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Editorial

Why Publish Scientific Meeting Proceedings?

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Introduction

The reason for publishing information exchanged at a scientific meeting is to make the proceedings available to a wider audience than the meeting participants, irrespective of the stated purpose of the conference. These stated purposes may range from establishing, at a given point in time, the biologic basis of disease, to education on disease diagnosis and management for clinicians, to the promotion of new diagnostics and therapies. Branded "scientific" conferences have mostly fallen out of favor and medical journals are less likely to publish the presented material in order not to favor one product over another or exert undue influence on the readership. Consequently, the proceedings of such conferences are now rarely published in medical journals and rightly so. After all, the community has access to the results of new therapeutic trials through their direct publication in the medical literature; why do we also need a symposium on a single product?

However, I believe there is justification for publishing the proceedings of high-level conferences that address a clearly defined theme, be it basic, translational or clinical. Typically, these conferences are organized by academia and are not product-driven even if funded by non-commercial or commercial sources. In the respiratory field, 2 such conferences stand out: The annual "Aspen Lung Conference" and the "Transatlantic Airway Conference" that are in their 61st and 33rd iterations, respectively. Their proceedings have been regularly published in peer-reviewed journals. For example, both will appear as supplements in the Annals of the American Thoracic Society this winter. A unique feature of these publications is that they consist of individual papers submitted by the presenters at the meeting rather than overall summaries. The individual papers typically combine a focused review of the field with the investigator's own work. This provides more scientific depth and allows the reader to better assess the paper's scientific merit. With this publication format the author receives credit for the paper as an individual contribution that is cited as such and serves as an incentive to produce a high-quality manuscript.

This issue of the Journal of the COPD Foundation features papers from presenters at the "3rd Biennial International Research Conference on Alpha-1 Antitrypsin", another example of a non-branded scientific meeting that has as its theme novel treatment paradigms in alpha-1 antitrypsin deficiency and selected other conditions. The conference was sponsored by the Alpha-1 Foundation. To obtain the best possible collection of experts taking part in the conference, the steering committee invited Gerry McElvaney, Professor of Medicine and Pulmonary Consultant at the Royal College of Surgeons in Ireland, to develop the scientific program, serve as its chair and in turn invite 30 experts best suited for individual presentations and as discussants.

There were 3 sessions- 1 on basic observations, 1 on new treatments for lung and liver disease, and 1 on new

disease targets for alpha-1 antitrypsin. These topics were covered by 13 presentations followed by informed discussions among experts. I had the privilege of attending the meeting and draw my own conclusions on its potential impact as a published proceeding. The pathogenesis of alpha-1 antitrypsin deficiency, i.e., intrahepatic polymerization and retention of the mutant misfolded alpha-1 antitrypsin protein leading to hepatotoxicity and a systemic alpha-1 antitrypsin deficiency that is a major driver of lung disease, provides targets for new therapeutic interventions. To date, only augmentation with alpha-1 antitrypsin is clinically available for the treatment of lung disease. Although alpha-1 antitrypsin augmentation can slow the progression of emphysema, the treatment is expensive and inconvenient as it requires intravenous administration. There is no specific treatment for liver disease. Therefore, there is a need for novel approaches; these were discussed at the meeting. With respect to gene therapy for the lung disease, the possibility of using inhaled alveolar macrophages transfected with wild-type alpha-1 antitrypsin or expressing the wild-type gene in pleural mesothelial cells or skeletal muscle was discussed. For the liver disease caused by the mutant gene's toxic gain of function, gene silencing and the use of small molecules to prevent intrahepatic polymerization and promote the secretion of alpha-1 antitrypsin seem to have the best chance of preventing liver damage and possibly raising circulating alpha-1 antitrypsin levels. Another approach, i.e., the administration of inhaled alpha-1 antitrypsin to treat lung disease, was also addressed. Although inhaled alpha-1 antitrypsin seems to circumvent some of the drawbacks of intravenously administered

alpha-1 antitrypsin, early clinical trials have yet to prove its clinical efficacy. Finally, given that alpha-1 antitrypsin not only inhibits neutrophil elastase and other serine proteases involved in the pathogenesis of lung disease but also has broad anti-inflammatory and immunomodulatory actions, conditions that are not associated with alpha-1 antitrypsin deficiency are being considered for treatment with alpha-1 antitrypsin. These include cystic fibrosis, type-1 diabetes, autoimmune diseases and graft-versushost disease. The papers included in this issue reflect some of the presentations made and discussed at the meeting.

While future investigations will be needed to determine if these early observations can lead to new therapies in humans, the meeting has provided encouraging new data that should be pursued in the quest for better treatments for alpha-1 antitrypsin deficiency-related liver and lung disease. In this sense, bringing selected papers to the attention of the broader investigator and clinician communities by publishing a meeting proceeding of this nature serves an important function. I believe there continues to be a strong rationale for medical and basic science journals to publish the proceedings of non-branded scientific meetings.