



Professor dr. Pieter Adriaan van Zwieten

1937–2014

Pieter van Zwieten was born in Heemstede, the Netherlands in 1937. After high school and having finished his study in Pharmacology he started a career as an investigator and moved to Kiel, Germany to continue his research under the guidance of professors Kuschinsky and Lüllmann, who were to become his lifelong friends.

After his Habilitation in Germany, Pieter van Zwieten, at the age of 34 years, was offered a professorship of Pharmacology and Pharmacotherapy at the University of Amsterdam. He quickly transformed the pharmacology laboratory into a modern research centre. He soon became known as a passionate investigator in cardiovascular pharmacology and also drastically modernized the pharmacology curriculum.

The first results of the research activities of the van Zwieten research group appeared in the early seventies of the last century but the highlights of the scientific production of his group appeared in the early 80's. Pieter van Zwieten was an inspiring but demanding person and his scientific staff had a similar drive and style. This resulted in a critical scientific mass where competence and competition, supported by excellent facilities, excellent laboratory staff and intense labour created an atmosphere of mutual stimulation. This scientific environment was extremely beneficial for talented students from multiple disciplines including pharmacy, chemistry, biology and medicine to start their academic career in a structured manner. The numerous national and international contacts of Pieter van Zwieten and the availability of new cardiovascular therapeutics from pharmaceutical companies provided an excellent basis for the development of novel pharmacological concepts.

The Pieter van Zwieten group developed several efficient experimental animal models. The extensive experience with these models, which served as important pharmacological tools, was instrumental for the reliable scientific output of the group. The most spectacular animal model, both for research and teaching was the so called "blood pressure cat" where a wide range of pharmacological interventions could be tested *in vivo* and could be demonstrated to the students. Other animal models included the "*in vivo* vertebral artery cat model" to investigate CNS activity of cardiovascular drugs and the "pithed rat" that was used to characterize peripheral effects of cardiovascular drugs. This last model has yielded important discoveries including the distinction between alpha-1 and alpha-2 adrenoceptors, the involvement of calcium influx in adrenergic vasoconstriction, the role of presynaptic alpha-2 adrenoceptors and dopamine receptors in sympathetic neurotransmission, the cardiovascular function of angiotensin converting enzyme and the role of 5 HT_{1A} receptors in blood pressure regulation.

After the faculty of Pharmacy of the University of Amsterdam was shut down due to national budget restrictions the size of the scientific staff of Pieter van Zwieten's group had to be reduced and several key scientists left the University.

Pieter van Zwieten was then appointed as professor of pharmacology and pharmacotherapy at the Faculty of Medical Sciences and moved with a part of his scientific staff to the university academic hospital, the Amsterdam Medical Centre. His research with a less homogenous group became more clinically directed. Pieter van Zwieten at that time became more and more involved in bedside teaching and became a valued partner of the Departments of Cardiology and Cardiothoracic Surgery, at the academic hospitals of both the Free University and of the University of Amsterdam.

Pieter van Zwieten, during his active life as a scientist, has made a seminal contribution to Dutch pharmacological science and also to the international pharmacological community. His legacy consists of more than 650 peer reviewed scientific articles, more than 80 PhD theses, many book chapters and text books on pharmacology and hypertension. A significant number of his former pupils now hold academic chairs and professorships all over the world. Clearly their careers are solidly based on the thorough scientific education provided by Pieter van Zwieten. Pieter did great efforts to recommend his former pupils for relevant jobs and careers and kept in contact with many of them, wherever they went. Pieter van Zwieten was an honorary member of many international scientific societies and was awarded with the knightship of the 'Nederlandse Leeuw', one of the greatest honours for scientific performance in the Netherlands.

Pieter van Zwieten dedicated his whole life to the promotion of pharmacological research. His chronic illness changed his attitude into a most contemplative one in the last few months of his life and it was a great fortune that he did not suffer from pain in his last weeks. He died on September 17, 2014 in his sleep. With Pieter van Zwieten's passing, a significant era in pharmacological research has come to an end and he will be remembered with respect.

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