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Nota di contenuto	Cover; Title; Copyright; Dedication; Contents; Preface; Acknowledgments; Section I: Foundations of Neurobiology; 1. History of Neurobiology; Clinical Case Reports; The Case of Phineas Gage; The Case of Mr. Tan; The Case of H.M.; Special Topics: Decision-Making Capacity; Current Case Examinations; Important Methodological Advancements; Development of Neuropsychology Testing; Creation of Computed Tomography; Creation of MRI and Beyond; The History of Treatment Technique; Lobotomy and Shock Treatment; Ethics: Safety of Patients; Medication; Psychotherapy; Cognitive Behavioral Therapy NeuroscientistsConclusions; Summary Points; 2. Research and Clinical Methods; Microscopic Evaluations; Ablation; Ethics: Animal Research-Necessity in Neuroscience?; Electrophysiology Recordings; Single-Cell Technique; Electroencephalogram; Event-Related Potentials; Neuroimaging Techniques; Structural Neuroimaging; Special Topics: Safety and the MRI Scanner; Functional Neuroimaging; Neuropsychological Evaluations; Behavior Genetic Testing; Conclusions; Summary Points; 3. Nervous System and Brain Structure; Ethics: Competency and Neurobiology; Overview of the Nervous System Peripheral and Central Nervous SystemsNeurotransmitters and Psychiatry; Acetylcholine; Serotonin; Catecholamines; Central Nervous System Development; Brain Division; Gray Versus White Matter; Left and

Right Hemispheres; Cerebellum; Corpus Callosum; Glial Cells; Meninges and Cerebral Spinal Fluid; The Lobes of the Brain; The Occipital Lobe; The Parietal Lobe; The Temporal Lobe; The Frontal Lobe; Special Topics: Errors in Analyzing MRI for Understanding the Brain; Conclusions; Summary Points; 4. Major Neurobiological Brain Systems; Ethics: Collaboration and Cooperation
Primary Neurobiological Systems in Psychiatric DisordersThe Limbic System; The Basal Ganglia; The Prefrontal System; The Cingulate System; The Fusiform Gyrus; Secondary Neurobiological Systems in Psychiatric Disorders; Cranial Nerves; Mirror System; Circle of Willis; Application of the Neural Systems; Conclusions; Special Topics: The Application of the Concept of Neuroplasticity; Summary Points; Section II: Application of Neurobiology in Psychology; 5. Childhood Disorders; Special Topics: Psychotropic Medication in Children; Neurodevelopment Overview; ADHD; Genetics and ADHD
Neurotransmitters and ADHDNeuroimaging and ADHD; Cognition and ADHD; Treatment for ADHD; Autism Spectrum Disorders; Ethics: The Harmful, Long-Lasting Effects of Falsifying Neurobiological Data; Genetics and ASD; Neurotransmitters and ASD; Neuroimaging and ASD; Cognition and ASD; Treatment for ASD; Intellectual Disability; Learning Disorders; Childhood Trauma; Childhood Maltreatment; Genetics and Childhood Maltreatment; Neurotransmitters and Childhood Maltreatment; Neuroimaging and Childhood Maltreatment; Cognition and Childhood Maltreatment; Therapy for Childhood Maltreatment; Conclusions
Summary Points

Sommario/riassunto

Written for graduate students and trainees in mental health, this is the only text to present neurobiology in the context of clinical issues rather than merely focusing on experimental approaches to biological psychology or structuring it along neurological systems. In clear, easily accessible language the text explains how the brain and nervous system are linked to mental disorders. It integrates information from many aspects of neurobiological research, including imaging, neuropsychology, and genetics in order to foster an in-depth understanding of the psychiatric presentation of disorders t
