

Charles Arthur Fewson An appreciation

Charles Fewson was born on September 8 1937 in the West Riding of Yorkshire. He was proud of his Yorkshire heritage and could trace his ancestry back to the 17th century. His family had been tenant farmers for generations and he was brought up on Stud Farm near Aldbrough, East Yorkshire, where his father was tenant farmer. Life was not easy on the farm. Mains water was installed a few months after the Fewson family moved there but bathing was in a tin tub in the kitchen until a bathroom with a gas geyser was installed around 1947. Light was provided by paraffin lamps or candles until about 1950, when a petrol generator was installed, followed by mains electricity around 1954. One of Charles' tasks throughout his childhood was to scour hedge rows for firewood for the house. During school holidays from the age of 12 until 17 he worked on the farm more or less full-time, feeding poultry, cattle and pigs and working in the fields. Nevertheless, he was greatly protected compared to many of his country-raised contemporaries. In those days, many boys left school at the earliest opportunity, often at the age of 12, and were hired out to farmers, living with the employer.

Despite the hard work, Charles seems to have had a happy childhood, enjoying the outdoor life and the farm animals. As a teenager he created a laboratory in an outside shed, with a spirit burner and later a Calor gas Bunsen burner. He spent all his pocket money on equipment and chemicals, experimenting on inorganic chemistry and colloids. He also performed dissections on dead farm and wild animals.

Because of wartime exigencies, Charles did not start at Aldbrough School until he was six years old. At that time, the school catered for ages 5-15, with four classes covering the entire age range. Since his father had read to him a great deal, he learned to read and write with enthusiasm, and later developed a love of reading. He started to write with his left hand but was made to change to his right hand, as was the usual practice in those days.

After three years Charles moved to Hymers College, a day school in Hull. He travelled the 12 or so miles each way by bus and trolley bus, leaving home at 7.30 am and returning at 6.00 pm. There were classes on Saturday mornings and compulsory games on Saturday afternoons. Charles played cricket and rugby. Hymers was fiercely competitive and demanding: until the age of 14 there were exams every three weeks. In Charles' first few years, there were three female teachers who had been taken on to replace men in World War Two; they were referred to as "Sir"! Charles passed the eleven-plus exam at age ten, won a scholarship from the local council, and received ten shillings from his father. From the age of fifteen he excelled in science subjects. He took up squash and tennis and was an enthusiastic member of the Combined Cadet Force, reaching the rank of sergeant, and became a first class shot. (He deferred the compulsory two years of National Service until after University, during which time National Service was abolished; so he was never called up.)

In common with all sons of farmers, it was assumed that Charles would follow his father in farming. He was a member of a Young Farmers Club in his early-mid teens and represented his club Yorkshire-wide at cattle and sheep judging competitions. However, he became more drawn to science, although he did not totally abandon thought of farming as a career until in his mid-20s. In 1955 he decided to go to Nottingham University to do Agricultural Chemistry, funded by a County Scholarship. This was a compromise between his love of Chemistry and his parents' wish for him to return to farming and he studied a wide range of chemistry and biology. He obtained an Upper Second in Finals, narrowly missing a First, perhaps because he was also studying extra biochemistry in preparation for his PhD.

Charles spent the summer of 1957 at Weihestephan, about 20 miles from Munich, where he milked cows from 4.30 am to 8.30 am and then spent the rest of the day in the Agricultural Chemistry laboratory, analysing soil and foodstuffs. Weihestephan also contains the world's oldest brewery, and while there he discovered wheat beer, for which he retained a liking. This was also the first of many science-related travels abroad.

In 1958 he went to Bristol University's Long Ashton Research Station as a PhD student in Don Nicholas' laboratory. He studied microbial chemistry, completing his thesis in less than three years.

From 1961 until 1963 he was a postdoc with Martin Gibbs at Cornell University, on a Fulbright Scholarship. These were his most carefree years and he took the opportunity to travel. He spent several periods at the Argonne National Laboratory, Chicago, and visited many places in the mid-west. He also worked for 3 months in the Carnegie Institute of Plant Biology, Stanford University, driving there via the Grand Canyon and Death Valley, visited many parts of California, and returned to Ithaca via Oregon and Dakota. In the summer of 1962 he drove his parents around Washington, Gettysburg, Blue Ridge Mountains, Georgia and Florida. He returned to the UK in the summer of 1963, travelling via Canada, Hawaii, Japan, Hong Kong, the Philippines, India, Aden, Cairo and Italy!

In the Department of Biochemistry, University of Glasgow, Charles was successively Assistant Lecturer (1963), Lecturer (1964), Senior Lecturer (1968) and Reader (1979). He was awarded a Personal Chair in 1982 and became Head of Department in 1993. From 1994 to 2000 he was the first Director of Glasgow University's Institute of Biomedical and Life Sciences (IBLS). In 2000-2001 he took study leave prior to his retirement on September 30th 2001. He was elected FRSE (1979), FIBiol (1995), FRSA (1995), appointed OBE for services to biological sciences (2001), and awarded an Honorary Fellowship of the University of Glasgow (2004).

Charles' main research interest during his time in Glasgow was studying the metabolic pathways of micro-organisms, especially the metabolism of aromatic compounds by soil bacteria, and he also co-authored a number of research papers on the regulation of metabolic pathways in plants. He was a committed and popular teacher and inspired many undergraduate biochemistry students, myself included. I was one of the 22 PhD students he supervised and in whom he instilled rigorous standards. I well remember how fastidious he was about everything. The details of every step of preparing reagents had to be noted, including the batch numbers of all chemicals used. On the occasion of Charles' retirement in 2001 I was invited to give a research lecture as part of the celebrations. As a prelude to my lecture I related some of my experiences as a graduate student with Charles, including the fact that I was required to write experimental notes in carbon copy books, filing the duplicate copies at home for safety. Soon after, there was a major fire in the building in which I had spoken, which, in addition to laboratories, housed a library and the Undergraduate Offices of the IBLS. Many rare botanical texts and important archives were destroyed and Charles promptly sent me an e-mail pointing out the wisdom of keeping duplicate copies!

Undoubtedly, Charles' greatest challenge at Glasgow University was establishing the IBLS, formed by the merger of eleven departments of preclinical and biological sciences into one unit. There was not uniform support for this merger and Charles worked tirelessly to integrate, motivate and raise the research and teaching profiles of the Institute. The success of this endeavour is indicated by the very substantial improvements in the grades awarded in subsequent Research Assessment Exercises and Teaching Quality Assessments.

He was on the Editorial Board of the Journal of General Microbiology (1973-1978) and a Senior Editor (1979-1984). He was Publications Manager for the Federation of European Microbiological Societies (FEMS), a member of the FEMS Executive Committee and Chief Editor of FEMS Microbiological Letters (1991-1999). In addition, he was a Vice-President of the St Andrews Clinics for Children, a charity for establishing and funding children's clinics in Sierra Leone, Nigeria, Tanzania and other countries in Africa.

After he received the Honorary Fellowship of Glasgow University at a ceremony to celebrate the 10th Anniversary of IBLS in 2004, Charles wrote to me saying that "the greatest professional satisfaction in my career has been two-fold. First, to be part of the international scientific community and to have acquired so many and such good friends and colleagues around the world. Secondly, to be part of the general academic life of this University, first in the former Department of Biochemistry and then in the Division of Biochemistry and Molecular Biology, participating in research & teaching, having the pleasure and stimulus of working with many generations of students, sharing in administrative duties, and benefiting from the comradeship; that is really why yesterday's ceremony meant so much to me."

At Glasgow University Charles met Margaret (Bunty) in 1963 and they were married in 1965. He said later that marrying Bunty was "the best thing I ever did in life" and that she and their two daughters, Claire and Katie, were "my three chief joys". On Charles' retirement he and Bunty moved from their flat in Hyndland, Glasgow, to Innellan in Argyle & Bute where they were very content. Charles died suddenly and unexpectedly on 28th August 2005 and is sadly missed.

(Charles left detailed autobiographical notes from which I have quoted extensively.)

Jean Beggs

Charles Arthur Fewson OBE, BSc (Nottingham), PhD (Bristol), FRSA, FIBiol. Born 8 September 1937; Elected FRSE 5 March 1979; Died 28 August 2005.