	(56.0)		NS	NS
LMP7*C	2	(1.9)	16	(4.3)		NS	NS
LMP7*D	0	(0.0)	0	(0.0)		NS	NS

40 Arkwright, et al 2001 UK Case-control 10±4  
8±5  
Cases: 37/31 (M/F)  
Controls: 27/23 (M/F)

TGFB1 and IL10 polymorphism frequencies in children with and without AD		Control subjects (n=50)	Patients with AD (n=68)	P value*
<i>TGFB1</i> polymorphisms, codon 25 (+915)				
Allele frequencies				
G	94 (94%)	109 (80%)		.004
C	6 (6%)	27 (20%)		
Genotype frequencies				
G/G	44 (88%)	41 (60%)		.001
G/C	6 (12%)	27 (40%)		
C/C	0 (0%)	0 (0%)		
<i>TGFB1</i> polymorphisms, codon 10 (+869)				
Allele frequencies				
T	63 (63%)	91 (67%)		.5
C	37 (37%)	45 (33%)		
Genotype frequencies				
T/T	25 (50%)	37 (54%)		.9
T/C	13 (26%)	17 (25%)		
C/C	12 (24%)	14 (21%)		
<i>IL10</i> polymorphism (-1082)				
Allele frequencies				
G	48 (48%)	62 (46%)		.8
A	52 (52%)	74 (54%)		
Genotype frequencies				
G/G	13 (26%)	16 (24%)		.9
G/A	21 (42%)	30 (44%)		
A/A	16 (32%)	22 (32%)		

41 Pascale, et al 2001 Italy Case-control 6.2 (1-12)  
9.4 (5-15)  
Cases: 36/34 (M/F)  
Controls: 55/45 (M/F)

	Control subjects (n=50)		Patients with mild-to-moderate AD (n=33)		Patients with severe AD (n=35)		P-value*
	n	%	n	%	n	%	
<i>TGFB1</i> polymorphisms, codon 25 (+915)							
Allele frequencies							
G	94	(94%)	55	(83%)	54	(77%)	.003
C	6	(6%)	11	(17%)	16	(23%)	
Genotype frequencies							
G/G	44	(88%)	22	(67%)	19	(54%)	.002
G/C	6	(12%)	11	(33%)	16	(46%)	
C/C	0	(0%)	0	(0%)	0	(0%)	

41 Pascale, et al 2001 Italy Case-control 6.2 (1-12)  
9.4 (5-15)  
Cases: 36/34 (M/F)  
Controls: 55/45 (M/F)

Genotype and allele distribution of the <i>BsrXIMCC</i> polymorphism in Italian patients							
Genotype	n	%	Odds ratio		95% CI		P
			A	B	A	B	
AA	100	25 (0.25)	51 (0.51)	24 (0.24)	101 (0.51)	99 (0.49)	
AB	50	9 (0.18)	28 (0.56)	13 (0.26)	0.94	1.11	0.46-2.58
BB	70	19 (0.27)	34 (0.49)	17 (0.24)	0.89	1.01	0.46-2.19
AB	70	19 (0.27)	34 (0.49)	17 (0.24)	0.89	1.01	0.46-2.19
BB	70	19 (0.27)	34 (0.49)	17 (0.24)	0.89	1.01	0.46-2.19
AB	70	19 (0.27)	34 (0.49)	17 (0.24)	0.89	1.01	0.46-2.19
BB	70	19 (0.27)	34 (0.49)	17 (0.24)	0.89	1.01	0.46-2.19
AB	70	19 (0.27)	34 (0.49)	17 (0.24)	0.89	1.01	0.46-2.19
BB	70	19 (0.27)	34 (0.49)	17 (0.24)	0.89	1.01	0.46-2.19
AB	70	19 (0.27)	34 (0.49)	17 (0.24)	0.89	1.01	0.46-2.19
BB	70	19 (0.27)	34 (0.49)	17 (0.24)	0.89	1.01	0.46-2.19

42 Liu, et al 2000 Germany Nested case-control 2.38 (1.35-4.21)  
OR (95% CI)<sup>†</sup>

Phenotype	AA	AG	GG	Pearson $\chi^2$ test (P value)	Fisher exact test P value	OR (95% CI) <sup>†</sup>
High IgE	6	42	52	10.97 (.004)	.003	2.38 (1.35-4.21)
Low IgE	1	30	80		.057	1.77 (1.06-2.96)
AD	10	72	105			
Non-AD	6	24	68			

42 Liu, et al 2000 Germany Nested case-control 2.38 (1.35-4.21)  
OR (95% CI)<sup>†</sup>

43 Oiso, et al 2000 Japan Case-control 28.6 (15-63)  
30.4 (22-71)  
Cases: 27  
Controls: 29

**Genotypes at IL-4R codons 50, 375, 406, 411, 551 and 761**

	No.	Ile/Ile	Ile/Val	Val/Val	P-value
Genotype at codon 50					
Atopic dermatitis	27	6	11	10	0.76
Non-atopic dermatitis	27	8	10	9	
Genotype at codon 375					
Atopic dermatitis	26	Glu/Glu	Glu/Ala	Ala/Ala	0.63
Non-atopic dermatitis	29	25	1	0	
Genotype at codon 406					
Atopic dermatitis	26	Cys/Cys	Cys/Arg	Arg/Arg	0.61
Non-atopic dermatitis	29	25	1	0	
Genotype at codon 411					
Atopic dermatitis	26	Ser/Ser	Ser/Leu	Leu/Leu	
Non-atopic dermatitis	29	26	0	0	
Genotype at codon 551					
Atopic dermatitis	27	Glu/Glu	Glu/Arg	Arg/Arg	0.01
Non-atopic dermatitis	28	21	6	0	
Genotype at codon 761					
Atopic dermatitis	25	Ser/Ser	Ser/Pro	Pro/Pro	
Non-atopic dermatitis	29	25	0	0	

44 Nickel, et al 2000 Germany Nested case-control 11.1 (4-38)  
12-13  
Cases: 188  
Controls: 98

**Distribution of RANTES polymorphic genotypes in children**

Subjects	Genotype			Frequency of A	P
	AA	AG	GG		
AD (n=188)	6	72	110	0.22	0.037
Control subjects (n=98)	0	28	70	0.14	

45 Kawashima, et al 1998 Japan Case-control 10 (1-38)  
11  
Cases: 100  
Controls: 101

**Genotype and allelic distribution of the MCC-1903A/G polymorphism**

Genotype	No	AB	BB	p <sup>1</sup>	Allele		P	Odds ratio (95% CI)
					A	B		
Controls	101	6 (0.06)	31 (0.31)	64 (0.63)	43 (0.21)	159 (0.79)		
AD	100	4 (0.04)	30 (0.30)	64 (0.66)	0.81	1.12	38 (0.20)	162 (0.80)
							(0.63-1.99)	(0.71-1.87)

The A allele corresponds to -1903 A and the B allele corresponds to -1903 G  
<sup>1</sup> Comparisons were made between the BB genotype versus the other genotypes between the cases and controls by 2x2<sup>2</sup> test, one tailed.

<sup>2</sup> Odds ratios (95% confidence interval) of the BB genotype associated with AD.

46 Kawashima, et al 1998 Japan Case-control 10 (1-38)  
11  
Cases: 210  
Controls: 215

**Genotypic and allelic distributions of the IL-4 -590C/T polymorphism**

	No	Genotype		p <sup>1</sup>	Allele		P	Odds ratio (95% CI)
		CC	CT		TT	C		
Controls	215	17 (0.08)	97 (0.45)	101 (0.47)	131 (0.30)	299 (0.70)		
AD parents	122	7 (0.06)	57 (0.47)	58 (0.48)	71 (0.29)	173 (0.71)		
AD offspring	88	8 (0.09)	25 (0.28)	55 (0.63)	41 (0.23)	135 (0.77)		
Odds ratio		1.16	0.48	1.88		1.44		
95% confidence interval		0.52-2.78	0.29-0.83	1.13-3.09		0.69-2.14		
p value		0.73	0.007	0.01		0.08		

47 Ismail, et al 1997 Tunisia Case-control 20 Controls: 52/29 (M/F) 10 24

**TAP1 gene and allele frequencies (%)**

Codon	Control group (2n=162)		AD Group (2n=40)	
	%	p value	%	p value
333	637			
a	Val	11	25	0.01
b	Ile	89	75	
c	Asp	86	62	
	Gly	14	32	0.005
d	Ile	84	62	0.0008
A	Val	9	25	0.005
B	Val	2	0	NS
C	Asp	5	13	NS
D	Gly			

**Distribution (%) of TAP1 genotypes**

Genotype	Control group (n=81)		AD group (n=20)	
	%	p value	%	p value
a/a	2	10	NS	
a/b	18	30	NS	
d/d	4	15	0.01	
c/d	20	45	0.0003	
A/A	73	40	0.0001	
A/B	12	25	0.03	
A/C	2	0	NS	
A/D	6	20	0.006	
B/B	0	10	0.004	
B/C	2	0	NS	
B/D	4	5	NS	
C/C	0	0	NS	
C/D	0	0	NS	
D/D	0	0	NS	

48 Kuwata, et al 1996 Japan Case-control 27/10 (M/F) Controls: 52 27.0 (11-42)

**HLA-DM allele frequencies**

HLA-DM alleles	Atopic dermatitis (n=74)		Control (n=104)		Relative Risk	Chi-square	p Value
	%	p value	%	p value			
DMA							
0101	66 (89%)	93 (89%)	0.98	0.002480	0.9602		
0102	7 (9%)	11 (11%)	0.88	0.05939	0.8074		
0103	1 (1%)	0 (0%)	4.27	0.02940	0.8638		
DMB							
0101	41 (55%)	52 (50%)	1.24	0.5063	0.4767		
0102	21 (28%)	29 (28%)	1.02	0.005218	0.9424		
0103	12 (16%)	23 (22%)	0.68	0.9524	0.3290		

49 Mao, et al 1996 Japan Case-control 100 Controls: 100

**Association between genotypes of proteases on chromosome 14 and atopic diseases**

Individual groups	Number of cases	CGI (M/bell)			MCC (BstXI)						
		AA	AB	BB	p	Odds ratio (95% CI)	AA	AB	BB	p	Odds ratio (95% CI)
Control	100	2	38	60	..	..	9	38	53	..	..
Eczema	100	5	34	61	0.89	1.04 (0.60-1.80)	3	26	71	0.009	2.17 (1.21-3.88)
Atopic rhinitis	100	5	38	57	0.67	0.88 (0.50-1.55)	4	38	58	0.47	1.22 (0.70-2.11)
Atopic asthma	100	4	32	64	0.56	1.19 (0.66-2.13)	8	39	53	1.00	1.00
Non-atopic asthma	100	3	30	67	0.31	1.35 (0.76-2.38)	1	34	65	0.085	1.64 (0.93-2.88)

**Table 2. Genetic factors in relation to atopic dermatitis**

GZMB [CGL1] (Mbo II)	-49							
CMAI	↑ 49	-45	-41					↓ 5
HLA-DMA	-48							
HLA-DMB	-48							
TAP1 (position 333, position 637 )	↑ 47	-39						
IL4 -590C/T	↓ 46	-20						
CCL5 [RANTES] promoter -401A/G	-44							
IL4R Ile50Val	-43							
IL4R Glu375Ala	-43							
IL4R Cys406Arg	-43							
IL4R Ser411Leu	-43							
IL4R Glu551Arg	↑ 43					↑ 37 (only not given antibiotics)		
IL4R Ser761Pro	-43							
IL13 G4257A	↑ 42					↑ 34		
TGFB1, codon 25 (+915G>C)	↑ 40							
TGFB1, codon 10 (+869C>T)	-40							
IL10 -1082G>A	-40					-29		
TAP2 (position 379, 565, 665)	↑ 39							
PSMB9 [LMP2] (position 60)	-39							
PSMB8 [LMP7] (position 3911, 3912, 4069)	-39							
MCP1 -2518A/G	-38							
CCL5 [RANTES] -28G/C	-38							
CCL5 [RANTES] -403G/A	-38							
CCL11 [eotaxin gene]	-36							
IL12B 1188A/C	↑ 35							
IL13 A704C	-34							
IL13 C1103T	-34							
CD14 C-159T	-33					↓ 18	↓ 7	
CARD15 C2104T	-32							
CARD15 G2722C	↑ 32							
CARD15 3020iC	-32							
SPINK5 IVS12-26C/T	↓ 31							
SPINK5 IVS12-10A/G	↓ 31							

SPINK5 1103A/G	↓ 31	
SPINK5 1156G/A	-31	
SPINK5 1188T/C	↓ 31	
SPINK5 1258G/A	↓ 31	-19( ↑ .sum of AD and asthma)
STAT6 2964G/A	-30	
TNFA -238G/A	-29	
TNFA -308G/A	-29	-27
IL6 -174C/G	-29	
IL1B -511T/C	-29	
IL1B +3953T/C	-29	-27
IL1RN intron 2	-29	
IL13 Arg130Glu	↑ 28	
IL13 C-1112T	-28	
IL14 C-589T	-28	
CSF2 [GM-CSF] -677C/A	↑ 27	
CSF2 [GM-CSF] -1916T/C	↑ 27	
NAT2 C481T, G590A, G87A haplotype	-26	
GSTP1 Ile105Val	↓ 25	-21
IL5 -703C/T	-24	
CCR3 T51C	-23	
IL13 -1024C/T	↑ 22	
GSTM1	-21	
GSTT1	-21	
GSTM1, GSTT1, GSTP1 haplotype	↑ 21	
CTLA4 49A/G	-20	
TLR2 R753Q	-17	
TLR4 D299G T399I	-17	
TLR2 or TLR4	↑ 17	
IL4R -3112C>T	↑ 16	
IL4R -1803T>C	↑ 16	
IL4R -327C>A	↑ 16	
IL4R -326A>C	↑ 16	
IL4R -186G>A	↑ 16	
IL4R -184A>G	-16	



KLK7 [SCCE] AACC insertion	↑ 15
CCRN4L [CCR4] C1014T	-14
CCL17 [TARC] -431C>T	-13
SLC9A3R1-NAT9 RUNX1 binding site	-12
IL18 I13G	-11
IL18 I27T	-11
IL18 -I37C	↑ 11
IL18 -I32G	-11
IL18 -I33G	-11
SPINK5 Asn368Ser	-10
SPINK5 Asp386Asm	-10
SPINK5 Glu420Lys	-10
NOD1 haplotypes	↓ 9
IL1RL1 -26999G/A	↓ 6
IL1RL1 haplotype (-26999-27639)	↓ 6
IL12RB1 -I11A/T	↓ 4
IL12RB1 -2C/T	↓ 4
TLR6 Ser249Pro	-3
NAT2 C481T	-2
NAT2 G590A	-2
NAT2 C481T and G590A	↑ 2
MBL2 codon54	-1
CARD15 rs5743266	-8
CARD15 rs2067085	-8
CARD15 rs2066842	-8
CARD15 rs2066844	-8
CARD15 rs2066845	-8
CARD15 rs5743291	-8
CARD15 rs1077861	-8
CARD15 rs3135500	-8

表中の番号は文献番号である。

### Ⅲ. 研究成果の刊行一覧・別冊

## 研究成果の刊行に関する一覧表

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Miyake Y, Sasaki S, Ohya Y, Miyamoto S, Matsunaga I, Yoshida T, Hirota Y, Oda H; The Osaka Maternal And Child Health Study Group	Dietary intake of seaweed and minerals and prevalence of allergic rhinitis in Japanese pregnant females: baseline data from the Osaka Maternal and Child Health Study	Ann Epidemiol	16(8)	614-621	2006
Miyamoto S, Miyake Y, Sasaki S, Tanaka K, Ohya Y, Matsunaga I, Yoshida T, Oda H, Ishiko O, Hirota Y; Osaka Maternal and Child Health Study Group	Fat and fish intake and asthma in Japanese women: baseline data from the Osaka Maternal and Child Health Study	Int J Tuberc Lung Dis	11(1)	103-109	2007
Miyake Y, Sasaki S, Yokoyama T, Tanaka K, Ohya Y, Fukushima W, Saito K, Ohfuji S, Kiyohara C, Hirota Y; Osaka Maternal and Child Health Study Group	Risk of postpartum depression in relation to dietary fish and fat intake in Japan: the Osaka Maternal and Child Health Study	Psychol Med	36(12)	1727-1735	2006
Miyake Y, Sasaki S, Tanaka K, Yokoyama T, Ohya Y, Fukushima W, Saito K, Ohfuji S, Kiyohara C, Hirota Y; Osaka Maternal and Child Health Study Group	Dietary folate and vitamins B <sub>12</sub> , B <sub>6</sub> , and B <sub>2</sub> intake and the risk of postpartum depression in Japan: the Osaka Maternal and Child Health Study	J Affect Disord	96(1-2)	133-138	2006
Tanaka K, Miyake Y, Sasaki S, Ohya Y, Miyamoto S, Matsunaga I, Yoshida T, Hirota Y, Oda H, The Osaka Maternal and Child Health Study Group	Magnesium intake is inversely associated with the prevalence of tooth loss in Japanese pregnant women: the Osaka Maternal and Child Health Study	Magnes Res	19(4)	268-275	2006

Miyake Y, Sasaki S, Tanaka K, Ohya Y, Miyamoto S, Matsunaga I, Yoshida T, Hirota Y, Oda H, The Osaka Maternal and Child Health Study Group	Fish and fat intake and prevalence of allergic rhinitis in Japanese females: the Osaka Maternal and Child Health Study	J Am Coll Nutr		In press	
Miyake Y, Ohya Y, Tanaka K, Yokoyama T, Sasaki S, Fukushima W, Ohfuji S, Saito K, Kiyohara C, Hirota Y, The Osaka Maternal and Child Health Study Group	Home environment and suspected atopic eczema in Japanese infants: The Osaka Maternal and Child Health Study	Pediatr Allergy Immunol		In press	
Miyake Y, Arakawa M, Tanaka K, Sasaki S, Ohya Y	Cross-sectional study of allergic disorders associated with breastfeeding in Japan: The Ryukyus Child Health Study	Pediatr Allergy Immunol		In press	