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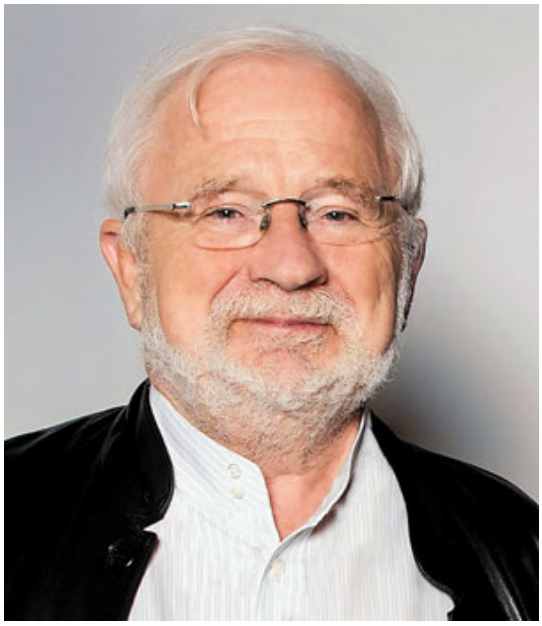
Paul M. Vanhoutte dies in Paris aged 79

Lüscher Thomas F.

Figure 1: Paul M. Vanhoutte, MD, PhD (1940–2019).



Paul M. Vanhoutte (1940–2019; fig. 1), a native of Belgium and citizen of the world, studied medicine in Ghent and did his PhD at the University of Antwerp. His academic career started at the University of Gent under the mentorship of the then famous physiologist Isidor Leusen and he continued as a research associate with the eminent physiologist John Shepherd at the Mayo Clinic and Mayo Foundation in Rochester Minnesota, USA. Besides seminal work on veins and their regulation, the two published a widely read textbook "The Human CardioVascular System", Raven Press, New York 1973.

When the chair of pharmacology at Antwerp University became available in 1973, he moved back to Belgium to take this position. Inspired by Robert F. Furchgott's seminal work, with his fellow Jo de Mey he published pioneering studies on endothelium-dependent relaxation of blood vessels.

In 1981 he returned to Rochester to become Professor of Physiology and Pharmacology at the Mayo Clinic and Mayo Foundation. This turned out to be his scientifically most productive period, during which he worked with a growing number of brilliant fellows from all over the world. His team began to characterise the role of endothelial cells and their products in physiology and a number of cardiovascular diseases such as hypertension, atherosclerosis, coronary artery disease and cerebral vasospasm, to mention but a few. He was the first to show that the then so-called endothelium-derived relaxing factor (EDRF) was inactivated by superoxide, suggesting that EDRF might be a small molecule such as nitric oxide (NO), as shortly thereafter proposed by Robert Furchgott and experimentally proven by Salvador Moncada. The monography "The Endothelium – Modulator of Cardiovascular Function" (CRC Press, Boca Raton, Fla., USA 1988) that he wrote with Thomas F. Lüscher summarised this evolving new field and its impact in cardiovascular biology and medicine.

In 1989 he moved to the Baylor College of Medicine in Houston, Texas, USA to run the Center for Experimental Therapeutics, and in 1992 he accepted the position of Vice-President Research and Development and Director of Discovery Research at the Institut de Recherches Internationales Servier, in Courbevoie, Paris, France. In 2002 he escaped mandatory retirement in France when he was offered the post of Distinguished Visiting Professor and Director/Founder of the Biopharmaceutical Development Centre at the Faculty of Medicine, University of Hong Kong, where 4 years later he became the Head of the Department of Pharmacology and Pharmacy. From 2015 until his death, he was permanent Visiting Professor in the same department, continuing to co-supervise PhD students and to advise senior investigators of the department. In addition, he was visiting professor at the Centre for Molecular Cardiology at the University of Zurich, Switzerland and at the Department of Physiology in Odense in Southern Denmark.

His amazing scientific productivity made him one of the most-cited scientists worldwide, with an h-index of 128. He has co-authored or edited 36 books, and has published 669 original research papers and 574 editorials, reviews or chapters in books. His major scientific contribution was to characterise the importance of endothelial cells in the control of the underlying vascular smooth muscle in vascular health and disease, and to highlight the complexity of the molecular mechanisms involved. His discoveries brought

Figure 2: Dies Academicus in 2002 at the Campus Zurich-Irchel with rector Hans Weder (centre) and the honorary doctors of the University of Zurich, among them Paul M. Vanhoutte (left).

him countless awards and honorary degrees, from the Universities of Antwerp and Ghent in his home country Belgium as well as from the Universities of Zurich (fig. 2) and Montreal, the Royal Melbourne Institute of Technology and Monash University in Melbourne and the University of Strassbourg, the Gr. T. Popa University of Medicine and Pharmacy in Iasi, Romania and the University of Odense, Denmark.

Even more, Paul Vanhoutte was a superb mentor who fostered the careers of numerous young clinicians and scientists. Indeed, many of his fellows were and are holding chairs in the United States, Japan, Australia, Switzerland, Denmark and many other countries. In Switzerland, Paul Vanhoutte trained Thomas F. Lüscher, and stimulated and mentored repeatedly not only him, but also Zhihong Yang, Felix C. Tanner, Chantal Boulanger, Georg Noll, Giovanni G. Camici, Alexander Akhmedov and Isabella Sudano. For almost 10 years he has been a Visiting Professor at the Centre for Molecular Cardiology of the University of Zurich with two or three visits per year and extensive meetings with the fellows of the centre.

Lastly, Paul Vanhoutte will be remembered because of his humour and for his famous quotes: “The tissue never lies” or “I feel a paper coming up” when seeing impressive novel data.