



Book Reviews

Gut Peptides: Biochemistry and Physiology

(Comprehensive Endocrinology, Revised Series)

Edited by John H. Walsh and Graham J. Dockray, Raven Press, New York, 1994. 896 pp; \$189

Over a thousand papers/reviews have been published on each of the major gut peptide hormones discovered in the last decade. Following a two year gap, the most recent of the Comprehensive Endocrinology Series published by the Raven Press this year is an attempt to cover this young and rapidly expanding field by forty-five contributors from four continents, edited by John Walsh (U.C.L.A.) and Graham Dockray (Liverpool).

The aims of the book are to describe the role of peptide hormones involved in the gut's secretory function, motility, growth and differentiation, blood flow, signalling to and from the central nervous system, and protective mechanisms. The book is divided into three parts: the first covers the general principles of mode of actions of gut hormones including a discussion of receptors, signal transduction and control of gene expression. The second part is a detailed biochemical and physiological profile of the hormones, covering the chemistry and isolation of the peptides, gene structure, distribution, release and metabolism, receptors and antagonists, biological actions, and functional significance. The hormones covered are gastrin, somatostatin, secretin, cholecystokinin, gastric inhibitory polypeptide, motilin, glucagon, pancreatic

polypeptide, neurotensin, the endothelins, substance P, gastrin-releasing peptide, vasoactive intestinal polypeptide, the opioids, calcitonin gene-related peptide, epidermal growth factor and transforming growth factor- α , insulin-like growth factors, and transforming growth factor- β . The final section integrates the two by discussing physiological and pathophysiological roles these hormones play in regulatory mechanisms of the gut.

The chapters are well-balanced, of sufficient breadth with extensive reference lists to 1992. They are closely structured and follow a logical sequence. In parts, there is a paucity of illustrations in the text, particularly representative tables to summarise the action of peptides with appropriate references. Despite the number of contributors there is little repetition; inevitably there is some variation in readability. The final section brings the individual peptides into focus in context with other inter-related mechanisms of action in both normal homeostasis and the diseased state.

The editors have put together a clearly formulated textbook, which despite its prohibitive price as a hardback, will be of use to investigators in the field, and as a reference for gastroenterologists with an interest in peptide hormone chemistry.

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