

Correction to:
*Proximity to a Major Road and Plasma Cytokines
 in School-Aged Children* by Rosser F, Forno E,
 Brehm J, Han Y-Y, Boutaoui N, Colón-Semidey A,
 Alvarez M, Acosta-Pérez E, Kurland KS, Alcorn JF,
 Canino G, and Celedón JC.
 Pediatric Allergy, Immunology, and Pulmonology
 2016;29:111–117. DOI: 10.1089/ped.2016.0649

IN THE SEPTEMBER 2016 issue of *Pediatric Allergy, Immunology, and Pulmonology* (vol. 29, no.3; 111–117) the article entitled “Proximity to a Major Road and Plasma Cytokines in School-Aged Children” by Rosser *et al.* requires correction.

The primary conclusions of the article referenced above are correct, but the authors found an inadvertent error in their report of a secondary analysis, as follows:

Supplementary Table S3 correctly shows that the levels of IL-1 β , IL-22, and IL-33 are significantly lower in cases than in control subjects. This table also correctly shows that IL-17F levels are higher in cases than in control subjects. However, the original text does not reflect what is shown in Supplementary Table S3.

The second sentence of the last paragraph of the Results section currently states:

“Compared with control subjects, children with asthma had higher plasma levels of IL-1 β , IL-17F, IL-22 and IL-33 (P < 0.01 in all instances).”

The second sentence of the last paragraph of the Results section should now instead state:

Compared with control subjects, children with asthma had higher plasma levels of **IL-17F but lower plasma levels of IL-1 β , IL-22 and IL-33** (P \leq 0.01 in all instances).

Because of an inadvertent coding error, Table 4 shows the odds ratio for being a control subject (instead of the odds ratio for having asthma). The corrected version of Table 4 is below.

TABLE 4. MULTIVARIABLE REGRESSION ANALYSIS OF PLASMA CYTOKINES AND ASTHMA IN 577 STUDY PARTICIPANTS

Plasma cytokine	Unadjusted		Adjusted ^a	
	OR (95% CI)	P	OR (95% CI)	P
IL-1 β	0.61 (0.44 to 0.83)	0.002	0.61 (0.44 to 0.85)	0.003
IL-4	1.05 (0.89 to 1.25)	0.56	1.02 (0.85 to 1.22)	0.81
IL-6	0.91 (0.68 to 1.23)	0.56	0.81 (0.60 to 1.11)	0.20
IL-10	0.88 (0.75 to 1.04)	0.13	0.85 (0.72 to 1.01)	0.06
IL-17A	0.85 (0.70 to 1.04)	0.11	0.86 (0.70 to 1.05)	0.13
IL-17F	1.21 (1.04 to 1.42)	0.01	1.16 (0.99 to 1.36)	0.07
IL-21	0.84 (0.67 to 1.05)	0.12	0.82 (0.66 to 1.03)	0.09
IL-22	0.78 (0.65 to 0.93)	0.006	0.76 (0.63 to 0.91)	0.003
IL-23	1.20 (0.89 to 1.62)	0.23	1.20 (0.88 to 1.63)	0.26
IL-25	0.96 (0.64 to 1.44)	0.83	0.84 (0.55 to 1.28)	0.41
IL-31	0.87 (0.73 to 1.03)	0.11	0.83 (0.69 to 0.99)	0.048
IL-33	0.69 (0.54 to 0.88)	0.003	0.69 (0.53 to 0.89)	0.004
IFN- γ	1.14 (0.99 to 1.33)	0.07	1.09 (0.93 to 1.27)	0.29
TNF α	0.78 (0.39 to 1.56)	0.48	0.66 (0.31 to 1.43)	0.29

Bold indicates statistical significance at alpha level 0.05.

^aAdjusted for age, gender, household income, and current ETS exposure.

Given this, the text also needs to be changed.

The third sentence of the last paragraph of the Results section currently states:

“After adjustment for age, gender, and current ETS these differences were nominally significant for IL-1 β , IL-22, IL-31, and IL-33; after correction for multiple testing, all but IL-31 remained significant (Table 4).”

The third sentence of the last paragraph of the Results section should now instead state:

After adjustment for age, gender, and current ETS, **plasma levels of IL-1 β , IL-22, IL-31, and IL-33 were associated with lower odds of asthma; after correction for multiple testing, all but IL-31 remained significantly associated with reduced odds of asthma** (Table 4).

Because of the errors described above, the text of the Abstract and the Discussion also need to be changed.

The second to last sentence of the Abstract currently states:

“In a direct comparison of cases and control subjects, children with asthma had significantly higher levels of IL-1 β , IL-22, and IL-33 than control subjects.”

The second to last sentence of the Abstract should now instead state:

In a direct comparison of cases and control subjects, children with asthma had significantly **lower** levels of IL-1 β , IL-22, and IL-33 than control subjects.

The sixth paragraph of the Discussion section currently states:

“Consistent with our previous finding of a predominance of atopic or allergic asthma among Puerto Rican children, plasma levels of IL-22 and IL-33 (implicated in T_H2 immune responses) and IL-1 β (a pro-inflammatory cytokine) were significantly higher in cases than in control subjects ($P < 0.01$ in all instances). There was also a non-statistically significant trend for a higher level of IL-31 (implicated in T_H2 immune responses) in cases than in control subjects ($P < 0.05$).”

The sixth paragraph of the Discussion section should now instead state:

“Plasma levels of IL-22 and IL-33 (implicated in T_H2 immune responses) and IL-1 β (a proinflammatory cytokine) were significantly lower in cases than control subjects ($P < 0.01$ in all instances). There was also a non-statistically significant trend for a lower level of IL-31 (implicated in T_H2 immune response) in cases than in control subjects ($P < 0.05$).”

In conclusion, the authors no longer report that children with asthma had higher plasma levels of IL-1 β , IL-22, and IL-33 than control subjects. The authors now instead report that children with asthma had lower plasma levels of IL-1 β , IL-22, and IL-33 than control subjects. However, please note that the primary conclusions of the article remain unchanged. In particular, the authors confirm that residential proximity to a major road was significantly associated with increased plasma level of IL-31 among 577 children with and without asthma in Puerto Rico. The authors also confirm that the presence of asthma modified the estimated effect of the residential distance to a major road on plasma TNF- α . Although living farther from a major road was significantly associated with lower TNF- α level in control subjects, no such decrease was seen in children with asthma.

The online version of the article has been corrected to reflect this. The authors apologize for these errors.