

Chronic Obstructive Pulmonary Diseases: Journal of the COPD Foundation



Editorial

The Launch of a New COPD Journal

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This inaugural issue of *Chronic Obstructive Pulmonary Diseases: Journal of the COPD Foundation (JCOPDF)* honors the 10th anniversary of the formation of the COPD Foundation.¹ It is also a landmark beginning of the next decade – a symbol of bringing the worldwide COPD community together to find solutions to the challenges of COPD.

COPD ranks near the top of the list of diseases worldwide in terms of human suffering, disability, economic impact and death. Of the major diseases causing human disability and death, COPD is the only one that has remained poorly controlled and has consistently increased in prevalence over most of the past 4 decades. As described by Dr. Gross in his review, COPD also represents one of the greatest disparities in terms of basic research funding, clinical research funding and progress in new therapy development.² This assessment does not mean that a great deal has not been accomplished in the past decade, but rather that a great deal remains to be done.

The COPD Foundation was launched in 2004 to bring greater focus to this disease. Multiple review articles in this first issue of the *JCOPDF* address the progress that has occurred over the past decade as well as identifying challenges for the future. Paul Jones³ points out that the introduction of item-response theory, such as Rasch analysis, to questionnaire development, has led to substantial new tools to better assess patient outcomes, including the creation of the EXACT diary to characterize COPD exacerbations and the 8-item COPD assessment test (CAT) to obtain reliable health status assessments simply, cheaply, in many languages and in many settings. Dr. Mannino and colleagues⁴ describe how COPD is increasingly recognized as a systemic illness associated both by etiology and pathogenesis with a wide variety of comorbidities. Integrating the treatment of COPD with systemic manifestations and comorbidities such as cardiovascular disease, musculoskeletal disease and psychiatric/social problems will be an important long-term focus of the *JCOPDF*. David Lynch summarizes

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the dramatic progress in chest imaging that has occurred over the past decade and that is now identifying unique patterns or subtypes of COPD and quantifying progression of COPD in terms of alveolar destruction, airway inflammation/loss and vascular injury/loss.⁵ Quantitative computed tomography (CT), magnetic resonance imaging (MRI) and positron emission tomography (PET)-CT are becoming increasingly useful tools in the evaluation of COPD.

Genetic analyses done within multiple cohorts worldwide are showing important genetic contributions that affect the risk of development of COPD both for smokers and for nonsmokers. The genetic determinants of COPD likely involve multiple genetic susceptibility variants acting in concert or in different ways to create the many different patterns of COPD expression (COPD phenotypes). As reviewed by Drs. Silverman and Hardin,⁶ multiple genome-wide association studies have identified genomic regions of interest involving chromosomes 1, 4, 11, 14, 15 and 19.

Across the world there is increasing recognition of the importance of COPD and the challenges it raises. In the United States, the National Heart, Lung and Blood Institute (NHLBI) has played a leading role, creating multiple new initiatives to address components of this disease. These include formation of the Lung Tissue Research Consortium (LTRC), creation of the Specialized Centers for Clinical Research (SCCOR) focused on COPD, and supporting genetic and epidemiology studies such as the Subpopulations in Intermediate Outcome Measures in COPD Studies (SPIROMICS), Genomic Research in Alpha-1 Antitrypsin Deficiency and Sarcoidosis (GRADS), COPD Genetic Epidemiology (COPDGene[®]), and the Multi-Ethnic Study of Atherosclerosis (MESA Lung). The NHLBI has also supported critical multi-center clinical trials such as the COPD Clinical Research Network (CCRN) and the Long-Term Oxygen Treatment Trial (LOTT).⁷

An important goal of the *JCOPDF* is to give a strong voice to the clinical community attempting to manage this disease and to optimally foster interactions between this community and those doing the basic science to better define its pathogenesis and those who are focused on the development of new therapies. Some of the primary challenges of the next decade will be to:

1. Better define the pathogenesis of COPD including defining the wide variety of COPD subtypes and the environmental, genetic and social risk factors that are associated with those unique subtypes.
2. Identify the contribution of all important components in the risk and development of COPD including smoking, environmental exposures, biomass exposures, occupational exposures, infections, and genetic and

developmental elements that contribute to disease expression and severity.

3. Optimize the diagnosis of COPD and apply it to all populations at risk. This includes expanding the use of spirometry and the application of additional tools to diagnose COPD in individuals for whom substantial airflow obstruction is not the primary manifestation of their disease.
4. Move from symptomatic treatment at the late phases of COPD to new therapies that can be used at an earlier stage to prevent progression and reverse the disease.
5. Design and implement strategies to prevent COPD. Smoking cessation has long been understood as an important component of prevention and treatment of COPD but is clearly not a sufficient response to this challenge since many individuals develop COPD without smoking or long after smoking cessation. There is an inadequate understanding of the pathogenic processes taking place in the early stages of this disease and currently no therapy is available to block these early steps in the development of COPD.
6. Understand the systemic components of COPD, their etiology and how to control or prevent the multiple comorbidities.
7. Support development of evidence-based medicine to create an optimal treatment program for each unique subtype of COPD.
8. Facilitate translation of basic and clinical research findings into optimal and widely accessible patient care, worldwide.
9. Support dissemination of treatment guidelines for COPD and ultimately for the various subtypes of COPD. This first issue contains an article about the COPD Foundation Pocket Consultant Guide. As the guide is regularly updated with expert opinion and with the evidence-based medicine, it will be featured in future issues of the Journal.

Over 90 recognized leaders in the field of COPD have joined this editorial board to help make possible the *JCOPDF*. All share a vision of enhancing communication, scientific exchange and clinical exchange to better understand this disease and to bring it under control over the coming decade. Articles in this journal will be published online as quickly as possible after acceptance. These articles, reviews and communications in the field of COPD will be aggregated into quarterly issues and circulated to the scientific and medical community interested in COPD, without charge. The Journal website will provide open access to all Journal articles and to all Journal resources. We invite you to join us in the goal to more fully understand and control COPD during the coming decade.

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