

Correspondence

Cyclamates

SIR,—Your leading article "The Cyclamate Bandwagon" (*Nature*, **224**, 298; 1969) claims that "health authorities in Sweden . . . were clamouring for a ban on cyclamates within 72 hours of Mr Finch's announcement. . . . Unless these organizations were better informed than their counterparts in Britain, they possessed no further evidence against cyclamate than what had already been published in the literature". I would like to make some clarification on these points.

Cyclamates were included among permitted food additives in Sweden in 1953, and their use has increased progressively. From January 1969, however, maximal level in drinks was set at 0.1 per cent in an effort to keep intake at reasonably low levels, and limits for cyclamate in other foods had been decided for 1970.

The US ban on cyclamates was announced on Saturday, October 18, and detailed statements by secretary Finch and deputy assistant secretary Steinfeld were made available.

It was evident from these statements that a 10:1 cyclamate-saccharin mixture had been given orally to rats for two years and produced malignant tumours in the urinary bladder in the high-dosage group. The slides had been reviewed by three experts in experimental pathology and experimental carcinogenesis at the National Cancer Institute and by one expert on bladder tumours. The full data had been reviewed by the National Academy of Sciences National Research Council Ad Hoc Subcommittee reviewing cyclamate safety.

In his statement, Dr Finch referred to the Delaney Amendment of 1958 which states that any food additive must be removed from the market if it has been shown to cause cancer when fed to humans or animals. The World Health Organization in one of its technical reports (techn. rep. ser. No. 220, *Evaluation of the Carcinogenic Hazards of Food Additives*, fifth report of the Joint FAO/WHO Expert Committee on Food Additives, 1961) gives recommendations in the same line.

On the basis of the above information it was predicted that cyclamate would not be accepted as a food additive in the future in Sweden. Under those circumstances the food industry decided to follow the US timetable of withdrawing cyclamate-containing beverages and food from the market.

Original data from the rat experiments were obtained later in the week from the Abbott Laboratories and were reviewed at the National Institute of Public Health. The Board of Commerce then, at a meeting with the health authorities on October 28, formally decided to delete cyclamate from the list of approved food additives, effective January 1, 1970. This decision does not affect the possible residual occurrence of cyclamate-containing foods on the market up to February 1970. (Most cyclamate-containing foods have already been withdrawn from the market.) The Swedish Diabetes Society has declared that there is no need to make any exceptions for diabetics, and therefore no exception will be made.

It may also be noted that the official ban on cyclamates was decided five days later in Sweden than in the United Kingdom (Ministry of Agriculture, Fisheries and Food, October 23, 1969).

The Swedish health authorities agree with the US and UK health authorities that there is no evidence whatsoever that cyclamates have caused cancer in humans. On the other hand, we see no reason to prolong the exposure of human beings to a food additive proven carcinogenic,

because it may take decades to detect the carcinogenic properties in man^{1,2}.

Yours faithfully,

FREDRIK BERGLUND

National Institute of Public Health,
Stockholm, Sweden.

¹ Hultengren, N., Lagergren, C., and Ljungqvist, A., *Acta Chir. Scand.*, **130**, 314 (1965).

² Angervall, L., Bengtsson, U., Zetterlund, C. G., and Zsigmond, M., *Brit. J. Urol.*, **41**, 480 (1969).

Diagnosis of Tay-Sachs

SIR,—Since we published our work on the absence of hexosaminidase A in nine patients with Tay-Sachs disease (*Science*, **165**, 698; 1969), we have examined serum, fibroblasts, or tissues from fourteen additional patients; all demonstrate the absence of hexosaminidase A. We take issue with your correspondent's statement (*Nature*, **224**, 113; 1969) that our "neat picture of a missing degradative enzyme in Tay-Sachs disease is unfortunately upset by a patient in Sandhoff's investigation", a patient with Tay-Sachs disease who did not lack hexosaminidase A. The score now stands at 25 patients lacking this enzyme against Sandhoff's patient. It is logical to suspect a misdiagnosis in the latter case, rather than shroud the subject with mystery.

Yours faithfully,

JOHN S. O'BRIEN

University of California, San Diego,
Department of Neurosciences,
School of Medicine,
La Jolla, California.

Informational DNA

SIR,—Reductionism scores one point when Professor E. Bell, presenting his results on informational DNA (*Nature*, **224**, 326; 1969), omits to mention the animal species from which his 13 day embryonic muscle tissue was obtained.

Yours faithfully,

GIORGIO GABELLA

Department of Anatomy,
University of Turin.

University News

Dr R. M. Dixon, University of Sheffield, has been appointed to the chair of theoretical chemistry at the **University of Bristol**, in succession to Professor A. D. Buckingham.

Professor J. M. Ziman has been appointed to the Melville Wills chair of physics at the **University of Bristol**.

Dr W. L. Edge has been appointed to a personal chair in mathematics (geometry) at the **University of Edinburgh**.

Dr J. F. Wilkinson has been appointed to a personal chair in microbiology in the department of agriculture, **University of Edinburgh**.

Dr W. Parker, New University of Ulster, has been appointed to the new chair of organic chemistry at the **University of Stirling**.

Announcements

The **Medical Research Council's Laboratory Animals Centre** has appointed **Dr G. Clough**, an environmental physiologist, to be responsible for the determination of the optimum environmental requirements for laboratory animals. Enquiries and information concerning environmental problems, animal house and cage design, should

be addressed to Dr Clough at the MRC Laboratory Animals Centre, Woodmansterne Road, Carshalton, Surrey.

The **Royal Aeronautical Society** has conferred honorary fellowship on the following: **Mr R. R. Gilruth** (NASA Manned Spacecraft Center, Houston) for his leadership in space research and interplanetary travel; **Lord Kings Norton** (formerly of Metal Box Company) for his services in many fields of aeronautics, especially in air safety and aeronautical education; and **Dr A. E. Russell** (British Aircraft Corporation, Ltd) for his achievements in aircraft design and his contribution to the Concorde. The following medals have been awarded by the society: the Gold Medal, to **Dr C. Kuchemann** (Royal Aircraft Establishment) for his contributions to the aerodynamics of advanced aircraft; the Silver Medal, to **Mr L. N. Phillips** and **Mr W. Watt** (Royal Aircraft Establishment) for their development of carbon fibre composites, leading to significant advances in aircraft and engine materials; the Bronze Medal, to **Mr W. J. G. Pinsker** (Royal Aircraft Establishment) for achievements in the study of aircraft performance, stability and control; the British Gold Medal, to **Mr G. R. Jefferson** (British Aircraft Corporation) for his practical achievements in the design and development of guided weapons and satellites; and the British Silver Medal, to **Mr F. T. Bacon** (Energy Conversion, Ltd) for his practical contributions to the auxiliary power supply used in the American lunar landing.

ERRATUM. In the note "Technology in Poland" (*Nature*, 224, 839; 1969) the name of the Polish Minister of Education, Henryk Jabłoński, was misspelt Japłoński.

Sabbatical Itinerants

In the hope of providing some practical assistance in the good cause of mobility between laboratories, *Nature* advertises the needs for housing of families about to take up periods of sabbatical leave. To begin with, no charge will be made for advertisements like this. It is hoped that a period of experiment will show what form these advertisements could most usefully take and whether they are effective.

Wanted: Furnished house or apartment within 20 miles of London for biochemist, wife and 3 school-age children, from mid-February to end of December 1970. Please contact Dr W. Riley, Department of Biochemistry, Royal Perth Hospital, Perth, Western Australia 6000.

Wanted: In or near Copenhagen, Denmark, house or apartment, 3 or 4 bedrooms, furnished or unfurnished, from summer 1970 to summer 1971, for visiting American professor. Can offer 3-bedroomed house on a Minneapolis lake for same period. Please contact Dr Raymond G. Johnson, Department of Psychology, Macalester College, St Paul, Minnesota, USA.

Wanted: Furnished house or apartment in the area of St Albans, Hatfield, Welwyn Garden City, Harpenden, for university professor, wife and 3 daughters for the period February 1–July 31, 1970. Please contact Dr L. A. McFadden, Botany Department, University of New Hampshire, Durham, New Hampshire 03824, USA.

Wanted: Furnished house or 1- or 2-bedroomed apartment in Cambridge, UK, with central heating, for American biochemist and wife (no children) for 3 month period beginning February 1, 1970. (Can offer 3-bedroom house at Bloomington for 6 month period.) Please contact F. W. Putnam, Department of Zoology, Indiana University, Bloomington, Indiana 47401, USA.

British Diary

Monday, December 8

- Acoustic Diagnostics for Practical Purposes** (6 p.m. discussion) Institution of Mechanical Engineers, at 1 Birdcage Walk, London SW1.
- Introductory Course on the Biology of the Skin** (five days) University of Cambridge, School of Clinical Research and Postgraduate Medical Teaching, at Churchill College, Cambridge.
- Passenger Conveyor Systems** (7.30 p.m.) Mr J. W. Kyle, Plastics Institute, at the Stork Hotel, Queen Square, Liverpool.
- Physiological Bases of Cell Farming** (5.30 p.m.) Professor J. P. Nitsch, University of London, at University College London, Gower Street, London WC1.
- Research into New Systems for Control of Train Movement** (6.30 p.m.) Mr P. G. Law, Institution of Electrical Engineers, at the Lion and Lamb Hotel, Duke Street, Chelmsford.
- Satellites in the Service of Man** (6 p.m.) Mr F. W. Hyde, Society of Engineers, at Terminal House (BOAC), Buckingham Palace Road, London SW1.
- The Concorde's Flying Control System** (5.30 p.m.) Mr I. L. Rye, Institution of Electrical Engineers; the Institute of Measurement and Control; and the I.Mech.E., at Savoy Place, London WC2.
- The Living Cell** (2.30 p.m., Civil Service Lecture) Professor R. J. Harrison, Royal Institution, at 21 Albemarle Street, London W1.

Tuesday, December 9

- CHN Automatic Analysers** (6.30 p.m. discussion) Society for Analytical Chemistry, Microchemical Methods Group, at "The Leicester Lounge", Glasshouse Street, London W1.
- Special Electrodes** (7 p.m.) Mr W. K. B. Marshall, Liverpool Metallurgical Society, at the University, Liverpool.
- Swimming Mechanisms in *Nereidiform polychaetes***, Professor R. B. Clark and Dr D. J. Tritton; **Native and Alien Deer in Britain**, Mr R. E. Chaplin; and **Films** (5 p.m.) Zoological Society of London, at the Zoological Gardens, Regent's Park, London NW1.
- The Lower Ionosphere** (10 a.m. discussion meeting arranged by the British National Committee on Space Research), at the Royal Society, 6 Carlton House Terrace, London SW1.
- The Transverse Engine—The First Decade** (6 p.m.) Mr E. G. Bareham, Institution of Mechanical Engineers, at 1 Birdcage Walk, London SW1.

Wednesday, December 10

- Autumn General Meeting** (two days) Iron and Steel Institute, at the Bloomsbury Centre Hotel, Coram Street, London WC1; and 4 Grosvenor Gardens, London SW1.
- Biological Communication** (2.30 p.m., Civil Service Lecture) Professor R. J. Harrison, Royal Institution, at Albemarle Street, London W1.
- Computer-Aided Instruction** (6 p.m.) Capt G. Huggett, RN, Institution of Electronic and Radio Engineers, at 9 Bedford Square, London WC1.
- Computers in the Rubber and Plastics Industry** (7 p.m.) Mr P. Wood, Institution of the Rubber Industry; and the Plastics Institute, at the Goscote Hotel, Birstall, Leicester.
- Electronics in the Nation's Economy** (6.30 p.m.) Mr I. Maddock, Institution of Electronic and Radio Engineers; and the Institution of Electrical Engineers, at the University of Wales Institute of Science and Technology, Cardiff.
- Extrusion Machinery** (7.30 p.m.) Mr J. Humphries, Plastics Institute, at the Griffin Hotel, Leeds.
- Methods for the Determination of Fluorine, Mr J. K. Foreman; The Determination of Fluorine by Neutron Activation Analysis, Dr P. G. Jeffery and Mr J. M. Bakes** (6.30 p.m.) Society for Analytical Chemistry, in the Chemistry Department, University of Edgbaston, Birmingham 15.
- Multiconductor Transmission Lines—Theory of Natural Modes and Fourier Integral Applied to Transient Analysis** (5.30 p.m.) Professor L. M. Wedepohl and Mr S. E. T. Mohamed, Institution of Electrical Engineers, at Savoy Place, London WC2.
- Naval Application of Plastics** (7.30 p.m.) Mr D. L. Griffiths, Institution of the Rubber Industry, at the Polygon Hotel, Southampton.
- New Methods in Causing Heredity Changes in Plants** (5.30 p.m.) Professor J. P. Nitsch, University College London, Gower Street, London WC1.
- On-Line Analysis in the Process Industries** (9.30 a.m. symposium) Institution of Chemical Engineers, at the Royal Aeronautical Society, Hamilton Place, London W1.
- Particle Size Reduction in Ball Milling and Sand Grinding** (6.30 p.m.) Dr W. Carr, Oil and Colour Chemists' Association, at University College London, Gower Street, London WC1.
- Psychiatry in Medicine** (6 p.m.) Sir Denis Hill, University of London, at the Middlesex Hospital Medical School, Mortimer Street, London W1.
- Reliability in Electronics** (three-day conference) Institution of Electrical Engineers, at Savoy Place, London WC2.
- The Determination of Fluorine and Fluorides** (6.30 p.m.) Mr J. K. Foreman and Mr P. G. Jeffery, Society for Analytical Chemistry, at the University, Birmingham.
- The Effect of UHT Processing and of subsequent Storage on the Nutritive Value of Milk** (6.15 p.m.) Dr J. W. G. Porter, Society of Chemical Industry, Food Group, at 14 Belgrave Square, London SW1.
- The Role of the Press in the Plastics and Rubber Industry** (12.30 p.m.) Mr P. E. Ransley, Institution of the Rubber Industry, at the Grand Hotel, Manchester.

Thursday, December 11

- Aspects of Biochemical Engineering** (9.30 a.m. symposium), Institution of Chemical Engineers, at the University of Manchester Institute of Science and Technology, Manchester.