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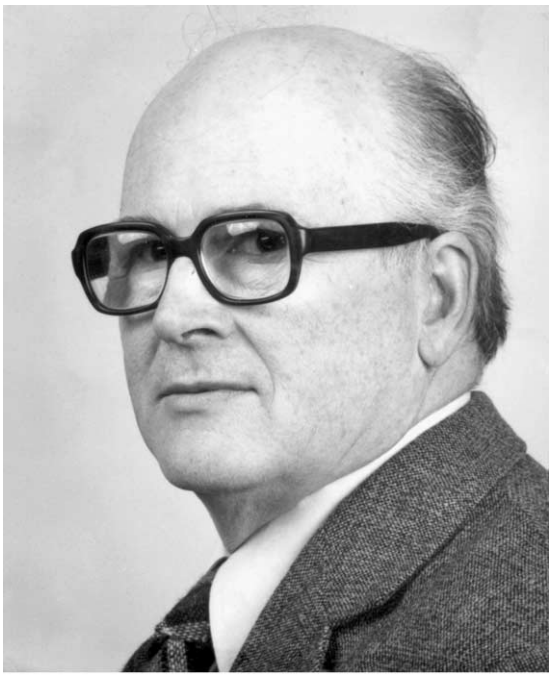
Personal report

A tribute to Professor Dennis Parke, PhD, DSc, CChem, FRSC, FIBiol, FRCPath (15 November 1922–23 November 2002)



Dennis Parke

In this tribute, I wish to recognize some of the contributions provided by the late Professor Dennis Parke and the wonderful character of the man himself.

In the preface to the *Environmental Health Perspectives*'s publication of the Benzene'95 Symposium [*Environmental Health Perspectives* 104 (Suppl. 6) (1996) 1121], Dr. Robert Snyder commented that it is important to remind our students and colleagues that science did not begin the day they first stepped into the laboratory. Through his participation and publication in the Benzene'95 Symposium, we were able to learn from Dennis Parke many of the historically significant contributions for benzene. Sadly, with his passing, we cannot benefit from his vision today, but by dedicating this meeting to his memory, we continue to recognize these contributions and hope to build upon them at this meeting and in future research.

Dennis Vernon William Parke was born in London on 15 November 1922. At the age of 17, he was a first-year medical student at the University College, London, on loan to Glaxo to research an incidence of scurvy in Glaxo workers. He tells us how, in these early war years (1939), benzene was used in open vats and that floors and clothing became soaked in benzene. His clinical studies showed Vitamin C deficiency associated with high benzene exposure which, once determined, was quickly rectified by the management.

Ten years later in 1949, after graduating in medicine and chemistry – including 4 years in the army – Dennis Parke went to work as a research assistant with Professor R.T. Williams at St. Mary's Hospital Medical School, London. There he set about studying *all* the known pathways of benzene metabolism, simultaneously and quantitatively to develop a mass balance. He focused particularly on whether benzene formed an epoxide or a dihydrodiol and also on the isomers of muconic acid. Techniques to improve the synthesis of the *cis–cis* isomers on one occasion resulted in a runaway reaction, explosions that totally wrecked the laboratory! But even this event did not deter his enthusiasm for continuing his research on benzene metabolism.

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In 1967, he was appointed Head and Professor of Biochemistry at the newly founded University of Surrey in Guildford. There he organized the first workshops in Drug Metabolism and Toxicology held at Guildford. He recognized the increasing demand for toxicologists and was active in setting up the first M.Sc. program in Toxicology in the UK (in 1973), the content of which reflected his vision of the need to integrate different disciplines.

He continued to build on his research and to author over 400 scientific publications. In 1968, he wrote one of the first books on drug metabolism entitled *The Biochemistry of Foreign Compounds*. He was also a founding editor of the journal *Xenobiotica*.

Professor Parke also had a keen interest in the production and role of oxygen radicals (ROS) generated by cytochrome P450, and joined others in suggesting that the metabolic activation of benzene and generation of ROS by CYP2E1 was likely to be genetically dependent and polymorphic. At Surrey University, he initiated the development of sophisticated molecular modelling studies of the CYPs, including the use of the COMPACT program for prediction of cancer potential. This work continues now to this day at Surrey.

Dennis Parke was visionary in his approach and often challenged conventional thinking, enjoying opportunities to stimulate discussion of the science at meetings such as this by playing "devil's advocate". His views, though, were well respected and his expertise sought in many fora, which included the Committee on Safety of Medicines, the World Health Organization, the US Environmental Protection Agency and the US Food and Drug Administration.

He 'retired' in 1987 from the Head of Department, but in 1990 became Emeritus Professor. In between, he was awarded the prestigious Scheele Medal in Sweden for his contributions to Drug Metabolism and to Toxicology. He has received numerous other awards including an M.D. (*hc*) from the University of Lodz, Poland.

Dennis Parke was a gold mine of experience and anecdotes. He was inspiring to his colleagues, but particularly to his students. Providing that research studies were thorough and well conducted (and he had a keen eye for details of design, concept and analytical quality), he regarded 'negative' findings as an important contribution too. He inspired hard work, confidence, friendship and loyalty through his ability to see only good in people, his generosity and warm smile. He died a week after his 80th birthday—a long and full life, contributing so much to this field and to those around him.

As with many of you here today, I am honoured and privileged to have known him as a teacher, mentor and friend. We miss him.

Acknowledgements

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