

23 May, Fourth Scientific Session

Chairman : PROFESSOR R. C. GARRY, F.R.S.E., RETIRING PRESIDENT OF
THE NUTRITION SOCIETY, *Institute of Physiology, University of Glasgow*

**Presidential Address: The Nutrition Society of Britain,
the First 12 Years**

BY R. C. GARRY, *Institute of Physiology, University of Glasgow*

Specialization seems to be the price we must pay for advancement in science. And only too often the specialist, as he pursues his own line of inquiry, erects a barrier of new technical processes, of new scientific jargon, between himself and his former colleagues. This process of disintegration may add to the sum total of knowledge in the possession of mankind as a whole but it has almost exactly the opposite effect on the individual scientist. His interests are progressively restricted, his horizons steadily contract.

This centrifugal process is limited to some extent in biology where all the scientific workers ought to have a common interest in the single whole, the living organism. This organism is an entity maintaining its integrity for a period of time in the face of a physical external environment. No one single aspect of biology can be truly understood without paying due consideration to the nature of the intact organism.

Yet we still lack a common meeting ground where scientific workers in biology may from time to time find refreshment. Is it fanciful to see in the study of nutrition this common interest which can bring all of us together? In the statement issued after the meeting convened to found our Society in 1941 there is this sentence: 'It was felt that the main object of the new Society should be to provide a *common meeting place for workers* in the varied fields of nutrition e.g., physiological, biochemical, agricultural, medical, sociological, economic and public health.' A nutrition society brings together not only biologists, in the more restricted sense, but also chemists, physicists, sociologists, economists, psychologists, in short everyone interested in the study of man and his environment.

It is doubtful if nutrition is a science in the common sense of the word. To make such a claim is probably to do the study of nutrition a disservice. Yet nutrition is an 'organized body of knowledge that has been accumulated on a subject'. But the scope of nutrition is so wide that it is wise to regard it as a meeting place of the sciences and of scientists rather than as a single scientific discipline. The study of nutrition then calls a halt in the biological sciences to the fission and centrifugal tendencies so characteristic of the present time.

It is doubtful if any scientific society ever before was born in such troublous times. In July 1941 a letter of invitation was sent to many biologists in this country inviting them to form a Nutrition Society 'on the lines of the Physiological and the

Biochemical Societies'. The Society was to hold meetings. 'Such meetings would serve a useful purpose, especially in enabling workers studying different aspects of the same problem in agricultural and medical institutions to meet and help each other with information and constructive criticism.'

The signatories were:

J. Barcroft, H. Chick, J. C. Drummond, J. Hammond, L. J. Harris, F. G. Hopkins, H. D. Kay, C. J. Martin, E. Mellanby, J. B. Orr, R. A. Peters.

With characteristic understatement the final paragraph ran:

'In view of the difficulty of travelling, it might be convenient to form separate English and Scottish branches which could meet independently but which might maintain contact during the war by exchanging short notes on the papers and discussions at meetings'.

We still retain fundamentally this organization. Travelling is no longer beset with the hazards of war but, even in this small island, the cost of travel to any distance is prohibitive for many of our members. The existence of a Scottish Group within the Society enables us to serve the interests of those who live in the north.

The decision to form The Nutrition Society was taken at a meeting, convened by Sir John Orr, on 23 July 1941 in London. A provisional committee was elected along with Honorary Officers. Sir John Orr, now Lord Boyd Orr, was Chairman. The annual subscription was 10/-d. The first scientific meeting, a symposium on The Evaluation of Nutritional Status, was held by the English Group on 18 October 1941 in Cambridge. Messages of welcome were received from many fellow workers in America. Sir Frederick Gowland Hopkins opened the proceedings with a short address.

The English Group held a second symposium in London early in 1942. The topic was much to the point in those days, and not without significance now: Food Production and Distribution in Relation to Nutritional Needs.

These two meetings set the pattern for the future. The 'science' of nutrition, as such, was, of course, well represented. But contributions were made by an obstetrician, a paediatrician, by a professor of medicine, by workers in agricultural research stations. At one session the Chief Medical Officer of the Ministry of Health, Sir Wilson Jameson, presided.

The Scottish Group had its inaugural meeting on 14 March 1942, in Perth. Sir Andrew Davidson, the Chief Medical Officer of the Department of Health for Scotland, presided. Scotland had three symposia in succession on the general theme Food Supplies in Relation to Human Needs. The first dealt with Requirements for Health, the second Scottish symposium in May discussed Requirements in Terms of Food, and the third tried to define Signs and Symptoms of Deficiency Diseases.

The year was 1942 so it is not surprising that the third meeting of the English Group dealt with Problems of Collective Feeding in War Time. The Minister of Food, Lord Woolton, gave the first paper. The fourth meeting discussed Dehydration of Foods and the Effect on their Nutritional Value. Sir Edward Appleton was in the chair.

In these early years there was hardly a biological topic which The Nutrition Society did not discuss at its symposia. Some were very technical, The Vitamin B Complex, Antivitamins in Food, Triglyceride Fats in Human Nutrition, Vitamin A, Vitamin B₁₂. Some were practical and utilitarian, The Training, Qualifications and Functions of Dieticians, Nutrition in Colonial Territories, The Role of Nutrition in Social Medicine, Therapeutic Dietetics, The Nutrition of Athletes, The Preservation, Colouring and Flavouring of Foods, a topic promptly dubbed by the irreverent as 'food cosmetics'.

In 1946 the English Group had what will be, let us hope, a unique symposium on Nutritional Experiences in Prisoner of War and Internment Camps in the Far East. To listen to these papers was a moving experience. And it was brought home to everyone that conditions would undoubtedly have been infinitely worse in these camps had the principles of nutrition not been applied whenever possible.

In the Summer of 1946 The Nutrition Society had a European Conference which lasted 4 days. Representatives of many European countries gave of their experiences during the years of war.

This was the very stuff of scientific history and of human history too. To be privileged to listen to such conferences was indeed a liberal education.

At the outset there was no intention to publish the Proceedings of our Society. Most fortunately, the Royal College of Physicians of London, 'impressed with the advantage which the medical profession might reap from gaining immediate access to the records of the Society's meetings', assisted the Society by, in the first place, guaranteeing it against publication losses for the first few years (a guarantee that, fortunately, it was never necessary to take up) and by intervening in the matter of paper supplies, then a serious hurdle for those wishing to publish new journals, even scientific ones. The reports of the first thirty-seven symposia appeared between 1944 and 1947 in 5 volumes of *Proceedings of The Nutrition Society*.

In 1947 the *British Journal of Nutrition* took the place of the *Proceedings*. Here the reports of symposia appeared as before, but original articles were also published. Certain of the meetings were now thrown open to original short papers. Abstracts of these also appeared in the Journal. The annual subscription for members now rose to £1. 10. od.

After some little controversy another change took place. Originally the Society consisted of two Groups, the English and the Scottish. It was finally decided that there should be only one Society but that within the Society there should be a Scottish Group with its own Officers, with statutory representation on the Council of the Society, and control of its domestic affairs.

At the moment still another change is taking place. The number of original articles submitted for publication in the *British Journal of Nutrition* increased steadily. The Society is now beginning to publish a journal for original articles alone. The reports of symposia now appear in a separate *Proceedings of The Nutrition Society*. Here also are the abstracts of short original papers read at meetings.

The subscription for membership remains at £1. 10. od. All members receive

the *Proceedings*. If, however, they wish to have the *Journal* as well, with original scientific articles, they must pay £1. 10. od more, a total of £3. 0. od.

This then is the short eventful history of our British Nutrition Society. We are not just another scientific society with an appeal to a relatively small group of specialist scientists. We offer a forum to all scientists, and to students of science, who are concerned with the future welfare of mankind and of animals. We try to overcome the tendency to divide biological science into smaller and smaller compartments of knowledge. James Lind, who wrote on scurvy, on hygiene and on tropical medicine, would have understood us, would have been of our number. We strive to be worthy of his words:

'I shall propose nothing merely dictated from theory; but shall confirm all by experience and facts, the surest and most unerring guides.'

Ascorbic-acid Deficiency in Experimental and Surgical Subjects*

BY JOHN H. CRANDON, STANLEY MIKAL AND BERNARD R. LANDEAU,
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Confusion over the significance of ascorbic-acid levels in human blood plasma led in 1940 to a prolonged deficiency experiment on one subject wherein effort was made to correlate blood content of this vitamin with clinical response (Crandon, Lund & Dill, 1940). During the course of this experiment adequate supplements of all other known vitamins were taken daily†. Butler, Cushman & MacLachlan (1943), who had recently developed their method for determination of the ascorbic-acid content of the buffy coat, frequently analysed blood samples. Plasma determinations were performed daily. Diet consisted of bread, well-cooked meat, cake, and butter at first; later, cheese, crackers, eggs, chocolate candy and, occasionally, beer.

The plasma ascorbic acid, as measured by the method of Mindlin & Butler (1938), fell to zero in 41 days, at which time the buffy-coat ascorbic acid was 10 mg/100 g. Thereafter the plasma readings remained at zero, whereas the buffy-coat readings did not reach zero until 121 days had elapsed. Two weeks later small perifollicular hyperkeratotic papules began to appear over the buttocks. Not until after 161 days of the diet, or after the plasma ascorbic acid had been zero for 120 days and the buffy coat zero for 40 days, did the perifollicular haemorrhages so characteristic of scurvy appear over the lower legs. Three weeks later an experimental wound made in the back of the subject showed no healing when biopsied after 10 days. Previously, a similar wound made at the end of 3 months of diet, after the

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† Through the kind advice of Dr Arnold Meiklejohn.