

Peter F. Knowles



Peter Frank Knowles, Emeritus Professor of Biophysical Chemistry at the University of Leeds, died tragically in a car accident on 2nd September 2015 aged 78. Peter graduated in Chemistry from the University of Sheffield in 1958 and remained in his hometown to start a successful research career by completing a Ph.D. in Bio-organic Chemistry in 1961, under the supervision of Professor Edwin Haslam. Following post-doctoral research at Columbia University, Peter became interested in electron transfer processes and undertook further post-doctoral research in this area at the University of Oxford and then with Bob Bray at the Chester Beattie Institute in London. During this time his interests in copper amine oxidases started. He was appointed Lecturer at Leeds in 1967,

as one of the early faculty in the Astbury Department of Biophysics, and rose through the academic ranks to a personal chair as Professor of Biophysical Chemistry, retiring after a long and distinguished career in 2002.

In addition to his active research programme, Peter carried a full range of teaching and other departmental responsibilities, playing a decisive part in the education of outstanding students at graduate and postgraduate levels; a much valued member of the Astbury Department of Biophysics, he was exemplary in promoting inter-departmental collaboration and in gaining research funding from outside bodies.

Unlike many academics Peter continued to make important contributions by performing laboratory experiments well into his academic career – for many years in the late 1970s and 1980s, he spent his summers at the Max Planck Institute for Biophysical Chemistry in Göttingen working in the laboratory, which proved one of the most productive times in his research career. He actively supervised Ph.D. students and post-doctoral workers engendering a work ethic that remains with them today. He had high standards expecting care and thought in experimental design and execution, together with vision in interpretation of results. Peter's work ethic is amply demonstrated by the fact that he was always one of the first staff to arrive in the morning, usually before 7 am, allowing him to exploit a quiet time when he could work productively and undisturbed.

Peter had two major research themes during his highly successful career: the investigation of copper-containing enzymes, and the study of biomembranes and their lipid-protein interactions. In both areas he developed an enviable international reputation – the text book, “Magnetic Resonance of Biomolecules”, by Knowles, Marsh and Rattle (1976), was a trailblazer and standard text for many years. His reputation was amply demonstrated at a symposium held in Leeds on 22nd April 2002 to mark Peter's forthcoming retirement when speakers from USA, Japan, Germany and the UK spoke about his seminal research contributions. Always ready for a party, Peter and Gill organised a weekend away in the Yorkshire Dales for the speakers, their families and the various friends following the symposium, an event that will be remembered fondly by all who attended – getting to the top of Pen-y-ghent, a jaunt for Peter, was a first for many half his age.

In recognition of his achievements and status in the area of copper oxidases, Peter was elected Chair of the Gordon Research Conference on Quinoproteins and Redox Active Amino Acid Cofactors held in Italy in 1997. Subsequently he was appointed one of the members of the Board of Trustees of the Gordon Research Conferences, a position he continued to hold following his retirement. He served for many years on the Committee of the British Biophysical Society, to which he was elected an Honorary Member.

Peter acted as the catalyst in the evolution of important research areas. His visionary approach helped in the development of initiatives that lie at the interface between scientific disciplines. As founding Deputy Director, he was a key player in establishing the Centre for Self-Organising Molecular Systems at Leeds, an affiliation that he held for many years. He also continued to take an enthusiastic part in science following his retirement, and for several years continued to attend and take the minutes of the monthly Leeds Copper Oxidase group meetings. He remained an active contributor to work in this field and was a co-author of a paper published as recently as 2015.

Peter was a very friendly and open person allowing him to easily develop active and successful collaborations, and lasting friendships. He also possessed a quick mind and could be relied upon to ask perceptive and probing questions at scientific meetings. He was an able communicator and teacher, often resorting to a touch of Yorkshire wit to make a point and, whilst caring for the well being and development of students, he

nonetheless expected the highest standards. He and his wife Gill enjoyed the outdoor life across various regions of the globe, whether trekking, skiing or camping, which is how they met. Equally, they were happy tending their allotment to produce home-grown vegetables, attending French conversation classes and taking part in village life in Shadwell.

Peter is survived by Sandy, who is reading for a DPhil at Cambridge, and Gill who was seriously injured in the accident, and is wished a speedy recovery.

He will be fondly remembered by his many colleagues and friends for his jovial kindness, wisdom and warmth of personality.

Michael McPherson (Leeds), Anthony Watts (Oxford), Anthony North (Leeds), Derek Marsh (Gottingen).