

## EDITORIAL

### The development of the nutritional sciences

When I first became Chairman of the Editorial Board and became aware of the need to have a series of Editorials for each number of the Journal, my original idea was to follow the custom of my predecessors and write Editorials that picked up or commented on papers that were being published. My idea was to mimic the ways of the Editor of my favourite motoring journal when he wrote about the cars he had occasion to test-drive. As I began to mull over ideas for Editorials it seemed to me that singling out individual papers to write about could be rather invidious and would be restricted to those that I felt were important, whereas all the papers we publish are important, certainly to their authors and as judged by our Scientific Editors and Referees. Accordingly I decided to focus on writing about the way the Journal operates and to think aloud about how we can improve the quality of the presentation of nutritional research in the scientific literature.

Recently I have been working on a paper for which I have had to go back 25 years to look at the papers that were published in the *British Journal of Nutrition* in 1969. While I was attempting to classify the topics that the papers covered I began to realize that, after looking at some nine hundred papers submitted to the Journal since I took over, it should be possible to identify some themes that were the current focus of nutritional research and that these themes would represent the growth points for the future development of the nutritional sciences.

It is also possible to see among these current topics of research some themes that were represented in papers 25 years ago, giving the impression that we have made little progress in our research or our techniques. This may be partly true but I think that some of these continuing themes represent the real barriers to nutritional understanding and therefore call for the search for new insights in experimental design and/or the concentrated development of new approaches. I remember Professor John Waterlow writing about the need for an indirect strategy in human nutrition research. I would venture to suggest that such indirect strategies should be driven by sound working hypotheses and very thorough experimental design, one of the themes for a later Editorial.

When I began to draw up a list of these key themes I thought that there might be some magical significance in that the first list I produced had seven themes, but as I went on these seven themes not only grew in number but also developed into an interlocking network where one theme led to another and where there was a considerable degree of interdependence; thus the resolution of the barriers to understanding in one area required the resolution of others and it was difficult to identify which theme was the more important. In my present position I am fortunately relieved of the task of establishing priorities when choosing to work on a topic that interests me and I recognize that most of you as working scientists do not share my fortunate position.

However, my analysis, which is a highly personal one, suggests that a case could be made for attaching priority, for differing reasons, to each of the themes. The range of the themes emphasizes the multidisciplinary nature of nutrition and the many opportunities for exploiting new techniques and approaches. I think that it is also desirable to try to develop

nutritional thought towards an integrated conceptual attack on the long-standing barriers to understanding.

The themes that are on my list at present, not in order of priority or necessarily of presentation, are: design models; time as a confounder; the assessment of intake in free-living humans and animals; the related theme, the search for biological markers of intake and status; energy balance and the concept of metabolic efficiency; understanding individual variability in responses to diets; taking an integrated view of diet; kinetic analyses of metabolic responses to diet; determinants of food choice; translation of nutritional knowledge into policy: and a group of themes which for the present I will call nutrient 'band-wagons', not I hasten to add in a pejorative sense. I apologize in advance for the cryptic names which I have used for the themes but to expand these names further would pre-empt the development of subsequent Editorials. I recognize that my personal choice of themes will not adequately reflect the developments in the nutritional sciences as a whole and I would welcome comments from readers either as Letters to the Editors, suggesting what they see as, say, the seven most important barriers to understanding, or as Commentaries, on fields where there have been a series of papers published in the *British Journal of Nutrition*.

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