Rhinovirus species/genotypes and interferon- λ : subtypes, receptor and polymorphisms – missing pieces of the puzzle of childhood asthma?

From the authors:

The correspondence from C. Scagnolari and co-workers raises some interesting points that we could not address in a single manuscript, but were otherwise addressed in our Predicta study and will therefore be reported on in future.

We agree about the importance of rhinovirus-C in asthma pathogenesis. In fact, rhinovirus genotyping is currently underway and the results of all Predicta cohorts will be published in a separate manuscript.

Moreover, we agree with C. Scagnolari and co-workers that IFN- λ and IFN- λ R distribution in the airways are relevant to asthma, so they require separate study. Moreover, beside epithelial cells, we have recently reported that IFN- λ R is also expressed in pulmonary CD11c+ dendritic cells [1]. In our original manuscript we analysed IFN- λ in the serum of preschool children with and without asthma considering the presence of respiratory viruses in their airways [2], and detected higher levels of IFN- λ in serum in association with rhinovirus in the airways. This indicates the importance of evaluating systemic IFN- λ , especially during exacerbation of the disease, without diminishing its relevance in the airways.

In conclusion, we thank C. Scagnolari and co-workers for their analysis of our work and we absolutely agree that the complex puzzle of childhood asthma regarding rhinovirus and type I and III interferons is still far from being completed and thus needs further investigations.

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Received: Feb 06 2017 | Accepted: Feb 17 2017

Conflict of interest: Disclosures can be found alongside this article at erj.ersjournals.com

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Analysis of systemic IFN- λ , during asthma exacerbations, should complement IFN analysis in the airways <http://ow.ly/DkhV309HL6e>

Cite this article as: Bergauer A, Söpel N, Kroß B, *et al.* Rhinovirus species/genotypes and interferon- λ : subtypes, receptor and polymorphisms – missing pieces of the puzzle of childhood asthma? *Eur Respir J* 2017; 49: 1700265 [<https://doi.org/10.1183/13993003.00265-2017>].

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