

ARCHIVES OF DISEASE IN CHILDHOOD

The Journal of the British Paediatric Association

JAMES SPENCE MEDALLIST 1992

Professor Richard W Smithells

The James Spence Medal was presented to Professor Richard Smithells on the 9 April 1992. Professor David Hull, President of the British Paediatric Association, gave the following citation.

The James Spence Medal is awarded at the recommendation of the Council of the British Paediatric Association for outstanding contributions to the advancement of paediatric knowledge. It is my pleasure this year to present it to Richard Worthington (Dick) Smithells.

Thirty years ago, while a consultant in Liverpool, Professor Smithells wrote four papers which set the scene for much of his subsequent work. They were on neural tube defects, congenital abnormality registers, genetic counselling, and rubella in pregnancy.

By 1962 he had established a congenital abnormality register in Liverpool. To do so required not only a broad knowledge of paediatrics and health service practice but also energy, determination, and careful planning. Success depended upon the willing cooperation and good will of many people; the innovator must

have been held in high regard. This achievement was all the more remarkable because it preceded the discovery that thalidomide could cause such devastation to the developing fetus. It was this tragedy which was one of the factors which led to the establishment of the Committee on the Safety of Medicines. As a result, drugs are now more thoroughly tested but also, alas, pregnant women and infants are denied potentially beneficial drugs because of the reluctance of the pharmaceutical companies to put their products to the test in these categories of patients. Many of Professor Smithells' early papers were about the effects of drugs especially thalidomide on the developing embryo. His involvement has been both academic and practical: he has served for many years on the Thalidomide Trust.

Around the same time he was responsible for setting up a genetic counselling service in Liverpool. Common enough now, indeed no good 'Health Trust' should be without one, but in 1962 they were a novelty. True it was a time when the *Lancet* was awash with karyotypes and we were all trying to decide what should be done about them! Then it merely looked complicated, now we know it is.

Already by 1962 Professor Smithells was writing about 'rubella in pregnancy'. This was to remain a continuing interest and a clinical responsibility, for he helped set up the Congenital Rubella Surveillance Programme and was responsible for the Northern Registry.

In 1968 he was appointed Professor of Paediatric and Child Health at the University of Leeds and chose 'Better babies . . .' for the title of his inaugural lecture. The 'dot dot dot dot dots' were included because he had noted that it was the practice for professors to select slightly dotty titles for their inaugural lectures. Having got that out of the way, he then proclaimed his vision. Inaugural lectures are not unlike the 'mission statements' currently so popular with management. He observed that there are three hazards to the life of the newborn baby: being born too soon, being born too dangerously, and being imperfectly formed.

By this time he had already written many papers on neural tube defects, indeed he had shown bravery beyond the call of duty by



Professor Hull (left) presenting the medal to Professor Smithells.

writing an article on 'anencephaly in Liverpool' while dwelling in that city, thus adding his authority to the mistaken view held by some in the south as to why flat hats are so popular in the north.

The main thrust of his inaugural lecture was that infant mortality was falling and that we should be addressing more vigorously the question of morbidity: making better babies. He observed that 'prevention and diagnosis are moving into the prenatal period', he spoke of collecting fetal cells and making diagnoses, and direct examination of the fetus by photography using ultrasonography but counselled against including these photographs in the family album.

The 1967 Abortion Act allowed early termination of pregnancy if the fetus was a high risk of severe handicap. But he considered that 'the early recognition of congenital defects is a poor substitute for prevention'. So he set himself the task of seeking means of preventing the development of congenital abnormalities. In Leeds he established a laboratory to study the effects of drugs and nutrition on the early development of the embryo and fetus. Results did not come quickly or easily but they came and he and his colleagues established the association between vitamins and neural tube defects. He can take pride in the statistics which are now appearing from round the world showing that the incidence of neural tube defects is falling and that this is a real fall and is not due only 'to seek and destroy' exercises. Some of you will remember the fierce debates about whether the causal relationship between folic acid deficiency and neural tube defects had been established, and whether if it had or not, it was ethical to put it to the test. The pure in science met the pure in mind. Professor Smithells has no fear of the moral argument.

J M Elwood wrote in 1983 that 'if the

prevention of neural tube defects by nutritional supplementation is confirmed, it would be one of the great medical advances of the century'. In 1991, the report of the Medical Research Council study concluded that 'Folic acid supplementation starting before pregnancy can now be firmly recommended for all women who have had an affected pregnancy, and public health measures should be taken to ensure that the diet of all women who bear children contains an adequate amount of folic acid'.

In the second half of his inaugural lecture Professor Smithells expressed his wish to see not only better babies born but a better world for them to live in. He was able to make this point powerfully by comparing the size of lettuces grown in different parts of the city of Leeds and the size of adults from different social groups. The lettuces had been grown as an experiment by his grandfather while he was Professor of Organic Chemistry at Leeds University! Professor Smithells emphasised that premature birth and infants of low birth weight are strongly related to social disadvantage and that the problems for these infants do not end at birth. As he put it 'his world is shaky before he can even yell at it'. In his view, the cornerstones of a child's world are first his family and the second his school. So you will not be surprised to learn that Professor Smithells has served on the Executive Committee of the NSPCC, and is an honorary member of its council, he is medical adviser to the Family Fund and a school governor.

Many paediatricians are fine clinicians and energetically promote the health services for children. Quite a few have written successful teaching books, though they are unlikely to be as friendly and useful as Meadow and Smithells. But very few have identified a challenging area for research and pursued it with such determination and success as Professor Smithells.

James Spence Medallists

1960 Professor A A Moncrieff	1978 Professor S D M Court
1961 Professor R A McCance	1979 Professor K W Cross
1963 Sir F Macfarlane Burnet	1980 Professor J M Tanner
1964 Professor L S Penrose	1981 Dr Elsie M Widdowson
1965 Dr Cicely D Williams	1982 Dr D MacCarthy
1967 Professor R R A Coombs	1983 Professor J O Forfar
1968 Dr Mary Sheridan	1984 Dr J W B Douglas
Dr D W Winnicott	1985 Dr N S Gordon
1969 Dr G S Dawes	1986 Sir Peter Tizard
1970 Professor D V Hubble	1987 Professor J L Emery
1971 Dr W W Payne	Dr F J W Miller
1972 Dr R C MacKeith	1988 Professor O H Wolff
1973 Professor C A Clarke	1989 Professor D C Morley
1974 Dr J Bowlby	1990 Professor L B Strang
1976 Dr D M T Gairdner	1991 Professor John A Davis
1977 Professor R S Illingworth	