David Greenfield, who died on 17 November 2005, had been the Foundation Dean of the Faculty of Medicine and Professor of Physiology at the University of Nottingham for 15 years from 1966-1981. He was Dean of the first new British medical school of the 20th century. Greenfield was also a distinguished physiologist. He had held the Dunville Chair of Physiology at Queen's University Belfast (1948-1964) and the Chair of Physiology at St Mary's Hospital Medical School. He is remembered for his gentle but firm determination, generous open-mindedness and rigorous attention to detail.

In 1948, at the age of 31, Greenfield was appointed to the Dunville Chair of Physiology at Queen's University of Belfast in succession to Henry Barcroft who had pioneered research into the human peripheral circulation. The Department attracted many brilliant young medical scientists. Greenfield was always able to get the best out of staff and to inspire great loyalty. Of those whose science he nurtured during the 16 years of his tenure of the Chair, eight subsequently occupied chairs and, of these, six became Deans of medical schools, and one was twice a Vice Chancellor. One became President of the American Heart Association. An intercalated honours degree in physiology was started, and the graduates have held important posts. Greenfield and his colleagues laid the foundations for our understanding of the neural control of the peripheral circulation. Modern treatments of vascular diseases are derived from this fundamental work. It is a measure of his own and his staff’s enthusiasm that they were constantly presenting papers building and demolishing hypotheses at Society Meetings in London at a time when the journey from Belfast entailed a sea crossing and long train journey.

During 1963-64 he worked in Julius Comroe's department in the San Francisco Medical Centre, University of California. He invented and developed a technique for testing cardiovascular reflex function (lower body negative pressure) which became used extensively by NASA. This work was of great importance for our understanding of how the human circulation can withstand first the acceleration and then the weightlessness of space travel. Greenfield has never received the credit for this that he deserved.

In 1964 Greenfield returned to St Mary's as professor, but plans were developing to start a new medical school in Nottingham. Sir George Pickering became the chairman of the University's Medical School Advisory Committee. In 1966 David was appointed to be Dean of the new school. It was a unique opportunity. It was the first new medical school of the 20th century in the UK. There were of course, problems. Nottingham had been chosen partly because it was in a seriously under-doctored part of the country and was in urgent need of a large new hospital, which would serve as the main teaching hospital for the school. Unfortunately, legal problems over site acquisition delayed the start of the building of the hospital until 1971, and integral with it the accommodation for the medical school. However, the school was committed to accept students in 1970, so temporary accommodation had to be used, and in the early years all clinical teaching was in existing hospitals with inadequate space and facilities. It needed enthusiasm, commitment, confidence and improvisation to start the school in such circumstances. Fortunately, these qualities were to be found among the doctors already in Nottingham and a team of young enthusiastic foundation professors who would develop a medical school with a different approach. The students, when they arrived in 1970, were exposed to the journey from Belfast entailed a sea crossing and long train journey.

When Greenfield retired, the Medical School was firmly established in its permanent accommodation and the dream of 1966 had become the Queen’s Medical Centre, which was opened by the Queen in 1977. This was his outstanding achievement: it proved to be a notable international success, both clinically and academically. To mark his involvement, the medical library was named The Greenfield Library. Three hundred and eighty five Nottingham doctors had qualified, the local clinical services had improved out of all recognition and a new medical curriculum copied by several other medical schools, established.

Greenfield was a member of the editorial boards of most of the
He travelled widely, even well into retirement, advising many universities planning new medical schools, most notably the Chinese University of Hong Kong, the University of Kuwait and the Sultan Qaboos University, Oman. He was a member of the Hong Kong University and Polytechnic Grants Committee.

He was made CBE in 1977, followed by the Order of St John in 1978 and the Order of Sultan Qaboos in 1986. He held the Honorary DSc from The Queen's University, Belfast and the Honorary LLD of the University of Nottingham. In 1987 he was elected an Honorary Member of The Physiological Society.

David Greenfield married Peggy Duane in 1943, when she was theatre sister to Mr Tom Holmes Sellors at Harefield Hospital, and she gave David unfailing support until her death in 1999. Their son, Peter, is a computer scientist, and their daughter, Catherine, a poet and author. There are two grandchildren.

Robert Graham
David Banks
Peter Fentem

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Personal recollections of David Greenfield’s years in Belfast

In 1948, when David Greenfield arrived in Belfast as a young man to succeed Henry Barcroft in the Chair of Physiology, I was a preclinical medical student. He so impressed me by his enthusiasm for his subject that, when the opportunity to take an intercalated BSc presented, physiology seemed the obvious choice. Thus began one of the most formative years in my life and I remain everlastingly grateful for the way it opened my mind.

The 16 years David spent at Queen’s were vintage years, not just for him, the medical school and the University, but also for the interest in physiology and medical science it generated in the minds of young medical students and graduates. The upsurge of local interest in physiology led to a flowering of the Department. A flourishing BSc Honours School was established. Many medical graduates coming to the department for research experience were so attracted by its intellectual excitement and rigour that they changed plans and embarked on a career in academic physiology.

One of the main reasons for this was David’s charisma. Though personally modest, unselfish and self-deprecating, he was intensely loyal and supportive to his juniors and was indefatigable in encouraging and helping them to reach their full potential. He built up their self-confidence, stimulated them to think independently, and delegated responsibility and credit to them whenever possible. He inculcated a family ethos in the department that bound its members together in common purpose, so carrying on a Barcroft tradition. His wife Peggy was particularly helpful in fostering this ethos through the motherly interest she took in all the members of staff and their families. She was a wonderful entertainer. The friendships and loyalties built up during those years lasted for life. It was an ideal environment for young academics to see what it takes to run happy and successful departments. Many of those trained there later reproduced a similar style in departments in other parts of the world.

With David’s philosophy, anyone could do anything if they gave it sufficient thought and effort. No problem was insuperable. He will be remembered for his integrity, courtesy, enthusiasm, common sense and determination underpinned by an enormous capacity for hard work. He had excellent manual skills in the workshop and drawing office; the equipment he made was known for its ingenuity, simplicity and robustness and his diagrams were famous for their clarity.

Scientifically, the Greenfield years at Queen’s were very productive. He continued Barcroft’s interests in the human peripheral circulation and thereby maintained the department’s international reputation. The standard test for assessing the circulatory reflexes of astronauts is based on Greenfield’s work on the effects of lower body suction on man David, and many of those influenced by him, were to have considerable influence on medical education and its management. David himself introduced many new ideas as Foundation Dean in the new medical school at Nottingham. He also played an important part in the foundation of the new medical schools at the Chinese University of Hong Kong, the Sultan Qaboos University in Oman and the University of Southern Rhodesia (now Zimbabwe) in Salisbury (now Harare). One of his lecturers, John Shepherd, who joined the staff of the Mayo Clinic, was selected as the Foundation Dean of the new undergraduate medical school that was set up there. He has had a profound effect on the academic development of the Clinic. Another of David’s lecturers, Bob Whelan, was appointed to the Chair of Physiology in the University of Adelaide in Australia and subsequently was elected Dean of its Medical Faculty. Later he was appointed Vice-Chancellor at the universities of Western Australia at Perth and finally Liverpool in the UK. As with David, his experience and integrity made him a much sought-after member of local and national committees.

One of David’s MRC Fellows, Bob Coles, was elected Clinical Dean at the University of Bristol. Another of his lecturers, Darty Glover, went to Australia to head Physiology at the University of New South Wales and was elected Dean of its Medical School in Sydney for several successive terms. In Belfast, Gary Love, Robin Shanks and I, all former BSc students and lecturers in the Department, were elected Dean of the Medical School at Queen’s over a 15 year period. All of these would happily acknowledge how much David’s influence had moulded their outlook and career...The collective contribution they made to medical education over the years was considerable.

David’s modesty and habit of self-deprecation may have resulted in his true national and international contribution to medical education not receiving all the recognition it deserved. His style was to give credit for his achievements to others while down-playing his own role. Self-advertisement and self-promotion were completely foreign to him. Perhaps only those colleagues who knew him well recognized fully his truly remarkable qualities. Such qualities are in short supply today and will be sadly missed.

Ian C Roddie
Honorary Member, The Physiological Society