continuous with the surface membrane. They used two electrode recording techniques that required an in-depth understanding of the electrical properties involved (‘real’ biophysics). They reached the conclusion that the ‘internal’ membranes accounted for the high capacitance (Proc R Soc Lond B Biol Sci [1964], 160, 69-123) about the same time as the electron microscopy revealed the structure.

Gertrude continued to collaborate with Paul for some years, turning their techniques to electrical studies of rod outer segments (chosen as a tissue that did not move). It is worth remembering that when they started to work on retina very little was known about phototransduction. They were among the first to look at the cellular biophysics of the problem.

Gertrude’s interests in the synaptic connections and function of the retina started with a theoretical paper (as well as two extensive and scholarly handbook chapters) that she and Paul wrote in 1974. Jonathan Ashmore began working with her as a post-doc at that time and claims that he only got the job because he could solve cable equations analytically – which must have struck a chord, as Gertrude recounted that in her student days in the USA she was well-nigh a national champion at doing integrations in her head. The joint work became a lively collaboration and produced a small clutch of Nature papers.

This was then carried forward over many years by Gertrude and Richard Shiells: shortly before she retired they discovered that the rod-ON-bipolar cell synapse depended upon a metabotropic glutamate (mGLUR6) receptor cascade. It was a critical scientific combination, with Richard’s experimental skills complementing Gertrude’s encyclopaedic knowledge of the literature, old and new.

She continued to teach occasionally for many years beyond her retirement, and to come to the Starling Room to indulge her great conversational skills and challenging opinions until just a couple of months ago. Her great sense of humour and ready amusement at the oddities of life and people was always tempered by her warm and generous spirit.

Gertrude had a fierce sense of justice and ready sympathy for the underdog. She was a loyal and kind friend to anyone in need; typically this was shown not in mere words of protest, but was translated into action. Her indifference to conventions is well illustrated by the occasion when, drinking coffee in the men’s staff common room, at that time still segregated, she responded calmly to the Beadle summoned to escort her out: ‘well, I am certainly going to finish my coffee first’, and did so at her leisure.

Gertrude and Paul Fatt were married for a period, and had one daughter. Although they later divorced, their relationship remained amicable. Her illness was sudden and, perhaps mercifully, quite short since the thing that saddened her most during this, aside from the prospect of not seeing her two grandchildren grow up, was the likely loss of her memory and her intellect.

Jonathan Ashmore
Lynn Bindman
Tony Gardner-Medwin
Sally Page

Christopher Bell
1941–2008

Chris Bell died at home in Melbourne, less than a year after his retirement from the Chair in Physiology in the School of Medicine at Trinity College Dublin. He was 66. Although he spent his academic life in departments of physiology, he was equally at home in the company of pharmacologists and, indeed, was the first winner of the Sandoz Prize (now called the Novartis Prize) of the British Pharmacological Society. He was an active member of The Physiological Society, the British Pharmacological Society and the Australian Physiological and Pharmacological Society. Chris served the APPS over many years as a member of Council (twice), Treasurer, National Secretary and CEO, this commitment being recognised by election to Honorary Membership in 2007. He also contributed to the updating of the Australian code of practice for animals used for scientific purposes. Chris was an editor for many international journals and completed his second term on the Editorial Board of the British Journal of Pharmacology only a few months before he retired from Trinity.

Chris grew up in what was then the rural outskirts of Melbourne in a wooden cottage on a smallholding on the banks of the Yarra river. His parents were part of a diffuse community of artists centred around Eltham since the early 1900s. His...
Chris's contemporaries in this laboratory included Max Bennett, Graeme Campbell and Terry Bennett. He was subsequently awarded a National Heart Foundation Overseas Research Fellowship to work at two of the best biomedical research laboratories in the UK, first with Marthe Vogt at Babraham, where he met Ann Silver and Denis and Gretel Sharman, and then with John Vane, at the Royal College of Surgeons in London. During this time, he was studying the catecholaminergic innervation of peripheral tissues, particularly those of the reproductive system. Neither lab was for the merely competent post doc: Chris was fully able to meet the high standards demanded and to retain the scientific respect and friendship of both his supervisors. This early recognition of his research ability was formally marked by the award of the Sandoz Prize in 1972.

Chris returned to the Department of Physiology in Melbourne and soon built up an international reputation in vascular physiology, first on the control of the uterine circulation and then on vasodilator nerves, particularly those using dopamine in the renal vascular bed. He was awarded a DSc in 1980, just about 10 years after his PhD. He also found time to write a number of popular books on physiology, including one aimed at schoolchildren. In the 1990s, he became increasingly involved in the computerisation of teaching physiology and devised a number of programmes particularly for practical classes.

In 1995, he was appointed to the Chair in Physiology in Trinity College Dublin where he continued his research into the Otago strain of genetically hypertensive (GH) rats. These animals have a genetic neurotrophic defect leading to a perinatal loss of NPY-containing sympathetic neurones and, perhaps consequently, an abnormal distribution of CGRP- and substance P-containing neurones. Intriguingly, in these GH rats, expression of the immediate early gene, c-jun was a marker for the apoptotic neurones. He also started a new research programme, in human cardiovascular physiology, with emphasis on the effects of exercise.

In Dublin, his research effort was inevitably diluted as he sought to invigorate the Physiology Department in Trinity College. During his tenure, he ensured the survival of the Department and of physiology as an academic discipline, in spite of the waves of ‘re-organisation’ that swept through Trinity (as in most UK medical schools) and, at the same time, he fostered active scholarship, learning and research in the Department. Over these years, with the support of his colleagues, his leadership was essential to the success of this endeavour. His commitment to teaching both medical and physiology students led him to revise and renew both courses at Trinity College and to initiate and foster two new courses, on exercise physiology and neuroscience. Chris also established and maintained a highly effective teaching collaboration with Hungarian physiologists, through Zoltan Szelenyi at the Medical School in Pecs, with exchange visits by faculty and medical students.

But Chris was much more than an excellent scientist and an inspiring teacher. He had an abiding interest in Wellington and the Napoleonic Wars. When at Babraham, he and Denis Sharman assessed how far a musket ball would actually go with the powder they had in those days. Loud bangs, much smoke and quite a lot of singed hair but I don’t think those experiments were ever published! This interest was able to flourish when he moved to Dublin (where he wanted to buy Wellington’s house) and included visits to Waterloo and many of the battlefields of the Peninsular War. All of this was underpinned by an extensive library – the newest book would end up on a guest’s bedside table together with something from P G Wodehouse, whose works, like those of Arthur Ransome, were a favourite relaxation. Chris had an extensive collection of classic films on tape and this enthusiasm was backed by a huge Encyclopaedia of Film, frequently consulted to settle points of ignorance or dispute.

All these interests had to be fitted around his serious domestic concerns – house, food and wine – all undertaken with the same mixture of enthusiasm and painstaking research. He loved old houses and restored several Victorian houses in Melbourne with meticulous attention to detail; for instance, making sure the patterns used for the plaster decoration were those available at the time the house had been built. In Dublin, I remember driving around with him in search of a door knocker or some such trivial (to me) detail that was of the correct style for the house. And it wasn’t enough to be ‘Georgian’, it had to be correct, down to the nearest 10 years. Although this seemed somewhat obsessive, the house looked fantastic at the end of it all. In wine and food, his knowledge and tastes were extensive. He would set up a Sunday lunch around half a dozen different Gewurtztraminers because we had been discussing these one day in the lab. The lunches were not just about wine but about food too. He was an adventurous and accomplished cook and always with style – but he would leave the puddings, thankfully and always with style – but he would leave the puddings, thankfully and successfully, to his wife, Christine.

Despite at times appearing somewhat forbidding and unapproachable, Chris will be remembered by his many friends and students, as a man of generosity and kindness, tempering his intellectual rigour with humour, and totally

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Y S Bakhle
(I am grateful to Chris’ friends and colleagues for their help in writing this obituary).

Veronica Campbell adds:
Chris Bell was appointed to the Chair of Physiology in Trinity College Dublin in 1995 and under his wise and experienced hand, the Department expanded research activity and postgraduate training in exercise physiology and neuroscience. He was deeply involved with the Irish Medical Council’s reorganisation of medical education, which continues to bear fruit, and he held the position of Director of Preclinical Studies in Trinity for a number of years. His keen interest in undergraduate education is reflected by the publication in 2005 of Case-based medical physiology written with Trefor Morgan and Cecil Kidd. He challenged our students to express their full intellectual potential using a tough, yet endearing, paternalistic manner. His relationship with staff over his 12 year tenure developed into one of ‘optimal homeostasis’. Neophytes, in particular, benefited from his experience and ability to ignite their potential.

An excellent photographic portrait of Chris now hangs in the Department. This most recent addition to the line of occupants of the Chair of Physiology at Trinity College, captures the attention of even a casual observer, as it is the only portrait with a smiling face. This is a poignant daily reminder of the man we knew and respected.

A student’s perspective from Saoirse O’Sullivan
I joined the Department of Physiology as a Junior Sophister student, the year after Chris was appointed to the Chair at Trinity. Chris was an intimidating figure and not all students took to his ‘interrogative’ form of teaching. He was the only class where everyone studied before entering, and we were all the better for it! I enjoyed Chris’s course on cardiovascular physiology so much that I went on to complete my Senior Sophister research project with him, during which time he persuaded me to carry on to a PhD (in fact, he may have filled in the forms for me!). That was typical of Chris, always thinking ahead for his students. I was only in the first year of my PhD when he asked where I was thinking of going for my post-doc! Even after I left the Department and moved across the water, Chris continued to mentor me and advise me on my career progression, and it is without doubt that I would not be where I am today without Chris’s constant support and guidance. Chris’s technique was a perfect balance of guidance and letting you find your own way. Indeed, I feel privileged to have been guided by such a supervisor and now, as I am just about to embark on the supervision of my first PhD student, I hope that I can follow in his footsteps.

Other than nurturing my academic progression, I also have Chris to thank for the following, for which I am eternally grateful: an unusually expensive taste in white wine, a serious appreciation for olives, having dined in some excellent restaurants and an aspiration to live in a beautiful big old house. He is greatly missed.

William Keatinge
1931–2008

William Richard Keatinge (Bill) was born on the 18 May 1931. He was educated at Rugby School and subsequently studied medicine at Pembroke College, Cambridge and St Thomas’s Hospital in London. He completed his National Service with the Navy in Cambridge (1956-58) before taking up the post of Director of Studies in Medicine and Junior Fellow at Pembroke College Cambridge (1958-60). He subsequently spent 1/2 years in San Francisco as a Fulbright Scholar before returning to England to an MRC post and Fellowship at Pembroke College, Oxford (1961-68).

Bill joined the Department of Physiology at the London Hospital Medical College (LHMC) as Reader in Physiology on 1 January 1969 and was promoted to a Personal Chair in Physiology in July 1970. Bill was appointed Head of the Department of Physiology in October 1981. Following the merger of the Basic Medical Sciences Departments from LHMC and St Bartholomew’s Hospital Medical College (Barts) in 1990 with Queen Mary and Westfield College (QMW) Bill became Head of Physiology in the joint school. He held this post until his retirement in 1995 when he became an Emeritus Professor.

Bill ran an active and successful research group, which was highly rated and supported by the MRC for many years, with a series of project and programme grants. Among his many publications are important articles on survival in cold water and local mechanisms controlling blood vessels. He had many international collaborations, developed especially close links with Russia and led a large EU Eurowinter grant which co-ordinated research in eight European countries. Following the break up of the Soviet Union it became possible for him to extend his Eurowinter project to Siberia. He made full use of the advantages of being part of a multi-faculty environment at Queen Mary, University of London, by forging a link with the Russian Department and learning to speak the language well enough to be understood on his visits to the new Russia. He wrote many chapters in textbooks and journals of both physiology and medicine, principally on temperature regulation and the control of blood vessels.

Bill served as Preclinical Dean at the LHMC, at a time of considerable...