

### Drug- and Toxin-Associated PH: An Increasingly Important Subgroup

For this issue of *Advances*, we are examining pulmonary hypertension (PH) associated with drugs and toxins, an increasingly important subgroup of pulmonary arterial hypertension (PAH). This topic is particularly pertinent these days for several reasons: the continuing, and, in many locales, the growing, drug epidemic in the United States; the association of prescribed drugs, such as chemotherapeutic agents and tyrosine kinase inhibitors, with development of PH; and the continued emergence of newer agents, both licit and illicit, that seemingly result in development of PH. In sum, this is

an expanding subgroup of PAH, that seems to increase and associate with more agents every year.

I thank Kelly Chin and Sonja Bartolome for serving as guest editors of this issue; they have assembled an outstanding group of contributors for the issue and have presented this subject exceedingly well. Furthermore, in the associated roundtable, the social, societal, and psychological issues of these drugs are merged with the medical issues and medical consequences that ensue. From this discussion, it is evident this is a growing problem that, quite honestly, we do not have all the pieces in place to deal with. It is further apparent this is a very complex and complicated area of

PH that will require the expertise of many modalities in the medical field to control. Kelly, Sonja, and I hope you enjoy reading this issue and that, after reading it, you are more aware of this problem. You may question your PAH patients more completely, especially with regard to past or current drug abuse, and consider recruiting ancillary individuals who are equipped to handle the nonmedical complexities of this issue to your program.

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### GUEST EDITOR'S MEMO

This issue of *Advances in Pulmonary Hypertension* focuses on drug- and toxin-associated pulmonary hypertension (PH), an important and evolving subgroup of pulmonary arterial hypertension (PAH).

Drs Ramon Ramirez, Vinicio De Jesus Perez, and Roham Zamanian provide an updated look at the association between stimulants and PAH, including a review of their own research involving patients from the Stanford Pulmonary Hypertension Program. Of particular interest, they found that patients with a history of stimulant use have similar pathology findings compared with patients with idiopathic PAH, but greater clinical severity and worse outcomes. Next, Nimi Tarango, NP, and Andrea Baird, LCSW, provide a compelling look into practical

aspects of care, based on their own experiences and protocols at the University of California, San Francisco Pulmonary Hypertension Program. Their article raises a number of important points, such as consideration of universal drug screening at diagnosis in all patients with PAH, and the effectiveness of brief interventions to encourage patients to seek treatment for drug addiction and abuse. In the third article in this issue, Drs Trushil Shah, Sonja Bartolome, and I review the "serotonin hypothesis" in PH, including prior areas of controversy, more recent findings, and the potential for future therapeutics in this area. Finally, Drs Mariana Preda et al from the French National Referral Center for Pulmonary Hypertension provide a

review of tyrosine kinase inhibitors in PAH, including recommendations for treatment and follow-up.

We hope you enjoy the updates and insights offered by our panel of authors on this important and complex topic.

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