Stimulus Secretion Coupling In Neuroendocrine Systems Current Topics In Neuroendocrinology

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Hormone Action, Part J: Neuroendocrine Peptides

The Fourth Edition of Knobil & Neill continues to serve as a reference aid for research, to provide the historical context to current research, and most importantly as an aid for graduate teaching on a broad range of topics in human and comparative reproduction. In the decade since the publication of the last edition, the study of reproductive physiology has undergone monumental changes. Chief among these advances are in the areas of stem cell development, signaling pathways, the role of inflammation in the regulatory processes in the various tissues, and the integration of new animal models which have led to a greater understanding of human disease. The new edition synthesizes all of this

new information at the molecular, cellular, and organismal levels of organization and present modern physiology a more understandable and comparative context. The Fourth Edition has been extensively revised, reflecting new fundamental advancements in this rapidly advancing field. Provides a common language for researchers across the fields of physiology, endocrinology, and biology to discuss their understanding of reproduction. Saves academic researchers time in quickly accessing the very latest details on reproductive physiology, as opposed to searching through thousands of journal articles.

Insulin

Cells of all living organisms have the ability to respond to altered nutritional conditions. They have developed mechanisms to sense nutrient availability and to produce appropriate responses, which involve changes in gene expression and the production or degradation of certain enzymes and other proteins. In recent years, the understanding of nutrient-induced signal transduction has greatly advanced and the emerging picture is that nutrient signalling mechanisms evolved early in evolution. This book provides a detailed presentation and comparison of the key nutritional regulatory mechanisms in lower as well as higher eukaryotes, written by recognised experts in this expanding field.

Molecular and Functional Diversity of Ion Channels and Receptors

Neuroendocrine Regulation of Reproduction

Fat-Soluble Vitamins

Oxytocin, Vasopressin and Related Peptides in the Regulation of Behavior

The critically acclaimed laboratory standard, Methods in Enzymology, is one of the most highly respected publications in the field of biochemistry. Since 1955, each volume has been eagerly awaited, frequently consulted, and praised by researchers and reviewers alike. The series contains much material still relevant today - truly an essential publication for researchers in all fields of life sciences.

Stimulus-secretion Coupling in the Gastro-intestinal Tract

Neurosecretion--the Final Neuroendocrine Pathway

The present edition of our The Human Central Nervous System: A Synopsis and Atlas differs in several respects from its predecessor. An entirely new section on the cerebrovascular system and the meninges has been added, in accordance with the wishes of many colleagues. The text has been

thoroughly revised and extended in the light of new data and concepts. The functional significance of the structures discussed and depicted has received more atten tion, and numerous correlations with neuropathology and clinical neurology have been indicated. The final section in the previous editions was devoted to the monoaminergic neuron systems. It was our original plan to add sections on other important transmitter-specified neuronal populations. However, the size of these sections soon grew well beyond the limits set for the present work. Hence, it was decided to produce a separate text on that subject, which has appeared in the mean time (R.NIEUWENHUYS: Chemoarchitecture of the Brain, Springer Verlag 1985). The reader who is particularly interested in chemical neuroana tomy is referred to that work; numerous data on the nature of the neurotrans mitters present in the various centres and fibre systems of the neuraxis are incorporated in the text of the present book, however.

The Role of Calcium Channels in Stimulus-secretion Coupling

A comparative overview of the effects of neuropeptides on behavior, examining parallel findings in both humans and non-human animals.

Behavioral Aspects of Neuroendocrinology

The Electrophysiology of Neuroendocrine Cells explores the role of electrical activity in

neuroendocrine cells in stimulus-secretion coupling, sensory mechanisms, and intercellular communication. This comprehensive and concise handbook includes introductory material on the ontogenesis and classification of the neuroendocrine system and describes general electrical properties, voltage-gated ion channels, and the pharmacology of ion channels. By focusing on functional aspects, The Electrophysiology of Neuroendocrine Cells provides research scientists, physicians, and students with a basic understanding of neuroendocrine cells and their similarity to neurones, as well as their relationship to thyroid- or steroid-hormone secreting endocrine cells. The multidisciplinary nature of this book provides readers with a broad perspective on the electrical properties of neuroendocrine cells, and the combination of general information and specialized information makes the book accessible to beginning and advanced readers alike.

Respiratory Tract Mucus

First multi-year cumulation covers six years: 1965-70.

Olfactory Efferents to the Hypothalamic Paraventricular and Supraoptic Nuclei

Stimulus-secretion coupling in chromaffin cells

Molecular and Cell Biological Aspects of

Gastroenteropancreatic Neuroendocrine Tumor Disease

This volume covers new aspects and future directions in molecular neuroendocrinology, an important and rapidly growing area in neuroendocrinology. Among the various neurotransmitters or neuromodulators that play an important role in the control of endocrine functions, neuropeptides and related proteins have drawn special attention because of their diversity and complexity in action. More recently, molecular biology has become an essential tool of research in this area. Various genes encoding neuropeptides and other related pro- teins have been cloned, and the regulation of expression of these genes has been studied extensively. Transgenic animals have been used in studying the function of the gene in que- stion. In-situ hybridization is being applied to localize the site of production and analyze the regulation of pro- duction of peptides or proteins.

The British Journal of Psychiatry

Recombinant DNA Technologies in Neuroendocrinology

Comprehensive and complete, Blumgart's Surgery of the Liver, Pancreas and Biliary Tract – edited by Dr. William R. Jarnagin and a team of experts- delivers the comprehensive, cutting-edge guidance you need to achieve optimal outcomes in surgery of the liver, biliary tract, and pancreas. Edited by a panel of

experts and featuring contributions by many leading authorities, this 2-volume reference brings you the latest information on pathology, diagnostics, surgery, and non-operative intervention all in one source. At www.expertconsult.com you can not only access the complete contents online, but also an abundance of detailed illustrations and step-by-step procedural video clips from the Memorial Sloan Kettering video library that show you how to perform key procedures step by step. Glean all essential, up-to-date, need-to-know information in one comprehensive reference that provides extensive coverage of pathology, diagnostics, surgery, and non-operative intervention as well as hepatobiliary and pancreatic surgery. Deepen your understanding of surgical anatomy to help with diagnosis, surgical operation, interventional radiology, and endoscopy. See how to perform key procedures by watching operative videos from the Memorial Sloan Kettering video library. Apply the most advanced diagnostic and management options for each disease, including interventional techniques. Stay current with the latest knowledge and advancements including minimally invasive techniques in hepatic resection; surgical considerations for congenital disorders of the pancreas; non-surgical therapies for pancreatic cancer; microwave ablation and other emerging technologies; the most recent developments in the rapidly changing area of transplantation; and the newest best practices in pre- and post-operative care and blood transfusion. Get in-depth coverage of the pancreas from the only fully comprehensive text on both hepatobiliary and pancreatic surgery. Learn from the very best. Rely on the trusted guidance of

experts, with a fresh perspective from senior editor, Dr. William Jarnigan, who has earned a national and international reputation in the surgical management of diseases of the biliary tract. Access the full text online at www.expertconsult.com, along with image and video libraries, tables, figures, and more! Over 200 additional contributing experts. A single, comprehensive reference that covers pathology, diagnostics, surgery, and non-operative intervention all in one text!

Endocrinology Index

When established four years ago, the scope of this international series in electron microscopy essentially was to provide an opportunity for the pUblication of selected review contributions by specialists in ultrastructural research. Previous volumes presented over the last three years have focused on special topics of present interest in ~'ontemporary biomedicine such as endocrine cells, reproduction, and connective tissues. In these fielCls, in fact, integrated methods of electron microscopy have contributed much to generate new ideas and concepts of general value in both basic and clinical applications. The Ultrastructure of the Digestive Tract basically follows the same guidelines and style of the other books in the series and is an invited collection of selected contributions of authors from various laboratories active in the field of electron microscopy. Therefore, although the various chapters consist of individual topics, they nevertheless should be considered as interrelated contributions of specific

subjects in the field. The idea was to have critical reviews of aspects previously published elsewhere by experts in the field who, as a rule, include other relevant information in their articles in order to update and enrich the subject. This book contains fifteen chapters by renowned electron microscopists. Each chapter, according to the policy of the editors, reviews a particular topic in great detail, providing updated information, study methods and results, authors' ideas on future investigative approaches, and possible guidelines for forthcoming work. We hope that this book will be useful to cell biologists, morphologists, physiologists, and pathologists.

Studying the Plasticity of the Hypothalamo-neurohypophysial System in Dehydrated Rats Using Postembedding Immunology Cytochemistry at the Electron Microscopic Level

The exquisite simplicity and potency of toxins have made them valuable probes of neural systems. This book presents a comprehensive compilation of techniques used for the preparation, handling, and, particularly, for the use of neurotoxins. Model systems are described in which these neurotoxins have been extremely valuable in developing an understanding of the cellular and molecular basis of secretion and electrophysiological events leading to altered cell function. Convenient benchtop format Methods presented for easy adaptation to new systems A virtual "A-B-C" of commonly used and available toxins

Comprehensive protocols included for the use of alpha toxin, apamin, batrachotoxin; botulina toxin, bungarotoxin; channel ligands: agonists and antagonists; capsaicin; charybdotoxin, ciguatoxin; Clostridium botulinum neurotoxin; cholera toxin (choleragen); conotoxin; dendrotoxin; endothelin; fasciculin; geographutoxin; latrotoxin; natural toxins; neosurgatoxin; palytoxin; pertussis toxin; resiniferatoxin; sarafotoxin; scorpion toxin; snake venom toxins

Neurotoxins

Pulsatility in Neuroendocrine Systems

Includes: biographies of fellows appointed; reappointments; publications, musical compositions, academic appointments and index of fellows.

Stimulus-Secretion Coupling in Neuroendocrine Systems

Reports of the President and the Treasurer - John Simon Guggenheim Memorial Foundation

Neurophysiology of Neuroendocrine Neurons provides researchersand students with not only an understanding of neuroendocrine cellelectrophysiology, but also an appreciation of how

this modelsystem affords access to virtually all parts of the neuron fordetailed study - something unique compared to most types of neuronin the brain. Chapters range from those describing the rich historyand current state of in vivo recordings, highlighting the preciserelationship between the patterns of action potential discharge inthese neurons and hormone release, to in vitro approaches whereneuroendocrine neurons can be precisely identified and theirmembrane properties, morphology, and synaptic responses, directlyexamined. • Written by a team of internationally renownedresearchers, each chapter presents a succinct summary of the verylatest developments in the field • Includes an evaluation of different experimentalapproaches, both in vivo and in vitro, and how the resulting dataare interpreted • Both print and enhanced e-book versions areavailable • Illustrated in full colour throughout This is the first volume in a new Series 'Masterclass in Neuroendocrinology' , a co- publicationbetween Wiley and the INF (International Neuroendocrine Federation)that aims to illustrate highest standards and encourage the use ofthe latest technologies in basic and clinical research and hopes toprovide inspiration for further exploration into the exciting fieldof neuroendocrinology.

Pulsatility in neuroendocrine systems

Pulsatility is now recognized as a nearly ubiquitous functional feature of neuroendocrine systems. This volume presents a comprehensive guide to the

established and emerging technologies being used to study the perplexing phenomenon of pulsatility. Molecular, cellular, physiological, and mathematical approaches are described in detail. Comprehensive protocols included for the study of * In vitro methods for studying neuroendocrine pulsatility * In vivo sampling and recording procedures for monitoring pulsatility in several species * Improved quantitative and analytical methods for the study of hormone pulsatility

Stimulus-secretion-transcription Coupling in Pheochromocytoma Cells

Relation of Neuroendocrine System to Loss of Reproductive Function in Aging Female Rats

It is fourteen years since insulin was last reviewed in The Handbook of Ex perimental Pharmacology, in volume 32. The present endeavor is more modest in scope. Volume 32 appeared in two separate parts, each having its own subeditors, and together the two parts covered nearly all areas of insulin pharmacology. Such comprehensiveness seemed impractical in a new volume. The amount of in formation related to insulin that is now available simply would not fit in a reasonable amount of space. Furthermore, for better or worse, scientists have be come so specialized that a volume providing such broad coverage seemed likely in its totality to be of interest or value to very few individuals. We therefore

decided to limit the present volume to the following areas: insulin chemistry and structure, insulin biosynthesis and secretion, insulin receptor, and insulin action at the cellular level. We felt these areas formed a coherent unit. We also felt, perhaps as much because of our own interests and perspectives as any objective reality, that these were the areas in which recent progress has been most dramatic, and yet, paradoxically and tantalizingly, these were the areas in which most has yet to be learned. Even with this limited scope, there are some major gaps in coverage. Regrettably, two important areas, the beta cell ATP-sensitive potassium channel and the glucose transporter, were among these. Nevertheless, the authors who con tributed have done an excellent job, and we would like to thank them for their diligence.

The Electrophysiology of Neuroendocrine Cells

Neuroendocrine Peptide Methodology

The role of electrical signalling in the control of endocrine secretions by the brain has been clear for many years. Recently, the influences of hormones on synthetic events in neuroendocrine cells have raised new questions concerning the peptides released from such neurons. This volume concentrates on the relation between these two fields and asks how electrical action potentials facilitate secretion of substances from nerve cells which control endocrine events. While stimulus-secretion coupling has been

studied extensively in other physiological contexts, this is the first treatment of the phenomenon in an exclusively neuroendocrine setting.

Annual Scientific Report

Latest issue in the CURRENT TOPICS IN NEUROENDOCRINOLOGY se- ries which has been gaining a great deal of reputation as a primary source for reviews in neuroendocrinology and related areas in the past few years.

Gastrin

This volume brings together an interdisciplinary group of scientists working with different neurotransmitter receptors and ion channels to discuss how the large amount of information obtained from molecular cloning can be used to advance knowledge of cell and tissue function. It documents the physiological roles of ion channels and receptors, including the functional analysis of subunit composition, role of associated proteins, functional alalysis of native and expressed channels, and physiological and pharmacological investigations of animal models in which specific channels are eliminated or altered.

Nutrient-Induced Responses in Eukaryotic Cells

Genetic Variation in Hormone Systems

New molecular and cell biological approaches in the fields of neurobiology and neuroendocrinology have identified a large number of molecules that can be assigned structurally and functionally to various subcellular structures, such as secretory vesicles, the Golgi complex, the trans-Golgi network, and endosomes. It has become evident that neurons and neuroendocrine cells share many properties, such as the expression of very similar secretory vesicles and molecules, including cell adhesion molecules, neurotransmitters, hormones, neurotransmitter-receptors and hormone-receptors. Various molecules discovered and characterised in basic research have been found to be increasingly applicable for improved diagnosis and therapy of neuroendocrine tumour disease. This volume reviews current research in both basic science and clinical research from the viewpoint of its direct applicability to clinical medicine.

Current Catalog

Blumgart's Surgery of the Liver, Pancreas and Biliary Tract E-Book

The subject for a volume on the fat-soluble vitamins needs no justification considering the importance of this group of nutrients and the rate of expan sion of our knowledge of its role in cell biology, genetics, and disease. The level of our understanding has clearly moved from knowing what fat soluble vitamins do to how they perform their functions. Hand in hand with a knowledge of their molecular mechanisms of action is

the recognition that vitamins are used sparingly, and regeneration processes operate in certain cases to recycle vitamins from their metabolites. We have divided the volume into alphabetical sections beginning with vitamin A and the carotenoids through vitamins D, E, F, and K, and ending with coenzyme Q. The contributors are all acknowledged experts in their particular fields and have made significant contributions to published research results. All have worked assiduously to deliver the product of their labors on a restricted time scale and to provide the most up-to date information on their respective topics. We are truly grateful for their indulgence.

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