EDITOR'S MEMO

It is a great pleasure to introduce this issue’s Guest Editors of *Advances in Pulmonary Hypertension*. Drs Mark Nicolls and Marc Humbert lead an elite group of experts in a timely compilation on drug development and clinical trials in pulmonary hypertension (PH).

The opening article by Drs Martin Wilkins and Marlene Rabinovitch eloquently illustrates novel exciting targets for drug development. These targets are based on the understanding of the mechanisms driving pulmonary arterial hypertension (PAH). They discuss this “mechanism-driven” focused approach to developing new therapies. The authors detail many of these targets and where they are in the pathway of development.

Dr Tsukasa Shimauchi and colleagues follow with an important discussion of the challenges and limitations in the design of preclinical PH trials. They emphasize the need for the rigorous assessment of study design from each part of the development, including researchers, peer reviewers, funding agencies, and academic institutions, among others.

This is followed by the expert roundtable discussion focused on the topics of drug development, clinical trials, and the importance of publishing of negative trial results. Drs Marc Humbert, Mark Nicolls, Norman Stockbridge, and Roham Zamanian examine the importance and the opportunities that a negative clinical trial provides to all of us as a community.

In our “Ask the Expert” column, Drs Christine Garnett and Norman Stockbridge, both experts on trial regulation from the US Food and Drug Administration, discuss the challenges of finding new therapies with a novel mechanism of action, of improving the efficiency of clinical trials, and of developing endpoints that reflect benefits in patient symptoms and quality of life.

We conclude this issue with a poignant discussion by Lena Bolivar. Lena, a patient who was diagnosed with PAH in 2011, takes us through her experience, starting with diagnosis of PAH, initiating therapy, going through a clinical trial, and ultimately receiving a heart-lung transplant. It is because of Lena and all of our patients that we as a community continue to work together to define new targets and develop improved therapies for the present and the future.

Congratulations and thank you, Drs Nichols and Humbert, for an exceptional issue.

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GUEST EDITOR’S MEMO

This issue of *Advances in Pulmonary Hypertension* addresses the challenges and opportunities of drug development for pulmonary arterial hypertension (PAH) patients. As combinational vasodilator regimens continue to improve the lives of PAH patients, there is growing interest in also targeting novel pathways implicated in disease pathogenesis. To this end, Drs Martin Wilkins and Marlene Rabinovitch summarize exciting new disease pathways which show promise as therapeutic targets. Enthusiasm for these emerging therapies are linked to high-impact preclinical publications. In a review that highlights the importance of experimental rigor, Dr Tsukasa Shimauchi and colleagues make a compelling call for strong study design to optimize the likelihood of subsequent successful clinical trials. However, even trials that fail to show benefit for a drug can educate the PAH community. In a wide-ranging roundtable discussion, we moderate a discussion with Drs Roham Zamanian and Norman Stockbridge to address the merits of publishing negative trials, as well as the current obstacles for developing new drug treatments. Lena Bolivar, a PAH patient, then describes what it’s like to participate in a clinical trial. Finally, this compendium of articles concludes with a perspective written by two US Food and Drug Administration leaders who discuss strategies for improving trial design, primary endpoints, disease biomarkers, and pediatric care.

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