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Biological Clocks and Immune Function -- Chapter 12. Influence of the Gut Microbiota on Neuroendocrine-Immune Interactions -- Part IV. Disease -- Chapter 13. Energy Balance and Neuroendocrine-Immune Regulation in Chronic Inflammatory and Neoplastic Diseases: An Evolutionary Perspective -- Chapter 14. Autonomic, Immune, Metabolic and Neuroendocrine Dimensions of Anorexia Nervosa: An Integrative View.

Sommario/riassunto

The concepts of the neuroendocrine system and the immune system emerged more or less simultaneously in the second half of the 20th century. Although these systems have a high degree of autonomy, it has also become clear that they interact in many ways and at different levels. This book focuses on the neuroendocrine and immune interactions that are fundamental to normal development and maintenance of health. The first introductory chapters are devoted to the historical and philosophical concepts within the field, as well as evolutionary considerations, offering critical interdisciplinary perspectives on the development of this field of research. Without attempting an exhaustive overview, the book then introduces some of the regulatory pathways that mediate interactions between the neuroendocrine and immune systems and examines modulating factors such as age and sex. In addition, several chapters address the importance of neuroendocrine-immune interactions in some disease states. Readers can expect to gain a broad perspective of neuroendocrine-immune interactions in development, health, and disease, along with a critical evaluation of current methods used in the field. Given its scope, the book is essential reading for undergraduate and graduate students with an interest in neuroendocrinology, neuroimmunology, and neuroscience, as well as postdoctoral fellows and established researchers seeking a comprehensive overview and historical perspective of the field of neuroendocrine-immune interactions.