

ment, we ought to make our non-violent protest. Perhaps it would be appropriate for all member associations of the World Medical Association to sign Amnesty's international petition for the abolition of torture—say, at the International Conference on Torture, at UNESCO in Paris on Dec. 11–12. Or your readers may have better suggestions.

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P. G. WHITFIELD.

ZEN MACROBIOTIC DIETS

SIR,—We have recently evaluated Kokoh, a Zen macrobiotic food mixture,¹ compounded for infant feeding. This mixture contains foods of vegetable origin and includes brown rice, sweet brown (glutinous) rice, Aduki beans (*Phaseolus angularis*, Wight), soybeans, oats, sesame seeds, and wheat. These foods had been fed in varying proportions to two infants, aged 7 months and 14 months, whose weights at birth were 6 lb. 9 oz. (2.98 kg.) and 6 lb. 6 oz. (2.89 kg.) respectively. On admission to the hospital, the first weighed 10 lb. 15 oz. (4.96 kg.) and the second 12 lb. 14 oz. (5.81 kg.). The body-length of both infants was below the third percentile for the Iowa Standards. The parents of both children were strict adherents to the Zen macrobiotic cult, and the children's diets were constituted accordingly.

The various Kokoh formulas fed to the infants were evaluated by computation using the methods of Miller and Payne² and W.H.O.³ One sample was also subjected to proximate analysis, including measurement of its food energy value and an aminoacid determination by approved methods. The energy and protein value of supplements fed to the infants was also estimated from a diet recall and food composition tables.

The computed energy intake from the Kokoh formulas was within 3% of that measured by calorimetry. The total daily energy intake for the first child was 400 kilocalories; for the second it was 408. Their total daily protein intake was estimated to be 11 g. and 13 g., respectively. The net dietary protein calorie percentage (NDpCa1%) of Kokoh as determined from analysis was 4.6, by computation it was 9.2.

The intake of energy of both infants was only 40% of Recommended Dietary Allowances (R.D.A.s) for the United States. Because energy requirements were not being met, the dietary protein was catabolised and would not be available for growth; in such circumstances its biological value would be immaterial.

Both formulas had been diluted with water to a greater extent than that recommended by Aihara,¹ but even in the higher concentrations Kokoh would only supply approximately 50% of the R.D.A.s. Clearly if Kokoh is to be used for feeding infants it must be given in a more concentrated form. The NDpCa1% value determined by computation suggests the protein of Kokoh will support growth. However, our knowledge of the aminoacid composition of many plant foods is incomplete, so further evaluation of the biological value of the formulas is needed. More definitive data is required also on the feasibility of feeding infants this and similar foods at a concentration sufficient to meet calorie needs.

The apprehension expressed by the American Medical

Association⁴ concerning Zen macrobiotic foods appears to be well founded, and, until we have more information, infants and children fed Kokoh should be kept under strict surveillance.

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SUBACUTE SCLEROSING PANENCEPHALITIS

Prof. GEORGE DICK (British Postgraduate Medical Federation, 33 Millman Street, London WC1N 3EJ) writes: "After discussion by the measles subcommittee of the joint committee on vaccination and immunisation of the Central and Scottish Health Services Councils, a register of cases of s.s.P.E. was established. With the introduction of measles vaccine, it will be important to observe what happens in the next few years. I should be glad if all cases in the United Kingdom could be notified to me."

4. *J. Am. med. Ass.* 1971, 218, 397.

Obituary

FRANCIS ALBERT ELEY CREW

T.D., M.D., D.Sc., Ph.D.Edin., F.R.C.P.E., D.I.H., F.R.S.

Prof. F. A. E. Crew, formerly professor of animal genetics in the University of Edinburgh, director of the Institute of Animal Genetics in Edinburgh, and professor of public health and social medicine in the University of Edinburgh, died on May 26.

He was born in 1886 and graduated M.B. from the University of Edinburgh in 1912. After serving in the 1914–18 war in France and India he returned to Edinburgh, where he was a lecturer in the department of natural history and a demonstrator in the physiology department of the medical school. In 1921 he became the first director of the Institute of Animal Genetics and in 1928 Buchanan professor of genetics in the university. During the 1939–45 war he was assistant director of medical services for the Edinburgh area and in 1942–46 was director of medical research at the War Office. He was appointed professor of public health and social medicine in the University of Edinburgh in 1944, where he remained until 1955. In 1956 he was professor of preventive and social medicine at Ain Shams University, Cairo, and in 1957–58 W.H.O. visiting professor of social and preventive medicine at the University of Rangoon. Among many publications were *The Foundations of Genetics* and *Health, its Nature and Conservation*, both published in 1965.

His first wife died in 1970; they had a son and a daughter. He married again last year.

A. H. writes:

"Professor Crew was a pioneer in the introduction and development of genetics in Britain. In his work he employed a vast range of living material, from *Drosophila* to man. He made important contributions to the understanding of mechanisms of inheritance, the genetics of sex, and the physiology of the endocrine glands.

"Professor Crew established the world-famous Institute of Animal Genetics in Edinburgh. Here he broke fresh ground in the practical science of animal breeding and, in collaboration with Dr A. W. Greenwood, in advancing the genetic methods of animal improvement. The institute

1. Aihara, H. Milk: a Myth of Civilization; Macroguide no. 10, p. 35. George Ohsawa Macrobiotic Foundation, Inc., 1971.
2. Miller, D. S., Payne, P. R. *J. Nutr.* 1961, 74, 413.
3. W.H.O. *The Health Aspects of Food and Nutrition*; p. 230. World Health Organisation, Manila, 1969.