1. Record Nr. UNINA9910831059203321

Autore	Soreq H
Titolo	Stress - from molecules to behavior [[electronic resource]] : a comprehensive analysis of the neurobiology of stress responses / / edited by Hermona Soreq, Alon Friedman and Daniela Kaufer
Pubbl/distr/stampa	Weinheim, : Wiley-VCH, c2010
ISBN	1-282-33155-8 9786612331558 3-527-62834-7 3-527-62835-5
Descrizione fisica	1 online resource (398 p.)
Altri autori (Persone)	FriedmanAlon KauferDaniela
Disciplina	571.9
Soggetti	Estrès (Fisiologia) Patologia cel·lular Neurobiologia Stress (Physiology) - Molecular aspects Pathology, Cellular Neurobiology Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Stress - From Molecules to Behavior; Contents; Preface; List of Contributors; Part I: Systems; 1: On the Role of Stress in Evolution; 1.1 Introduction; 1.2 Stress Through the Gene's Eye: the Evolution of Stress-Induced Genetic Mixing; 1.2.1 Stress-Induced Recombination; 1.2.1.1 Classic Models of the Evolution of Recombination; 1.2.1.2 The Evolution of Stress-Induced Recombination; 1.2.1.3 Evidence for Stress-Induced Recombination; 1.2.2 Stress and Sex; 1.2.3 Stress and Outcrossing; 1.2.4 Stress and Dispersal; 1.3 The Effect of Stress-Induced Variation on the Evolvability of Complex Traits 1.4 Stress-Induced Variation and Pathogen Evolution1.5 Stress-Induced Mortality; Summary; References; 2: Catecholamines and Stress; 2.1

Rapid Stress-Triggered Changes in Catecholamines; 2.2 Catecholamines and Stress-Related Disorders; 2.2.1 Cardiovascular Disease; 2.2.2 Post-Traumatic Stress Disorder; 2.2.3 Depression; 2.2.4 Immune Disorders; 2.2.5 Pain; 2.3 Stress-Triggered Regulation of Catecholamine Biosynthetic Enzymes in Different Locations; 2.3.1 Pathway of Catecholamine Biosynthesis; 2.3.2 Adrenomedullary Hormonal System; 2.3.3 Sympathetic Nervous System
2.3.4 Noradrenergic Systems in the BrainSummary; References; 3: Stress and the Cholinergic System; 3.1 Acetylcholine and Stress; 3.1.1 Cholinergic Innervation of the Brain; 3.1.2 Brain Cholinergic Receptors; 3.1.3 AChR Distribution in the CNS; 3.1.4 The Septohippocampal Pathway and Stress; 3.1.5 Stress-Induced Molecular Adaptations in the Cholinergic System; 3.1.5.1 The Nicotinic Cholinergic System and Stress; 3.2 Contribution of Genetically Engineered Mouse Models to the Understanding of the Role of Cholinergic Receptors in Stress; Summary; References; Part II: Cells and Circuits
4: Effects of Stress on the Function of Hippocampal Cells4.1 Introduction; 4.2 Non-Genomic Effects of Corticosterone; 4.3 Genomic Effects of Corticosterone; 4.3.1 Ion Currents; 4.3.2 Amino Acid Responses; 4.3.3 Aminergic Responses; 4.3.4 Implications for Hippocampal Function; Summary; References; 5: Stress and Adult Neurogenesis in the Mammalian Central Nervous System; 5.1 Introduction; 5.2 Adult Neurogenesis: a Brief Primer; 5.3 Measuring Neurogenesis: How to Find New Neurons; 5.3.1 Using DNA Replication to Detect New Cells; 5.3.2 Endogenous Markers of Cell Cycle
5.3.3 Retroviral Labeling of New Cells5.3.4 Determining Cell Fate; 5.4 Stress-Induced Alteration in Cell Proliferation; 5.4.1 Acute Stress; 5.4.2 Chronic Stress; 5.4.3 Cell Cycle Arrest Versus Progenitor Death; 5.5 Stress-Induced Alteration of New Cell Survival; 5.6 Stress-Induced Alteration of Cell Fate Choice; 5.7 Mechanism of Stress-Induced Changes in Adult Neurogenesis; 5.7.1 Direct Effects of Glucocorticoids on Adult Neurogenesis; 5.7.2 Indirect Effects of Glucocorticoids on Adult Neurogenesis; 5.7.2.1 Excitatory Amino Acids; 5.7.2.2 Serotonin; 5.7.2.3 Growth Factors
5.7.3 Intracellular Mechanisms of Glucocorticoids Effects

Sommario/riassunto

This title comprehensively covers the molecular basis of stress responses of the nervous system, providing a unique and fundamental insight into the molecular, physiological and behavioral basis of the stress response of a whole organism. Edited by leading experts in the field and summarizing the latest research advances in this area, this ready reference is an invaluable resource for clinicians dealing with stress-related disorders, biomedical researchers working in the field as well as for pharmacology and biotech companies.