OBITUARY

Lord Ashby (1904 – 1992)

With the death of Eric Ashby on 22 October, the university world has lost its most eminent statesman. Respected as much in the United States and the countries of the British Commonwealth as he was in Britain, Ashby had a profound influence on the character of higher education in the crucial years from the 1950s to the early 1970s.

Eric Ashby was born in Bromley, Kent, and educated at the City of London School and Imperial College London, where he graduated in botany. After various more junior appointments, in 1938, at the age of 34, he gained the chair of botany at the University of Sydney in Australia. He made an immediate mark upon his department and his remarkable skills in administration were soon recognized. With the advent of war, he took on wider national responsibilities, serving as chairman of the Australian National Research Council, special adviser to the Australian prime minister on the mobilization of scientific resources for war, director of the Scientific Liaison Bureau and subsequently as counsellor and chargé d'affaires at the Australian Legation in Moscow, an episode described in his book *Scientist in Russia* (1947).

Ashby returned to England in 1946 as Harrison Professor of Botany at Manchester, and his leadership contributed to the rapid rise of the department there to become one of the foremost in the country. Four years later, he was appointed president and vice chancellor of Queen's University, Belfast, where his energy, vision and persuasiveness transformed the institution. He recruited a new generation of outstanding young professors, built a remarkable sense of community and gave the growing university both the facilities and the support that it needed. He later served as its chancellor from 1970 to 1983.

Ashby's next appointment, to the mastership of Clare College, Cambridge, caused some to wonder whether a man who had been to neither Oxford nor Cambridge could provide the same successful leadership at Clare that he had at Belfast. He quickly showed that he could: Clare's student body became

more representative — it was one of the first Cambridge colleges to admit women — and it excelled in its degree results. It was at his patient urging that the college decided to devote a substantial part of its endowment to establishing a new college, Clare Hall, for graduate students and visiting scholars. Ashby served as vice chancellor of the University of Cambridge from 1967 to 1969, steering the university through those turbulent times with moderation, courage and civility.

Ashby's contribution to the world of learning increased in scope with time: there was scarcely any influential national committee on higher education or science of which he was not a member or chairman, ranging from the Advisory Council on Scientific and Industrial Research to the presidency of the British Association for the Advancement of Science. Nor was his interest limited to Britain: he was head of the commission that redesigned post-secondary and higher education in Nigeria and he was the only non-US member of the influential Carnegie Commission on Higher Education.

In his later years, he returned to his earlier ecological interests and employed them in his work as a member of the Royal Commission on Environmental Pollution and as chairman of the working party on pollution control in connection with the UN Stockholm Conference. His two books on environmental issues, *Reconciling Man with the Environment* (1978) and *The Politics of Clean Air* (with Mary Anderson, 1981) are models of balance and responsibility.

Behind Lord Ashby, the quintessential public servant, the perfect committee chairman, was Eric Ashby, the private man who commanded the highest affection. He lived modestly, loving his books, his writing and especially his chamber music. He was a skilled viola player and when, in his mid-eighties, arthritis prevented him from playing the viola to his own high standard, he enthusiastically took up the electronic keyboard as a substitute.

In his *Portrait of Haldane* (written with Mary Anderson in 1974), Ashby wrote: ". . . much of Haldane's achievement in public life . . . was not due to the direct exercise of power on his part, but to the subtle way in which he could infect other people with his enthusiasm, persuade them to his views, equip them with his advice, and enlist their loyalty and affection". It is a description that serves as a fitting epitaph to Eric Ashby.

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tion for organs that are less at risk of developing cancer. Most frustratingly, if individual adduct levels are high in the lung they need not be so in another organ, such as the bladder[8]. It is hardly surprising, therefore, that it has been difficult to correlate white blood cell adduct levels in smokers and adduct levels in the lung of the same individual[9].

There have been successes, however. Molecular epidemiology has been able to demonstrate that carcinogen exposure in humans gives rise to the same type of genotoxic damage that occurs in carcinogen-exposed experimental animals. So we must assume that animal models have some relevance to human cancer.

What then is the way forward? We should be selecting populations that are particularly at risk of developing cancer, such as cigarette smokers or certain patients undergoing chemotherapy, and should be looking for biomarkers that are predictive of the disease. This can best be achieved for easily obtainable cells, for example, exfoliated bladder cells, which are voided in the urine, skin cells or cells from the mouth. Aetiologic agents for these cancers are cigarette smoking for the bladder and mouth, and ultraviolet light for the skin. Establishing appropriate biomarker levels in these cells and correlating these with some early event in the cancer process, such as a mutation in *ras* or another oncogene, may provide the best means of determining if molecular epidemiology will replace conventional epidemiology as a way of identifying and controlling cancer risks. Only when events in the target organ have been unravelled can we search for surrogate biomarkers.

The significance of the paper of Perera *et al.* is that it points to what may be possible. It will not help in cancer risk assessment, but rather in internal (as opposed to target dose) measurement, and it will be a valuable study for those working on pollution control. □

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