

## Professor Paul Michel Georges Vanhoutte (1940–2019)

Paul Vanhoutte, born in Merelbeke, Belgium, died in Paris, France. He will be remembered as one of the greatest scientists in the area of cardiovascular pharmacology, exemplified by his love for the endothelium, always wanting to know how it influences contraction and relaxation. This led to groundbreaking insights on the role of nitric oxide and endothelium-dependent hyperpolarization.

After obtaining his medical degree and PhD in Gent and Antwerp, his scientific career unravelled at high speed in three continents and combined both academic (Gent, Antwerp, Rochester, Houston and Hong Kong) and industry (Servier) positions. Not only did this allow him to establish alliances between industry and academic institutions, but it also brought him in the unique position to link scientists from West and East. He helped numerous people with their careers and founded the International Society for Serotonin Research, the Asian Society of Vascular Biology, and the Mechanisms of Vasodilatation/Endothelium-Dependent Hyperpolarization Meetings. Lectures have been named after him, e.g. by the American Society for Pharmacology and Experimental Therapeutics. He published >1000 papers and book chapters. Importantly, as the chair of the nomenclature committee of the International Union of Pharmacology, and later the secretary general of this society, he was responsible for restructuring pharmacology. Tirelessly, he travelled the world and provided wonderful lectures that always gave you the feeling that 'everything' had now been solved.

We have had the privilege of working with him at various stages of his life.

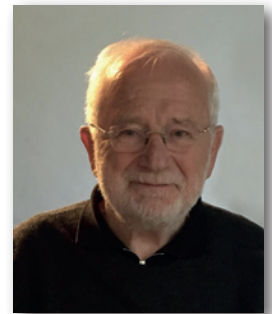
**Jo De Mey** was his second master and PhD student in Antwerp from 1976 to 1982. After Paul had found that acetylcholine inhibits vascular adrenergic neurotransmission, he asked me to unravel why veins contracted and arteries sometimes relaxed in response to acetylcholine. This sparked experiments on effects of the endothelium on smooth muscle contractility. Importantly, he showed that a scheme could tell much more than a text, frequently quoting a French philosopher: *Ce qui se conçoit bien s'énonce clairement*. For decades he would stay faithful to his clear black-and-white summarizing schemes. Also, he showed that science is a highly social activity requiring pleasant and fruitful interactions between all members of the lab and beyond. Hence his travelling and organization of many symposia. This approach also involved inviting brilliant post-docs and Nobel laureates to his lab. Over the years Paul became my advisor in professional and personal life and ultimately an exceptional friend. From 2012 he would visit me every three months at the Syddansk

Universitet in Odense, Denmark, to have breakfast, dinner and, above all, research meetings with students.

**Jan Danser** worked with him as a student in 1985 at the Mayo Clinic in Rochester, where at that time he led a large group of predominantly European postdocs unravelling the identity of the mysterious endothelium-derived relaxing factor. He travelled to Europe once per month for a lecture tour, and at 7 am on the day after his return, he freshly discussed the latest data with all individual investigators (their official photographs were in his room), preparing papers that were subsequently critically discussed by the group at this home before submission. His positive view ('I feel a paper coming up', 'Stockholm is calling'), great sense of humor, and natural ability to combine and explain data logically resulted in an extremely stimulating surrounding, where the lab was occupied day and night (including weekends) and everybody helped each other, even when not being a co-author on the many papers that stem from this period. After my stay in his lab, I knew that this was what I wanted to do the rest of my life. He has been like a father for me ever since.

**Yu Wang** joined Paul in Hong Kong in 2008. From day one, a warm and stimulating environment surrounded newcomers in his lab. Why did his system work so well? Paul said 'create an atmosphere where EVERYBODY feels happy, feels good...but to do that, please realize that each plan is different, you cannot apply general rules, you have to tailor to individuals'. He thus offered individual freedom, removed barriers, and provided everything you needed, of course always subtly reminding you of the role of the endothelium. Every morning, his arrival required a troop of courage. You should be well-prepared: minutes later, he would appear in the office without knocking on the door, sometimes with coffee, but always with a folder: "Yu, a few things we should discuss...". Paul emphasized that 'pharmacology is the science of pharmacy', and renamed the department accordingly. He insisted that 'you start pharmacology and you learn how to play the game, so much so well, and so elegantly...'

He will be deeply missed, but his legacy lives on through his huge crowd of 'scientific children'.



For a detailed CV, go to:  
<https://www.pharma.hku.hk/Department/Others>

**Jo G.R. De Mey** (Maastricht University, The Netherlands)

**A.H. Jan Danser** (Erasmus Medical Center, The Netherlands)

**Yu Wang** (University of Hong Kong, China)