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Nota di contenuto	Introduction to volume: Biomarkers in Psychiatry -- Part I: Government and Pharma perspectives on biomarker development -- Biomarker Methodologies: a NIMH Perspective -- Neural Circuitry-related biomarkers for drug development in psychiatry -- An industry perspective -- Public Private Partnerships for Neuropsychiatric Drug Development: A Perspective -- Part II: Biomarker methodologies and Translational Approaches -- Methods for and use of functional magnetic resonance imaging in psychiatry -- Advanced methodology for neurophysiological analysis and biomarker development: time-frequency and source-localization approaches -- Magnetoencephalography in Psychiatry: A Perspective on Translational Research and Applications -- Modern methods for unraveling cell- and circuit-level mechanisms of neurophysiological biomarkers in psychiatry -- Rodent models for ASD biomarker development -- Auditory biomarkers of neuropsychiatric disorders in nonhuman primates -- Part III: Biomarkers in schizophrenia and clinical high risk -- Functional Connectivity Biomarkers in Schizophrenia -- The use of event-related potentials in the study of schizophrenia: An overview --

Gamma Oscillations as a Biomarker of Neural Circuit Function in Psychosis: Where Are We, and Where Do We Go from Here? -- Altered sleep oscillations as neurophysiological biomarkers of schizophrenia -- Neurophysiological models in individuals at clinical high risk for psychosis: Using translational EEG paradigms to forecast psychosis risk and resilience -- Mismatch negativity (MMN) as a pharmacodynamic/response biomarker for NMDA receptor- and excitatory/inhibitory imbalance-targeted treatments in schizophrenia -- Part IV: Biomarkers in ASD -- Towards Biomarkers for Autism Spectrum Disorder: Contributions of Magnetoencephalography (MEG) -- Structural Brain Imaging Biomarkers of Autism Spectrum Disorder -- Delineating a pathway for the discovery of functional connectome biomarkers of autism -- EEG Biomarkers for Autism : Rational, Support, and the Qualification Process -- Part V: Other disorders -- Translating decades of neuroscience research into diagnostic and treatment biomarkers for ADHD -- Neuroimaging Biomarkers in Parkinson's Disease -- Biomarkers of Auditory-Verbal Hallucinations -- Part VI: Cross-diagnostic methodologies -- Categorical and Dimensional Approaches for Psychiatric Classification and Treatment Targeting: Considerations from Psychosis Biotypes -- Biomarkers for cognitive control, response inhibition, aggressivity, impulsivity and violence -- Visual neurophysiological biomarkers for patient stratification and treatment development across neuropsychiatric disorders -- The less things change, the more they remain the same: Impaired neural plasticity as a critical target for drug development in neuropsychiatry.

Sommario/riassunto

This book reviews neurophysiological biomarkers in neuropsychiatric disorders from the viewpoint of the 21st Century Cures Act, which encourages the use of biomarkers for a variety of purposes during drug development. It covers both traditional etiologic uses of biomarkers and the more recent Biomarkers, Endpoints, and other Tools (BEST) classification scheme used by the FDA, which permits biomarkers for purposes of susceptibility, diagnosis, monitoring, prognosis, pharmacodynamics/response, and safety. The first section of the book describes potential uses of neurophysiologic biomarkers. Subsequent sections focus on a wide range of conditions, including schizophrenia, autism spectrum disorder, Parkinson's disease, and depression, as well as cross-diagnostic and translational uses, including monkey and rodent analogs. The purpose of the book is to help clinicians understand how neurophysiological biomarkers may be used to understand and manage clinical conditions; to help researchers to understand how biomarkers may be used translationally to test specific theories; and to help pharma investigators to understand how biomarkers can be used to accelerate treatment development.
