Obituaries

Alice Mary Stewart

Epidemiologist who showed that *x* rays in pregnancy caused childhood leukaemia and who took on the nuclear industry over safety issues

Alice Stewart, who retired aged 90 and who has died aged 95, was one of Britain's foremost epidemiologists. She showed that *x* rays in pregnancy caused childhood leukaemia. She demonstrated that low level radiation was far more serious than had been officially accepted and she championed the cause of people exposed to radiation.

The daughter of two paediatricians, Lucy and Albert Naish, who worked in the Sheffield slums, Alice was the third of eight children. She inherited from both parents a commitment to the betterment of society and a willingness to sacrifice financial gain to devote herself to the prevention rather than the cure of disease.

She was one of four women to enter the Cambridge medical school along with 300 men, who stamped their feet in unison when the women entered the lecture theatre and slammed their desk lids when they sat down. Her wide cultural interests made her many friends in the humanities faculty. Her relationship with the poet William Empson lasted 60 years until his death in 1984, although she married someone else.

She went to the Royal Free Hospital, London, for her clinical training and mopped up the prizes. During the second world war she worked at the Elizabeth Garrett Anderson Hospital in London and ran an emergency clinical unit at St Albans. She then moved to the Nuffield department of clinical medicine at Oxford, where she investigated the effects of exposure to the explosive TNT (trinitrotoluene) in munitions workers, and the effects of carbon tetrachloride, and tuberculosis among footwear industry workers. Having shown her mettle, she was brought into the Oxford child health surveys.

The incidence of child leukaemias was increasing and, in 1955, it was suggested that there might be an environmental cause. Alice Stewart thought that the mothers might remember something the doctors did not, so she interviewed them and rapidly saw the correlation with *x* rays. Radiography was medicine's new toy and was being used for everything from examining the position of the fetus to treating acne and menstrual disorders. It was even used in shoe shops: children loved to watch through the *x* ray machines while they wriggled their toes in their new shoes. This was at the height of the arms race, when the British and US governments were trying to build up public trust in the friendly atom and did not want people to get the idea that low dose radiation could kill children.

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Stewart's findings were accepted after brief resistance by health physicists but fiercely opposed by many physicists and radiobiologists, the UK National Radiation Protection Board, the International Commission for Radiation Protection (ICRP), and by the powerful nuclear lobbies. Stewart's findings implied that low level radiation, which had become an everyday part of life for nuclear workers, the armed forces, and sometimes even the public, could be far more harmful than had been thought or admitted.

In 1974, when she was 70 and about to retire from Oxford and relocate to Birmingham University, she was contacted by Dr Thomas Mancuso, who had been appointed by the US Atomic Energy Commission to study the health of nuclear workers. Since the industry was required to work within the exposure levels laid down by the ICRP, the study was also seen as a test of these standards. The Stewart-Kneale-Mancuso analysis (George Kneale was a statistician colleague) revealed over 10 times the cancer incidence predicted from A-bomb survivor studies.

An immediate and damning official outcry ensued. Mancuso was deprived of his directorship and the use of outside consultants was banned. Their work continued despite this. Stewart further infuriated the establishment by pointing out that, until the nature of radiation damage to genes was understood at the molecular level, predictions of second generation and long term genetic effects were premature.

When it was proposed that the nuclear installation at Sellafield, Cumbria, should be expanded, Stewart assumed that the nuclear industry would be in touch. But she was wrong. She was, however, contacted by anti-nuclear groups from around the world. In her last 20 years she was in demand at conferences, hearings, and inquiries throughout England, Europe, and the United States. She testified for nuclear workers seeking compensation, for British and American veterans of atomic testing, and for women arrested protesting against cruise missiles at Greenham Common.

Alice Stewart always felt that she'd been helped more than hindered by being a woman. "If I'd been a man, I'd never have stood it—the pay was too low, the prospects too bad, I'd have had my eye on the prize."

She married Ludovick Stewart, a languages teacher at Harrow School, in 1933; they had two children and divorced in the 1950s. Her son predeceased her; her daughter, Anne Marshall, a neuropathologist and general practitioner, survives her. [Caroline Richmond]

Alice Mary Stewart, epidemiologist and expert on radiation and health (b 1906; q Cambridge 1935; FRCP), d 23 June 2002.

Albert Norman Ashworth

Former consultant ophthalmologist Queen Alexandra Hospital, Portsmouth, and St Richard's Hospital, Chichester (b 1918; q Manchester 1942; MD, FRCOpth), died from pneumonia and myeloma on 13 June 2002.

He served with the Royal Air Force during the second world war and was squadron leader consultant at Yatesbury in Wiltshire. He leaves a wife, Dorothy; and two sons. [Andrew Ashworth]

James Ambler Smart

Former consultant anaesthetist North Devon Infirmary, Barnstaple (b London 1914; q St Thomas's Hospital, London, 1937; MBE), died from a heart attack on 24 May 2002.

Jimmy joined the Royal Naval Volunteer Reserve as a ship's doctor early in September 1939. He was on the *Adventure* (disabled by a magnetic mine), *Capetown* (torpedoed), *Curacao*, and *Hermes* (bombed). He was awarded the MBE for his efforts in treating survivors of the Hermes; two-thirds of the ship's company died following the attack. He swam between rafts, administering morphia, which at all times he carried in a canvas belt. He entered general practice in North Devon in 1946, and also gave anaesthetics. From 1966 to 1979 he was a full time anaesthetist. Over the last 50 years he became an internationally respected horticulturist and was awarded the prestigious Victorian Medal of Honour. He developed Marwood Hill Gardens in Barnstaple, Devon, from 20 acres of meadowland. He leaves a wife, Margaret; a nephew (adoptive son); three adoptive grandchildren; and a step-family. [John Snowdon]

George Birch ("Tom") Smith

General practitioner Leeton, New South Wales, Australia, 1958-90 (b 1922; q St Thomas's Hospital, London, 1944), died on 24 December 2001 from brain cancer.

After qualifying, he travelled to Australia for a couple of years before returning to the United Kingdom for further surgical experience. He then returned to Australia and joined a practice in the small rural town of Leeton (population 7000), where he performed many operations and delivered more than 2000 babies. In his latter years he developed a passion for bird watching. He leaves a wife; four children; and 11 grandchildren. [Alan M Smith]

Emrys Cadwaladr Thomas

Former medical missionary with the Edinburgh Medical Missionary Society (b Arthog, near Barmouth, 1905; q Edinburgh 1929; OBE), d 19 March 2002.

After qualifying, Emrys learnt Arabic before going to Nazareth and then Damascus to work. During the second world war he had to flee from Damascus disguised as an Arab when the Vichy French took over the city. On returning to Damascus in 1945, he kept the hospital open when the city was shelled. In 1959 he went to Botswana where he served in the mission hospital at Molepolole until he retired to Edinburgh in 1970. His wife, Dr Margaret ("Peggy") Tait, who had worked with him in Damascus and Botswana as an obstetrician and gynaecologist, died in 1975. [Jim Milledge, Terry Young]

James Laing Spalding Thomson

Former general practitioner Bowes Park, north London (b Peterculter, Aberdeenshire, 1910; q Aberdeen 1932; MRCGP), d 19 March 2002.

After qualifying, Jim travelled to London to join his uncle's practice, where he stayed until 1990. During the second world war he was selected to continue with civilian work, embracing two further practices. He was a member of the staff of the Wood Green and Southgate Hospital, where he was a GP anaesthetist. He was president of the Ganglion Society in 1948 and active in the BMA. Jim was a keen traveller with a passion for railways, and an enthusiastic gardener. He leaves a wife, Peggy; and two children. [James Thomson, Mary Warrack]

Martin Bertram Watts

Former senior medical specialist colonial medical service (b 1929; q St Bartholomew's Hospital, London, 1952; MBE, DCH, DRCOG, DTM&H), died from a heart attack on 23 May 2002.

After national service with the Royal Army Medical Corps in the Far East, he entered the colonial medical service and worked in Sarawak, Malaysia, later becoming senior medical specialist in Kuching after independence. Home leaves were spent obtaining higher qualifications. After early retirement, he emigrated to Tokoroa, New Zealand, where he was a medical consultant. He was a chess player of distinction, playing for London University. He leaves a wife, Berumas; and three children. [Nigel D Walsh]

William Owen Williams

Former general practitioner and director of the Swansea research unit of the Royal College of General Practitioners (b Bangor, North Wales, 1922; q Cardiff 1945; OBE, FRCGP), d 1 April 2002.

WO, as he was known, entered general practice in 1950. In 1958 he was awarded an MD for his thesis on an outbreak of Bornholm disease. He was renowned as a researcher, and best known for his studies on influenza and whooping cough. He was also a founder member of the Royal College of General Practitioners. His love of climbing in his native Snowdonia was matched by his passion for fishing, walking, and painting. During his last few years he was increasingly disabled by Alzheimer's disease and osteoarthritis. He leaves a wife, Sheila; three daughters; and his grandchildren. [Rhidian Lewis]

Correction

John ("Jock") Burgess Metcalfe

We would like to correct two errors that appeared in the obituary of John ("Jock") Burgess Metcalfe (*BMJ* 2002;324:1587). Dr Metcalfe and his first wife, Marion, were appointed principals in Madeley in Shropshire, not Madeley in Staffordshire, as printed. The author of the obituary was Marion Metcalfe, not Ronwyn Metcalfe. The *BMJ* would like to apologise for any distress caused by these errors.

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