

Behavioral Neurobiology

Circadian Clocks Behavioral Neurobiology of Chronic Pain Neuropsychiatry and Behavioral Neuroscience Behavioral Neurobiology Behavioral Neurobiology Behavioral Neurobiology Behavioral Neuroscience of Attention Deficit Hyperactivity Disorder and Its Treatment Behavioral Neurobiology of Huntington's Disease and Parkinson's Disease Behavioral Neurobiology of Suicide and Self Harm Behavioral Neurobiology of Schizophrenia and Its Treatment Cellular Basis of Behavior Behavioral Neurobiology Aspects of Behavioral Neurobiology Foundations of Behavioral Neuroscience Behavioral Neurobiology of Aging Behavioral Neurobiology of Eating Disorders Encyclopedia of Behavioral Neuroscience Developmental Psychobiology and Behavioral Ecology Behavioral Neurobiology of Bipolar Disorder and its Treatment Handbook of Behavioral Neurobiology Behavioral Neurobiology of the Endocannabinoid System The Neurobiology of Brain and Behavioral Development Handbook of the Behavioral Neurobiology of Serotonin Behavioral Neurobiology of Stress-related Disorders Behavioral Neurobiology of PTSD Behavioral Neurobiology of Psychedelic Drugs Handbook of the Behavioral Neurobiology of Serotonin Handbook of Behavioral Neurobiology Behavioral Neurobiology of Alcohol Addiction Cricket Behavior and Neurobiology Handbook of the Behavioral Neurobiology of Serotonin Behavioral Neuroscience Neurobiology of the Locus Coeruleus Behavioral Neuroscience Behavioral Neurobiology of Depression and Its Treatment Behavioral Neuroscience of Motivation Behavioral Neurobiology of Anxiety and Its Treatment Ethical Issues in Behavioral Neuroscience Behavioral Neurobiology of Birdsong Neurobiology of Social Behavior

Circadian Clocks

Social neuroscience is a rapidly growing, interdisciplinary field which is devoted to understanding how social behavior is regulated by the brain, and how such behaviors in turn influence brain and biology. Existing volumes either fail to take a neurobiological approach or focus on one particular type of behavior, so the field is ripe for a comprehensive reference which draws cross-behavioral conclusions. This authored work will serve as the market's most comprehensive reference on the neurobiology of social behavior. The volume will offer an introduction to neural systems and genetics/epigenetics, followed by detailed study of a wide range of behaviors - aggression, sex and sexual differentiation, mating, parenting, social attachments, monogamy, empathy, cooperation, and altruism. Research findings on the neural basis of social behavior will be integrated across different levels of analysis, from molecular neurobiology to neural systems/behavioral neuroscience to fMRI imaging data on human social behavior. Chapters will cover research on both normal and abnormal behaviors, as well as developmental aspects. 2016 PROSE Category winner - Honorable Mention for Biomedicine and Neuroscience Presents neurobiological analysis of the full spectrum of social behaviors, while other volumes focus on one particular behavior Integrates and discusses research from different levels of analysis, including molecular/genetic, neural circuits and systems, and fMRI imaging research Covers both normal and abnormal behaviors Covers aggression, sex and

sexual differentiation, mating, parenting, social attachments, empathy, cooperation, and altruism

Behavioral Neurobiology of Chronic Pain

The endocannabinoid signaling system is a key modulator of central nervous function. This volume, essential reading for interested neuroscientists, provides in-depth coverage of the roles of the endocannabinoid signaling system in the neurobiology of behavior.

Neuropsychiatry and Behavioral Neuroscience

"Helps apply the research findings of behavioral neuroscience to daily life. " The ninth edition of "Foundations of Behavioral Neuroscience" offers a concise introduction to behavioral neuroscience. The text incorporates the latest studies and research in the rapidly changing fields of neuroscience and physiological psychology. The theme of strategies of learning helps readers apply these research findings to daily life. "Foundations of Behavioral Neuroscience "is an ideal choice for the instructor who wants a concise text with a good balance of human and animal studies. MyPsychLab is an integral part of the Carlson program. Key learning applications include the MyPsychLab Brain. Teaching & Learning Experience "Personalize Learning"" "MyPsychLab is an online homework, tutorial, and assessment program. It helps students prepare for class and instructor gauge individual and class performance."Improve Critical Thinking"" "Each chapter begins with a list of Learning Objectives that also serve as the framework for the Study Guide that accompanies this text. "Engage Students"" "An Interim Summary follows each major section of the book. The summaries provide useful reviews and also break each chapter into manageable chunks. "Explore Theory/Research"" "APS Reader, "Current Directions in Biopsychology" in MyPsychLab "Support Instructors"" " A full set of supplements, including MyPsychLab, provides instructors with all the resources and support they need. 0205962092 / 9780205962099 Foundations of Behavioral Neuroscience Plus NEW MyPsychLab with eText -- Access Card Package Package consists of: 0205206514 / 9780205206513 NEW MyPsychLab with Pearson eText -- Valuepack Access Card 0205940242 / 9780205940240 Foundations of Behavioral Neuroscience

Behavioral Neurobiology

Behavioral Neurobiology

Shaun D. Cain, The Journal of Experimental Biology --Book Jacket.

Behavioral Neurobiology

This volume brings together the latest basic and clinical research examining the effects and underlying mechanisms of psychedelic drugs. Examples of drugs within this group include LSD, psilocybin, and mescaline. Despite their structural differences, these compounds produce remarkably similar experiences in humans and share a common mechanism of action. Commonalities among the substances in this family are addressed both at the clinical and phenomenological level and at the basic neurobiological mechanism level. To the extent possible, contributions relate the clinical and preclinical findings to one another across species. The volume addresses both the risks associated with the use of these drugs and the potential medical benefits that might be associated with these and related compounds.

Behavioral Neuroscience of Attention Deficit Hyperactivity Disorder and Its Treatment

Behavioral Neuroscience: An Introduction provides a basic understanding of what is known about the means by which neurons communicate and about the nervous system which interprets, integrates, and transmits signals into meaningful and appropriate behaviors. The book starts with an overview of the nervous system. The text then describes the general operation and organization of the nervous system; and some of the major types of neurons in the context of their systems. The basic characteristics of neurons and how they communicate; the processes and the basic integrative properties of defined groups of neurons; and complex learning and memory are also considered. The book further tackles the auditory, somesthetic, olfactory, gustatory, visual, and motor systems; the functions of the autonomic nervous system and the neuroendocrine system; and the neural basis of two types of motivated behavior, drinking and feeding. The text also encompasses sleep and activity rhythms; the development of the neural circuitry and its plasticity throughout life; and the development of behavior. Behavioral disorders and the aspects of the human nervous system which make man unique among all living creatures are also looked into. Behavioral psychologists, behavioral neuroscientists, and psychobiologists will find the book invaluable.

Behavioral Neurobiology of Huntington's Disease and Parkinson's Disease

Behavioral Neurobiology of Suicide and Self Harm

This book describes the state-of-the-art of treatment of schizophrenia and reflects its development in 22 chapters written by leading authorities in the field

Behavioral Neurobiology of Schizophrenia and Its Treatment

The book is part of a series on Current Topics in Behavioral Neurosciences, which has as its focus anxiety and its treatment. We have brought together a distinguished cadre of authors with the aim of covering a broad array of topics related to anxiety disorders, ranging from clinical diagnosis, epidemiology, preclinical neuroscience, and animal models to established and innovative therapeutic approaches. The book aims at bridging these disciplines to provide an update of literature relevant to understanding anxiety, its consequences, and its management. Following is a brief overview of the chapters and their content, meant to serve as a guide to navigating the book. The first section covers clinical aspects of anxiety disorders. Joe Bienvenu and colleagues provide an incisive overview of diagnostic considerations in the anxiety disorders in which they emphasize the strengths and shortcomings of our current nosologic systems. This is followed by a review and update of the epidemiology of anxiety disorders by Ron Kessler and colleagues, which provides an authoritative survey of anxiety disorder incidence, prevalence, and risk factors. This is complemented by a comprehensive review of the literature on disorders that co-occur with anxiety disorders by Kathleen Merikangas and Sonja Alsemgeest Swanson. Their review highlights the tremendous comorbidity that occurs not only within the anxiety disorders, but also with other mental and physical health conditions.

Cellular Basis of Behavior

Behavioral Neuroscientists study the behavior of animals and humans and the neurobiological and physiological processes that control it. Behavior is the ultimate function of the nervous system, and the study of it is very multidisciplinary. Disorders of behavior in humans touch millions of people's lives significantly, and it is of paramount importance to understand pathological conditions such as addictions, anxiety, depression, schizophrenia, autism among others, in order to be able to develop new treatment possibilities. Encyclopedia of Behavioral Neuroscience is the first and only multi-volume reference to comprehensively cover the foundation knowledge in the field. This three volume work is edited by world renowned behavioral neuroscientists George F. Koob, The Scripps Research Institute, Michel Le Moal, Université Bordeaux, and Richard F. Thompson, University of Southern California and written by a premier selection of the leading scientists in their respective fields. Each section is edited by a specialist in the relevant area. The important research in all areas of Behavioral Neuroscience is covered in a total of 210 chapters on topics ranging from neuroethology and learning and memory, to behavioral disorders and psychiatric diseases. The only comprehensive Encyclopedia of Behavioral Neuroscience on the market Addresses all recent advances in the field Written and edited by an international group of leading researchers, truly representative of the behavioral neuroscience community Includes many entries on the advances in our knowledge of the neurobiological basis of complex behavioral, psychiatric, and neurological disorders Richly illustrated in full color Extensively cross referenced to serve as the go-to reference for students and researchers alike The

online version features full searching, navigation, and linking functionality An essential resource for libraries serving neuroscientists, psychologists, neuropharmacologists, and psychiatrists

Behavioral Neurobiology

Behavioral Neuroscience: Essentials and Beyond shows students the basics of biological psychology using a modern and research-based perspective. With fresh coverage of applied topics and complex phenomena, including social neuroscience and consciousness, author Stéphane Gaskin delivers the most current research and developments surrounding the brain's functions through student-centered pedagogy. Carefully crafted features introduce students to challenging biological and neuroscience-based concepts through illustrations of real-life application, exploring myths and misconceptions, and addressing students' assumptions head on. **INSTRUCTORS:** Behavioral Neuroscience: Essentials and Beyond is accompanied by a complete teaching and learning package! Contact your rep to request a demo. **SAGE Premium Video Figures Brought to Life** animations in the Interactive eBook boost student comprehension and bolster analysis. Watch a sample video. **Interactive eBook** Your students save when you bundle the print loose-leaf book with the Interactive eBook (Bundle ISBN: 978-1-0718-1347-8), which includes access to SAGE Premium Video and other multimedia tools. Learn more. **SAGE Coursepacks** SAGE Coursepacks makes it easy to import our quality instructor and student resource content into your school's learning management system (LMS). Learn more. **SAGE Edge** This open-access site offers students an impressive array of learning tools and resources. Learn more.

Aspects of Behavioral Neurobiology

This volume focuses on the behavioral neuroscience that supports our understanding of the neurobiology of trauma risk and response. The collection of articles focuses on both preclinical and clinical reviews of (1) state-of-the-art knowledge of mechanisms of posttraumatic stress disorder (PTSD) and co-occurring disorders, (2) the biological and psychological constructs that support risk and resiliency for trauma disorders, and (3), novel treatment strategies and therapeutics on the horizon.

Foundations of Behavioral Neuroscience

Behavioral Neurobiology of Aging

Serotonin (5-hydroxytryptamine, often cited as 5-HT) is one of the major excitatory neurotransmitter, and the serotonergic

system is one of the best studied and understood transmitter systems. It is crucially involved in the organization of virtually all behaviours and in the regulation of emotion and mood. Alterations in the serotonergic system, induced by e.g. learning or pathological processes, underlie behavioural plasticity and changes in mood, which can finally result in abnormal behaviour and psychiatric conditions. Not surprisingly, the serotonergic system and its functional components appear to be targets for a multitude of pharmacological treatments - examples of very successful drugs targeting the serotonergic system include Prozac and Zoloft. The last decades of research have not only fundamentally expanded our view on serotonin but also revealed in much more detail an astonishing complexity of this system, which comprises a multitude of receptors and signalling pathways. A detailed view on its role in basal, but also complex, behaviours emerged, and, was presented in a number of single review articles. Although much is known now, the serotonergic system is still a fast growing field of research contributing to our present understanding of the brain's function during normal and disturbed behaviour. This handbook aims towards a detailed and comprehensive overview over the many facets of behavioural serotonin research. As such, it will provide the most up to date and thorough reading concerning the serotonergic system's control of behaviour and mood in animals and humans. The goal is to create a systematic overview and first hand reference that can be used by students and scholars alike in the fields of genetics, anatomy, pharmacology, physiology, behavioural neuroscience, pathology, and psychiatry. The chapters in this book will be written by leading scientists in this field. Most of them have already written excellent reviews in their field of expertise. The book is divided in 4 sections. After an historical introduction, illustrating the growth of ideas about serotonin function in behaviour of the last forty years, section A will focus on the functional anatomy of the serotonergic system. Section B provides a review of the neurophysiology of the serotonergic system and its single components. In section C the involvement of serotonin in behavioural organization will be discussed in great detail, while section D deals with the role of serotonin in behavioural pathologies and psychiatric disorders. The first handbook broadly discussing the behavioral neurobiology of the serotonergic transmitter system Co-edited by one of the pioneers and opinion leaders of the past decades, Barry Jacobs (Princeton), with an international list (10 countries) of highly regarded contributors providing over 50 chapters, and including the leaders in the field in number of articles and citations: K. P. Lesch, T. Sharp, A. Caspi, P. Blier, G.K. Aghajanian, E. C. Azmitia, and others The only integrated and complete resource on the market containing the best information integrating international research, providing a global perspective to an international community Of great value not only for researchers and experts, but also for students and clinicians as a background reference

Behavioral Neurobiology of Eating Disorders

In this volume there is a strong emphasis on translational science, with preclinical approaches suggesting new directions for development of new treatments. Individual chapters describe how neuroimaging, neuroendocrine, genetic and behavioral studies use powerful research tools that are offering a completely new understanding of the factors that increase

vulnerability to ADHD. The clinical impact of co-morbid problems, especially obesity and substance misuse, are highlighted and explain what such problems can tell us about the etiology of ADHD, more generally. Reviews of the pharmacology of established drug treatments for ADHD justify an exciting novel theory for their therapeutic actions and address questions about the effects of their long-term use.

Encyclopedia of Behavioral Neuroscience

An overview of findings in the bird song system that have had a major impact on neuroscience research, and have fundamentally altered our concepts of brain function. The 32 papers constitute the proceedings of a conference on The Behavioural Neurobiology of Bird Song, held in New York in 2002.

Developmental Psychobiology and Behavioral Ecology

Animals often exhibit intriguing and captivating patterns of behavior, from migration and homing, to communication. But how is this behavior controlled? This new textbook introduces undergraduate students and other readers to the fascinating field of neuroethology--the study of the neurobiological processes underlying animal behavior. Written in a lively, easy to read style, and assuming no background knowledge of animal behavior or neurobiology, this book introduces the key concepts and ideas which underpin the subject, and describes many of the key findings that have helped us to understand this intricate and elegant subject. Beginning with a look at the history of the study of behavior, from Aristotle to recent breakthroughs and predictions for the future, the book then reviews the ethological and neurobiological concepts that constitute the essential tools of behavioral neurobiology, before moving on to the field of neuroethology itself. In each chapter, the text not only describes the major findings in each area, but also describes the approaches used to obtain these results. Many chapters contain a detailed case study describing the research performed. A key feature of the text is the number of excellent learning aids included. Each chapter ends with a summary of key points, exercises and suggestions for further reading. Boxes are used both to provide relevant physical and chemical background information and to add additional historical interest by describing the life and work of eminent neuroethologists.

Behavioral Neurobiology of Bipolar Disorder and its Treatment

Serotonin (5-hydroxytryptamine, often cited as 5-HT) is one of the major excitatory neurotransmitter, and the serotonergic system is one of the best studied and understood transmitter systems. It is crucially involved in the organization of virtually all behaviours and in the regulation of emotion and mood. Alterations in the serotonergic system, induced by e.g. learning or pathological processes, underlie behavioural plasticity and changes in mood, which can finally results in abnormal

behaviour and psychiatric conditions. Not surprisingly, the serotonergic system and its functional components appear to be targets for a multitude of pharmacological treatments - examples of very successful drugs targeting the serotonergic system include Prozac and Zoloft. The last decades of research have not only fundamentally expanded our view on serotonin but also revealed in much more detail an astonishing complexity of this system, which comprises a multitude of receptors and signalling pathways. A detailed view on its role in basal, but also complex, behaviours emerged, and, was presented in a number of single review articles. Although much is known now, the serotonergic system is still a fast growing field of research contributing to our present understanding of the brains function during normal and disturbed behaviour. This handbook aims towards a detailed and comprehensive overview over the many facets of behavioural serotonin research. As such, it will provide the most up to date and thorough reading concerning the serotonergic systems control of behaviour and mood in animals and humans. The goal is to create a systematic overview and first hand reference that can be used by students and scholars alike in the fields of genetics, anatomy, pharmacology, physiology, behavioural neuroscience, pathology, and psychiatry. The chapters in this book will be written by leading scientists in this field. Most of them have already written excellent reviews in their field of expertise. The book is divided in 4 sections. After an historical introduction, illustrating the growth of ideas about serotonin function in behaviour of the last forty years, section A will focus on the functional anatomy of the serotonergic system. Section B provides a review of the neurophysiology of the serotonergic system and its single components. In section C the involvement of serotonin in behavioural organization will be discussed in great detail, while section D deals with the role of serotonin in behavioural pathologies and psychiatric disorders. The first handbook broadly discussing the behavioral neurobiology of the serotonergic transmitter system Co-edited by one of the pioneers and opinion leaders of the past decades, Barry Jacobs (Princeton), with an international list (10 countries) of highly regarded contributors providing over 50 chapters, and including the leaders in the field in number of articles and citations: K. P. Lesch, T. Sharp, A. Caspi, P. Blier, G.K. Aghajanian, E. C. Azmitia, and others The only integrated and complete resource on the market containing the best information integrating international research, providing a global perspective to an international community Of great value not only for researchers and experts, but also for students and clinicians as a background reference

Handbook of Behavioral Neurobiology

The previous volume in this series (Blass, 1986) focused on the interface between developmental psychobiology and developmental neurobiology. The volume emphasized that an understanding of central nervous system development and function can be obtained only with reference to the behaviors that it manages, and it emphasized how those behaviors, in tum, shape central development. The present volume explores another natural interface of developmental psy chobiology; behavioral ecology. It documents the progress made by developmental psychobiologists since the mid-1970s in identifying capacities of learning and con ditioning in birds and mammals during the very moments following birth-indeed, during the

antenatal period. These breakthroughs in a field that had previously lain dormant reflect the need to "meet the infant where it is" in order for behavior to emerge. Accordingly, studies have been conducted at nest temperature; infants have been rewarded by opportunities to huddle, suckle, or obtain milk, behaviors that are normally engaged in the nest. In addition, there was rejection of the excessive deprivation, extreme handling, and traumatic manipulation studies of the 1950s and 1960s that yielded information on how animals could respond to trauma but did not reveal mechanisms of normal development. In their place has arisen a series of analyses of how naturally occurring stimuli and situations gain control over behavior and how specifiable experiences impose limitations on subsequent development. Constraints were identified on the range of interactions that remained available to developing animals as a result of particular events.

Behavioral Neurobiology of the Endocannabinoid System

Neurobiology of the Locus Coeruleus

The Neurobiology of Brain and Behavioral Development

The Neurobiology of Brain and Behavioral Development provides an overview of the process of brain development, including recent discoveries on how the brain develops. This book collates and integrates these findings, weaving the latest information with core information on the neurobiology of brain development. It focuses on cortical development, but also features discussions on how the other parts of the brain wire into the developing cerebral cortex. A systems approach is used to describe the anatomical underpinnings of behavioral development, connecting anatomical and molecular features of brain development with behavioral development. The disruptors of typical brain development are discussed in appropriate sections, as is the science of epigenetics that presents a novel and instructive approach on how experiences, both individual and intergenerational, can alter features of brain development. What distinguishes this book from others in the field is its focus on both molecular mechanisms and behavioral outcomes. This body of knowledge contributes to our understanding of the fundamentals of brain plasticity and metaplasticity, both of which are also showcased in this book. Provides an up-to-date overview of the process of brain development that is suitable for use as a university textbook at an early graduate or senior undergraduate level Breadth from molecular level (Chapters 5-7) to the behavioral/cognitive level (Chapters 8-12), beginning with Chapters 1-4 providing a historical context of the ideas Integrates the neurobiology of brain development and behavior, promoting the idea that animal models inform human development Presents an emphasis on the role of epigenetics and brain plasticity in brain development and behavior

Handbook of the Behavioral Neurobiology of Serotonin

The intention of this book was to have investigators describe an expert opinion on their field of research and cutting-edge work in their laboratory on the neurobiology and treatment of eating disorders.

Behavioral Neurobiology of Stress-related Disorders

The question how alcohol alters mood states and why this may end up becoming an addiction is puzzling alcohol researchers since decades. In this volume, an assembly of highly distinguished experts and leaders in alcohol addiction research provides lucid presentations of the current knowledge and research challenges as well as interesting viewpoints on future research directions aimed to stimulate communication and convergence between clinical and preclinical researchers, and to renew interest in the vibrant field of alcohol addiction research among a wide scientifically minded audience. Five Current Topics are discussed in this volume: Neurobiological mechanisms of alcoholism, Genetics, Clinical phenotypes and their preclinical models, Brain imaging, and Translational approaches for treatment development, both pharmacological and non-pharmacological. These areas have in our opinion brought alcohol research substantially forward and influenced our thinking about how to reach our common paramount goal, namely to offer effective treatment solutions for an extensive group of patients with largely unmet medical needs.

Behavioral Neurobiology of PTSD

Handbook of the Behavioral Neurobiology of Serotonin, Second Edition, builds on the success of the first edition by continuing to provide a detailed and comprehensive overview of the many facets of behavioral serotonin research. The text expands on the two key topics, behavioral control (sensory processing, ultrasonic vocalization, and melatonin and sleep control) and psychiatric disorders, including its role on psychostimulant abuse and addiction. The new edition includes two new sections on the serotonin systems interactions and the involvement of serotonin in neurological disorders and associated treatment. Serotonin is a major neurotransmitters in the serotonergic system which one of the best studied and understood transmitter systems. Both are critically involved in the organization of all behaviors and in the regulation of emotion and mood. Features two new sections on serotonin systems interactions and serotonin in neurological disorders Focuses on ionotropic and metabotropic 5-HT receptor involvement in behavior Maps receptors and receptor signaling pathways to neurochemical and behavioral outcomes Covers the interactions between serotonin, melatonin and kynurenine pathways

Behavioral Neurobiology of Psychedelic Drugs

This is the long-awaited successor to Jeffrey Cummings' classic work, Clinical Neuropsychiatry, published in 1985. That book

represented an integration of behavioral neurology and biological psychiatry into a single volume devoted to explicating brain-behavior relationships. It was clinically oriented and intended for practitioners caring for patients with neuropsychiatric disorders. The new title reflects the authors' effort to link the recent explosion of new information from neurochemistry, neuroanatomy, genetics, neuropharmacology, neuropathology, and neuroimaging to the clinical descriptions. Yet the clinical emphasis of its predecessor has been maintained. Each chapter has a consistent approach and the book as whole provides a practical, easy-to-use synthesis of clinical advice and basic science. The volume is enhanced by 4-color images throughout. It is intended for students, residents, fellows, and practitioners of neurology, psychiatry, neuropsychology, and cognitive neuroscience. It will also be of interest to individuals in neuroimaging.

Handbook of the Behavioral Neurobiology of Serotonin

Pain is the most common reason people seek medical help. The treatment of chronic pain is a major unmet clinical need and its impact on health, well-being, society and the economy is immense. Pain is an integrative, whole-systems (patho)physiological phenomenon and behavioural neuroscience plays a key role in advancing our understanding of pain. This volume brings together a series of authoritative chapters written by leading experts in preclinical and clinical aspects of pain neurobiology. Behavioural approaches to the study of persistent or chronic pain in animal models or humans are at the core of the volume, but the anatomical, physiological, neurochemical and molecular mechanisms that underpin behavioural alterations are also emphasized.

Handbook of Behavioral Neurobiology

This book offers the most up-to-date information about research surrounding the neurobiology of bipolar disorder as well as currently available and novel therapeutic options. The volume has assembled a widely respected group of preclinical and clinical researchers who bring their expertise to bear upon this illness by reviewing cutting-edge research and clinical evidence regarding the pathophysiology and treatment of bipolar disorder. Early chapters review the course and outcome and genetics of this highly heritable condition, including chapters on epigenetics and clinical endophenotypes. Several chapters offer a remarkably thorough and unique overview of the neurobiology of the disorder, including what is known from neuroimaging work and the development of animal models. Finally, the book covers treatment strategies for bipolar disorder, including both traditional and novel therapeutics, as well as non-pharmacological treatments. It offers both researchers and clinicians key insights into this devastating disorder.

Behavioral Neurobiology of Alcohol Addiction

This volume discusses the current state of research findings related to healthy brain aging by integrating human clinical studies and translational research in animal models. Several chapters offer a unique overview of successful aging, age-related cognitive decline and its associated structural and functional brain changes, as well as how these changes are influenced by reproductive aging. Insights provided by preclinical studies in mouse models and advanced neuroimaging techniques in humans are also presented.

Cricket Behavior and Neurobiology

The world of crickets has long been a world of scientific adventure and human fascination. Because of their remarkable ways of communicating and because their nervous and endocrine systems are easily accessible to researchers, crickets can be studied and analyzed with great effectiveness. Starting in the 1960s, vastly improved behavioral and neurobiological techniques have brought them to the frontier of the new field of neuroethology. Here, in the most comprehensive book on crickets ever compiled, twenty-five leading scientists detail the present state of cricket research both at conceptual and at experimental levels. They tell about the manifold strategies crickets use in matching development with seasons and habitats, finding mates, and avoiding parasites and predators, and they describe the physiological mechanisms, especially the neuronal mechanisms, underlying cricket behavior. Their book is at once about communication, comparative physiology and anatomy, and environmental interaction. More than half of *Cricket Behavior and Neurobiology* is devoted to acoustic behavior and bioacoustics. It is intended for those interested in entomology, general and comparative physiology, biophysics, endocrinology, and chronobiology. It offers new information for behavioral physiologists and ecologists, bioacousticians, and especially neurobiologists concerned with behavior.

Handbook of the Behavioral Neurobiology of Serotonin

Animals often exhibit intriguing and captivating patterns of behaviour, from migration and homing, to communication. But how is this behaviour controlled? *Behavioral Neurobiology* introduces undergraduate students and other readers to the fascinating field of neuroethology - the study of the neurobiological processes underlying animal behaviour. Written in a lively, easy to read style, it examines the key concepts and ideas which underpin this intricate and elegant subject, and describes many of the ground-breaking discoveries that have helped us to unravel the mechanisms behind the behaviours we can observe. Beginning with a look at the history of the study of behaviour, from Aristotle to recent breakthroughs and predictions for the future, the book then reviews the ethological and neurobiological concepts that constitute the essential tools of behavioural neurobiology, before moving on to the field of neuroethology itself. In each chapter, the text not only describes the major findings in each area, but also the methods used to obtain these results. This title is available as an eBook. Please contact your Sales and Learning Resource Consultant for more information. New to This Edition: A new chapter

on Active Orientation and LocalizationThe chapter on Communication has been significantly expanded by covering recent research in the neurobiology of cricket phonotaxis.The chapter on Cellular Mechanisms of Learning and Memory has been significantly expanded by adding information particularly on place cells and the role of adult neurogenesis in learning and memory formation.New learning features have been added: a 'Key Concepts' list at the start of each chapter, 'The Bigger Picture' section at the end of each chapter linking the chapter's content to the wider field of research and application, and new short-answer questions at the end of each chapter.Additional online resources: multiple choice questions and Journal Club material are now available for each chapter.

Behavioral Neuroscience

Motor dysfunction and cognitive impairment are major symptoms in both Huntington's Disease (HD) and Parkinson's Disease (PD). A breakthrough in HD research occurred in 1993, with the identification of the gene causing this devastating monogenetic illness. Since 1996, several genes were reported to cause familial forms of PD. Following these genetic discoveries, a variety of genetic disease models were generated, providing completely novel opportunities to explore the neurobiological basis of HD and PD. Genetic models allow us to study the earliest manifestations of the diseases both behaviorally and neuropathologically, and provide tools to probe molecular pathways of neurodegeneration. Additionally, neurotoxic animal models allow us to reproduce neurochemical and cellular events of great pathophysiological importance. In the PD field, neurotoxic animal models remain the preferred option to reproduce symptomatic features of the human disease that are responsive to dopaminergic pharmacotherapies. In addition, neurotoxic PD models are often used to investigate pathways of mitochondrial dysfunction, oxidative stress, and neuroinflammation. This book provides up-to-date reviews on current animal models of both HD and PD. These animal models are essential to investigate links between the pathobiology and the behavioral abnormalities associated with these disorders.

Neurobiology of the Locus Coeruleus

The nature of the circadian clocks is described at the molecular, cellular, tissue, and system levels of organization in diverse organisms. The central role of the circadian clock in the regulation of the sleep-wake cycle as well as seasonal rhythms and other cyclical processes is also discussed. The importance of the circadian clock system for human health, safety, performance, and productivity is also reviewed in this volume."--BOOK JACKET.

Behavioral Neuroscience

This volume covers the current status of research in the neurobiology of motivated behaviors in humans and other animals

in healthy condition. This includes consideration of the psychological processes that drive motivated behavior and the anatomical, electrophysiological and neurochemical mechanisms which drive these processes and regulate behavioural output. The volume also includes chapters on pathological disturbances in motivation including apathy, or motivational deficit as well as addictions, the pathological misdirection of motivated behavior. As with the chapters on healthy motivational processes, the chapters on disease provide a comprehensive up to date review of the neurobiological abnormalities that underlie motivation, as determined by studies of patient populations as well as animal models of disease. The book closes with a section on recent developments in treatments for motivational disorders.

Behavioral Neurobiology of Depression and Its Treatment

Behavioral Neuroscience of Motivation

Stress is such an over-used word that it is at time difficult to define its core features. When is an environment stressful? What does a stressful environment do to the brain and to the body? What are the biological mechanisms by which a stressor affects us? How does stress contributes to the onset and the progression of mental disorders? How do the effects of stress change over the life-time of an individual? These are just some of the overarching questions addressed by this book, thanks to the contribution of some of the world leading experts on the neurobiology of stress at the pre-clinical and clinical levels. Topics include current advances on the neurobiology of stress on various neurobiological systems such as immune, hypothalamic-pituitary-adrenal (HPA) axis, neurogenesis and neuroplasticity, neurotransmitter (glutamate, noradrenaline, dopamine, serotonin and endocannabinoid), neuropeptides, cognition and emotional processing as well as in utero and early postnatal effects. The clinical chapters deal with the relationship of stress and mental disorders such as depression, posttraumatic stress disorder (PTSD), anxiety disorders, schizophrenia, bipolar disorder, substance abuse and addiction, dementia and age-related cognitive decline as well as resilience to stress. Thus, this book brings together some of the most updated and authoritative views on the effects of stress of brain and behavior.

Behavioral Neurobiology of Anxiety and Its Treatment

The book highlights important new research using current state-of-the-art approaches by prominent researchers in the field of depression. A broad range of topics is covered, beginning with a description of the phenotypic features of clinical depression, followed by chapters on the cellular and molecular basis, functional neuroimaging correlates and information-processing accounts. Finally, existing and novel treatment approaches are covered. In this way the volume brings together the key disciplines involved in the neurobiological understanding of depression to provide an update of the field and outlook

to the future. Together, the volume chapters provide focused and critical reviews that span a broad range of topics suitable for both students and established investigators interested in the present state of depression research.

Ethical Issues in Behavioral Neuroscience

Behavioral neuroscience encompasses the disciplines of neurobiology and psychology to study mechanisms of behavior. This volume provides a contemporary overview of the current state of how ethics informs behavioral neuroscience research. There is dual emphasis on ethical challenges in experimental animal approaches and in clinical and nonclinical research involving human participants.

Behavioral Neurobiology of Birdsong

Behavioral Neurobiology provides a novel treatment of the neural basis of behavior. The pedagogical premise of the book is that general insights into the neuronal organization of behavior can be gained by examining neural solutions that have evolved in animals to solve problems encountered in their particular environmental niches. The author presents in-depth case studies of individual animals from which themes clearly emerge, taking on additional meaning by being considered in a real-world behavioral context.

Neurobiology of Social Behavior

This book reviews the recent research into biological aspects of suicide behavior and outlines each of the varied, recent approaches to prevent suicide. Suicidal behavior, perhaps, is the most complex behavior that combines biological, social, and psychological factors. A new frontier and new opportunities are opening with the technologies of data acquisition and data analysis. Personalized models based on digital phenotype could provide promising strategies for preventing suicide.

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