1. Record Nr. UNINA9910253890703321

Titolo	Neuroscience in the 21st Century : From Basic to Clinical / / edited by Donald W. Pfaff, Nora D. Volkow
Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 2016
ISBN	1-4939-3474-0
Edizione	[2nd ed. 2016.]
Descrizione fisica	1 online resource (1294 illus., 1013 illus. in color. eReference.)
Disciplina	612.8
Soggetti	Neurosciences Neurobiology Neurology Neurology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Alzheimer's Disease -- Anxiety Disorders -- Application of Genetic Techniques in Neural Tissue: Discovery -- Application of genetic techniques: Techniques for Manipulating Gene Expression -- Attention Deficit Hyperactivity Disorder -- Attention Networks -- Axonal Guidance: Making Connections -- Axonal Transport -- Blood Brain Barrier -- Cable Modeling of Neurons and Modeling of Dendrites -- Cannabinoids Pharmacology, Abuse and Addiction -- Cell Types within CNS: Patterning -- Cerebellum -- Cerebral Microvessels -- Chemogenetics (DREADDs) -- Cognitive Neuroscience: Hippocampus -- Cortical Processing of Visual Signals -- Declarative Associative Memory -- Default mode networks -- Diffuse Signaling (NO, CO Gases) in the CNS.
Sommario/riassunto	Edited and authored by a wealth of international experts in neuroscience and related disciplines, this key new resource aims to offer medical students and graduate researchers around the world a comprehensive introduction and overview of modern neuroscience. Neuroscience research is certain to prove a vital element in combating mental illness in its various incarnations, a strategic battleground in the future of medicine, as the prevalence of mental disorders is becoming better understood each year. Hundreds of millions of people worldwide

are affected by mental, behavioral, neurological and substance use disorders. The World Health Organization estimated in 2002 that 154 million people globally suffer from depression and 25 million people from schizophrenia; 91 million people are affected by alcohol use disorders and 15 million by drug use disorders. A more recent WHO report shows that 50 million people suffer from epilepsy and 24 million from Alzheimer's and other dementias. Because neuroscience takes the etiology of disease—the complex interplay between biological, psychological, and sociocultural factors—as its object of inquiry, it is increasingly valuable in understanding an array of medical conditions. A recent report by the United States' Surgeon General cites several such diseases: schizophrenia, bipolar disorder, early-onset depression, autism, attention deficit/ hyperactivity disorder, anorexia nervosa, and panic disorder, among many others. Not only is this volume a boon to those wishing to understand the future of neuroscience, it also aims to encourage the initiation of neuroscience programs in developing countries, featuring as it does an appendix full of advice on how to develop such programs. With broad coverage of both basic science and clinical issues, comprising around 150 chapters from a diversity of international authors and including complementary video components, Neuroscience in the 21st Century in its second edition serves as a comprehensive resource to students and researchers alike.