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# Drugs Of Abuse And Immune Function

**Ronald Ross Watson**



## **Drugs Of Abuse And Immune Function:**

**Drugs of Abuse, Immunity, and Immunodeficiency** Herman Friedman, Thomas W. Klein, Steven Specter, 2012-12-06

This volume is based on the program of the International Conference on Drugs of Abuse Immunity and Immunodeficiency held in Clearwater Beach Florida It was sponsored by the University of South Florida College of Medicine with the support of the National Institute on Drug Abuse During the past few decades drugs of abuse including marijuana cocaine opiates and alcohol have been studied by biomedical scientists in terms of the systemic effects of the drugs as well as alterations in neurophysiology and the psychology More recently the scope of such investigations has been broadened to include alterations within the immune system and the influence of altered immunity on physiological and psychological consequences of drug abuse In this regard participants in the Clearwater Beach conference provided new information concerning both basic and clinical aspects of drugs of abuse and immunity especially immunodeficiency Advances have been made in recent years in understanding the nature and mechanisms regulating the immune response and the mechanisms by which drugs may influence immune responses In particular the emergence of psychoneuroimmunology as a new discipline has heightened interest in immune responses influenced by psychoactive drugs This has resulted in interdisciplinary investigations involving clinical and basic scientists including microbiologists immunologists physiologists psychiatrists oncologists and others The recreational use of the above mentioned drugs by large numbers of individuals has aroused serious concern about the consequences of this activity

**Drugs of Abuse and Immune Function** Ronald Ross Watson, 1990-07-25 This important publication provides up to date reviews using data from human patients and animal models The goal is to understand the relationship between immunological modification by drugs of abuse and disease resistance Examined are the major drugs of abuse and their effects on lymphoid cell function numbers development and interactions Also addressed are reviews of how ethanol cocaine morphine and marijuana effect the immune function The book includes evaluations of the relationship of immunomodulation by drugs of abuse on resistance to infectious diseases This is critical to understanding how drugs modulate diseases and cancer development This invaluable publication is important to those in biochemistry physiology chemistry biology immunology cancer medicine pharmacology microbiology psychology psychiatry and additive studies It is also of value to those in nutrition pathology pediatrics family medicine gerontology surgery sociology and anatomy Specialty groups such as those in tropical medicine and public policy will have a strong interest in the book It is also of significant interest to organizations that deal with major numbers of patients using drugs of abuse and with their associated diseases including AIDS

**Drugs of Abuse, Immunity, and AIDS** Pawel Migula, T.W. Klein, S. Specter, 2012-12-06 This volume is based on the program of the Second International Conference on Drugs of Abuse Immunity and AIDS held in Clearwater Beach FL in June 1992 The Conference was supported in part by the University of South Florida College of Medicine with financial assistance from the National Institute on Drug Abuse The focus of this conference was the effects of drugs of abuse on

immunity It is now widely recognized that psychoactive drugs of abuse including marijuana cocaine and opiates as well as alcohol have marked effects in an individual including effects on their nervous system and behavior In the past two decades the scope of studies concerning the effects of some drugs of abuse have also involved investigations of alterations of various physiologic parameters including effects on the immune system and the influence of such immune alterations on normal physiological responses In this regard participants in this Second International Conference provided newer information concerning both basic and clinical aspects of drugs of abuse and immunity especially immunodeficiencies In this regard advances have been made in recent years concerning the nature and mechanisms whereby the immune system is regulated and the possible mechanisms by which drugs of abuse influence such immune systems In particular the emergence of psychoneuroimmunology as a new discipline the last decade has heightened interest in the immune responses influenced by psychoactive drugs This has resulted in interdisciplinary investigations involving both clinical and basic scientists including microbiologists immunologists physiologists psychiatrists oncologists psychologists etc

**Infectious Diseases and Substance Abuse** Herman Friedman, Thomas W. Klein, Mauro Bendinelli, 2006-05-28 The use of recreational drugs of abuse by large numbers of individuals in this country and abroad has aroused serious concerns about the consequences of this activity For example it is recognized that marijuana is currently widely used as a recreational drug in the United States as well as other countries Similarly abuse of cocaine especially crack cocaine is considered to be an epidemic The war on drugs by the US Government was directly aimed at the illicit use of cocaine marijuana and opiates as well as other drugs of abuse Furthermore alcohol is also considered a major problem of abuse in this country as well as in many other countries It is estimated there are at least 10 million alcoholics in the United States alone A significant portion of those hospitalized with infectious diseases are alcoholics Similarly there have been many reports of association between marijuana use and increased susceptibility to infection as well as a relation between use of opiates and infections The relationship between drug abuse and increased incidence of various infections has stimulated increased investigation of whether and how such drugs affect immune function especially important for resistance against infectious agents During the last decades a wide variety of studies have shown that drugs of abuse including marijuana cocaine or opiates as well as alcohol alter both neurophysiological as well as pathological responses of individuals

*Alcohol, Drugs of Abuse, and Immune Functions* Ronald R. Watson, 1995-05-04 Substance abusers are an immunocompromised population vulnerable to a wide array of new and resurgent infectious diseases in spite of modern treatment For example opportunistic infections like tuberculosis are the principal cause of morbidity and mortality in HIV positive patients Alcohol and drug induced disorders are wide ranging gaining prominence as the spectrum of emerging diseases broadens Alcohol Drugs of Abuse and Immune Functions reviews the role of these immunosuppressants as cofactors in disease It covers the basic biology and immunology of impairments to defense against infectious disease Alcohol and drug use is consistently associated with immunosuppression although it isn't

known if it is the substance itself a metabolite or an indirect effect that alters disease resistance This text explores the advances toward answering this question examines alcohol in different settings its relationship to important cells and the effects it can have on vital organs such as the liver and the lungs

**Drugs of Abuse, Immunomodulation, and Aids** Herman Friedman, John J. Madden, Thomas W. Klein, 2012-12-06 Introduction and Perspectives This volume represents the Proceedings of the Fifth Annual Symposium on Drugs of Abuse Immunomodulation and AIDS The meeting was held in Nashville Tennessee June 12 14 1997 In this symposium as in the past newer knowledge was reviewed concerning the relationship between the immune and the nervous systems with regard to the effects of drugs of abuse This symposium focused on the relationship between the immune system and the nervous system with regard to the effects of drugs of abuse and infections such as the immunodeficiency virus that causes AIDS As in the past symposia presentations focused on the brain immune axis from the viewpoint of drugs of abuse rather than from the subject of the brain or immunity alone The aim of this series of conferences has been to clarify the consequences of immunomodulation induced by drugs of abuse on susceptibility and pathogenesis of infectious diseases both in man and in various animal model systems Recreational use of drugs of abuse such as morphine cocaine and marijuana as well as alcohol by large numbers of individuals in this country and around the world has aroused serious concerns about the consequences of use of such drugs especially on the normal physiological responses of an individual including immune mechanisms It is now widely known that many drugs of abuse including marijuana are used by millions of individuals in this country and by even more abroad

**Alcohol, Drugs of Abuse and Immunomodulation** Ronald Ross Watson, 1993 The studies presented in this symposium volume investigate the mechanisms of the immune dysfunction due to alcohol heroin and cocaine use and attempt to elucidate what their ultimate effects are on AIDS cancer growth and infectious disease

*NIDA Notes*, 1989 *Drugs of Abuse, Immunity, and Infections* Herman Friedman, Thomas W. Klein, Steven Specter, 1995-12-18 During the past few decades drugs of abuse including marijuana cocaine opiates and alcohol have been studied in detail by biomedical scientists in terms of their effects on the neurophysiology and psychological responses of individuals Research over the last few years has provided increased knowledge about possible mechanisms by which such drugs increase the likelihood of infections in humans and experimental animals In *Drugs of Abuse Immunity and Infections* prominent investigators review important new information concerning the effects of recreational drugs on susceptibility to infection by microorganisms The volume examines the effects of drugs such as cocaine morphine marijuana and opiates on immunity in humans and animals It covers the molecular and cellular mechanisms of drug induced immunosuppression and describes the overall enhanced susceptibility to infection in recreational drug users It discusses the alteration of susceptibility to the retrovirus that causes the acquired immunodeficiency syndrome AIDS and the consensus that drugs of abuse may serve as a possible cofactor in the progression of AIDS *Drugs of Abuse Immunity and Infections* also includes important information concerning public health aspects of

drugs of abuse and infection The Brain Immune Axis and Substance Abuse Burt M. Sharp, Toby K. Eisenstein, John J. Madden, Herman Friedman, 2012-12-06 This volume represents the proceedings of the 2nd annual symposium on the Brain Immune Axis and Substance Abuse held at the Breakers Hotel in Palm Beach FL in June 1994 The history of productive studies concerning the relationship between the nervous and the immune systems is relatively recent Studies on the effects of drugs of abuse on the immune system and on infections among individuals who abuse drugs are also of recent vintage Only in the last decade have investigators begun to describe the role of drugs of abuse and their endogenous counterparts on the brain immune axis Thus the involvement of the neuroendocrine system in the interactions of drugs of abuse and the immune system has only recently been appreciated In addition it has been recognized that direct neural inputs impact immune function Given the complexity of these interactions characterization of biologically significant phenomena and elucidation of their mechanisms of action often requires a multidisciplinary approach This meeting on which the chapters in this book are based brought together scientists from an array of biomedical disciplines whose work is focused on the effects of drugs of abuse on the neuro endocrine immune axis The meeting was unique in focusing on the brain immune axis from the viewpoint of drugs of abuse rather than either immunity itself or the brain itself Presentations addressed the direct effects of drugs of abuse on various components of the immune system as well as those mediated indirectly by the central nervous system and the neuroendocrine system

**Substance Abuse and the Microbiome** Prakash Nagarkatti, Mitzi Nagarkatti, Shilpa Buch, 2024-03-28 Substance abuse also known as drug abuse refers to excessive use of agents that cause harm to self society or both Some of the commonly used substances of abuse include Opioids Cocaine Lysergic acid diethylamide LSD marijuana and alcohol Substance abuse can lead to addiction thereby triggering significant negative effects on the brain and the body The gastrointestinal GI tract harbors a complex array of microorganisms called the gut microbiota which play a critical role in regulating homeostasis in the body and disease Extensive use of next generation sequencing technology has enabled the discovery of how dysbiosis caused by environmental factors can impact the development and severity of many clinical disorders Such studies have also led to the detection of gut brain axis a bidirectional communication pathway between the Central Nervous System and the Gastrointestinal System in which the gut microbiota play a critical role The gut microbiota can regulate the brain functions through microbial metabolites including the short chain fatty acids which can cross the blood brain barrier Additionally the brain can regulate the gut microbiota through neural endocrine and cytokine pathways How does substance abuse fit into the complex cross talk between the gut microbiota and the brain This is an exciting area of research that is drawing a lot of attention Some substances of abuse such as alcohol have already been shown to cause dysbiosis which may influence alcoholic liver disease through leaky gut Such findings also raise an exciting possibility of using probiotics reversing dysbiosis or fecal microbiota transplantation as a therapeutic modality to reverse the negative impacts of substance abuse This Special Issue is focused on how substance use disorder can alter gut microbiota and impact

functions of the Central Nervous and other organ systems It is also the goal to explore how stabilization of gut microbiota can prevent the negative effects of substance abuse

**Teaching: Not for Dummies / Substance Abuse Awareness: A Guidebook** P. J. Gammarano, M.A., J.D., 2008-02-11 In Part One each topic addresses practical skills for the newer teacher in the classroom to enable better facilitation practices Part Two addresses subject matter specific to becoming more knowledgeable about substance abuse today a factor for every teacher to be familiar with Useful for teacher education or certification courses If you re going into teaching at any level kindergarten through graduate school never mind having a plan B you d better have through plan Z and it s not sleeping

**Drugs of Abuse, Immunity, and Immunodeficiency** Herman Friedman, Steven Specter, Thomas W. Klein, 1991-07-31 Proceedings of a symposium held in Clearwater Beach Florida December 13 15 1989

**Substance Abuse in the Mentally and Physically Disabled** John R. Hubbard, Peter R. Martin, 2001-07-27 This up to the minute reference explores current trends disease etiology and associations novel assessment tools and modern laboratory tests to promote coordinated treatment of comorbid substance abuse psychiatric disease and general medical conditions recognizing the causal relationship between substance abuse and medical and psychiatric diso

**AIDS and Substance Abuse** Larry Siegel, 1988 In this provocative volume experts address the intense relationship between chemical dependency and AIDS They explore whether some drugs alter the immune system whether drugs and alcohol play a role in predisposing some people to AIDS and whether there are neurological psychiatric and medical differences between those who get the disease and those who don t The implications legal moral and ethical of AIDS on chemical dependency programs are closely examined

**Substance Abuse** Joyce H. Lowinson, 2005 The premier text on substance abuse and addictive behaviors is now in its updated and expanded Fourth Edition with up to the minute insights from more than 150 experts at the front lines of patient management and research This edition features expanded coverage of the neurobiology of abused substances new pharmacologic therapies for addictions and complete information on club drugs such as Ecstasy New sections focus on addiction in children adolescents adults and the elderly and women s health issues including pregnancy The expanded behavioral addictions section now includes hoarding shopping and computer Internet abuse Includes access to a Companion website that has fully searchable text

*The Journal of the Florida Medical Association* Florida Medical Association, 1994

**Immunology & Infectious Diseases**, 1990

Drugs of Abuse Phuong Thi Kim Pham, Kenner Rice, 1990 This monograph is based on the papers and discussion from a technical review on Current chemical and pharmacological advances on drugs of abuse which alter Immune functitheird thier impact on HIV infection held on October 31 to November 2 1988 in Rockville MD The review meeting was sponsored by the Office of Science and the Division of Preclinical Research National Institute on Drug Abuse

Lowinson and Ruiz's Substance Abuse Pedro Ruiz, Eric C. Strain, 2011 A comprehensive authoritative text on all aspects of substance abuse and addiction medicine Scientific topics such as the biology of various addictions and all dimensions of clinical treatment and management are addressed by a wide

range of leading contributors Behavioral addictions are addressed also so the text is not solely devoted to specific substances and their misuse Provided by publisher

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