



European Respiratory Society statement on familial pulmonary fibrosis

Raphael Borie ¹, Caroline Kannengiesser ², Katerina Antoniou³, Francesco Bonella ⁴, Bruno Crestani ¹, Aurélie Fabre⁵, Antoine Froidure ⁶, Liam Galvin⁷, Matthias Griese⁸, Jan C. Grutters^{9,10}, Maria Molina-Molina¹¹, Venerino Poletti^{12,13}, Antje Prasse ^{14,15}, Elisabetta Renzoni^{16,17}, Jasper van der Smagt¹⁸ and Coline H.M. van Moorsel⁹

¹Université Paris Cité, Inserm, PHERE, Hôpital Bichat, AP-HP, Service de Pneumologie A, Centre Constitutif du Centre de Référence des Maladies Pulmonaires Rares, FHU APOLLO, Paris, France. ²Laboratoire de Génétique, AP-HP, Hôpital Bichat, Paris, France. ³Laboratory of Molecular and Cellular Pneumonology, Department of Respiratory Medicine, School of Medicine, University of Crete, Heraklion, Greece. ⁴Center for Interstitial and Rare Lung Diseases, Pneumology Department, Ruhrlandklinik, University Hospital, University of Essen, European Reference Network (ERN)-LUNG, ILD Core Network, Essen, Germany. ⁵Department of Histopathology, St Vincent's University Hospital and UCD School of Medicine, University College Dublin, Dublin, Ireland. ⁶Pulmonology Department, Cliniques Universitaires Saint-Luc and Institut de Recherche Expérimentale et Clinique, UCLouvain, Brussels, Belgium. ⁷European Pulmonary Fibrosis Federation, Blackrock, Ireland. ⁸Dr von Haunersches Kinderspital, University of Munich, German Center for Lung Research (DZL), Munich, German. ⁹ILD Center of Excellence, St Antonius Hospital, Nieuwegein, The Netherlands. ¹⁰Division of Heart and Lungs, UMC Utrecht, Utrecht, The Netherlands. ¹¹Interstitial Lung Disease Unit, Respiratory Department, University Hospital of Bellvitge, IDIBELL, Hospitalet de Llobregat (Barcelona), CIBERES, Barcelona, Spain. ¹²Department of Diseases of the Thorax, Ospedale GB Morgagni, Forlì, Italy. ¹³Department of Experimental, Diagnostics and Speciality Medicine, University of Bologna, Bologna, Italy. ¹⁴Department of Pulmonology, Hannover Medical School, German Center for Lung Research (DZL), BREATH, Hannover, Germany. ¹⁵Fraunhofer ITEM, Hannover, Germany. ¹⁶Interstitial Lung Disease Unit, Royal Brompton and Harefield Clinical Group, Guy's and St Thomas' NHS Foundation Trust, London, UK. ¹⁷Margaret Turner Warwick Centre for Fibrosing Lung Disease, National Heart and Lung Institute, Imperial College London, London, UK. ¹⁸Division of Genetics, University

Corresponding author: Raphael Borie (raphael.borie@aphp.fr)



Shareable abstract (@ERSpublications)
Genetic predisposition to interstitial lung diseases (ILDs) is well known. The statement aims to assist health professionals with the care of monogenic pulmonary fibrosis and familial ILD patients and their relatives. https://bit.ly/3h9hvQ6

Cite this article as: Borie R, Kannengiesser C, Antoniou K, et al. European Respiratory Society statement on familial pulmonary fibrosis. Eur Respir J 2023; 61: 2201383 [DOI: 10.1183/13993003.01383-2022].

This single-page version can be shared freely online.

Copyright ©The authors 2023. For reproduction rights and permissions contact permissions@ersnet.org

Received: 9 July 2022 Accepted: 26 Oct 2022

Abstract

Genetic predisposition to pulmonary fibrosis has been confirmed by the discovery of several gene mutations that cause pulmonary fibrosis. Although genetic sequencing of familial pulmonary fibrosis (FPF) cases is embedded in routine clinical practice in several countries, many centres have yet to incorporate genetic sequencing within interstitial lung disease (ILD) services and proper international consensus has not yet been established. An international and multidisciplinary expert Task Force (pulmonologists, geneticists, paediatrician, pathologist, genetic counsellor, patient representative and librarian) reviewed the literature between 1945 and 2022, and reached consensus for all of the following questions: 1) Which patients may benefit from genetic sequencing and clinical counselling? 2) What is known of the natural history of FPF? 3) Which genes are usually tested? 4) What is the evidence for telomere length measurement? 5) What is the role of common genetic variants (polymorphisms) in the diagnostic workup? 6) What are the optimal treatment options for FPF? 7) Which family members are eligible for genetic sequencing? 8) Which clinical screening and follow-up parameters may be considered in family members? Through a robust review of the literature, the Task Force offers a statement on genetic sequencing, clinical management and screening of patients with FPF and their relatives. This proposal may serve as a basis for a prospective evaluation and future international recommendations.