Chairman Mica, Ranking member Connolly, and distinguished members of the subcommittee, it is a privilege and honor to offer my expertise in your quest to understand more comprehensively the impact of marijuana on the individual as well as society. Currently, I am a tenured Associate Professor of Psychology at Columbia University in both the Departments of Psychology and Psychiatry. I also serve as a research scientist in the Division on Substance Abuse at the New York State Psychiatric Institute. I am a member of the National Advisory Council on Drug Abuse and am on the board of directors for the College on Problems of Drug Dependence and for the Drug Policy Alliance.

As you know, I am trained as a neuropsychopharmacologist who has spent the past 16 years studying the neurophysiological, psychological and behavioral effects of marijuana. As part of my research, I have given thousands of doses of marijuana to people and have carefully studied their immediate and delayed responses. My findings are published in some of the most prestigious scientific journals. I have also co-authored a college-level textbook focused on Drugs and society. My most recent book, High Price, is aimed at educating the general public about drugs and preventing drug-related tragedies.

I would like to point out that my remarks today will focus primarily on the effects of marijuana on adults since most agree that marijuana use – as well as other drug use - by children should be discouraged.

To be clear, marijuana is a psychoactive drug. That is, it alters the functioning of brain cells and influences our thinking, mood, and behavior. It can have both negative and positive effects. This is true of all psychoactive drugs, including nicotine and alcohol.

A major potential negative consequence of marijuana use is addiction. About 9 percent of all marijuana users will become addicted to the drug. By comparison, about 15 percent of alcohol users and 33 percent of tobacco smokers will become addicted. The point is: yes, marijuana is potentially addictive, but its addictive potential is lower than our current legal drugs alcohol and tobacco.

Another concern related to marijuana use is disruption of cognitive functioning. As is the case with alcohol, during marijuana intoxication some cognitive operations, such as response time, may be temporarily slowed, but the intoxicated individual is able to respond to environmental stimuli in an appropriate manner. Marijuana intoxication typically lasts no more than 2-4 hours, depending upon the individual’s level of experience with the drug. It is important to understand that even during the period of intoxication, the user is able to carry out her/his usual behavioral repertoire, e.g., engage in appropriate social behaviors, including responding to emergencies.

After the intoxicating effects of marijuana have dissipated, there are no detectable physiological or behavioral effects of the drug in recreational and causal users. This is similar to what is observed following alcohol intoxication. In fact, many of the individuals who have served as research participants in my studies on marijuana (during which they were administered the drug) are responsible members of their communities.
They are graduate students, actors, schoolteachers, waiters/waitresses, professors, and lawyers, among other professionals.

One of the least discussed effects of our current approach to marijuana deals with arrest rates. Each year, there are more than 700,000 marijuana arrests, which account for half of all drug arrests. By the way, the overwhelming majority of these arrests are for simple drug possession. But what’s worse is that – at state level - black people are two to over seven times more likely to be arrested for marijuana than their white counterparts. And at the federal, Hispanics represent 2/3 of the individuals arrested for marijuana violations, despite the fact that blacks, Hispanics, and whites all use marijuana at similar rates.

The scientific community has virtually ignored this shameful marijuana-related effect. The National Institute on Drug Abuse could help remedy this situation by requesting research applications that focus explicitly on race—for example, trying to understand the long-term consequences of marijuana arrests on black and Hispanic people, especially as they relate to disrupting one’s life trajectory.

So, as we forward to develop a more rational approach to marijuana in our society, it is my hope that we not only discuss potential negative effects of the drug, but that we also include potential benefits and the unintended consequences of our current policies on certain communities of color.
Personal Data
Name: Carl L. Hart
Birthdate: 10/30/66
Birthplace: Miami, Florida
Citizenship: USA

Academic Training
B.S. 1991: University of Maryland (Psychology)
M.S. 1994: University of Wyoming (Psychology/Neuroscience)
Ph.D. 1996: University of Wyoming (Psychology/Neuroscience)
Thesis Title: Role of the L-type calcium channel in nicotine-induced locomotion in rats
Sponsor: Charles Ksir

Traineeship
1994-1995: Predoctoral Fellowship in Neurological Sciences, Clinical Neuroscience Branch, National Institutes of Health / National Institute of Neurological Disorders and Stroke
1996-1997: Postdoctoral Fellowship in Substance Abuse, Department of Psychiatry, University of California at San Francisco
1997-1998: Postdoctoral Fellowship in Substance Abuse, Department of Psychiatry, Yale University
1998-1999: Postdoctoral Fellowship in Substance Abuse, Department of Psychiatry, Columbia University

Military Service

Academic Appointments
1999-2006: Assistant Professor of Clinical Neuroscience, Department of Psychiatry, Columbia University
2003-2006: Adjunct Assistant Professor of Psychology, Department of Psychology, Columbia University
1999-present: Research Scientist III-V, Division on Substance Abuse, New York State Psychiatric Institute
2006-present: Associate Professor (in Psychiatry), Departments of Psychology and Psychiatry, Columbia University
(Tenure Granted: 2009)
2006-present: Director of Undergraduate Studies, Departments of Psychology and Psychiatry, Columbia University
2010-present: Research Fellow, The Institute for Research in African-American Studies, Columbia University

Honors
2007: Fellow, American Psychological Association (Division 28, Psychopharmacology and Substance Abuse)
2008: Presidential Teaching Award (Columbia University)

Grant Support
Current Funding
2009-2014: Co-Investigator, National Institute on Drug Abuse Grant Award, “Learning to avoid pain: Computational mechanisms and application to methamphetamine,” Direct Funds: $1,125,000

Past Funding
2007-2012: Senior Faculty, National Institute on Drug Abuse Grant Award (5T32 DA007294), “Research Fellowship in Substance Abuse Disorders,” Direct Funds: $1,106,140
2005-2010: Principal Investigator, National Institute on Drug Abuse Grant Award (1R01 DA019559), “Intranasal Methamphetamine: A Pharmacotherapy Model,” Direct Funds: $1,942,000
Hart CL, 2

2010-2011 Principal Investigator, Open Society Institute Grant Award, “The Global amphetamine-type stimulants problem: What is known and what is needed,” Direct Funds: $100,882

2006-2011: Co-Investigator, National Institute on Drug Abuse Grant Award (5R01DA022541), “The Neural Bases of Affect Regulation in Drug Abuse,” Direct Funds: $1,125,000

1993-1995: Principal Investigator, National Institute of Mental Health/Society for Neuroscience Predoctoral Fellowship

1999-2000: Principal Investigator, Division on Substance Abuse, Columbia University Pilot Grant Award, “Memantine Effects on Methamphetamine Discrimination in Humans,” Direct Funds: $5,000

1999-2005: Co-Investigator, National Institute on Alcohol Abuse and Alcoholism Grant Award (5R01 AA012599), “Medications Development for Alcohol Abuse: NMDA Agents,” Direct Funds: $1,860,000


2002-2005: Co-Investigator, National Institute on Drug Abuse Grant Award (5R01 DA010755), “Novel Cocaine Pharmacotherapies: Lab Studies,” Direct Funds: $1,800,000

2002-2005: Principal Investigator, National Institute on Drug Abuse Grant Award (R43), “Marijuana Effects on Human Cognition,” (Alan Gevins, Ph.D. Principal Investigator), Direct Funds: $32,000

Departmental and University Service

2012-present: Institutional Review Board, New York State Psychiatric Institute

2005-2010: Task Force on Diversity in Science and Engineering at Columbia University

2005-2010: Office of the Vice Provost for Diversity Initiatives, Subcommittee on Search Culture and Hiring Practices

2006-present: Director of Undergraduate Studies, Department of Psychology

2006-present: Curriculum Committee, Department of Psychology

Teaching Experience and Responsibilities

1992-1994: Teaching assistant: Drugs and Behavior, University of Wyoming,

1994-1996: Instructor: Drugs and Behavior, University of Wyoming

1999-2003 Course Director: Substance Abuse Postdoctoral Fellows Seminar, Department of Psychiatry, Columbia University

2003: Instructor: Drugs and Society, Hunter College, The City University of New York

2003-present: Instructor: Drugs and Behavior, Department of Psychology, Columbia University

2004-present: Instructor: Topics in Neurobiology and Behavior, Department of Psychology, Columbia University

2004-present: Faculty Member, Supervised Individual Research (1-4 pts)

2004-2005: Team Taught: Drugs and Society, School of Public Health, Columbia University

2005-present: Team Taught: Graduate Level Proseminar, Department of Psychology, Columbia University

2006: Team Taught: Neuropsychopharmacology (G9625), Department of Pharmacology, Columbia University

2008-present: Team Taught: PGYII Substance Abuse, Department of Psychiatry, Columbia University

International/National Professional Activities

International

2014-present: Editorial Board, Psychology of Addictive Behaviors

2011-present: Board of Directors, College on Problems of Drug Dependence

2007-present: Board of Directors, Drug Policy Alliance

2010-present: United Nations Reference Group for Intravenous Drug Use and HIV

2008: Global Conference On Methamphetamine Executive Program Committee

National Committees

2012-present: Department of Health and Human Services, National Institutes of Health, National Advisory Council on Drug Abuse

2006-2010: National Institutes of Health, Biobehavioral Regulation, Learning and Ethology Study Section (Acting Chair 2010)


2001-2008: College on Problems of Drug Dependence’s Under-represented Populations Committee (Chair 2003-06)
2005-2006: APA Division 28’s Liaison to the Science Directorate

Scientific Advisory Board
2012-present: Board of Directors, College on Problems of Drug Dependence
2007-present: Board of Directors, Drug Policy Alliance
2007-2010: National Advisory Council, Students for a Sensible Drug Policy
2005-2010: Morgan State University, National Institute on Drug Abuse Grant Award (R24DA01980), “The Center for the Study and Prevention of Drug Use”, (Fernando Wager, Ph.D., Principal Investigator)
2004-2009: California Pacific Medical Center Research Institute, National Institute on Drug Abuse Grant Award (1P50 DA018179), “Methamphetamine Pharmacotherapy Development Center”, (John Mendelson, M.D., Principal Investigator)
2004-2009: National Health Promotion Associates, Center for Substance Abuse Prevention Grant Award, “LifeSkills Workplace Prevention Program”, (Christopher Williams, Ph.D., Principal Investigator)
2004: Ad hoc Consultant, Medications Development for Cannabis Dependence, National Institute on Drug Abuse

Published Refereed Articles

1993

1995

1996

2000

2001

2002

2003

*First-authored articles

2004

2005

2006

2007


2008


2009


2010


1 Papers published with trainees (undergraduates to postdoctoral fellows) in my laboratory


2012


2014


*In press*


**Book Chapters**

2001


2009


2010


**Books**

2013


**Case Reports/Letters/Commentaries/OpEd’s**

2002

Hart CL, 8


2005

2006

2007

2008


2009

10. 1Hart C, Powell AC (2010) Determining cognitive deterioration requires multiple tests administered on more than one occasion. Psychiatry Clinical Neuroscience 64, 667.


2011

2013


2014

Conferences Organized

2007

Recent Selected Invited Talks

2011
1. American Museum of Natural History, New York, NY
2. Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania
3. Midwestern Psychological Association Annual Meeting, Chicago, IL
4. European HIV Conference, Tallinn, Estonia

2010
5. University of Malaya, Kuala Lumpur, Malaysia
6. Grand Rounds, Department of Psychiatry, Medical University of South Carolina, Charleston, SC

2009
7. Grand Rounds, Department of Psychiatry, University of California – San Francisco, CA
8. American College of Neuropsychopharmacology Annual Meeting, Hollywood, FL

2008
9. Global Conference on Methamphetamine, Prague, Czech Republic
10. Treatment Research Center, University of Pennsylvania, Philadelphia, PA
11. Sackler Institute for Developmental Psychobiology, Weill Medical College of Cornell University, New York, NY
12. Methamphetamine Form on Capital Hill, Washington, DC
13. A Mini Medical School on Addiction, Morehouse School of Medicine, Atlanta, GA

2007
14. Behavioral Pharmacology Research Seminar Series, Johns Hopkins University, Baltimore, MD
15. Division on Substance Abuse Seminar Series, Yale University, New Haven, CT

Ad hoc Journal Referee
American Journal of Drug and Alcohol Abuse
American Journal of Psychiatry
American Journal of Psychology
Archives of General Psychiatry
Behavioural Pharmacology
Biological Psychiatry
BioMed Central: Clinical Pharmacology
Canadian Medical Association Journal
Drug and Alcohol Dependence
Experimental and Clinical Psychopharmacology
International Journal of Drug Policy
Journal of Clinical Pharmacology
Journal of Clinical Psychiatry
Journal of International Neuropsychological Society
Journal of Neurochemistry
Journal of Pharmacology And Experimental Therapeutics
Journal of Psychopharmacology
Neuroimage
Neuropsychopharmacology
Pharmacology, Biochemistry and Behavior
Psychology of Addictive Behaviors
Psychopharmacology
Schizophrenia Research

Ad hoc Grant Referee
National Institute on Drug Abuse Director’s Avant-Garde Grant Review Committee
National Institute on Drug Abuse, Biobehavioral Regulation, Learning and Ethology Study Section
National Institute on Drug Abuse, Extramural Program
National Institute on Drug Abuse, Behavioral Science Track Award for Rapid Transition (B-START) Program
National Institute on Drug Abuse, Intramural Research Program (Served as external reviewer for submitted protocols)
The Wellcome Trust, United Kingdom

Professional Organizations and Societies
1999-present: Behavioural Pharmacology Society (Member)
2000-present: American Psychological Association (Member to Fellow)
Division 28, Psychopharmacology and Substance Abuse
2000-present: College on the Problem of Drug Dependence (CPDD; Associate to Regular Member)
2001-present: The International Study Group Investigating Drugs as Reinforcers (Member)
2003-present: Sleep Research Society (Member)
2006-2013: American College of Neuropsychopharmacology (Associate Member)
2007-2013: Association for Psychological Science (Member)