

PREFACE

Volume 2 continues with the policy described in the preface to Volume 1. It contains papers chosen to provide a widely varied coverage of recent nutritional research ranging from a critical consideration by *Lee and Talbot* of the issues involved in the nutrition of renal failure patients to a study by *Parkins and Holmes* of the mechanisms by which gastrointestinal helminths affect ruminant nutrition. Because the papers deal with basic issues and include new thinking and fresh interpretations it is believed that this wide spectrum of topics will appeal to workers in many fields.

The paper of *Corring et al.* throws new light on the ways in which dietary changes regulate pancreatic and biliary secretion but show that mechanisms remain poorly understood in many respects. Processes of absorption and utilization of protein are treated intensively in the papers of *Grimble and Silk* and *Millward et al.* Problems are looked at mainly from the human standpoint but animal nutritionists cannot fail to derive benefit from the new information and thoughts put forward on peptide utilization and protein and amino acid requirements. Similarly, whether their main focus of interest is man or beast, nutritionists must gain from the work of *Gill et al.*, based primarily on the productive animal, designed to identify what new biochemical and physiological knowledge is needed to construct reliable models of whole animal metabolism and nutrition.

Papers concerned with mineral and vitamin nutrition raise some interesting questions. *Michell*, for example, suggests that animals can virtually always thrive on exceptionally low intakes of sodium. In their critical study of thiamin and niacin metabolism *Harmeyer and Kollenkirchen* throw considerable doubt on the common belief that high-producing ruminants can benefit from dietary niacin supplementation. The paper by *Harland* indicates that foods containing fibre may interfere with trace mineral utilization by man although the fibre components themselves appear to be largely innocent. Effects of excess and inadequate iron in human nutrition are dealt with by *Ramdath and Golden* with particular attention to disorders involving the formation of active free radicals. The question of how nutritional disorders may lead to an imbalance in the formation and disposal of free radicals and to oxidative tissue damage and disease is also an important aspect of the effects of vitamin A deficiency on immunity and infection discussed in the paper by *Tomkins and Hussey*.

The latter two papers are concerned mainly with problems in developing countries. *Duthie et al.*, however, explore the possibility that oxidative tissue damage linked to nutrient input may play a part in the onset of cardiovascular disease in developed countries. Nutritional factors involved in cardiovascular disease are also considered critically by *Gurr et al.* Their main concern is dietary lipid intake and they suggest that recommendations on fat intake for the population at large may need to be re-assessed.