David (Dave) Shirley was born in Hull, a fact which excuses, if not entirely explains, his lifelong devotion to Hull City FC. His academic life began at Sheffield University where he obtained his degree in Physiology in 1968. He then moved to London, initially to Chelsea College where he studied for his PhD under the supervision of Sebastian Dicker. In 1972 he was appointed Lecturer in Physiology at Charing Cross Hospital Medical School, and, shortly afterwards, visited Saclay in France to learn from Christian De Rouffignac the technique of renal micropuncture which was to be the basis of his research for the rest of his working life. Collaboration with Robert Unwin provided microperfusion of nephron segments as an additional tool. Areas of study at Charing Cross included the effects on segmental renal function of diuretics, potassium depletion, haemorrhage and unilateral nephrectomy. The actions on the kidney of vasopressin (over and above its influence on collecting duct water permeability) and oxytocin were another interest, as were the effects of the inhibition of potassium and/or hydrogen ion transport in different nephron segments.

In 1979 Klaus Thomsen at Aarhus University convinced Dave that the renal handling of lithium required further elaboration. Lithium clearance appeared to provide a useful non-invasive method for determining separately the function of the proximal and distal segments of the nephrons. By using renal micropuncture and microperfusion, the Charing Cross group played a major part, with others, in clarifying the value (and shortcomings) of renal lithium clearance measurements. Dave and Klaus periodically disappeared to a canal boat or isolated cottage where they would argue about every aspect of renal lithium handling, write up their data and eat large quantities of a lamb and cabbage concoction (with red wine accompaniment).

One of Dave’s cardinal features was that he was a perfectionist. In the laboratory, his surgery was meticulous and great attention to detail was applied to everything. He was also a gifted, popular and enthusiastic teacher; his preparation for teaching was exemplary and unrivalled. He believed in rehearsing every lecture in order to perfect timing and presentation, even though he had delivered the same talk countless times previously. Whenever students were questioned about the merits of the teaching staff, he invariably came out on top. One of his Charing Cross colleagues, Professor Nancy Curtin wrote “Of course Dave’s teaching was legend. There must be hundreds or even thousands of medical graduates who remember Dave as their favourite teacher. He is right at the top of my mental list of most admired teachers”. A comment from the last group of UCL medical students to be taught by Dave sums up his teaching ability: “Faultless; engaging, amusing, concise, clear, understandable and inspiring”. In
recognition of his popularity, Dave recently received one of the top-teacher awards at UCL. It is a measure of the esteem in which he was held by students that, on hearing of his illness and treatment, some 400 UCL students added their names to the register of bone marrow donors. Dave was also a demanding but exceptionally supportive supervisor for PhD and BSc students.

During the 90s, the merger of Imperial College and the Charing Cross and St Mary’s Medical Schools took place, much to Dave’s chagrin. Neither the changes in the course (with physiology disappearing as a separate discipline) nor the greatly reduced accommodation provided for renal research was to his liking and, not being a man to compromise, he resigned his position as Senior Lecturer. However, he had just been awarded a grant as principal applicant (together with Chris Lote and Steve Walter) to study the renal handling of aluminium. He got round this problem by arranging for the grant to be transferred to his fellow researchers and applying for, and obtaining, a part-time post at a much reduced salary - nominally as a junior research assistant; however, there was little doubt who was driving the research.

Dave joined The Physiological Society in 1973 and remained a loyal Member until his death. He was a founder member of the Renal Group that met following Society Meetings during the 1980s and was a forerunner to the Special Interest Groups and, more recently, Themed Meetings. Indeed, although in obvious pain, he attended an epithelial Themed Meeting at the Royal Free only six weeks before his death. He was a regular contributor to the scientific meetings, both in the lecture theatre and in the associated social events, on one occasion rather too enthusiastically. Not entirely by accident, he was positioned at the Dinner between two teetotallers and later in the evening attempted to leapfrog a parking meter with disastrous consequences. He usually also tried to arrange a football game, sometimes involving the 5-a-side team he had formed at Charing Cross (‘Renal Madrid’). When knee problems terminated his football exploits, he turned his attention, with his usual passion, to tennis, combining a ferocious will to win with generosity towards partners and opponents. He had a sharp and often self-deprecating sense of humour, which remained to the last.

After his resignation from Imperial College, Dave continued his collaboration with Robert Unwin but now at the Royal Free and University College Medical School, investigating, in particular, the renal purinergic system, a field in which they made a widely acknowledged contribution. He also began to teach again and his efforts in both spheres were rewarded by an Honorary Readership in both the Department of Physiology and Centre for Nephrology. Although Dave and his wife, Jean, had moved to Shropshire, he was intending to continue (part time) with research and teaching in London but it was not to be. In 2009, Dave was diagnosed with acute myeloid leukaemia and, despite a bone marrow transplant and several false dawns, he died peacefully at home on October 20th. He will be greatly missed by all who knew him, worked with him or were taught by him.