

Adaptive cytokine production in early life differentially predicts total IgE and asthma through age 5

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Table E1. Regression coefficients and p-values for **log total IgE** at 1, 2, 3 and 5 years for individual cytokines (Unadjusted) and for Th2 cytokines adjusted for IFN- γ levels (Adjusted), at 3 and 12 months.

	1 year		2 years		3 years		5 years	
	Coef.	p-val	Coef.	p-val	Coef.	p-val	Coef.	p-val
3 Month Cytokines								
Unadjusted								
IL-4	0.08	0.040	0.01	0.753	0.05	0.239	0.13	0.002
IL-5*	0.11	0.154	0.08	0.335	0.06	0.435	0.16	0.053
IL-13	-0.02	0.690	-0.06	0.177	0.01	0.823	0.09	0.035
IFN- γ	-0.02	0.610	-0.06	0.145	-0.04	0.350	-0.02	0.586
Adjusted								
IL-4	0.11	0.009	0.05	0.255	0.09	0.061	0.18	<0.001
IFN- γ	-0.07	0.092	-0.09	0.064	-0.08	0.084	-0.10	0.025
IL-5*	0.12	0.124	0.10	0.213	0.08	0.335	0.17	0.039
IFN- γ	-0.03	0.426	-0.07	0.096	-0.05	0.268	-0.04	0.348
IL-13	0.00	0.990	-0.03	0.611	0.04	0.364	0.14	0.007
IFN- γ	-0.02	0.531	-0.06	0.248	-0.07	0.248	-0.08	0.086
12 Month Cytokines								
Unadjusted								
IL-4	0.10	0.005	0.13	0.001	0.17	<0.001	0.17	<0.001
IL-5	0.13	<0.001	0.12	0.002	0.12	0.001	0.13	0.001
IL-13	0.04	0.269	0.04	0.273	0.09	0.022	0.07	0.074
IFN- γ	-0.02	0.570	-0.04	0.239	-0.02	0.613	0.00	0.971
Adjusted								
IL-4	0.13	0.001	0.17	<0.001	0.21	<0.001	0.21	<0.001
IFN- γ	-0.07	0.062	-0.11	0.006	-0.10	0.014	-0.08	0.059
IL-5	0.14	<0.001	0.14	<0.001	0.15	<0.001	0.14	0.001
IFN- γ	-0.06	0.085	-0.09	0.028	-0.06	0.118	-0.04	0.329
IL-13	0.07	0.111	0.09	0.055	0.13	0.003	0.10	0.046
IFN- γ	-0.06	0.184	-0.09	0.044	-0.08	0.056	-0.05	0.309

*Dichotomized: Detectable/Undetectable.

Table E2. Odds ratios and p-values for **active asthma** at 1, 2, 3 and 5 years, for individual cytokines (Unadjusted) and for Th2 cytokines adjusted for IFN- γ levels (Adjusted), at 3 and 12 months.

	1 year		2 years		3 years		5 years	
	OR	p-val	OR	p-val	OR	p-val	OR	p-val
3 Month Cytokines								
Unadjusted								
IL-4	1.1	0.863	1.6	0.163	1.3	0.366	1.2	0.423
IL-5*	0.9	0.899	1.8	0.254	1.2	0.729	1.0	0.924
IL-13	1.6	0.333	1.7	0.092	1.9	0.015	1.7	0.005
IFN- γ	0.8	0.542	0.7	0.134	0.7	0.195	0.8	0.200
Adjusted								
IL-4	1.2	0.675	2.3	0.004	1.6	0.133	1.3	0.205
IFN- γ	0.7	0.514	0.5	0.005	0.6	0.046	0.7	0.122
IL-5*	1.0	0.964	2.1	0.104	1.2	0.604	1.0	0.958
IFN- γ	0.8	0.588	0.6	0.092	0.7	0.200	0.8	0.242
IL-13	2.2	0.086	1.5	0.003	3.0	<0.001	2.3	<0.001
IFN- γ	0.5	0.068	0.5	0.005	0.4	<0.001	0.5	0.009
12 Month Cytokines								
Unadjusted								
IL-4	1.1	0.750	1.1	0.676	1.1	0.810	1.3	0.147
IL-5	1.0	0.989	1.1	0.840	1.0	0.985	0.9	0.721
IL-13	1.0	0.950	1.0	0.865	0.9	0.705	1.1	0.687
IFN- γ	1.0	0.915	1.0	0.833	0.7	0.104	1.0	0.875
Adjusted								
IL-4	1.1	0.737	1.2	0.440	1.2	0.472	1.4	0.129
IFN- γ	1.0	0.904	0.9	0.510	0.7	0.050	0.9	0.507
IL-5	1.0	0.930	1.1	0.734	1.1	0.751	0.9	0.682
IFN- γ	1.1	0.811	0.9	0.713	0.7	0.083	1.0	0.977
IL-13	1.0	0.992	1.0	0.934	1.0	0.883	1.1	0.553
IFN- γ	1.0	0.961	0.9	0.732	0.7	0.142	0.9	0.674

*Dichotomized: Detectable/Undetectable