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Reply

From the Authors:

We thank Dr. Raimondi for his comments on our recent article (1). The main message of his letter is that FEV₁ change expressed as absolute change in milliliters per year instead of as a percentage of the baseline can be misleading. We agree that expressing FEV₁ change as an absolute volume compared with percentage change from baseline provides slightly different information. We reported absolute change for two reasons. First, as acknowledged by Dr. Raimondi, multiple large cohort studies have previously reported change in lung function in milliliters per year, and this has enabled comparison of the rate of lung function change across cohorts (2–4). Second, the percentage change in lung function is very small for all Global Initiative for Chronic Obstructive Lung Disease stages, which makes it harder to identify predictors of lung function change. In all multivariable analyses, we did account for baseline lung size by incorporating baseline FEV₁ into the prediction models.

One explanation for the greater decline in lung function in milder disease stages may be greater disease activity. However, we agree that when examining lung function change in terms of absolute volumes, other factors may also influence the results. For instance, it has also been speculated that those with greater baseline lung function have more to lose and that a floor effect may be seen in those with severe disease. However, we still support the use of absolute volume change for our analyses, as opposed to percentage change, as we believe it has potentially greater clinical significance. The U.S. Food and Drug Administration recognizes a volume change of 100 ml in FEV₁ as the minimum clinically important difference across disease severity, as it is believed patients can perceive a change at this threshold of improvement or deterioration (5). In addition, it can also be argued that contrary to the author's assertion, using percentages to express change from baseline can artificially inflate any observed change in later disease stages. For example, both the percentage and absolute change are used in assessing bronchodilator response, and using only the percentage change in FEV₁ can result in a large number of patients with severe disease appearing to be responsive to bronchodilators. Comparison of changes expressed in absolute and percentage values for other metrics such as 6-minute-walk distance have found absolute change to be a more sensitive indicator than percentage change from

baseline (6). We hope that by providing a measure of lung function decline that is consistent with prior reports we only improve comparability of studies and interpretation of our findings. ■

Author disclosures are available with the text of this letter at www.atsjournals.org.

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Is the Muscle the Only Potential Target of Desipramine in Obstructive Sleep Apnea Syndrome?

To the Editor:

We read with great interest the recent report by Taranto-Montemurro and colleagues (1). They demonstrated that desipramine increases genioglossus activity and reduces upper airway collapsibility during non-REM sleep in healthy subjects. Considering the protocol of the study, and in particular the one-night evaluation design, the molecular mechanism explaining the observed effects seems to be related to the acute desipramine-increased noradrenergic activity in the central nervous system. These data provide a rationale for additional studies in patients with obstructive sleep apnea syndrome (OSAS), and thus a similar protocol of research was performed showing that desipramine reduces collapsibility and reduces obstructive sleep apnea severity in patients with minimal muscle compensation (2).

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