

Guest Editors' Memo

This issue of *Advances in Pulmonary Hypertension* focuses on exercise and pulmonary hypertension (PH). Clinicians treating PH use exercise to determine a patient's degree of functional impairment, quantify the impact of PH therapy, and lessen the burden of the disease, leading to improved quality of life in patients with PH. Articles in this issue of *Advances in Pulmonary Hypertension* review the role of exercise in clinical disease management, present opportunities for future research, and motivate the integration of research findings into clinical care. We are grateful to the authors and roundtable collaborators for their terrific work. Readers will learn about the role of exercise training in PH with special considerations regarding skeletal muscle differences, inspiratory muscle weakness, and the added complications of sleep-disordered breathing. Experts provide real-life insight into prescription of exercise in PH to improve overall wellness.

Dr. Simon Malenfant and coauthors summarize the unique landscape of abnormal skeletal muscle structure and dysfunction in contributing to exercise

intolerance in the PAH population. These authors describe the microvascular and proinflammatory state of the muscle environment that lead to muscle dysfunction and ultimately exercise intolerance.

Dr. Ratwatte and colleagues summarize the benefits and limitations of exercise training, specifically inspiratory muscle training, in the PH population. The authors provide details of training and explore the broader implications of respiratory muscle training for the PH population. We believe our readers will find this summary of work helpful in deciding how to integrate exercise into their patients' care plan.

Drs. Mullin and Singh review the complex relationships among sleep-disordered breathing, exercise, and PH. The authors present several areas for further exploration as we consider how exercise may affect sleep-disordered breathing in the PH population.

Lastly, we conclude with a roundtable discussion with the experts on "Recommending Exercise in Pulmonary Hypertension: Adult and Pediatric Perspectives." Experts from across the

globe provide their insight on how to use and recommend exercise training for their patients. This piece is particularly useful for translating the research into real work clinical practice.

We want to thank the contributing authors for their insightful reviews describing the role of exercise in the care of patients with PH.

Aimee M. Layton, PhD

Associate Professor in Applied Physiology
Director of the Pediatric Exercise Program
Division of Pediatric Cardiology, New York
Presbyterian Morgan Stanley Children's
Hospital—Columbia University Medical
Center, New York, NY

Catherine M. Avitabile, MD

Assistant Professor of Pediatrics, University
of Pennsylvania Perelman School of
Medicine
Cardiologist, Children's Hospital of
Philadelphia
Pediatric Pulmonary Hypertension and
Pulmonary Vein Stenosis Programs