ciations were also received from a number of participants from all over the world.

It is incomprehensible to us why such real and true information about the ninth FEBS Congress did not appear in your journal. We think this would have indeed served international scientific relationships well.

Regarding Ms Peller's visa, the facts can be summarised briefly as follows. Ms Peller's request for a visa arrived in Budapest very late. In spite of this it was dealt with and the visa sent to Vienna, just as were a number of other visas of members of the Israeli Biochemical Society. Ms Peller arrived in Vienna a few days before her visa came through and she had not the patience to wait for it; the visa was left at the Hungarian Embassy in Vienna. I would like to mention that more than 2,000 active members from 38 countries participated in this congress and everybody who arranged their visa in due time was able to enter Hungary.

DANIEL BAGDY

*Secretary of the Hungarian
Biochemical Society*

Nutritional research

SIR,—The very real issue which concerns both John Rivers (January 10) and John Yudkin (January 31) in their recent correspondence on the Neuberger report is the balance which must be maintained between applied nutritional research into topics of human and social concern and the more basic type of research usually associated with nutritional biochemistry. There is a risk, however, that the intensity of their criticism might lead the non-nutritionist to believe that the policy makers, particularly those associated with the Medical Research Council (MRC), have shown little concern over this matter. This would be far from true and it is to correct this possible misconception that we are writing this letter.

In 1971 an MRC subcommittee, of which incidentally Professor Neuberger was a member, recommended a change in policy at the Dunn Nutritional Laboratory and this was subsequently approved by the council as follows: "The council recognise the need to lay foundations for more research designed to investigate specific nutritional problems both in the United Kingdom and overseas and they have agreed that in the future research programme of the laboratory there should be a change in emphasis from basic biochemistry towards applied nutritional studies, in particular clinical and epidemiological investigations. Biochemical research will continue in close relation with applied studies".

This policy statement became the basis of our present research pro-

gramme, all of which is related directly to a specific human or clinical problem. These studies have, however, to rely heavily on a firm backing of fundamental research, for in all too many nutritional disorders we lack the basic information to mount really effective applied programmes. Obesity is a good example. We just do not know why individual people lay down different amounts of fat on apparently similar energy intakes and expenditures. At the Dunn, obesity is being investigated on a broad front, using a whole-body calorimeter together with epidemiological studies into the functional significance of different degrees of obesity in terms of morbidity and exercise potential and metabolic studies on the relative economics of different enzyme pathways.

There is considerable interest concerning the role of dietary fibre and this, too, is the subject for a bivalent approach, defining more accurately the metabolic functions of the unavailable carbohydrates and quantifying, by epidemiological and clinical investigations, the practical benefits or disadvantages which might accrue from increasing the fibre content of the diet.

There is also concern about the nutritional status of elderly people, especially those living alone. Recent evidence has suggested the possible existence of sub-clinical riboflavin and vitamin C deficiencies, but in our present state of knowledge we do not know the real significance of the findings. Again, we have an epidemiological investigation under way to reveal the environmental and sociological factors which are causing these abnormalities, linked with laboratory research to define what they mean. Only in this way can we plan effective action should this prove necessary.

Bone disorders are also a problem of the aged and the role of vitamin D in these is likewise under intensive study.

These are just a few of the community-oriented research projects in the UK and overseas in which we are involved and in which we are trying to achieve the same sort of scientific balance.

It is perhaps unfortunate that on first appraisal the Neuberger report does seem to contain more on biochemistry than on 'social' nutrition, but closer scrutiny will show that it quite specifically states that there is a need for more research in this area as well as on other aspects of human and clinical nutrition. The positive point which comes out of the report and the criticisms it has invoked is that nutritional science is very much alive and of importance, not just in an international context but for the health and welfare of people in the UK as well. Nutrition has to be a broadly based science and

it is up to nutritional scientists to make certain their subject is able to develop along balanced lines. This is what the debate should be all about.

R. G. WHITEHEAD

W. P. T. JAMES

*Dunn Nutritional Laboratory,
Cambridge, UK*

SIR,—As a nutritionist who worked for more than 10 years in the Nutrition Division of the Food and Agriculture Organisation of the United Nations, I feel I must take issue with several statements in the Joint ARC/MRC Report on Food and Nutrition Research.

I strongly support those who have already expressed the view that the Report is excessively biased towards the cellular and subcellular level of nutrient activity, and virtually ignores the fact that nutrition is concerned primarily with the food that people eat. The opportunity has been missed for stressing the inseparable interrelationships between agriculture and nutrition, both quantitatively and qualitatively. Thus one question that urgently needs answering is whether this country can increase its food production beyond the present level that meets only about half of our consumption, and in particular how in doing so it can make the most useful contribution to human nutrition? Such a possibility of collaboration between the two Research Councils is not mentioned.

I am one of those nutritionists who have long believed that, however much research still needs to be done in such areas as the effects of nutrients on metabolism, we already know enough to seek to apply our present knowledge to large scale improvements in the health in our own country and in the rest of the world. But to do this, we need a far more aggressive attack on the problem of how to affect people's eating habits than the lukewarm attitude indicated in the report by such statements as: "On the evidence of published literature, the effect of advertising on food consumption patterns appears not to have been studied," or "It may also be desirable to find ways of changing patterns of food consumption when supplies are limited." Do we need another war, or a series of world food crises, to persuade us that this is a problem crying out for research?

In considering training for research in nutrition, the Committee has clearly not surveyed the facts, for it says that it considers that first degrees in nutrition and food science "make relatively little contribution to research potential." This is simply not true. In my work with FAO, I have for example met graduates in nutrition from Queen Elizabeth College carrying out research

in places as far apart as Ottawa and Accra, Kampala and Colombo, Kuala Lumpur and Freetown. Their research was being done at universities, institutes of agriculture and medicine, and government research laboratories, and was in subjects over a wide range, from anti-oxidants and synergists to infant weaning practices and diets. My own experience suggests that a higher proportion of nutrition graduates are actively engaged in food and nutrition research than graduates from the biomedical fields which the Committee has suggested would be more appropriate.

In the section on training for research in nutrition, there is however one useful remark, that the necessary characteristic of the nutrition specialist is that he should have a broad outlook, and that his function is to catalyse and summarise both teaching and research. Were these not the essential features in the department created by John Yudkin when he was appointed as Professor to the first school of nutrition in this country devoted to undergraduate and postgraduate teaching and research at Queen Elizabeth College at the University of London? Professor Yudkin's attitude towards nutrition was reflected in his teaching colleagues, his research students and is now shared by hundreds of nutrition graduates, working in a wide variety of fields, in many countries round the world.

It would be invidious for anyone to criticise the composition of the Committee, possessing as it did such a wealth of knowledge and experience, or to question the esteem of the co-opted members of its Working Parties. Nevertheless it remains true that only three of the fourteen members of the Committee could consider themselves as expert in human nutrition. Even more extraordinarily, neither the Committee nor the forty or more members of the Working Parties had a single representative from either of the two schools which give first degrees in nutrition and which have made many notable contributions to research over the broad field of nutrition.

We in the Polytechnic at Huddersfield do not accept the views implicit in what must come to be known as the Neuberger Report. We are planning to introduce a course for the degree of MSc in Social Nutrition within a few years which will have as one of its major objectives the training of graduates from food science, nutrition, catering studies and dietetics in the social concomitants of nutrition as a preliminary to preparing them for research in this field.

Yours faithfully,

T. B. MORGAN

*The Polytechnic,
Huddersfield, UK*

Early tunnellers

SIR,—When I discussed early British tunnelling projects (Jan. 31, 1975) a printer's imp substituted "early 1880s" for "early 1800s". In fact Trevithick nearly completed his Limehouse-Rotherhithe tunnel under the Thames soon after Waterloo and the Brunels succeeded in the 1840s. This will be found to help the sense which contrasts the preoccupation with tunnelling at the beginning of the 19th century with the switch to bridging towards the end.

ANGELA CROOME

London SE3, UK

Food from allotments

SIR,—With commendable humility, the World Food Conference in Rome called on science and research workers to bridge the gap between the incompatible elements of its action pack (*Nature*, 252, 518; 1974) and I hope I have disentangled the metaphor correctly.

May I, then, suggest a tactic not considered in Rome—one which would pay off within two years, unlike the global meteorological networks, the intensified research, the remote sensing or the testing of new technology in farmer's fields? I merely suggest that everyone who can, especially in the 'have' countries, feeds himself.

It seems plain to me that hunger cannot be alleviated by shifting money about the world, but only by growing more food. Britain survived two wars on the produce of her allotments (over half the island's food was grown on them). If all who have consciences will devote 150 hours a year to a garden, they will do some good, unlike those who walk a few miles on one day of the year to collect money.

I had better explain the word 'allotment' for an international readership. In several countries, municipalities supply, at a nominal rent, small gardens (allotments) to interested citizens: "A plot of 300 square yards" (say 1/40th hectare) "should supply a family of three all year round" (*Encyclopaedia Britannica*, 1951, article Allotment).

There is nothing in this scheme to attract the notice of the Starvation Industry—no intercontinental jet flights, no twenty-thousand-dollar-a-year jobs, no lush research grants. So we common people must demand that land be set aside for allotments in every town. Then each of us can solve a tiny part of the problem. No more can be expected of us.

How big is the problem? I gather we need 45 million extras rations. If, then, 90 million of us—thirty million families—grow half our own food, the immediate problem is solved. With vigorous promotion, there could certainly be 30 million allotments more in the world within two years. It is no dream to pre-

dict 300 million allotments, world-wide, within five years, if we try.

Those who have no land should demand it, where practical, from their local authorities.

F. P. HUGHES

Ontario, Canada

Vial body wanted?

SIR,—It is now more than ever necessary to minimise waste in laboratories, as elsewhere. This seems to make it imperative to devise means, possibly centralised regionally or nationally, for saving and reusing vials for liquid scintillation counting. It seems that, up to the present time, almost all such vials have been discarded and destroyed after being used once only. The numbers of vials so used and destroyed annually in Britain must be very large. In this department alone, the number last year was about 100,000.

Arguments against reusing vials are well known; the main ones are that: (1) the vials may have been irreparably damaged; (2) the vials may be irreversibly contaminated; (3) arrangements for retaining, decontaminating and washing used vials may endanger the environment and particularly, of course, the health of personnel; and (4) such arrangements are uneconomical. These arguments are valid. There are, however, counter-arguments, which seem to have been made unanswerable by the increasingly adverse economic and environmental conditions in which we find ourselves. The essential argument is that the destruction of once-used vials is unacceptably wasteful as the cost of producing them rises and as the materials from which they are made become shorter in supply.

I should like to propose, therefore, that a committee representing vial users, including university, research council and industrial laboratories, be set up to investigate urgently the practicability and economics of the centralised collection, storage and preparation of used vials for reutilisation. There should be little difficulty in collecting the information required for establishing quite rapidly whether this can be done economically on a regional basis. Individual laboratories should find no insuperable difficulties in collecting, storing and despatching used vials safely and efficiently.

If those who agree with this proposal and are prepared in principle to act on it would write to me, the response will be communicated to the research councils and other official organisations in the hope that action will be initiated.

Yours faithfully,

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