



Book Review

The Addicted Brain: Why we Abuse Drugs, Alcohol and Nicotine by Michael Kuhar

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The book describes how the brain is involved in the progression of the disease of addiction¹. It is composed of 14 chapters covering the whole journey of addiction from the first exposure to the full blown picture of the disease. It covers the animal models to explain how the brain gets involved. It is very interesting to learn that the animal model for addiction was discovered accidentally where scientists was working on a different experiment. The book describes in details the brain reward system including how various neurotransmitters activate the target brain regions like the corticomesolimbic circuit. The corticomesolimbic circuit is involved in the brain reward system. The book describes how illicit drugs disrupt the natural reward system which was created to preserve the survival of human race. For example, food and sex are important incentives for preservation of the human race. Food and sex can activate the brain reward system to reinforce the repetition of these important functions. Illicit

drugs can activate the same reward system leading to drug seeking behavior and loss of control over illicit drug use. This is the key element for the progression of the disease of addiction. The book also explains how long term illicit drug use can lead to structural and functional changes in the brain. It discusses the effect of genetics and environmental factors in the development and progression of drug addiction. The book moves explaining how to diagnose the disease and set up initial treatment plans. It describes different modalities of treatment including various types of psychotherapeutic interventions and medications currently available for treatment of nicotine, alcohol and opioid addictions. It describes the first phases of treatment including the need for detoxification for some drugs and alcohol, and psychosocial rehabilitation following detoxification. It discusses the adverse medical, psychiatric and legal consequences for illicit drug use. It also covers the current limitation of the available treatments particularly the medications for treatment of stimulants and cocaine addiction. The author mentioned the need to individualize treatment planning especially for frequent relapses. The book also discusses the disease of addiction in special populations like adolescents, women and geriatrics. It gives the reader an overview to the future treatment that is currently under investigations. The author describes the current research which is being done by Dr. Thomas Kosten and his colleagues to explore creating a new vaccine for treatment of stimulants addiction. The author wrote the book for patients, families, physicians and addiction counselors. Despite the rich scientific information included in the book it is written in a simple language that is making it easy to follow.

¹Michael Kuhar (2012) (Financial Time) FT Press, ISBN-13: 978-0-13-254250-0, pages 222

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Received: November 30, 2012 Accepted: December 17, 2012 Published: December 20, 2012