



The Right Livelihood Award

for outstanding vision and work on behalf of our planet and its people

Alice Stewart (UK)†

Joint Award with Rosalie Bertell (1986)



"...for bringing to light in the face of official opposition the real dangers of low-level radiation."

Alice Stewart

Alice Stewart was born in 1906 and had a distinguished early career as a clinical physician, becoming the youngest woman ever to be elected a Fellow of the Royal College of Physicians in 1946. This was also the year in which she turned to Social Medicine, joining the Unit of that name in Oxford. In 1955 she and her colleagues noticed the rapid increase in leukaemia among children, which seemed likely to have environmental causes, and the idea for what became the Oxford Childhood Cancer Survey, or just Oxford Survey, was born.

One of the early key findings of this survey (1958) was that children who died of leukaemia or cancer had been X-rayed in utero twice as often as healthy children. This controversial finding led eventually to the cessation of X-rays for pregnant women and confirmed Stewart's interest in and focus on the health effects of low-level radiation. The Oxford Survey was extended to adult cancer sufferers and further data was collected which supported the original conclusions. These were finally accepted by the International Commission for Radiation Protection (ICRP).

Meanwhile, Stewart had become involved in a study of the nuclear industry at Hanford, USA, which found that for a large group of workers there was evidence of a cancer risk comparable to that of pre-natal X-rays at supposedly safe dose levels. This was in direct contradiction of the ICRP's recommendations, themselves based on the data from atomic bomb survivors, which underpin the world's single largest study of the cancer effects of radiation.

Stewart's findings, again flying in the face of all established nuclear knowledge, provoked a further storm of controversy, but when these findings were in turn confirmed by more analysis and were supplemented by other findings indicating disturbing radiation effects, Stewart turned her attention to the A-Bomb Casualty Commission data itself. Her results in this area have been as controversial as her earlier work, showing that the tissue-destructive effects of the Hiroshima and Nagasaki bombs had masked the carcinogenic effects of radiation. While her earlier conclusions showed that there was no such thing as a harmless dose of radiation, these findings implied that all radiation protection

committees had been grossly underestimating the number of cancers caused by background radiation and other low-dose situations. This conclusion has not yet been accepted by the ICRP.

Stewart published results showing that over 50 per cent of cancer deaths before 10 years of age are probably caused by background radiation or pregnancy X-rays. She also claimed that radiation is the only cause of childhood cancer, with the most important cause being background radiation.

Stewart's commitment to work that was deeply unpopular with the nuclear establishment, had undoubtedly cost her academic preferment and research funds (the initial results from the Hanford study brought about its early termination). As a Senior Research Fellow at the University of Birmingham, which she joined in 1974, she worked out of tiny offices in a team of only three. In 1996, Alice Stewart celebrated her 90th birthday shortly after having been made an honorary Professor by the university. She passed away in 2002.

Quotation

"We have already doubled the level of background radiation today. What is the effect on human genes? That is the really important question: it won't show up for two or three more generations."

Alice Stewart

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