

What has to be realized, and realized at the top, is that the needs of science and of technology are not to be met on the cheap or by party trickery. They require far-sighted constructive planning, free from party prejudice and dogma, and sustenance by adequate resources which, once committed, are immune from pressure. Only so can serious waste be avoided. There are members enough in the present House of Commons, quite apart from the House of Lords, judging by some recent speeches, who have some understanding of the implications both of a National Reference Library for Science and Invention and of a genuine national library policy. So, is it too much to expect that they, firmly supported by professional associations of scientists and technologists, including the learned societies, should induce the Parliamentary and Scientific Committee to raise the issue and make matters really uncomfortable for any Government to continue to procrastinate? The Government must make the decisions and allocate the resources required to establish the National Reference Library for Science and Invention at the earliest possible moment and make a national policy not only possible but also a reality.

ADRENAL STEROIDS AND THERAPY— A CRITICAL ASSESSMENT

Adrenal Steroids and Disease

By Cuthbert L. Cope. Pp. xi+827. (London: Pitman Medical Publishing Co., Ltd., 1965.) 126s. net.

THIS book bears the imprint of the dual qualification of its author as a physician and a biochemist; it is written with an expert knowledge of steroid biochemistry while all the time having the clinician's needs in mind. It has the attraction, nowadays so rare, of a book written by a single author, and yet covers a wide field of medicine and therapeutics, since corticosteroid therapy had, and still has, application far outside the range of diseases of the adrenal gland.

The introductory chapters deal briefly with the chemical structure, the biosynthesis and the occurrence of the natural adrenal steroids. Their concentrations in blood and other body fluids, their metabolic transformation and the estimation of their metabolites in urine are discussed in the next chapters. There is a particularly useful analysis of the origin of the different urinary metabolites. This enables the reader to assess the very variable value of the many biochemical methods employed to test adrenal, pituitary or testicular function by steroid analysis in body fluids. Interesting examples of results of steroid estimations made in blood apparently contradicting findings in urine, or of different methods used in the same body fluid giving divergent answers, will serve as a useful guide through clinical biochemical literature. Tests of adrenal function occupy one chapter; this is followed by a discussion of more general questions, such as the role of the adrenal in stress, the evidence for or against the existence of 'diseases of adaptation', the relation between adrenal steroids and inflammation or immunity. Much space is devoted to the response of the body to prolonged treatment with steroids or with ACTH, to the question whether the response to stress of either the adrenal gland or the pituitary may be permanently inhibited by such treatment, and to the demonstration of the extreme scarcity of reliable data on these problems.

After several chapters dealing with specific adrenal diseases of the type which has been known for many decades, there is a discussion of the discovery of aldosterone, its physiology and pathology, and its synthetic antagonists. The evidence for and against the existence of a steroid which causes loss of sodium occupies one chapter,

and the changing views on the relation between hypertension and the adrenal cortex another. A chapter on the synthetic analogues of cortisol serves as an introduction to the discussion of indications and complications of steroid therapy. It is here that careful consideration has to be given to the multiple actions possessed by adrenal steroids, some of which are desirable in certain conditions and dangerous in others, and to the dangers of long-term effects which may lead to a kind of addiction, to withdrawal symptoms, and to rebound phenomena of the underlying disease. No other medicinal substances are apt, as the steroids are, to obscure the complications of their own administration and to lead to disaster when their administration is stopped. The book concludes with chapters on special problems. One deals with the use of steroids in collagen diseases, in disorders of the blood and in ophthalmology. The fact that the eye can be treated with steroids by local application carries the great advantage of avoidance of systemic signs of overdosage, but this does not mean that treatment need not be cautious and circumspect. One chapter discusses the discovery of substances which inhibit adrenal synthesis by interfering with β -hydroxylation, and another the clinical implications of the observation that certain steroids cause fever. Adrenal function in pregnancy, in the foetus and in the new-born, occupy special chapters. Another is devoted to the recently discovered masculinizing effect on the foetus of treatment of the mother with progestins, and a further chapter to the occurrence of signs of hyperadrenalism in malignant disease not located in the adrenal gland. Each section has its own detailed bibliography.

The author's views are balanced and cautious, and are expressed in a clear, readable style. Diagrams and short summaries help to clarify and recapitulate conclusions drawn from an often bewildering mass of contradictory claims. Fallacies of arguments based on inconclusive evidence are pointed out, and the reader is shown how to distinguish incontrovertible biochemical evidence from data which can be interpreted in more than one way. The clinician interested in the rationale of steroid therapy and in diseases of the adrenal gland will be the first to profit from this book, but the laboratory worker interested in the practical consequences of endocrinological research will find it just as fascinating.

MARTHE VOGT

RABBIT THROUGH THE LOOKING-GLASS

The Rabbit in Eye Research

Compiled and edited by Prof. Jack H. Prince. Pp. xvi+652. (Springfield, Ill.: Charles C. Thomas, 1964.) 37 dollars.

THE publisher's claim that this compendium represents a complete study of the eye of the rabbit is very nearly true. It covers the anatomy of the bony orbit and of the ocular adnexa. There is a detailed account of the morphology and physiology of the globe wherein the chapters on the chemistry and aqueodynamics of the ocular fluids and on the retina and optic nerve are outstanding—the former by its excellence, the latter by its lack of critical appraisal of the material with which it deals. The chapter on the electron microscope is beautifully illustrated and lucid in the extreme. The book concludes with a description of the vascular and neurological systems, and a chapter on the effects of sundry electro-magnetic and ultrasonic radiations.

Why was this well-organized book written at all? Prof. Prince assures us that "while one must always remind oneself of . . . differences during experimental work on the rabbit, the similarities between this animal and man are numerous enough to justify its continued use in the ophthalmic laboratory, with due caution". The extent of