The role of precision medicine in interstitial lung disease

Toby M. Maher[1,2], Anoop M. Nambiar [3] and Athol U. Wells[4]

[1]Keck School of Medicine, University of Southern California, Los Angeles, CA, USA. [2]NIHR Respiratory Clinical Research Facility, Royal Brompton Hospital, and Fibrosis Research Group, National Heart and Lung Institute, Imperial College, London, UK. [3]UT Health San Antonio Center for Interstitial Lung Disease, Division of Pulmonary and Critical Care Medicine, Dept of Medicine, University of Texas Health San Antonio and the South Texas Veterans Health Care System, San Antonio, TX, USA. [4]Interstitial Lung Disease Unit, Royal Brompton and Harefield NHS Foundation Trust and National Heart and Lung Institute, Imperial College, London, UK.

Corresponding author: Athol U. Wells (RBHILD@rbht.nhs.uk)

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Precision medicine holds great promise in ILD management, with advances in computational biology and biomarker research giving rise to robust diagnostic technologies and emerging applications for staging, prognosis and assessment of treatment response https://bit.ly/33UQ4SU

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Abstract
The management of interstitial lung disease (ILD) may benefit from a conceptual shift. Increased understanding of this complex and heterogeneous group of disorders over the past 20 years has highlighted the need for individualised treatment strategies that encompass diagnostic classification and disease behaviour. Biomarker-based approaches to precision medicine hold the greatest promise. Robust, large-scale biomarker-based technologies supporting ILD diagnosis have been developed, and future applications relating to staging, prognosis and assessment of treatment response are emerging. Artificial intelligence may redefine our ability to base prognostic evaluation on both diagnosis and underlying disease processes, sharpening individualised treatment algorithms to a level not previously achieved. Compared with therapeutic areas such as oncology, precision medicine in ILD is still in its infancy. However, the heterogeneous nature of ILD suggests that many relevant molecular, environmental and behavioural targets may serve as useful biomarkers if we are willing to invest in their identification and validation.