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7.4. Stability and cell toxicity of helix-constrained versus unconstrained peptides
 7.5. In vivo activity of helix-constrained versus unconstrained nociceptin analogues; 8. Concluding Remarks; References; Chapter 2: Bioinformatics and Evolution of Vertebrate Nociceptin and Opioid Receptors; 1. Introduction; 1.1. The origin of G protein-coupled receptors; 1.2. A brief history of opioid receptors; 1.3. Evidence for opioid receptors in nonmammalian vertebrates; 2. The Vertebrate Opioid Receptor Sequence Database; 2.1. Alignment of protein sequences
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 2.3. Divergence and convergence of opioid receptor types; 3. The Human Genome and the Evolution of Opioid Receptors; 3.1. Duplicated opioid family receptor genes in the human genome; 3.2. Variation in human opioid receptor genes; 4. The Molecular Evolution of Vertebrate Opioid Family Receptors; 5. Future Directions; 6. Conclusions; Acknowledgments; References; Chapter 3: Ancestral Vertebrate Complexity of the Opioid System; 1. Introduction; 2. Opioid Peptide Family; 3. Opioid Receptor Family
 4. Discussion: Complexity, Coevolution, and Divergence
 5. Conclusions; Acknowledgement; References; Chapter 4: Synthesis and Biological Activity of Small Peptides as NOP and Opioid Receptors' Ligands: View on Current Devel...; 1. Introduction; 2. Endogenous Opioid Peptides and Receptors: Nociceptin and NOP Receptor Ligands; 3. Hexapeptides with NOP Receptor Affinity; 4. Solid-Phase Peptide Synthesis; 5. Conclusions; Acknowledgment; References; Chapter 5: Pain Regulation by Nocistatin-Targeting Molecules: G Protein-Coupled-Receptor and Nocistatin-Interacting Protein; 1. Introduction
 2. Biological Activity by NST Through G Protein-Coupled Receptor

Sommario/riassunto

First published in 1943, Vitamins and Hormones is the longest-running serial published by Academic Press. The Series provides up-to-date information on vitamin and hormone research spanning data from molecular biology to the clinic. A volume can focus on a single molecule or on a disease that is related to vitamins or hormones. A hormone is interpreted broadly so that related substances, such as transmitters, cytokines, growth factors and others can be reviewed. This volume focuses on nociceptin opioid. Key features: Expertise of the contributors
 Coverage of a vast array of subjects