American Thoracic Society otorgó el premio "Robert F. Grover" 2008 a los doctores Dante Peñaloza y Javier Arias-Stella

La Asamblea del Comité de Circulación Pulmonar de la American Thoracic Society (ATS) otorgó el "Premio Robert F. Grover" 2008 a los Doctores Dante Peñaloza y Javier Arias Stella. La American Thoracic Society otorga anualmente este premio por "sobresalientes contribuciones al estudio de los efectos de la hipoxia y las grandes alturas sobre la circulación pulmonar". Desde su creación en el año 2000, este galardón ha sido otorgado a renombrados investigadores de los Estados Unidos.**

La decisión de la Asamblea fue tomada por unanimidad y fue fundamentada en la trayectoria de los investigadores peruanos, en el rol básico que les correspondió en el descubrimiento de la patogenia de la hipertensión pulmonar hipóxica crónica en humanos y en el "sobresaliente" artículo publicado por ambos autores en Circulation 2007, artículo de actualización que complementa el trabajo pionero de los investigadores peruanos con las investigaciones realizadas en las últimas décadas sobre hipertensión pulmonar hipóxica crónica en regiones montañosas de China y Kyrgyzstan.

El "Premio Robert F. Grover" fue entregado el 19 de Mayo, durante la Conferencia Internacional de la American Thoracic Society que este año se realizó en Toronto, Canadá. El Dr. Wiltz W. Wagner hizo la presentación y el agradecimiento estuvo a cargo del Dr. Dante Peñaloza. Debido al contenido trascendental de estas exposiciones se presentan los aspectos más relevantes de las mismas.

Presentation Words - Wiltz Wagner, PhD.

I am honored to present the Grover Prize this year. I can think of no better way to introduce this year's awardees than to quote from a paper written by Bob Grover and Jack Reeves in 2005. It is entitled "Insights by Peruvian scientists into the pathogenesis of human hypoxic pulmonary hypertension".

Grover and Reeves pointed out that the long-suspected pulmonary hypertension in natives of the Andeans was indeed present. This finding came from work done by a team of scientists led by Dante Penaloza. Novel histological findings by Javier Aries-Stella indicated that thickened pulmonary arterial walls were the cause of the elevated pressure. Among many other fascinating findings, they learned that pulmonary vascular resistance did not fall after birth, and that even severe pulmonary hypertension could resolve over time at sea level.

The Grover Prize is awarded "for outstanding contributions to the study of hypoxia and high altitude on the pulmonary circulation." Doctors Penaloza and Arias-Stella from Lima are probably the best fit we have ever had for the Grover Prize.

In 1962, these scientists came to the Aspen Lung Conference, which Bob Grover had organized and had devoted to the pulmonary circulation. I was lucky to be at that conference and to hear first hand their outstanding presentations. One of my treasured memories was the meeting between them and André Cournand. Cournand, as you may remember, shared the 1956 Nobel Prize "for discoveries concerning heart catheterization and pathologic changes in the circulation." Professors Cournand and Penaloza and Arias-Stella knew of each other through the literature but had never met. I will always remember the warm greetings exchanged by these giants of cardio-pulmonary physiology.

Professor Cournand had the daunting job of summarizing the Aspen Conference with its many excellent presentations, which, when published was 452 pages long. Naturally, time limited him so that many of the presentations were not mentioned. He did, however, single out our Grover Prize winners in the following way.

"I naturally come to Dr Penaloza's contribution. He finally gave us the information that we have been waiting for so long, with regard to the state of the pulmonary circulation in individuals living at high altitude. They confirm what one would expect: normal man living at high altitude is comparable to the patient who lives at sea level with chronic obstructive disease of the lung.

The work of Dr. Arias-Stella based on quantitative morphology has impressed me greatly. He was careful to indicate exact relationships between the individual vessels and the various segments of the respiratory unit... "

Because the last scientific papers of Doctors Penaloza and Arias-Stella appeared in the 1970's, we all thought they were inactive. But to our surprise and pleasure, a superb paper by them appeared in Circulation in 2007. Here was solid evidence that they were indeed still active. The paper is filled with superb figures, most of which I have already stolen for my lecture on high-altitude physiology.

This year's Grover Prize will be shared by both of these scientists. And now for an honor for the Pulmonary Circulation Assembly – a wonderful surprise – coming all the way from Lima, Peru to accept the Grover Prize — ladies and gentlemen: ¡Dante Penaloza!

Wiltz W. Wagner Jr., Ph.D
Professor of Molecular and Cellular Pharmacology
Center for Lung Biology,
College of Medicine
University of South Alabama

Thanking Words - Dante Penaloza, M.D.

On behalf of Javier Arias-Stella and myself I would like to express our gratitude to the Awards Committee and the Pulmonary Circulation Assembly of the American Thoracic Society. We are extremely proud to be recipients of the Robert F. Grover Prize. Robert Grover is a world renowned scientist and educator, responsible for pioneering and outstanding contributions in the field of hypoxic pulmonary circulation. We are indebted to him and the late John Reeves because they always emphasized the prime role of Peruvian scientists into the pathogenesis of human chronic hypoxic pulmonary hypertension.

Several decades ago the Laboratories of Cardiology and Pathology of the High Altitude Research Institute at the Peruvian University Cayetano Heredia, carried out hemodynamic and anatomical investigations of the pulmonary circulation in children and adults native to high altitude (4,500 m). Our combined research demonstrated that the chronic hypoxic pulmonary hypertension in healthy highlanders was mainly due to a postnatal delayed remodeling of distal branches of the pulmonary arteries. This implies persistence of increased amounts of smooth muscle cells in the arterial medial coat and, as a consequence, thickening of the walls and narrowing of the lumen, which increases the pulmonary vascular resistances. The relationship between the hypoxic pulmonary hypertension and the level of altitude, the influence of exercise and the changes induced by migration to low altitudes were also studied. These results were presented for the first time during the Aspen Conference which was held in 1962 and have been verified by subsequent studies in other geographic regions. In the following years these novel concepts regarding the pathogenesis of pulmonary hypertension at high altitude were taken for granted but their source gradually became unnoticed.

In 2005 Reeves and Grover called attention to what they named "the forgotten groundbreaking investigations" and published in Journal of Applied Physiology an article entitled "Insights by Peruvian scientists into the pathogenesis of human chronic hypoxic pulmonary hypertension". In 2007, at the request of the editors of Circulation we published a review article entitled: "The heart and pulmonary circulation at high altitudes: healthy highlanders and chronic mountain sickness". In

this regard, we are very proud of the stimulating words received from Robert Grover. He wrote to us: "I must tell you that your review article in Circulation is very impressive and a much-needed historical document of what we know has been an epoch in medical research. Now it is preserved for posterity. Work like this never will be performed again".

Mr. Chairman, members of the Pulmonary Circulation Assembly, members of the Awards Committee, we would like to thank you very much indeed for your decision. It is a great honor for us to be recipients of the Robert F. Grover Prize.

Dante Peñaloza, M.D.
Professor Emeritus
Universidad Peruana Cayetano Heredia

Grover Prize Winners

2000 – Peter D Wagner, MD
2001 – Jack T Reeves, MD
2002 – Charles A Hales, MD
2003 – E Kenneth Weir, MD
2004 – Wiltz W Wagner, Jr., Ph.D
2005 – Ivan F McMurtry, Ph.D
2006 – Norbert F Voelkel, MD
2007 – Jimmie T Sylvester, MD
2008 – Dante Peñaloza, MD
2008 – Javier Arias-Stella, MD

Dr. Dante Pe aloza recibiendo el premio Robert F. Grover 2008