

BOOK REVIEWS

Vitamins and Hormones, Advances in Research and Applications. Volume X. Edited by R. S. HARRIS, K. V. THIMANN AND G. F. MARRIAN, Academic Press Inc., New York 1952. Pp. 421. Price 8.00 dollars.

What have hormones to do with vitamins apart from the fact that both classes comprise biologically active chemicals essential for cell metabolism and active in the body in small concentrations? Twenty years ago GOWLAND HOPKINS told us that we must "learn to describe in objective chemical terms precisely how and where such molecules as those of hormones and vitamins intrude into the chemical events of metabolism". Nowadays we know more than when those words were written about how some vitamins influence cell metabolism, but so far the mechanism of hormone action remains largely a mystery. Perhaps it will transpire that hormones and vitamins will find a meeting place in enzyme systems. Until some such synthesis as this has been achieved the reader (and reviewer) of the annual issue of "*Vitamins and Hormones*" must be conscious of something of a dichotomy among its contents. The majority of the articles in the present volume are concerned with hormones, a situation which, the editors feel, reflects the present state of research activity and progress in the two fields. No doubt it is because this state of affairs is likely to continue for some time that G. F. MARRIAN, a distinguished steroid biochemist, has been asked to become one of the editors. This is welcome step which will guarantee the continuing high quality and authoritative character of the articles on the hormones.

The quality of the contributions to the present volume is somewhat variable. The article by K. L. BLAXTER on effects of thyroid-active materials in dairy cattle is an outstandingly good one. It is a model of what a review should be: authoritatively critical, concentrating on essentials, and written so as to sustain the interest of the reader while giving him the firm yet unobtrusive guidance which all but the specialist needs in the complexities of almost any field of contemporary science. The article by R. I. DORFMAN on steroids and tissue oxidations is a trifle disappointing coming from so fine a steroid biochemist. Though it contains much interesting and recent material on the influence of steroids on tissue enzyme systems, there are too many errors, evidence perhaps of hasty revision and moreover it ignores recent British work on arginase and phosphatase and on the effects of adrenal corticoids on tissue slices *in vitro*. F. VERZÁR writes on the effects of corticoids on the enzymes of carbohydrate metabolism and although some of his interpretations may not find universal acceptance his article is welcome in that it gives a good account of his conception of the subject. R. BORTH AND H. DE WATTEVILLE contribute a useful and refreshingly critical review of the clinical use of hormone assays in obstetrics and gynaecology which embodies some valuable methodological considerations. The opening of R. F. OGILVIE's account of experimental glycuria promises an article of more than usual interest but the reader soon becomes uncomfortably aware of the complexities of the subject. A somewhat more critical and discriminating approach would have perhaps helped here. The necessarily rather esoteric article by L. T. SAMUELS and C. D. WEST on the intermediary metabolism of the non-benzenoid steroids serves to illustrate the growing complexity of a field in which the rapidity of progress bewilders all but the specialist.

The fact that B. H. ERSHOFF's article on nutrition and the anterior pituitary, which forms some sort of a bridge between the two topics covered by this annual, is specially orientated towards the general adaptation syndrome is a sign that integration between nutrition and endocrinology may be expected through neurophysiology. E. K. CRUIKSHANK contributes a useful survey of those neuropathies which are believed to be of dietary origin. E. BEERSTECKER writes a short article on a rather unusual subject, the nutrition of crustacea, a speciality on which information appears to be rather limited. The purely nutritional articles are completed by a review by A. E. SOBEL on the absorption and transport of fat-soluble vitamins, which emphasises how a breakdown in either of these functions can result in vitamin deficiencies. The volume as a whole can be commended though the reviewer would plead with the editors to do all they can to ensure that, in the future, as many contributions as possible are written so as to appeal to as wide a circle of readers as possible.

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