SHAREABLE PDF

IL-6 in pulmonary hypertension: why novel is not always best

Mark Toshner [1,2] and Alexander M.K. Rothman [3,4]

Affiliations: [1]Royal Papworth Hospital, Cambridge, UK. [2]Dept of Medicine, University of Cambridge, Cambridge, UK. [3]University of Sheffield, Sheffield, UK. [4]Sheffield Teaching Hospitals NHS Trust, Sheffield, UK.

Correspondence: Mark Toshner, University of Cambridge, Dept of Medicine, Level 5 Addenbrooke's Hospital, Cambridge CB2 0QQ, UK. E-mail: mrt34@medschl.cam.ac.uk

@ERSpublications
Previous preclinical data on IL-6 validated in a large multicentre biobank study. IL-6 is associated with mortality and levels vary related to underlying aetiology. This has relevance to experimental medicine attempts to translate immunomodulatory therapy. https://bit.ly/2WTFUMQ

Cite this article as: Toshner M, Rothman AMK. IL-6 in pulmonary hypertension: why novel is not always best. *Eur Respir J* 2020; 55: 2000314 [https://doi.org/10.1183/13993003.00314-2020].

In this issue of the *European Respiratory Journal*, Simpson *et al.* [1] present data from the US National Institutes of Health and National Heart, Lung, and Blood Institute pulmonary arterial hypertension (PAH) biobank on interleukin (IL)-6 levels in a large cohort of patients with pulmonary hypertension. This work is of significant importance, as it potentially represents a new capability in rare cardiorespiratory diseases for large scale multicentre validation studies, rather than the current focus on target and pathway novelty in underpowered, small scale studies that are usually single centre. Simpson *et al.* [1] show, in an unrivalled dataset, that there are differences in serum levels of IL-6 between PAH aetiologies and differences in the relationship between expression levels and outcomes. Reassuringly, they validate in a large multicentre cohort the core previous observations of increased IL-6. They note differences between disease aetiologies, and in particular that levels are highest in connective tissue disease (CTD)-associated PAH and, perhaps less expectedly, portopulmonary hypertension. The study also can be viewed as resolving the question of whether IL-6 is associated with outcomes. The authors clearly show this to be the case in powerful multivariate modelling accounting for a variety of functional, prognostic and mortality outcomes.