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Nota di contenuto	Title Page; Table of Contents; List of Contributors; Series Preface; About the Companion Website; Introduction; Part A: Genome and Genome Expression; CHAPTER 1: Evolutionary Aspects of Physiological Function and Molecular Diversity of the Oxytocin/Vasopressin Signaling System; 1.1 Evolution of peptidergic signaling; 1.2 The discovery of neuropeptide signaling components in the era of genomics; 1.3 Evolutionary aspects of OXT/AVP diversity; 1.4 Physiology of OXT and AVP signaling: from worm to man; 1.5 Perspectives; Acknowledgments; References; CHAPTER 2: The Neuroendocrine Genome: 2.1 The discovery of neuropeptides 2.2 Characteristics of neuropeptides; 2.3 Neuropeptide genes in the genome; 2.4 Perspectives; Acknowledgments; References; Further reading; CHAPTER 3: Transcriptome Dynamics; 3.1 Approaching transcriptome dynamics; 3.2 Transcriptome dynamics in neuroendocrine systems; 3.3 Transcriptome dynamics in the pineal gland: lessons from different approaches; 3.4 SN-NICHD transcriptome profiling web page; 3.5 Perspectives; References; CHAPTER 4: New Players in the Neuroendocrine System;; 4.1 Non-coding RNA contribution to gene regulation 4.2 Central role of the hypothalamus as a neuroendocrine organ 4.3 The pituitary gland and its central control of the peripheral endocrine

system; 4.4 The pineal gland - a connector between external environment and internal homeostasis; 4.5 Perspectives; References; CHAPTER 5: Transcription Factors Regulating Neuroendocrine Development, Function, and Oncogenesis; 5.1 The key players in transcriptional regulation; 5.2 Classes of neuroendocrine-associated TFs; 5.3 REST: a zinc finger TF with complex regulation and diverse function; 5.4 Cooperation of TFs in neuroendocrine phenotype and function
5.5 Perspectives References; CHAPTER 6: Epigenetics; 6.1 Introduction; 6.2 Early life adversity shapes the HPA axis; 6.3 Epigenetic mechanisms: changes in the regulation of gene activity and expression that are not dependent on gene sequence; 6.4 Methods of epigenetic analysis; 6.5 Alterations in epigenetic processes; 6.6 The epigenome and early life adversity; 6.7 Perspectives; References; Further reading; Part B: Proteins, Post translational Mechanisms, and Receptors; CHAPTER 7: Proteome and Peptidome Dynamics; 7.1 Introduction; 7.2 Classic neuropeptides and proteins in the RSP
7.3 Techniques used to study the rate of peptide biosynthesis 7.4 Dynamics of intracellular proteins and peptides; 7.5 Perspectives; References; CHAPTER 8: Neuropeptidomics; 8.1 Neuropeptides - one gene, multiple products; 8.2 Mining the neuropeptidome 21st-century style using mass spectrometry-based 'omics approaches; 8.3 What do all these peptides do? Follow-up functional studies; 8.4 Perspectives; Acknowledgments; References; Further reading; CHAPTER 9: Posttranslational Processing of Secretory Proteins; 9.1 Posttranslational modifications of secretory proteins
9.2 The family of proprotein convertases

Sommario/riassunto

"Discusses the mechanisms that enhance peptide and protein diversity beyond what is encoded in the genome through post-translational modification"--
