and biodegradation. The possible importance of lipases in transport, their site in the cell and their possible significance in deposition and mobilization of fat are also fully discussed. A number of chapters also cover aspects of carbohydrate metabolism that have significance in the metabolism of adipose tissue cells. This is a matter of great and growing importance, especially with regard to the medical aspects of these problems. The use of amino-acids as a source of energy and for lipogenesis is discussed. Little work on protein metabolism in adipose tissue has been done so far; further studies are likely to yield information of considerable interest.

The physiological chapters deal with such subjects as the measurement of adipose tissue in the human subject, the energy storage function of adipose tissue, and the effects of diet, endocrine, nervous and psychological factors on adipose tissue. The great revolution in thinking about adipose tissue that occurred in 1948 is being fully maintained; this tissue is undoubtedly one which is intensively active metabolically and which is subject to many different influences in the living animal. Some of the abnormalities that may occur under pathological conditions, especially in human beings, are briefly discussed in appropriate chapters.

A number of chapters deal with comparative aspects, both structural and physiological. A wide range of living creatures is considered and an interesting section deals with the adipose tissue of migratory birds. There is scope for the use of a wide range of animals in studies on adipose tissue.

Anyone interested in lipid metabolism, lipid transport, or cell physiology will find this book a worthwhile addition to his library. It should be studied by all graduates in biochemistry and physiology and any medical graduates interested in metabolic aspects of disease; it should also interest and stimulate undergraduates in their final year who are in a position to be discriminating in their choice of reading, but it is also likely to appeal in part to a much wider circle and may encourage those in broader fields of biology to take a greater interest in adipose tissue. In spite of the great amount of information set out in the various chapters that comprise this volume, it is inescapable that research in this field is still largely in its infancy.

A. C. FRAZER

JAPANESE NEUROSCIENCE

Correlative Neurosciences

Edited by T. Tokizane and J. P. Schädé. Part A: Fundamental Mechanisms. (Progress in Brain Research, Vol. 21A.) Pp. xi+363. (Amsterdam, London and New York: Elsevier Publishing Company, 1966.) 115s.

THE editors of this volume end their preface with the hope that "we trust that this volume will provide a means of evaluating the level of brain research in Japan". The volume referred to includes Part B (not reviewed here) which deals with studies of a more clinical nature. In fact a fairer evaluation would probably be obtained from a consideration of the papers given by home-based Japanese workers at the last International Physiological Congress, held in Tokyo in August 1965. Few British physiologists could fail to wonder at the enormous output of Japanese biologists working in cramped conditions (even by British standards) with far-from-negligible teaching loads. Industry such as this cannot fail to make its mark in science.

It would certainly be invidious to compare the attainments of brain research in the two countries. My prejudices compel me to regard dismally the two EEG studies in this volume, both of which reveal such unrewarding prospects, while a number of painstaking neuro-anatomical studies are marred by an almost complete absence of original comment on the possible functional significance

of the findings. Happily these criticisms do not apply to the investigations involving the application of biochemical and histochemical techniques to the nervous system, and these papers, like those dealing with the processing of sensory information in the nervous system, provide interesting findings and good reviews; they also show that Japan has strong schools in some of the most fashionable branches of research in the nervous system. With the exception of one fine account of recent findings on the Mauthner cell, there is a conspicuous absence of papers dealing with the analysis of fundamental mechanisms observed in single cells or in peripheral nervous structures, which surely does less than justice to the Japanese in a field in which their contribution is so great. The other omission, which I find surprising, is the whole subject of neural development as the primary, and not an incidental, topic of interest. Does this really reflect an absence of such research in Japan, or merely an unfortunate limitation imposed by the editors?

This collection of papers deserves attention in its own right, and only in the smallest sense as a picture of brain research in Japan. Investigators into the nervous system needed no such artificial stimulus to recognize or assess the contributions from that country, and indeed in this context other countries come much more readily to mind. Who would happily attempt to present the true picture of brain research in Great Britain at present?

J. DIAMOND

PERIPHERAL NERVES

The Peripheral Nervous System

By J. P. Schädé. Pp. 230+3 plates. (Amsterdam, London and New York: Elsevier Publishing Company, 1966.) 60s.

ACCORDING to the publishers, this book gives a complete survey of the peripheral nervous system, presenting the anatomical, physiological and clinical aspects of the spinal nerves, the cranial nerves and autonomic nervous system in great detail. This claim may be misleading, for the book is short and based on a series of lectures on the peripheral nervous system given to medical students and physiotherapists over a number of years. It is intended as a basic course, not a comprehensive treatise. As such, it will be warmly welcomed by those intending to become clinical neurologists and will serve as a valuable reference book for clinical students, general practitioners and physiotherapists.

The illustrations are accurate and beautifully executed. Moreover, the book comes complete with three loose coloured wall charts. The author has used all the teaching aids at his disposal to present the complexities of the anatomy of the peripheral nervous system as clearly as is possible and in this he has succeeded most admirably.

A. G. M. WEDDELL

RADIOACTIVE DIET

Radioactivity and Human Diet

Edited by R. Scott Russell. Pp. xi+552. (London and New York: Pergamon Press, Ltd., 1966.) 100s. net.

ENVIRONMENTAL radioactivity resulting from nuclear fission has stimulated extensive investigation of the contamination of human diet by various radioactive products of fission in many parts of the world. The present volume is edited by Dr. R. Scott Russell, who for the past ten years has directed the work of a British team in this field.

An introductory section assesses current radiation exposure of people both from products of nuclear fission and from natural radioactive sources in the environment.