

# Review of: "Sputum Interleukin-32 in childhood asthma: correlation with IL-1 $\beta$ "

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**Potential competing interests:** No potential competing interests to declare.

The paper by Sabine Louhaichi et colleagues, entitled: "Sputum Interleukin-32 in childhood asthma: correlation with IL-1 $\beta$ " resulted well written and clear.

However, some points need to be improved:

- Firstly, very few contradictory data are available regarding IL-32. It is not clear if it is a pro or anti-inflammatory cytokine. Please better specify the roles of this cytokine.
- "The overexpression of IL-32 results in enhanced expression of IL-8, IL-32 modulates important inflammatory pathways (including TNF- $\alpha$ , IL-6 and IL-1 $\beta$ ), contributing to the pathogenesis of inflammatory diseases" resulted generic. For example in COVID-19 it was demonstrated the opposite role of these cytokines as you can read in the following paper:
  - Bergantini L, d'Alessandro M, Cameli P, Otranto A, Luzzi S, Bianchi F, Bargagli E. Cytokine profiles in the detection of severe lung involvement in hospitalized patients with COVID-19: The IL-8/IL-32 axis. *Cytokine*. 2022 Mar;151:155804. doi: 10.1016/j.cyto.2022.155804. Epub 2022 Jan 18. PMID: 35063722; PMCID: PMC8765080.
  - Kaufmann CC, Ahmed A, Muthspiel M, Rostocki I, Pogran E, Zweiker D, Burger AL, Jäger B, Aicher G, Spiel AO, Vafai-Tabrizi F, Gschwantler M, Fasching P, Wojta J, Huber K. Association of Interleukin-32 and Interleukin-34 with Cardiovascular Disease and Short-Term Mortality in COVID-19. *J Clin Med*. 2023 Jan 27;12(3):975. doi: 10.3390/jcm12030975. PMID: 36769623; PMCID: PMC9917403.
- In my opinion the role and the relationship with neutrophils is also important and related to exacerbation in severe asthma. Please emphasized this concept.
- Moreover the association of IL-32 with BMI is important. In fact some papers demonstrated the association with cardiovascular diseases. Please better explain the results.
- I think that the discussion need to focalize in these topics with respect the well-known role of IL-1 $\beta$  that resulted in generic and well-known.

To better explain the role of IL-32, I also suggest introducing some data for severe asthmatic patients. Were they treated with moAbs? I also suggest to add these informations or if you have some data on Interleukins after treatment.

