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Nota di contenuto	Part 1 Conceptualizing and modeling alcohol addiction -- Behavioral Neurobiology of Alcohol Addiction a Decade of great Challenges, new Hypes and Hopes -- Theoretical frameworks and mechanistic aspects of alcohol addiction Alcohol addiction as a reward deficit stress surfeit disorder -- Animal Models of Excessive Alcohol Consumption -- Modeling Brain Gene Expression in Alcohol Use Disorder with Genetic Animal Models -- From Natural Behavior to Drug Screening Invertebrates as Models to Study Mechanisms Associated with Alcohol Use Disorders -- Good Preclinical Practice Guidelines for the Development of Novel Pharmacological Targets for Relapse Prevention -- Part 2 Specific mechanisms of alcohol use and addiction -- Role of Metabolism on Alcohol Preference, Addiction, and Treatment -- Synaptic Effects Induced by Alcohol -- Epigenetic Dysregulation in Alcohol Associated Behaviors Preclinical and Clinical Evidence -- The Relationship Between Oxytocin and Alcohol Dependence -- Neural Circuitries and Alcohol Use Disorder Cutting Corners in the Cycle -- Encoding of alcohol related behaviors in the rodent brain.

Sommario/riassunto

Behavioral Neurobiology of Alcohol Addiction explores the forefront of addiction research, integrating fundamental neurobiological mechanisms with translational insights into human phenotypes. Alcohol addiction remains a major public health concern with extensive medical and societal implications. Understanding its intricate interplay between neurobiology, behavior, and treatment is essential for developing effective interventions. This edition is structured into two volumes: Basic Mechanisms and Animal Studies and Translational Studies and Human Phenotypes. The first volume examines addiction conceptualization, stress and reward systems, and chronic pain. It further explores the cellular, synaptic, and circuit-level consequences of alcohol, incorporating computational and neuroimaging approaches. It also addresses the replication crisis in preclinical research and proposes guidelines to mitigate its impact. The second volume shifts the focus to human studies, covering human laboratory approaches, ecological momentary assessment, molecular imaging, and the challenges of bridging preclinical and clinical research. The book also highlights emerging treatments, including psychological interventions, neuromodulation techniques, and the role of the gut-brain axis. Alcohol use fundamentally alters mood states via brain mechanisms—an insight widely acknowledged by experts and laypeople alike. However, debates surrounding the brain disease model of addiction have intensified in recent years. This collection of articles contributes to this ongoing discussion by reinforcing the importance of a neurobiological perspective in addiction science and demonstrating how advances in neuroscience translate into more effective therapeutic approaches. Written by leading experts in the field, both volumes provide a comprehensive yet accessible resource for addiction researchers, neuroscientists, clinicians, and students. The book aims to deepen the understanding of alcohol addiction and inspire new directions in research and treatment.