DESCRIPTION

The GnRH Neuron and its Control examines the developmental biology of GnRH neurons including their birth in the nasal placode of the early embryo, perinatal programming, and sexual differentiation, in addition to the hypothalamic mechanisms that control GnRH neurons in adulthood to generate pulsatile and surge modes of GnRH secretion throughout the major life stages including aging. The morphology, electrophysiology, signal transduction pathways, transcriptional regulators, and genomics underlying function of the adult GnRH neuron is discussed in detail, as is the neuroendocrinology and cell biology governing the generation of both modes of GnRH release.

The book also reviews the neurobiological mechanisms and circuitry responsible for the modulation of the activity of GnRH neurons by season, stress, nutrition, and metabolism, and covers the current and potential therapeutic approaches to regulating GnRH secretion and action. Filled with newly identified research and classical fundamental knowledge to GnRH biology, it will provide students, researchers, and practitioners with an in-depth understanding of reproductive neuroendocrinology.

This is the fifth volume in the Masterclass in Neuroendocrinology Series, a co-publication between Wiley and the INF (International Neuroendocrine Federation) that aims to illustrate highest standards and encourage the use of the latest technologies in basic and clinical research and hopes to provide inspiration for further exploration into the exciting field of neuroendocrinology.
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