

**THE THYROID AND ITS DISEASES.** Leslie J. DeGroot and John B. Stanbury. New York, Wiley, 1975, 823 pp, \$35.00.

*The Thyroid and Its Diseases* by DeGroot and Stanbury is the 4th edition of Means' classic thyroid text. Twelve years have passed since the 3rd edition was published and the current work is both welcome and timely.

This book represents a complete and current distillation of contemporary medical thyroidology. The current authors have strived, and largely succeeded, in carrying on the Means' tradition of a clinically oriented and highly readable text. The text progresses smoothly from a detailed account of basic thyroid structure and function, to the clinical and laboratory evaluation of thyroid function, and finally to the diseases of the thyroid. The authors' extensive experience in both experimental and clinical thyroidology is evident. The sections on disease diagnosis and management are liberally spiced with case histories which amplify the text material. The chapter summaries are concise, yet sufficiently complete to provide an excellent information source for even the most harried clinician.

Newer developments are generally well covered. The physiology of thyrotropin-releasing hormone and the radioimmunoassay of thyroid hormones are well described. However, the problem of radiation-induced thyroid neoplasia is only briefly discussed. The section on Hashimoto's disease contains an excellent discussion of the basic concepts of immune disease. Space is not wasted on topics about which little is known. For instance, the discussion of the etiology of Graves' disease begins, "The cause of Graves' disease is unestablished." The reader may then proceed further or not, depending on his interests. A chapter on thyroid surgery has also been included. The bibliography is complete and has been extensively updated.

*The Thyroid and Its Diseases* continues to represent the standard in thyroid texts. It should be in the library of any physician who performs clinical thyroid tests or who is involved in the management of thyroid disease. The book is also recommended as a reference source for the nonthyroidologist physician or student with specific questions pertaining to the thyroid.

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**PARATHORMONE AND CALCITONIN RADIOIMMUNOASSAYS IN VARIOUS MEDICAL AND OSTEOARTICULAR DISORDERS.** P. Franchimont and G. Heynen. Philadelphia, Lippincott, 1976, 134 pp, \$15.00.

This monograph presents the experience and investigations of its two authors, P. Franchimont and G. Heynen, in the development and utilization of radioimmunoassays for parathormone and calcitonin. The book is divided into three sections dealing respectively with the establishment and validation of radioimmunoassays for calcitonin and parathormone, investigations into the physiologic mechanisms regulating the secretion of the hormones in man, and presentation of clinical experience with parathormone and calcitonin measurements in various disease states.

In the introduction to the first section, the authors state

the usual criteria for the establishment of any radioassay technique and then present a step-by-step discussion of how they met these criteria for both the calcitonin and the parathormone assays. The authors' own experimental results and conclusions are compared with those of other investigators, and the reasons for choosing specific methods are clearly stated. The first section concludes with a discussion of the problems arising from the heterogeneity of the circulating forms of both hormones; the basal circulating levels obtained from normal subjects are presented.

The second section discusses physiologic mechanisms regulating the secretion of parathormone and calcitonin in man. The effects of calcium and inorganic phosphate are examined at length. The relationships between calcitonin and other hormones, particularly the intestinal polypeptides, are also discussed.

The last section presents clinical results in primary hyperparathyroidism, hypoparathyroidism, Paget's disease of bone, osteoporosis, medullary carcinoma of the thyroid, and several other medical disorders. The possible pathogenetic roles of calcitonin and parathormone are assessed for each condition and ruled in or out on the basis of current evidence.

The substantial contributions of the authors in developing and applying parathormone and calcitonin radioimmunoassays are enhanced by their extremely logical and lucid manner of presentation. Each chapter is internally organized in the classic format of scientific investigation with a statement of problem, approach, results, discussion, and conclusions. Although the text is well referenced, the literature discussions are brief and only cover specific interfaces of other investigators' work and that of the authors.

For the nuclear medicine community, a shortcoming of the monograph is the rather limited material on medullary carcinoma of the thyroid, which has become one of the principal areas of interest for applying the calcitonin assay.

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**ENGINEERING COMPENDIUM ON RADIATION SHIELDING. VOL. II. SHIELDING MATERIALS.** R. G. Jaeger, E. P. Blizard, A. B. Chilton, M. Grotenhuis, A. Honig, Th. A. Jaeger, and H. H. Eisenlohr, eds. New York, Springer-Verlag, 1975, \$137.60.

This compendium, published under the sponsorship of the International Atomic Energy Agency, involves the efforts of numerous specialists in the field and successfully covers both the scientific and technical aspects of ionizing radiation shielding. Volume I, entitled *Shielding Fundamentals and Methods*, was an eight-chapter treatise on the fundamental aspects of shielding.

Volume II, *Shielding Materials*, which is reviewed here, represents the ninth chapter in the compendium. Edited by Arnost Honig, this volume presents in precise technical detail the properties, fabrication characteristics, design considerations, and shielding values of numerous shielding materials for gamma photons and neutrons. A wealth of accumulated data is provided for a large variety of common building materials, including the usual normal- and high-density concrete mixtures.