Introduction to the 57th Annual Thomas L. Petty Aspen Lung Conference: Rebuilding the Injured Lung

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For 4 days each June in Aspen, Colorado, the Thomas L. Petty Aspen Lung Conference provides an international forum for the presentation, discussion, and integration of contemporary and emerging clinical, translational, and basic science investigations of a specific lung disease or topic. Building on the conceptual framework of the 2007 Conference titled “Lung Injury and Repair,” the 2014 Conference addressed the central question: “How can knowledge of the mechanisms of acute and chronic alveolar injury be translated into specific approaches to reconstitute and rebuild the injured lung?”

The program was organized into six thematic half-day sessions, with each successive session building on the concepts and data presented in the previous session. The first day was anchored by State of the Art presentations by Marco Ranieri, M.D. (Milan, Italy), Peter Henson, M.D., Ph.D., D.V.M. (Denver, CO), Rachel Chambers, Ph.D. (London, UK), and Dean Sheppard, M.D. (San Francisco, CA) and focused attention on the clinical challenges and basic mechanisms that distinguish acute lung injury from more chronic and progressive pulmonary injury and fibrosis. With key presentations by Daniel Tschumperlin, Ph.D. (Rochester, MN) and Eric White, M.D. (Ann Arbor, MI), the focus of the second day moved to consideration of the complex interactions between epithelial cells and mesenchymal cells and the extracellular connective tissue matrix. Then, with presentations by Oliver Eickelberg, M.D. (Munich, Germany), Don Dong-Huh, M.D. (Philadelphia, PA), Harald Ott, M.D. (Boston, MA), and Darrell Kotton, M.D., (Boston), the theme of the third day shifted to consider how understanding of

Figure 1. The 57th meeting of the Thomas L. Petty Aspen Lung Conference. *Left to right:* Eric Schmidt, M.D., Gregory Downey, M.D., David Riches, Ph.D., Peter Bitterman, M.D., Ellen Burnham, M.D., and Marc Moss, M.D.

matrix, epithelial, endothelial, and induced pluripotent stem cell biology can be harnessed to repair injured lungs in animal models and ultimately in human subjects. Featuring presentations by Michael Matthay, M.D. (San Francisco) and Gordon Rubinfeld, M.D. (Toronto, ON, Canada), the final day focused on the state of the art of human mesenchymal stem cell delivery and novel clinical trial design approaches that are hoped to provide new avenues to improve therapies directed at repairing the injured lung. Finally, as has been a tradition since the first Aspen Lung Conference in 1958, the 2014 Conference concluded with a thoughtful and thoroughly comprehensive

summary, presented this year by Peter Bitterman, M.D. (Minneapolis, MN). We are deeply indebted to Peter for taking on this task and for so skillfully integrating the clinical, translational, and basic science presented at the meeting.

The meeting was attended by 160 participants from 10 countries and, in addition to the 12 State of the Art presentations, featured 24 short oral presentations and 40 posters, the latter being presented in two thematic poster sessions that were held outdoors under sunny skies in a stunningly beautiful setting. Also, for the first time, the 2014 Conference

featured “Meet the Speakers” coffee breaks in which the State of the Art presenters discussed science, pulmonary medicine, or pretty much anything with junior investigators and postdoctoral students.

Finally, we express our sincere thanks to the many individuals and entities who helped make this year’s conference possible. The Thomas L. Petty Aspen Lung Conference continues to support participation by not charging a registration fee and by providing traveling fellowship grants. To disseminate the information presented at the Conference, the conference proceedings are published. We are

therefore deeply grateful to the National Heart, Lung, and Blood Institute, Novartis, Amgen, InterMune, Boehringer-Ingelheim Pharmaceuticals Inc., the Francis Family Foundation, University of Colorado Health, and the many other benefactors listed in this issue of the *Annals of the American Thoracic Society* who have generously provided educational grants to help support the Conference. And last, but not least, we thank our Conference Administrators, Jeanne and Melissa Cleary, who, once again, did an outstanding job in coordinating and administering this year’s conference.

The manuscripts and Conference Summary presented in this issue of the *Annals of the American Thoracic Society* reflect four outstanding and memorable days of discourse, discovery, discussion, and contemporary thinking about how acute and progressive lung injury can be resolved and repaired. Whether you attended the 57th Thomas L. Petty Aspen Lung Conference or not, we hope you enjoy reading these contributions and are stimulated in your thinking about strategies for “Rebuilding the Injured Lung.” ■

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