Special Issue

Biochemical and Molecular Changes in the Brain Caused by Drug Abuse: Implications for Therapeutic Intervention

Message from the Guest Editor

Substance use disorder is a serious neuropsychiatric condition. However, there exists only a few pharmacotherapies for treating certain substance use disorders and the available cognitive/behavioral therapies have proven relatively ineffective at reducing drug use and preventing relapse to the addicted state. Biomedical theories of substance use disorders posit that substance use disorder is a disease of the brain, stemming from a complex interaction between genetic and environmental factors to which drug experience is key. Understanding the molecular mechanism(s) through which repeated exposure to drugs of abuse results in the constellation of symptoms that characterize a substance use disorder is critical for the design of effective treatments, disease mitigation or even prevention. This Special Issue will examine the current state of our knowledge regarding the molecular bases of substance use disorders as they relate to the discovery of a broad range of druggable targets to inform biomedical strategies for predicting disease susceptibility, carrying out early and late intervention in the disease process, and promoting recovery.

Guest Editor

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Message from the Editor-in-Chief

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