

## The Association between Pulmonary Functions and Incident Diabetes: Longitudinal Analysis from the Ansung Cohort in Korea (*Diabetes Metab J* 2020;44:699-710)

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We appreciate Professor Kim's comments on our article, entitled "The association between pulmonary functions and incident diabetes: longitudinal analysis from the Ansung cohort in Korea" published in *Diabetes and Metabolism Journal* [1].

As you pointed out, several studies suggested that diabetes and/or hyperglycemia are associated with development of various pulmonary diseases including chronic obstructive pulmonary disease, asthma, and interstitial lung disease [2-4]. Although some cross-sectional studies have suggested that insulin resistance may contribute to decreased lung function, there have been no longitudinal studies on the effects of insulin resistance on declining lung function [5,6]. Therefore, at this point, there is no convincing evidence that decreased pulmonary function may be a marker reflecting the relationship between subclinical glucose intolerance status and lung dysfunction. The currently closed Ansung study conducted lung function tests only during the initial 4 years, and additional cohort studies will be needed to track the long-term relationship between lung function and insulin resistance, diabetes, and other metabolic parameters. We agree with your opinion that the link between lung function decline and other diabetes complications, including cardiovascular disease, warrants further in-

vestigation.


The coronavirus disease 2019 pandemic, in which there could be many patients with asymptomatic lung disease, could be associated with potential public health problems such as diabetes, cardiovascular disease or other metabolic derangements. We appreciate your insightful opinion, and we also look forward to further epidemiologic or experimental studies on this topic.


### CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

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