

## Reply to “Olfactory Function and Biologic Treatments: A Comment on Available Real-life Studies”

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**Palabras clave:** Biológicos. Rinosinusitis crónica con pólipos nasales. Pólipos nasales. Olfato. Olor.

*To the Editor:*

We wish to thank Landis et al [1] for their letter regarding our work on the evolution of olfactory function in patients with asthma and chronic rhinosinusitis with nasal polyps (CRSwNP)

treated with omalizumab and anti-IL-5/IL-5R $\alpha$  agents [2]. We regret not having cited the article by Meier et al [3], which included only 29 patients treated with omalizumab, mepolizumab, and benralizumab, but not reslizumab. Our study analyzed 206 patients and included reslizumab [2]. Therefore, the high number of patients studied makes our results robust.

We agree that a psychophysical smell test or subjective olfactometry (eg, University of Pennsylvania Smell Identification Test, Connecticut Chemosensory Clinical Research Center, 24-odor Barcelona Smell Test, Sniffin Sticks) is the best way to assess olfaction. However, subjective methods other than subjective olfactometry and smell tests may also provide useful qualitative and quantitative clinical information, especially when patients improve from anosmia to hyposmia or normosmia, although they may be not always be validated. This analysis had to be performed retrospectively in our cohort. Therefore, we were unable to perform a smell test, and this is undoubtedly a limitation of the study. A visual analog scale, also subjective, was recently successfully validated to assess the loss of smell in CRSwNP patients [4] and may be useful as a fast and easy method in daily clinical practice. Most of the subjective smell tests are time-consuming and unsuitable for all patients. Nevertheless, a short subjective smell test, BOT-8, which has recently been validated in Spain [5], can be easily applied in future analyses of our cohort.

Regarding the 4 patients treated with dupilumab, 2 had anosmia before treatment and developed hyposmia after treatment; the others had normosmia at baseline with no change during treatment. We also agree with the comment that dupilumab improves smell in patients with CRSwNP compared to other biologics, as recently confirmed in a systematic review [6].

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### Conflicts of Interest

Dr Alobid reports personal fees from Novartis, personal fees from Sanofi, personal fees from Menarini, personal fees from Roche, personal fees from GSK, and personal fees from MSD outside the submitted work. Dr Olaguibel reports grants from Sanofi, personal fees from Mundipharma, personal fees from AstraZeneca, personal fees from ALK, and personal fees from GSK outside the submitted work. Dr Plaza reports grants and personal fees from AstraZeneca, personal fees from Boehringer-Ingelheim, personal fees from Merck, grants and personal fees from Chiesi, personal fees from Novartis, grants from Menarini, and personal fees from Sanofi outside the submitted work. Dr Sastre reports grants and personal fees from Sanofi, personal fees from GSK, personal fees from Novartis, personal fees from AstraZeneca, personal fees from Mundipharma, and personal fees from FAES Farma outside the submitted work. Dr Valverde-Monge reports personal fees for lectures from GSK outside the submitted work. Dr Mullol reports personal fees and other payments from Sanofi-Genzyme and Regeneron, personal fees and other payments from Novartis, personal fees and other payments

from Allakos, grants and personal fees from Mylan Pharma, grants and personal fees from Uriach Group, personal fees from Mitsubishi-Tanabe, personal fees from Menarini, personal fees from UCB, personal fees from AstraZeneca, personal fees from GSK, and personal fees from MSD outside the submitted work. Dr Quirce reports personal fees from AstraZeneca, personal fees from Novartis, personal fees from Sanofi, personal fees from Boehringer Ingelheim, personal fees from Teva, personal fees from ALK, personal fees from Mundipharma, personal fees from GSK, personal fees from Chiesi, and personal fees from Leti outside the submitted work. Dr Betancor is supported by a Rio Hortega Research Contract from Instituto Carlos III, Ministry of Science. The remaining authors declare that they have no conflicts of interest.

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