Breath biomarkers in asthma: we're getting answers, but what are the important questions?

Stephen J. Fowler [1] and Peter J. Sterk[2]

Affiliations: [1]Division of Infection, Immunity and Respiratory Medicine, School of Biological Sciences, Faculty of Biology, Medicine and Health, University of Manchester, and Manchester Academic Health Science Centre and NIHR Biomedical Research Centre, Manchester University Hospitals NHS Foundation Trust, Manchester, UK. [2]Dept of Respiratory Medicine, Amsterdam UMC, University of Amsterdam, Amsterdam, The Netherlands.

Correspondence: Stephen J. Fowler, Education and Research Centre, Wythenshawe Hospital, Manchester M23 9LT, UK. E-mail: Stephen.fowler@manchester.ac.uk

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Reports of potential biomarkers in breath are rapidly accumulating, such that systematic reviews are now feasible. We should now take stock and ensure every future study design is able to contribute a step forward towards future clinical application. http://bit.ly/2khqrWi

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Over recent years, the field of breathomics has matured such that systematic reviews are not only viable, but considered important enough for dissemination *via* high impact clinical research journals such as the *European Respiratory Journal*. Recently, we have seen accelerating interest in this exciting biomarker discovery platform with reviews covering topics such as paediatric asthma [1], lung infection [2, 3] and fibrotic lung diseases [4, 5]. For rapidly developing fields such as this, synoptic work provides important functions both for newcomers, by introducing and stimulating interest, but equally for established researcher teams, by highlighting both consistency and variability in findings across studies. This helps create a platform for improved, and perhaps standardised, developments in study design, sample collection and analysis, and data analysis and reporting. Invariably these reviews have highlighted the paucity of longitudinal, well controlled studies, and significant variability in sampling and analytical techniques [6].