

LORI D. KARAN, MD, FACP, DFASAM

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

EDUCATION

- [REDACTED] Johns Hopkins University, Baltimore, Maryland
B.A., Double Major in Natural Sciences and Humanities Areas
- [REDACTED] Rutgers Medical School, Piscataway, New Jersey
M.D.
- [REDACTED] Baltimore City Hospital, Baltimore, Maryland
PGY-1 Internal Medicine
- [REDACTED] Greater Baltimore Medical Center, Baltimore Maryland
PGY-2, PGY-3 Internal Medicine
- [REDACTED] Medical College of Virginia, Virginia Commonwealth University
Graduate courses in Neuroscience and Behavioral Pharmacology
- [REDACTED] University of California, San Francisco
Advanced Training in Clinical Research

LICENSURE AND CERTIFICATIONS

- 2012-present Hawaii Medical Board, [REDACTED]
- 1997-present Medical Board of California, [REDACTED]
- 1996 American Board of Internal Medicine Diplomat
- 2007 Maintenance of Certification, American Board of Internal Medicine
- 2009 "Grandfathered," American Board of Addiction Medicine
- 1986 Certification of knowledge and expertise in addiction medicine
- 1996, 2006 Recertification(s), American Society for Addiction Medicine
- 1996 Medical Review Officer Certification
- 1987-1998 Board of Medicine, Commonwealth of Virginia, # 0101041477
- 1984-1995 Board of Physician Quality Assurance, State of Maryland, # D28633

PRINCIPAL POSITIONS HELD:

- 2012-2015 DEPARTMENT OF PUBLIC SAFETY, STATE OF HAWAI'I
Medical Director
- 2013-present THE JOHN A. BURNS SCHOOL OF MEDICINE
HONOLULU, HAWAII
Professor of Psychiatry

PRINCIPAL POSITIONS HELD (Continued):

- 1997-present THE UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
 SAN FRANCISCO, CALIFORNIA
 Associate Professor
 2009-2014- Associate Clinical Professor of Medicine (07/01/09 – 7/01/14)
 2008-2009 Health Sciences Associate Professor of Medicine (11/20/08-06/30/09)
 Associate Physician
 2004-2009 Drug Dependence Research Center
 Langley Porter Psychiatric Institute
 Assistant Adjunct Professor
 2004-2005 Pain Clinical Research Center
 Department of Neurology
 2002-2006 Department of Clinical Pharmacy
 1997-2001 Division of Clinical Pharmacology and Experimental Therapeutics
 Department of Medicine
- 2009-2012 CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION
 Physician and Surgeon (Primary Care Physician)
 Corcoran State Prison
 4001 King Avenue, Corcoran, Ca 93212
- 2003-2004 PRIVATE PRACTICE
 900 Welch Road, Suite 203, Palo Alto, CA
 Pain Management, Internal Medicine, Addiction Medicine, Smoking Cessation
- 2001-2003 STANFORD UNIVERSITY MEDICAL SCHOOL
 STANFORD, CALIFORNIA
 Senior Research Scientist
 Division of Clinical Pharmacology, Department of Medicine
- 1987-1997 THE MEDICAL COLLEGE OF VIRGINIA
VIRGINIA COMMONWEALTH UNIVERSITY
 RICHMOND, VIRGINIA
 1996-1997 Assistant Professor of Internal Medicine and Psychiatry
 Tenure Eligible Tract
 1987-1996 Assistant Professor of Internal Medicine, Collateral Tract
 1989-1996 Assistant Professor of Psychiatry
 1987-1993 Medical Director, Inpatient Services
 Division of Substance Abuse Medicine
- 1984-1987 THE JOHNS HOPKINS HEALTH SYSTEM
 BALTIMORE, MARYLAND
 1986-1987 Physician, Johns Hopkins Preferred Health Network
 Department of Addiction Services, Wyman Park Medical Center
 1987-1987 Acting Chief
 1985-1987 Associate Chief
 1984-1985 Staff Physician
- 1984-1987 NORTH CHARLES HOSPITAL, active staff
- 1984-1987 THE GREATER BALTIMORE MEDICAL CENTER, active staff

HONORS AND AWARDS

- 2008 Class of 2010 Essential Core Teaching Award: Outstanding Foundations of Patient Care Preceptor, UCSF
- 2005 Acknowledgement of service and achievement on the Board of Directors American Society of Addiction Medicine
- 1998-2000 Ove Ferno Research Grant (\$50,000)
The Society for Research on Nicotine and Tobacco
- 1993-1998 NIH Scientist Development Award for Clinicians
- 1996 Fellow of the American Society of Addiction Medicine
- 1994 Fellow of the American College of Physicians
- 1996-2013 San Francisco Super-Doctors™, 2012
Best Doctors in America, Woodward/White Inc.
Princeton Premier Registry, 2009-2010
“Guide to America’s Top Physicians,” Consumers Research Council of America, 2006
“Top Docs” San Francisco Magazine, April 1999
“Greater Richmond’s Best Doctors.” Richmond Magazine, January 1996
- 1996 Research showcased at “NIDA: The Next Generation,” at the 26th Annual Meeting of the Society for Neuroscience, Washington, D.C.
- 1996-present “Who’s Who” Numerous yearly mentions
- 1990 Quitters Win, Medal of Appreciation for Commitment in Establishing a Smoke-Free Environment, Medical College of Virginia Hospitals
- 1976 Alpha Epsilon Delta Premedical Honor Society
- 1974 Top Two Hundred Applicants recruited to Johns Hopkins University
- 1970-1973 National Science Foundation Program at Hahnemann Hospital

PROFESSIONAL ACTIVITIES

CLINICAL PRACTICE AND ASSOCIATED ADMINISTRATION

- 2012-2015 Medical Director, Department of Public Safety, Hawaii
Hired, guided and supervised the practice of 15 primary care and psychiatric physicians, and advanced practice registered nurses who provided care for 4600 jail and prison inmates throughout Hawaii. Oversaw the care of 1500 additional inmates in Arizona through a contract with Corrections Corporation of America. Utilization review, continual quality improvement, pharmacy and therapeutics, and infection control were also under my purview.
- 2009-2012 Primary Care Physician, California Department of Corrections and Rehabilitation
Responsible for managing the primary health care of a “yard” of 650 inmates. I diagnosed and treated of a wide variety of symptoms, injuries and illnesses including asthma, diabetes, Hepatitis C, coccidiomycosis, and orthopedic complaints.
- 1997-2009 Research Physician, UCSF and Stanford Medical Schools
Responsibilities included drafting research protocols, problem solving the protocols put forward by others, assuring compliance with safety and regulatory committees, assessing that patients meet inclusion and exclusion criteria, and ensuring patient safety throughout each experiment

Research studies were performed in the UCSF-General Clinical Research Units of Moffitt and Mount Zion Hospitals, SFGH and the outpatient UCSF Pain Clinical Research Center

CLINICAL PRACTICE AND ASSOCIATED ADMINISTRATION (continued)

2004-2012	Expert Reviewer, Medical Board of California Determine competency of referred physicians by performing history and physical assessments and attaining corroborative evidence
1998-present	Expert Witness, assorted legal cases
2001-2003	Acting/Substitute Medical Director Provided methadone treatment and primary care for opiate addicted patients Bay Area Addiction, Research, and Treatment, Incorporated
2002-2004 & 1988- 1997	Outpatient practice of chronic pain patients who are chemically dependent and require medications management; and nicotine addiction treatment
2002-2004 & 1984-1997	Provided multidisciplinary treatment for chemically dependent patients with late stage addiction, and/or medical, psychiatric co-morbidity, or pregnancy (inpatient, outpatient, and consultative services)
1987-1993	Medical Director Inpatient Unit, Division of Substance Abuse Medicine The Medical College of Virginia Provided leadership, policy formulation and implementation, clinical standards of practice, quality assurance, and employee evaluations
1984-1987	Staff Physician and Acting Medical Director Addictions Services, Wyman Park Medical Center and North Charles Hospital Johns Hopkins Health System

SUMMARY OF CLINICAL ACTIVITIES

I directed the medical care for 4600 inmate-patients in Hawaii and an additional 1500 inmates housed in Arizona through the supervision of approximately 15 primary care physicians, psychiatrists, nurse practitioners and referrals to specialty consultants. I assisted with problem cases, consulted with the Deputy Attorneys General, developed guidelines, and advocated for improved staffing and patient care. At Corcoran State Prison I was responsible for the medical care for a “yard” of patient-inmates. I followed the standards for treating chronic illnesses, assessed orthopedic complaints, and co-chaired the pain committee. This committee adjudicated pain treatment based upon an inmate’s objective findings of physiological disease.

In the past, for more than thirteen years, I directed the care on two inpatient addiction units. I also provided consultative care, treated patients longitudinally, and prescribed methadone and buprenorphine maintenance. While I have experience managing all chemical dependencies, I have additional expertise in pain management and tobacco cessation. I helped pioneer the integration of nicotine addictions treatment with the treatment of other chemical dependencies when I was at the Medical College of Virginia. The culmination of this effort were multiple seminars and a special issue of the *Journal of Substance Abuse Treatment* (Spring 1993) entitled, “Towards a Broader View of Recovery,” which continues to be a seminal work in the field today.

Clinical studies involving human subjects require special knowledge, and skills. Ethical concerns, proper documentation, and patient safety are paramount. This job requires cooperation with sponsoring agencies, principal investigators, research assistants, GCRC nurses, data management personnel, and students of all levels. I have participated in both mechanistic studies and phase 1-4 drug development trials. These experiments have been sponsored mostly by NIH, but also by industry. It was not uncommon for me to have been involved simultaneously in four ongoing trials while several other proposals were either in the preparatory or data analysis phase.

SERVICE TO PROFESSIONAL ORGANIZATIONS

- 1985-present **American Society of Addiction Medicine (ASAM) 1994-present, Fellow**
- 1998-present California Society of Addiction Medicine (CSAM)
- 2011- 2015 **Treasurer (National Election) and Executive Board Member**
- 2001- 2011 **2007-2011 Director at Large (National Elections)**
- 2001-2007 Regional Director (& Alternate) CSAM (Regional Elections)**
- Board Member CSAM & ASAM
- Input into decision-making and strategic directives
- 2003- 2015 **Publications Council ASAM (Chair, 2010)**
- 2014 Chaired Search for Editor-in-Chief, Journal of Addiction Medicine
- Product portfolio: Principles of Addiction Medicine (textbook),
- Essentials of Addiction Medicine; Handbook of Addiction Medicine;
- Journal of Addiction Medicine; ASAM Criteria; ASAM Weekly;
- ASAMagazine (also in development, Pain and Addiction Handbook)
- 2003-present Finance Council ASAM
- Oversight of organization’s turn-around, and investment policy
- 2006 ASAM Medical Specialty Action Group
- Application to the American Board of Medical Specialties (ABMS) so
- that addiction medicine can become a multidisciplinary subspecialty
- 2003-2013 Opiate Committee CSAM & ASAM
- 2003-2005 Published, “Guidelines for Physicians Working in
- California Opioid Treatment Programs”
- 2002-2013 Education Committee CSAM
- 1994-2012 Steering committee for alternating biennial ‘Review Course’ and ‘State
- of the Art Course’ conferences ASAM and CSAM
- 1985-2009 Pain & Chemical Dependency Committee ASAM, CSAM
- Public Policies; 2003-2005: annual “Common Threads” Courses
- 1985- 2004 Nicotine Dependence Committee ASAM
- 1988 -1999 Annual Nicotine Conference Planning Committee ASAM
- 2001- 2003 Strategic Planning Task Force ASAM
- 1985-1992 AIDS & Chemical Dependency Committee ASAM
- 1994-2002 **Society of Research on Nicotine and Tobacco (SRNT)**
- 1994 Founding & Charter Member**
- 1996-1998 Chair, Membership Committee, and Member, Board of Directors
- 1996-present **Fellow, American College of Physicians (member since 1983)**
- 1985-1987 Medical & Chirurgical Faculty of MD, Alcoholism & Chemical Dependency Committee

MEMBERSHIPS (selected list)

- 2000-2012 Bioscience Forum (Northern California Pharmaceutical Discussion Group)
- 2000-2012 Churchill Club of Silicon Valley
- 2005-2009 American Women in Science
- 1988-2003 American Association for the Advancement of Science
- 1995-2003 The New York Academy of Sciences
- 1984-present Johns Hopkins Medical and Surgical Association
- 1981-present Johns Hopkins University Alumni
- 1993-1999 American Medical Informatics Association
- 1991-1996 The Association for Medical Education and Research in Substance Abuse (AMERSA)
- 1988-2000 Society for General Internal Medicine
- 1985-1998 American Public Health Association
- 1985-1987 Baltimore City Medical Society

**INVITED PRESENTATIONS
NATIONAL AND INTERNATIONAL PRESENTATIONS**

- 2015 “Electronic Cigarettes: Orange (or Transparent) is the New Black.” Academic and Health Policy: Correctional Health, Boston, Mass. 03/20/15
- 2014 Lori Karan, MD and Susan Blank, MD: “The Assessment and Treatment of Tobacco Use Disorders” as part of a course entitled, “The New ASAM Criteria and ASAM Criteria Software-What’s New and How to Use the Criteria.” Orlando, Florida 04/10/14
- 2012 Chair: “Addiction and Recovery: Strategies for Practitioners” (8 speakers and online material) Jointly sponsored by the Union of American Physicians and Dentists (UAPD) and CSAM
- 2011 Chair: “Trafficking and Distributing Illegal Drugs: Money, Status, Intimidation, and Terror” Sponsored with the FBI, ASAM 42nd Annual Medical-Scientific Conference, Washington, D.C.
- 2007 Chair, CSAM State of the Art Conference, Los Angeles, California (4 days)
- 2000-08 “How to Prepare for the ASAM Certification Examination in Addiction Medicine” 2000- San Francisco, Ca.; 2002- Newport Beach, Ca., 2004 San Diego, Ca 2006-San Francisco, Ca (over the years, this tract expanded from 2 hours to 11 hours)
- 2005 Chair, “Stress, Eating Behaviors, and Cannabinoids,” (9 speakers) First day, CSAM State of the Art Conference, Long Beach, California
- 2004,05 Case Discussion Facilitator, “Buprenorphine and Office-Based Treatment of Opioid Dependence,” American and Nevada Psychiatric Associations, Las Vegas, Nevada and American Osteopathic Association, San Francisco, Ca
- 2004 Presentation of Special Award to Henry H. Wheeler, Jr., CSAM State of the Art Conference, San Diego, Ca
- Chair: “Hooked on Tobacco: The Importance of the Adolescent context for the Lifecycle of Tobacco Addiction and Its Treatment,” Component Session, ASAM 35th Annual Medical-Scientific Conference, Washington, D.C.
- 2003 “Nicotine Dependence and Tobacco.” Audio-Digest Psychiatry Volume 32 Issue 02
- Chair, “ONDCP and NIDA Director’s Dialogue”, “Neural Pathways for Motivation, Fear, Pain, and Reward,” and “Basic Science and Clinical Promise of Ibogaine and its Analogues,” (12 speakers) First day CSAM State of the Art Conference, San Francisco, Ca
- 2002 “Nicotine and Tobacco: Fire Away,” CSAM Review Course, Newport Beach, California
- 2001 Conference Co-Chair (68 speakers, 4 days), and Chair, “Recent Advances in the Neurobiology of Addiction” (7 speakers), First day, CSAM’s State of the Art Conference, Los Angeles, Ca.
- “Nicotine Addiction and Tobacco Cessation: Burning Topics,” Ruth Fox Course for Physicians, ASAM’s 32nd Annual Medical-Scientific Conference, Los Angeles, Ca
- 2000, 2001 “Journal Club: Improving Your Skills Reading the Scientific Literature,” “Workshop Coordinator American Society of Addiction Medicine Annual Meetings Chicago and Los Angeles Questions on this subject were also submitted for the Certification Examination

NATIONAL AND INTERNATIONAL PRESENTATIONS (continued)

- 2000 "Ultrarapid Opiate Detoxification, Neuroadaptation, and Patient Care."
Testimony for the District Attorney of New Jersey, Trenton, New Jersey
"Topics in Nicotine Addiction Research: From Bedside to Bench and Back Again"
National Cancer Institute, National Institutes of Health, Rockville, MD.
The Eleventh World Conference on Tobacco OR Health, Chicago, Illinois
Sponsors: The Robert Wood Johnson Foundation, The American Medical Association
Chair, Alternative Nicotine Delivery Systems, The Learning Laboratory
Member, Cessation Tract Planning Committee
- 1999 Environmental Tobacco Smoke, Conference Chair
The Ninth Nicotine Research Round Table, Cleveland, Ohio
Chair, Nicotine Addiction Module
CSAM's State of the Art Conference, Marina Del Rey, Ca.
- 1998 Seventh National Conference on Nicotine Dependence, Conference Chair (3 days)
Marina Del Rey, Ca
California Research Highlights, Conference Co-chair
The Eighth Nicotine Research Round Table, Marina Del Rey, Ca.
- 1997 The Seventh Nicotine Research Round Table, Conference Co-chair
Minneapolis, Minnesota
"Novel Pharmacologic Treatments for Cocaine and Opiate Addiction," Visiting faculty
Rutgers Advanced Summer School for Alcohol Studies, New Brunswick, N.J.
- 1996 Neuroendocrine and Immune Modulation, Conference Co-chair
The Sixth Nicotine Research Round Table, Washington, D.C.
"Nicotine Dependency, Tobacco Use, and Smoking Cessation"
ASAM's Review Course in Addiction Medicine, Chicago, Ill.
"Evaluating Abuse Liability for Newly Developed Nicotine Analogs"
International Behavioral Neuroscience Society, Cancun, Mexico
"Genetic and Neurobiologic Aspects of Addiction Medicine"
- 1996 Rutgers Summer School for Alcohol Studies, New Brunswick, New Jersey
"Understanding and Promoting Smoking Cessation: Counseling Interventions"
Annual Meeting of International Assoc. for Addictions & Offender Counselors, Pittsburgh, Pa.
- 1995 "The Neuropharmacology of Addicting Drugs"
Annual Meeting of the American College of Physicians, Atlanta, Georgia
Canadian Neuroscience, Conference Co-chair
The Fifth Nicotine Research Round Table, Toronto, Canada
Neuroscience for the Clinician
Eighth National Conference on Nicotine Dependence, Toronto, Canada
"Doctor's Lounge: The Treatment of Alcohol Withdrawal"
ASAM State of the Art Conference, Washington, D.C.
"Women's Health and Addiction Medicine: New Directions for the 21st Century"
Fifth Annual Scientific Advisory Meeting

Society for the Advancement of Women's Health Research, Washington, D.C..

NATIONAL AND INTERNATIONAL PRESENTATIONS (continued)

- 1994 The Molecular Biology of Nicotine Acetylcholinergic Receptors, Conference Co-chair
The Fourth Nicotine Research Round Table, Boston, Mass.
"Scientific Advances in Our Understanding of Nicotine Dependence"
Seventh National Conference on Nicotine Dependence, Boston, Mass.
"The Research Needs of Young Chemically Dependent Women: an Organizational Statement for the American Society of Addiction Medicine" Fourth Annual Scientific Advisory Meeting: Women's Health and the Environment, Washington, D.C
- 1993 The Role of Genetics and Individual Variability in Tobacco Use, Conference Co-chair
The Third Nicotine Research Round Table, Atlanta, Georgia
"Environmental Aspects of Nicotine Addiction and the Clinician"
Sixth National Conference on Nicotine Dependence, Atlanta, Georgia
"Addressing Nicotine In Chemical Dependency Programs"
1993 Annual Meeting of the American Society of Addiction Medicine, Los Angeles, California
"Environmental Effects of Chemical Dependency & Women's Health Research Needs: An Organizational Statement for the American Society of Addiction Medicine"
Third Annual Scientific Advisory Meeting: Women's Health and the Environment, Washington, D.C.
- 1992 Nicotine as a Potential Therapeutic Agent, Conference Co-chair
The Second Nicotine Research Round Table, Seattle, Washington
"Addressing Nicotine in Chemical Dependency Programs" and
"Nicotine Dependence Treatment in Patients with Alcohol & Other Drug Dependence"
5th National Conference on Nicotine Dependence, Seattle, Washington
"The Treatment of Nicotine Addiction" and "Non-narcotic Treatment of Pain"
1992 Annual Meeting of the American Society of Addiction Medicine, Washington, D.C.
"Public Health and Smoking" Southern Conference on Nicotine Addiction, Houston Texas
- 1991 CNS Effects, Conference Co-chair
The First Nicotine Round Table, Raleigh, North Carolina
- 1989 The Third National ASAM Forum on AIDS & Chemical Dependency, Conference Co-chair
Miami, Florida
"Women/Pediatrics: Prevention and Chemical Dependency Treatment,"
Panel on the Needs of Special Target Populations During the AIDS Epidemic
The Third National ASAM Forum on AIDS and Chemical Dependency, Miami, Florida
"Breathing Easier Versus Up in Smoke: Tobacco-Free Inpatient Treatment"
ASAM 22nd Annual Medical-Scientific Conference, Boston, Massachusetts
- 1988 Co-Chair, The Second National ASAM Forum on AIDS & Chemical Dependency, Phoenix, Az.
"AIDS Update: Selected Highlights for ASAM's 2nd Annual Forum on AIDS and Chemical Dependence," ASAM Ruth Fox Course for Physicians, Washington, D.C.
"Developing a National AIDS Education Strategy" An AMA sponsored White Paper, Participant
- 1986 "The Legalization of the Non-prescription Sale of Hypodermic Needles and Syringes"

ASAM's First National Forum on AIDS and Chemical Dependency, Miami, Florida

MEDIA PRESENTATIONS

Live on *Fox Morning Show with Mike and Juliet*, Interviewed *Nightline*, Assisted with "Prescription for Addiction" *60 Minutes*, Henry Schuster Dec 2007; Quoted and assisted with story, "Unproven meth, cocaine 'remedy' hits the market" *MSNBC.com* and "Addiction Treatment, Novel but Unproved," *LA Times* 2006
Numerous secondary quotes internationally, in legislative hearings, and on web blogs.

Quoted, Annual Philip Morris Stockholder's Meetings, R.J.R. Nabisco Stockholder's Meetings, *The New York Times*, *The Wall Street Journal*, *The Washington Post*, *The Associated Press*, *Blumberg Business News Service*, *Richmond Times Dispatch*, *Greensboro News and Record*, *Winston Salem Journal*

Interviewed, "Comments on the Proposed Tobacco Settlement," "Why is it so hard to quit smoking cigarettes?" "Waxman Health and Tobacco Committee hearings," "The meaning of Dr. DeNoble's Animal Nicotine Self-Administration Studies," "Cigarette components, newly revealed," "Use of Nicorette," "The transdermal nicotine patch," "Kool Penguin test marketing campaign," "Cigarette smoking and adolescents," "A Richmond city councilman's relapse to heroin and cocaine addiction," "Recovery focuses on rational thinking," "How much preventive care can we afford?" "Problems faced by uninsured chemically dependent patients in accessing Richmond's treatment system," WRVA Radio, Channel 6, 8, 11 and 12 News, *Richmond Times Dispatch*, *Commonwealth Times*, *The News Leader*, *Medical Economics*

Pictured in *Philip Morris Annual Stockholder's Report* endorsing a shareholder's resolution that the company further investigate its advertising to adolescents

Filmed performing research, PBS documentary, "*Secrets of the Sequence*," highlighting twin research at UCSF 2000

Interviewed and filmed in action, PBS documentary, Street Outreach Prevention for HIV Infection, Virginia Currents

Interviewed, PBS documentary on nicotine addiction, Newton's Apple, Minnesota

Interviewed, *New Women Magazine*, Ethics of physician and patient participation in community pharmaceutical trials

SELECTED REGIONAL AND INTRAMURAL PRESENTATIONS

- 2005 "Cannabinoid Antagonists, Eating Behaviors, and Addiction: What is in Common?"
Alcohol Research Group, University of California, Berkeley
- "Buprenorphine Pharmacology" and case discussion facilitator for 1 day course entitled,
"Buprenorphine and Office-Based Treatment of Opioid Dependence,"
Course given three times: Fisherman's Wharf, San Francisco Airport, and San Jose, Ca.
- 2004 "At the Crossroads: Treatments for Addiction and for Chronic Pain"
Psychiatry Residents & Women's Wellness Faculty, Stanford School of Medicine, Palo Alto, Ca.
- "Pat's Story: Buprenorphine for the Treatment of Pain and Addiction"
UCSF Neurology Clinical Case Conference, San Francisco, Calif.
- An Addictologist's View of Pain
Post Doctoral Fellows, Treatment Research Center, UCSF
- 2003 "Marijuana Mechanisms and Pain"
Anesthesiology Pain Conference, Stanford School of Medicine, Palo Alto, Calif.
- "Treating Your Pain with Opiates"
Stanford Center for Integrative Medicine
- 2002 "Anesthesia Assisted Rapid Opiate Detoxification: A New Technology Assessment"
Blue Shield of California, Los Angeles, Calif.
- 1996 "Alcohol Diagnosis and Treatment: An Update"
Medical Grand Rounds, New Britain Hospital, Connecticut
Southside Regional Hospital, Petersburg, Virginia
- "The Impaired Physician"
Regional Chief Medical Resident's Conference, Richmond, Virginia
- "Why is Tobacco Addicting?"
Petersburg Chapter of the American Lung Association, Petersburg, Virginia
Medical Grand Rounds, Richmond Memorial Hospital, Richmond, Virginia
VCU Master's Rehabilitation Counseling Students, Richmond, Virginia
- 1995 "Nicotine Addiction"
Psychiatry Grand Rounds, The Medical College of Virginia, Richmond, Virginia
- "Treatment of the Patient with Chemical Dependency and HIV Infection"
Members of the Chesterfield Community Services Board, Richmond, Virginia
- "The Effect of Dietary Choline on Nicotine-Induced Operant Responding and
Acoustic Startle in Rats"
CNS Pharmacology Research Discussions, The Medical College of Virginia
- 1994 "A Tale of Two Vices: Caffeine and Cigarettes"
Internal Medicine Grand Rounds, The Medical College of Virginia
- "Nicotine Addiction: Psychopharmacology, Diagnosis and Treatment"
The 15th Annual Meeting, Virginia Association of Alcoholism and Drug Abuse Counselors
Virginia Beach, Virginia

SELECTED REGIONAL AND INTRAMURAL PRESENTATIONS (continued)

- 1993 "Cigarette Smoking and Pregnancy"
Thornton Symposium for Obstetricians and Gynecologists, Charlottesville, Virginia
- "Psychopharmacologic Diagnosis and Treatment of Nicotine Addiction"
Virginia Association of Drug and Alcohol Programs, Williamsburg, Virginia
- "Pain Control in Substance Abusers"
Innovations in Corrections Nursing, Midlothian, Virginia
- What Can The Pharmacist Do to Counsel Patients About Smoking Cessation?"
"Smoking Cessation and the Dentist" and "Substance Abuse and Drug Overdose"
"What is Recovery?" and "Medical Aspects of Addiction"
Pharmacy Students, Dental Residents, Nurse Anesthetists, and Rehabilitation Counseling Students
The Medical College of Virginia, Richmond, Virginia
- 1992 "Intergenerational Aspects of HIV and Chemical Dependence: Effects on Women, Children, and
Their Families," Annual Meeting of Association for Practitioners in Infection Control," Richmond,
Virginia
- "Substance Abuse and HIV Illness: Approaching Patients With This Dual Diagnosis"
Training for Trainers, Richmond, Virginia
- "Nicotine Addiction," Psychiatric Grand Rounds, The Medical College of Virginia
- "Nicotine Addiction: Medical Grand Rounds"
Potomac Hospital, Potomac, Virginia, DePaul Hospital, Norfolk, Virginia
Physicians in Salem Virginia, and Langley Air Force Base, Hampton, Virginia,
- "Cigarette Cessation," The Filipino Medical Association, Newport News, Virginia
- "Treating Nicotine Addiction in Chemical Dependency Programs"
Comprehensive Addiction Treatment Services, Fairfax, Virginia
- 1991 "Smoking and Women"
The American Heart Association, Greensboro, North Carolina
- The Chemically Dependent Trauma Patient"
Current Concepts in Trauma Care, Richmond, Virginia
- "In-depth Interview of a Substance Abuser"
Virginia State Dept. of Public Health
- "AIDS and Chemical Dependence"
Youth and Family Services, Richmond, Virginia
- 1990 "Women, Substance Abuse, and AIDS"
Women and AIDS Conference, Central Virginia AIDS Services and Education, Richmond, Va
- "AIDS and Chemical Dependency: An Update"
Kenner Army Hospital, Fort Lee, Virginia
- 1989 "Clinical Management of Patients with HIV Infection and Substance Abuse Dual Diagnoses"
George Mason University, Fairfax, Virginia

SELECTED REGIONAL AND INTRAMURAL PRESENTATIONS (continued)

- 1988 "Issues for Chemical Dependency Treatment Providers in Light of the HIV Epidemic"
Ohio Association of Alcohol and Drug Programs, Youngstown, Ohio
"AIDS and Chemical Dependence: Treatment Considerations"
Virginia Association of Alcohol and Drug Programs, Virginia
"Women's Issues In Addiction Treatment"
Training for Virginia State Substance Abuse Providers, Williamsburg, Virginia
"Chemically Dependent Patients with HIV Spectrum Disease"
AIDS Training Program, Charlottesville, Virginia
"HIV Infection and Substance Abuse"
Managers and Health Care Workers, Philip Morris, Inc., Richmond, Virginia
"Introduction to Chemical Dependency"
Committee for Impaired Pharmacists, Virginia

SERVICE

UNIVERSITY SERVICE

University of California, San Francisco

- 2000-2009 Treatment Research Center (for Chemical Dependency)
1999-2009 Tobacco Research Center
1998-2004 Wheeler Center for Neurobiology in Addiction
1998-2001 Substance Abuse Committee
Pain Subcommittee, Pharmacy & Therapeutics Committee, SF General Hospital

Medical College of Virginia

- 1996-1997 Curriculum Renewal Committee
1989-1997 Interviewer of Prospective Internal Medicine Residents
1995-1996 Search Committee for Division Chair Quality Health Outcomes
Department of Internal Medicine
1994-1995 Accreditation Council for Graduate Medical Education (ACGME)
Psychiatry Residency, Internal Review Committee
1994-1995 Physician Health and Effectiveness Committee
1994-1995 Employee Substance Abuse Testing, policy development
1992-1993 Impaired Physicians at M.C.V., policy development
1990-1991 Interdisciplinary Pain Committee
1989-1990 Smoke-Free Task Force, The Johns Hopkins Health Plan
1985-1987 AIDS Task Force

GOVERNMENT SERVICE

- 2002 Buprenorphine Clinical Practice Guidelines, Field reviewer
Center for Substance Abuse Treatment
1989-1997 Office of Minority Health Resource Center, National Resource Persons Network
1995 "The Role of Tobacco Dependence in Alcoholism Treatment" Initial Review Group
The National Institute of Alcoholism and Alcohol Abuse
1992 "Comprehensive Residential Drug Prevention and Treatment Projects for
Substance-Using Women and Their Children," Initial Review Group
The Office of Substance Abuse Prevention

COMMUNITY SERVICE

- 2012-present Syringe Exchange Oversight Committee, Community Health Outreach Work, Hawaii
- 2000 Advocate for quality drug abuse treatment and service evaluation, Proposition 36, Calif.
- 1990-1997 Support of Shareholders Proposals, Philip Morris Annual Stockholders Meetings
- 1995-1996 Support of Clean Air Legislation, Richmond, Virginia
- 1989-1992 Advisory Council, Substance Abuse Committee, Richmond Community Services Board
- 1991-1992 Board of Directors, Central Virginia AIDS Services and Education
- 1998-1990 Board of Directors, Richmond, Street Outreach AIDS Prevention, Richmond, Virginia
- 1989-1991 Member, The Greater Richmond Council on Alcoholism and Drug Abuse, Inc.,
- 1989-1991 Treatment and School Committees of the Metro Richmond Coalition Against Drugs
- 1986 Testimony in Favor of Alcohol Warning Notices, Baltimore City Council Bill #1493
Baltimore City Medical Society, Maryland

SERVICE TO ELEMENTARY AND SECONDARY EDUCATION

- 1998-2002 Presentations to public school classes about biology, drugs and the brain
- 1995-1997 Discussion sessions with women high school students and Governor's school students about medicine as a potential career, and chemical dependency prevention and treatment

SUMMARY OF SERVICE ACTIVITIES

Addiction Medicine has emerged as a discipline over the past 20 years. I helped pioneer this forefront through my participation in the American Society of Addiction Medicine (ASAM) and the California Society of Addiction Medicine (CSAM). I have chaired or co-chaired numerous conferences including the 2nd and 3rd National Forums on AIDS and Chemical Dependency (1988, 1989), nine consecutive Nicotine Research Round Table Discussions (1991-1999), the National Conference on Nicotine Dependence (1998), The State of the Art Conference (2002, and 2007), and many symposia focusing on the Neurobiology of Addiction (1995-2010). Over time, we have developed a core body of knowledge in Addiction Medicine as well as a Certification examination to test this core body of knowledge. I am part of the leadership that helped found The American Board of Addiction Medicine.

The Society for Research on Nicotine and Tobacco, now with over 1000 members worldwide, originated from the annual Nicotine Research Roundtable Discussions that I co-chaired with John Rosecrans, Ph.D.

During the past ten years, I have been an active member of ASAM's Board of Directors, including the elected positions of Regional Director, Director, and Treasurer. This board created a strategic plan, restructured the organization, and overcame economic adversity. My work as Chair of the Publications Council dovetails nicely with my commitment to encourage critical thinking by addiction medicine practitioners, narrow the gap between the rapid progress being made in the basic sciences and traditional clinical practice, and foster bidirectional communications between researchers and clinicians. ASAM's Publications portfolio includes the premier textbook, Principles of Addiction Medicine, the Journal of Addiction Medicine, and the standard for insurance reimbursement, the ASAM Patient Placement Criteria. We continue to foster the strategic development of new books, newsletters, and e-publications, and we are partnering with commercial vendors to publish and market our products nationally and internationally.

In 2008, I wrote to the FDA and worked energetically with the media to combat the direct to the consumer advertising of a 'health care services company' marketing off-label treatments for alcohol, methamphetamine, and cocaine dependency without evidence of efficacy, informed consent or post-marketing surveillance. The field of drug abuse enables me to easily traverse between neuroscience, clinical practice, and public policy. I actively supported passage of Proposition 36 (treatment instead of incarceration), and advocated for tobacco control.

TEACHING

TEACHING AWARDS AND NOMINATIONS:

- | | |
|------------|--|
| 2008 | Class of 2010 Essential Core Teaching Award: Outstanding Foundations of Patient Care Preceptor, UCSF |
| 2007 | Nominee Kaiser Awards for Excellence in Teaching, UCSF |
| 2003 | Nominee Class 2006 Outstanding FPC Educator Award |
| 2004, 2006 | Informal accolades, conference evaluations for ASAM Certificate Exam Preparation |

FUNDED TEACHING - NATIONAL CONFERENCES

Conference grants from the National Institute of Drug Abuse (NIDA), The National Institute of Alcohol and Alcoholism (NIAAA), and The Center for Substance Abuse Treatment (CSAT) helped fund speaker honoraria, travel, hotel and per diem for each of the conferences listed below. ASAM and CSAM staff assisted me with the applications and budgeting for these conferences.

Supplemental funding included unrestricted grants from socially conscious pharmaceuticals, exhibits from chemical dependency treatment centers, and registration fees paid by attendees. In nearly all cases, revenue was greater than expenses. This revenue was cycled back to ASAM and CSAM.

This listing below approximates the cost of each symposium, including speaker costs, syllabus fees, advertising, staff time, and audiovisual. Food and beverages during the conferences have been excluded from the calculations.

- | | |
|---------|---|
| 2012 | Chair: "Addiction and Recovery: Strategies for Practitioners" (8 speakers and online portal) Jointly sponsored by the Union of American Physicians and Dentists (UAPD) and CSAM \$25,000 |
| 2011 | Chair: "Trafficking and Distributing Illegal Drugs: Money, Status, Intimidation, and Terror" ASAM 42 nd Annual Medical-Scientific Conference, Washington, D.C. Co-sponsored with the FBI \$2,000 |
| 2007 | Chair, CSAM State of the Art Conference, Los Angeles, California (4 days) \$140,000 |
| 2000-08 | Chair, "How to Prepare for the ASAM Certification Examination in Addiction Medicine" 2000- San Francisco, Ca.; 2002- Newport Beach, Ca., 2004 San Diego, Ca 2006-San Francisco, Ca (over the years, this tract expanded from 2 hours to 11 hours) \$46,000 (= \$6,000 + \$10,000 + \$12,000 + \$18,000) |
| 2006 | Chair, "Stress, Eating Behaviors, and Cannabinoids," (9 speakers) First day, CSAM State of the Art Conference, Long Beach, California, \$40,000 |
| 2004 | Chair: "Hooked on Tobacco: The Importance of the Adolescent context for the Lifecycle of Tobacco Addiction and Its Treatment," Component Session, ASAM 35 th Annual Medical-Scientific Conference, Washington, D.C. \$2,000 |
| 2003 | Chair, "ONDCP and NIDA Director's Dialogue", "Neural Pathways for Motivation, Fear, Pain, and Reward," and "Basic Science and Clinical Promise of Ibogaine and its Analogues," (12 speakers) First day CSAM State of the Art Conference, San Francisco, Ca, \$40,000 |
| 2001 | Conference Co-Chair (68 speakers, 4 days), and Chair, "Recent Advances in the Neurobiology of Addiction" (7 speakers), First day, CSAM's State of the Art Conference, Los Angeles, Ca. \$160,000 |

FUNDED TEACHING (continued)

- 2000 Chair, "Alternative Nicotine Delivery Systems," Organizer, "The Learning Laboratory"
Member, Cessation Tract Planning Committee
The Eleventh World Conference on Tobacco OR Health, Chicago, Illinois
Sponsors: The Robert Wood Johnson Foundation, The American Medical Association \$20,000
Conference Chair, "Environmental Tobacco Smoke" (1 day)
The Ninth Nicotine Research Round Table, Cleveland, Ohio, \$30,000
Chair, Nicotine Addiction Module (4 speakers)
CSAM's State of the Art Conference, Marina Del Rey, Ca. \$4,000
- 1998 Conference Chair, Seventh National Conference on Nicotine Dependence (3 days)
Marina Del Rey, Ca \$120,000
Conference Co-chair, "Highlighting California Researchers" (1 day)
The Eighth Nicotine Research Round Table, Marina Del Rey, Ca., \$30,000
- 1997 Conference Co-chair, The Seventh Nicotine Research Round Table, Minneapolis, Minnesota
(1 day) \$40,000
- 1996 Conference Co-chair, "Neuroendocrine and Immune Modulation" (1 day)
The Sixth Nicotine Research Round Table, Washington, D.C. \$35,000
- 1995 "The Neuropharmacology of Addicting Drugs" (3 hours)
Annual Meeting of the American College of Physicians, Atlanta, Georgia \$2,000
Conference Co-chair, "Canadian Neuroscience" (1 day)
The Fifth Nicotine Research Round Table, Toronto, Canada \$45,000
Planning Committee, ASAM State of the Art Conference, Washington, D.C. (4 days)
NIDA, NIAAA, and CSAT sponsored the entire conference \$160,000
- 1994 Conference Co-Chair, "The Molecular Biology of Nicotine Acetylcholinergic Receptors" (1 day)
The Fourth Nicotine Research Round Table, Boston, Mass. \$45,000
- 1993 Conference Co-Chair, "The Role of Genetics and Individual Variability in Tobacco Use" (1 day)
The Third Nicotine Research Round Table, Atlanta, Georgia, \$40,000
Chair, "Addressing Nicotine In Chemical Dependency Programs" (3 hours)
Annual Meeting of the American Society of Addiction Medicine, Los Angeles, California, \$4,000
- 1992 Conference Co-Chair, "Nicotine as a Potential Therapeutic Agent" (1 day)
The Second Nicotine Research Round Table, Seattle, Washington, \$45,000
Planning Committee, 5th National Conference on Nicotine Dependence (3 days)
Seattle, Washington, \$90,000
- 1991 Conference Co-Chair, "Nicotine: CNS Effects" (1 day)
The First Nicotine Round Table, Raleigh, North Carolina \$25,000
- 1989 Co-Chair, The Third National ASAM Forum on AIDS & Chemical Dependency, (3 days)
Miami, Florida \$120,000
Co-Chair, The Second National ASAM Forum on AIDS & Chemical Dependency (3 days)
Phoenix, Arizona \$120,000
- 1986 Planning Committee, ASAM's 1st National Forum on AIDS and Chemical Dependency (3 days)
Miami, Florida \$120,000

FUNDED TEACHING (continued)

- 1989-1997 Executive Committee, Central Virginia AIDS Resource Consultation Center
This resource network educated health professionals in Virginia about HIV prevention and treatment including over 80 conferences each year, a warm line to answer questions, and visiting clerkships to our clinical sites
Principle Investigator, Lisa Kaplowitz, MD, Virginia Department of Public Health
Ryan White monies, approximate funding \$2,500,000/5 year grant cycle
- 1991-1995 Developed and piloted a nicotine addiction curriculum for pregnant and postpartum Women. This was a component of MCV's Center for Perinatal Addiction
Principle Investigator, Sidney Schnoll MD PhD
NIDA funded, approximately \$120,000 (perinatal curricula only)

JOHN A. BURNS SCHOOL OF MEDICINE, HONOLULU, HAWAII**FORMALLY SCHEDULED CLASSES FOR JABSOM MEDICAL STUDENTS**

- 2015 Problem Based Learning Small Group Facilitator
M6 Brain, Mind, and Behavior (2nd year medical students; 2x/wk x 14 wks; 84 hours)

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO**FORMALLY SCHEDULED CLASSES FOR UCSF MEDICAL STUDENTS**

- 2002-2011 Courses 131A,B, C and 132 A,B,C
Foundations of Patient Care (FPC) including Problem Based Learning (PBL)
Small Group Discussion Leader (55 hours 1st year, 45 hours 2nd year)
Required course for 1st and 2nd year medical students
Course emphasizes professional development, doctor-patient relationship skills, physical exam skills, and critical thinking skills
My role: facilitation of in-class discussion, evaluation and review of assignments
Two faculty and six students per group; two-year cycle; four groups
- 2006-2011 Smoking Cessation, Section Leader, 22 students (2 hours/year)
- Spring 2001 Epidemiology and Biostatistics 101
Section Leader (55 hours), Required course for 1st year medical students
Course emphasized research approaches to disease etiology, prevention, and treatment, and interpretation and critical evaluation of the medical literature
My role: review of lecture material & problem sets; grading midterm & final exams
- 1998-2000 Pathophysiology of Disease-140.22
Presentation about the pathophysiology, diagnosis, and treatment of alcoholism
3 hours each year
- 1998 Prescribing Conference, Pharmacology 100 B
Discussion Group Leader, 2 hours

PREDOCTORAL STUDENTS SUPERVISED AT UCSF

- 1998 Summer Research Apprenticeship (8 weeks)
Neala Rafizadeh, Case Western University Medical School
Completed PGY-4 Psychiatry, Cornell University's Weill Medical College, 2006

INFORMAL TEACHING AT UCSF

- 2006 "The Prometa Protocols: The Small Print" (1.5 hours)
Chemical Dependency Lecture Series; VA Medical Center, San Francisco
- 2001 Update in Nicotine Addiction (1.5 hours)
Chemical Dependency Lecture Series, VA Medical Center, San Francisco

2001

Neuroendocrine Effects of Nicotine (2 hours)
Treatment Research Center , PostDoctoral Fellows Research Seminar

INFORMAL TEACHING AT UCSF (continued)

- 2000 “Motivational enhancement, 12-step, and cognitive behavioral therapy”
Skills building sessions for primary care internal medicine residents at SFGH
Co-taught with Susan Scheidt, Ph.D., and David Hersh, M.D. 4 hours, repeated twice
- 1999 Course: Overview of Addiction Medicine (20 hrs repeated twice)
Designed and executed course for 16 primary care internal medicine residents at SFGH
- 1998-2001 “Neurobiologic Basis of Alcohol Withdrawal and its Treatment”
Internal Medicine Residents Noontime series
1 hour repeated at each of 3 campuses
- 1997-2000 “Mortality after rapid opiate detoxification,” “Viagra: The science behind the promise,”
“The use of animal models in drug development,” “Pharmacokinetic interaction
between alcohol and protease inhibitors: evaluation of a research protocol,”
additional topics, three 2 hour presentations each year
Fellows Rounds, Clinical Pharmacology and Experimental Therapeutics
- 1997-2000 Journal club presenter and participant
2 hours monthly (20 hours per year)
Clinical Pharmacology and Experimental Therapeutics Fellows Training Program

FACULTY MENTORING

- 2004-2006 Women Faculty Problem Solving Group member, twice monthly meetings, this
confidential group had seven active members

COMMUNITY PHYSICIAN MENTORING

- 2000-2012 Faculty discussant and facilitator, Biennial Review Courses in Addiction Medicine
California Society of Addiction Medicine
- 2000-present Mentor promising CSAM members for leadership roles to further the society’s mission
- 2004-present Assist physician authors to write scientifically accurate addiction pieces for the lay public

OTHER TEACHING:

- 1998-2015 Through formal presentations at Review Courses, small group facilitation, individual
coaching, and the CSAM blog, I assisted addiction medicine practitioners from around
the country prepare for the ASAM Certificate Examination. I participated in discussions
with the ASAM examination committee and the National Board of Medical Examiners
to move from a paper exam to computerized testing. I have submitted questions for
underrepresented topics covered by the examination. I assisted ASAM to create a
Question and Answer database that is now an online adjunct to the Principles of
Addiction Medicine 5th Edition textbook published by Lippincott.
- 1986-present See Presentation Section for numerous national conferences that I chaired and co-chaired
- 1998-present See textbook chapters in Principles of Addiction Medicine 3RD, 4TH, and 5th eds. and
Melmon and Morelli’s. Clinical Pharmacology: Basic Principles in Therapeutics,
Fourth Edition. These textbooks are widely read and referenced.

SUMMARY OF TEACHING HOURS:

- 2015 84 formal teaching contact hours
- 2007-2008 60 formal teaching hours (incl. preparation, reviewing assignments, & evaluations)
25 formal teaching hours chairing 3 day CSAM State of the Art conf. Universal City, Ca
100 hours of informal teaching (research assistants and medical students)
50 hours mentoring practicing physicians 30 hrs during meetings, 20 hrs phone& mail)

(2008 was ASAM certification year)

SUMMARY OF TEACHING HOURS (continued)

2006-2007	65 formal teaching hours (incl. preparation, reviewing assignments, & evaluations) 100 hours of informal teaching (research assistants and medical students) 70 hours mentoring practicing physicians (40 hrs during mtgs, 30 hrs phone & email) (2006 was ASAM certification year)
2005-2006	55 formal teaching hours (incl. preparation, reviewing assignments, & evaluations) 100 hours of informal teaching (research assistants and medical students) 30 hours mentoring practicing physicians (20 hrs during mtgs, 10 hrs phone & email)
2004-2005	65 formal teaching hours (incl. preparation, reviewing assignments, & evaluations) 25 hours of informal teaching (research assistants and medical students) 50 hours mentoring practicing physicians (2004 was an ASAM certification yr)
2003-2004	55 formal teaching hours (incl. preparation, reviewing assignments, & evaluations) 25 hours of informal teaching (research assistants and medical students) 30 hours mentoring practicing physicians

TEACHING NARRATIVE

Foundations of Patient Care (FPC) was the only UCSF course to span all four years of medical school, and it included approximately 100 hours of small group sessions during the first two years, the largest number of small group hours for any single course. I served as a small group instructor for Foundations of Patient Care for four full cycles. The small group was comprised of six students and designed to be intimate. During FPC, students become proficient taking a medical history, forming a differential diagnosis, and delivering effective written and oral presentations. Students learned to diagnose and treat complex patients through a group process of identifying and solving self-generated learning issues during problem-based learning sessions. FPC promoted professionalism by developing skills for self-directed learning, critical thinking, reflection, and collaborative teamwork.

In Hawaii, I co-facilitated a problem based learning group for 'Brain, Mind, and Behavior' for second year medical students at the John A Burns School of Medicine.

Addiction medicine has long been neglected in medical school and postgraduate training. Psychoactive drugs can be viewed as tools to better understand the functioning of the central nervous system. Our challenge is to synthesize between neuroscience, human behavior, and public health and bring this excitement back into the folds of the university. I have chaired and presented at many conferences nationally and given lectures and seminars. In the physician community, 'hot topics' for education have included office-based buprenorphine for opiate addiction, and the treatment of chronic, non-malignant pain. I have been active on these fronts.

I developed a tract within the CSAM Review Course to assist physicians from around the country to prepare for the board examination in Addiction Medicine. My mentees have now taken on the leadership of this course. In 2012, there were 400 persons enrolled in the CSAM exam preparation and over 900 persons sat for the ABAM examination nationally.

**TEACHING AT THE MEDICAL COLLEGE OF VIRGINIA (MCV)
FORMALLY SCHEDULED CLASSES AT MCV**

- 1997 Medical Ethics, Discussion Group Leader, 20 hours
1995 History and Physical Diagnosis, Preceptor, 30 hours

POSTDOCTORAL FELLOWS SUPERVISED AT MCV

Assisted in the training of Hoff Fellows

- 1989-1990 Peter Coleman, M.D. (currently practicing addiction and family medicine, Virginia)
1991-1992 Georgeanne Hoegerman, M.D. (currently practicing pediatrics, North Carolina)
1993-1995 Margaret Jarvis, MD (currently Director, Marworth Treatment Center, Waverly, Pa)
1996-1997 Michael Weaver, M.D. (currently Professor, and Medical Director, Center for Neurobehavioral Research on Addictions, University of Texas Medical School; Chair, Certification Council, American Board of Addiction Medicine)

INFORMAL TEACHING AT MCV

- 1994-1997 Attending Physician, The Substance Abuse Consultation and Liaison Service teaching and supervision of medical and psychiatric residents on service (four months/year)
1997 Attending Physician, The Internal Medicine Service teaching and supervision of medical residents and students (1 month)
1987-1993 Medical Director, Inpatient Unit, Division of Substance Abuse Medicine developed educational objectives and a core reading list, directed weekly teaching seminars and journal club, monitored resident progress, evaluations, and feedback; direct supervision of residents and students 6-9 months each year

EDUCATION OF PRACTICING PHYSICIANS AND HEALTH PROFESSIONALS

- 1989-1997 Central Virginia AIDS Resource Consultation Center provided HIV Infection and Chemical Dependency training for health care professionals incl. physicians, nurse practitioners, public health nurses, social workers, and rehabilitation counselors
1987-1997 Consultations to physicians and other health professionals concerning the care of chemically dependent patients; the treatment of withdrawal, concomitant medical or surgical care, enhancing patient compliance, pain management, smoking cessation, and relapse prevention
1995 Consulted on the development of a smoking cessation program for patients undergoing bone marrow transplantation
1994-1995 Consultation to the Program Director of Anesthesiology regarding impaired residents, resident recruitment, and chemical dependency prevention/education
1991-1996 Developed and piloted a nicotine addiction curriculum for pregnant and postpartum women at MCV's Center for Perinatal Addiction
1985-1997 Presented "Medical Aspects of Addiction" lecture series to patients and their family members

The Johns Hopkins Medical School

- 1985-1987 "The Impaired Professional and/or Codependent"
Group Discussion Leader for medical students, 6 hours

Lectures to the medical residents at Wyman Park Medical Center on Addiction Medicine

RESEARCH PROGRAM

An overarching objective of my research had been to better understand individual differences in the body's response to psychoactive drugs. At the Medical College of Virginia, I assisted in the development of a mouse model of drug discrimination to bridge behavioral studies performed in rats with mouse genetic studies. The Rosencrans lab also demonstrated an association between differences in the ability for nicotine discrimination among four rat strains and quantity of receptor subtypes in the brains of these animals. This was work performed as part of my Scientist Development Award for Clinicians. During this time, I supplemented my income by becoming the medical investigator for eight industry sponsored Phase One pharmacokinetic studies.

In the fall of 1997, I came to UCSF to work under the guidance of Neal Benowitz, M.D, in the Department of Medicine at SFGH. I sought to develop a hormonal probe for individual differences in responsiveness to an intravenous challenge of nicotine. However, in contrast to preliminary reports, a quantifiable venous endocrine response was found only when patients became nauseated and ill. During this time, I was also the research physician on a large twin study investigating the genetic basis of nicotine metabolism and its pharmacokinetics.

When my grant funding ended, I had planned to transfer to NCI's Tobacco Control Branch in 2001. However, I never moved to Washington, DC; President Bush froze the position and then 9/11 unnerved our country. I found work as a research scientist in AIDS pharmacology at Stanford where I developed two concept papers for the national Adult AIDS Clinical Trials Group (AACTG). I participated in the Stanford pain group and I opened a private practice on Welch Road focusing on patients with pain and addiction. Finally, I made my way back to UCSF.

In 2004, I worked with Michael Rowbotham, MD, at UCSF's Pain Clinical Research Center, in the Department of Neurology. We applied reproducible pain stimuli utilizing a model of brief thermal sensitization to quantify areas of allodynia as an objective measure of pain, in addition to collecting subjective visual analog measures of self-reported pain. The trials I helped initiate employed these measures to investigate the presence of opiate tolerance in patients with chronic pain, and to look at individual variability of the rate that these patients acquired opiate tolerance. At the Pain Clinical Research Center, I also performed phase 3 and 4 double-blind, placebo controlled drug trials for fibromyalgia, low back pain, and carpal tunnel syndrome. Although my initial goal was to assist Michael Rowbotham create a clinical research arm for the Ernest Gallo Clinical and Research Center and the Wheeler Center for the Neurobiology of Addiction, several grant submissions at that time were unsuccessful.

In late 2004, I became the research physician for Reese Jones, MD, Owen Wolkowitz, MD and Elissa Epel, MD in UCSF's Department of Psychiatry. Reese Jones's contract with the NIDA Medications Development Branch enabled our team to perform initial pharmacokinetic, safety, and drug interaction studies on promising compounds to treat methamphetamine addiction before these compounds were tested in larger scale clinical trials. I assisted with the design, performance, and analysis of these studies. In addition, I helped Owen Wolkowitz, MD investigate the role of neurosteroids in the subjective effect of alcohol, and Elissa Epel to look at the effects of stress on eating behaviors and aging. It was exciting to collaborate with Elizabeth Blackburn, PhD, Nobel Laureate, on Elissa's projects. Both Owen and Elissa used a similar core set of novel biomarkers to look at hormone physiology and mechanisms of illness.

As Medical Director of Hawaii's Department of Public Safety, I developed a tool to evaluate the risk for withdrawal for inmates admitted to correctional facilities on Oahu, Maui, Hawaii, and Kauai Islands. In addition, I wanted to keep apprised of the changing alcohol and drug use patterns across the State. Unfortunately, there was not enough staff to implement the questionnaire on more than a trial basis. The measures were incorporated (but not fully utilized) in the electronic medical record at the time I left this post. I helped Hawaii attain a European-American Criminal Justice Innovation Grant that was awarded by the California Prison Law Office. I also assisted Hawaii's Governor's Healthcare Transformation Team conceptualize the high utilizer portion of their planning grant. I proposed that community health workers (CHW) assist newly released inmates successfully transition back to the community. A state plan amendment is now being sought so that these services can be reimbursed and sustained.

RESEARCH AWARDS

1998-2000 Ove Ferno Award for Innovative Research
Society for Research on Nicotine and Tobacco, \$50,000

GRANTS AND CONTRACTS

1998-2001 Neuroendocrine Responses to Nicotine: a Physiologic Probe
Tobacco Related Disease Research Program
Office of the President, University of California
Principal Investigator, 40% effort, \$225,000

1993-1998 Clinical Research Training in Nicotine Discrimination
ADAMHA Scientist Development Award for Clinicians
Principal Investigator, 1 K20 DA00183-A1, 80% effort, \$630,000

RESEARCH ACTIVITIES

2004-2009 Neurosteroids and Acute Intoxication in Humans, P.I. Owen Wolkowitz, M.D., NIAAA, UCSF Gallo Center) Research Physician

Testing the Role of Opioid Signaling in Stress Induced Eating: A Translational Research Model of Food Addiction, P.I. Elissa Epel, Ph.D. Research Physician (assisted with design and performance of experiment), manuscript in preparation

Effects of Caregiving Stress on Mind and Body, P.I. Elissa Epel, Ph.D. (REAC funding, R01 submitted to NIH 9/06 and being resubmitted) Research Physician (assisted with design and performance of experiment)

Pharmacokinetic and Pharmacodynamic Studies for Medication Development (NO1DA-6-8867) P.I. Reese Jones, M.D (renewed through 3/1/13).

This NIDA Contract has included the following studies:

Attenuation of Opioid Effects of Two Different Doses of Sublingual Buprenorphine/Naloxone by Depot Naltrexone in Healthy Volunteers, SubInvestigator

Attenuation of Opioid Effects of Three Different Doses of Sublingual Buprenorphine/Naloxone by Oral Naltrexone in Healthy Volunteers SubInvestigator

Double Blind Placebo-Controlled Crossover Trial of Intravenous Methamphetamine and Lobeline Interactions, Co-Principal Investigator, Completed 2008

Double Blind, Placebo-Controlled Tolerability Safety and Pharmacokinetic Study of Repeated Sublingual Doses of Lobeline
Co-Principal Investigator, Completed 2006

Double-Blind Placebo Controlled Ascending Dose Pharmacokinetic Safety and Tolerability Study of 7.5, 15, and 30 mg of Sublingual Lobeline
Research Physician, Completed 2004

A Phase 1 Parallel-Group, Double-Blind Placebo-Controlled Cardiovascular and Behavioral Study Assessing Interactions between Single Doses of Oral Reserpine and Intravenous Methamphetamine, Research Physician, Completed 2004

Double-Blind Placebo-Controlled Assessment of Intravenous Methamphetamine and Modafinil Interactions, Co-Principal Investigator, Completed 2005

RESEARCH ACTIVITIES (continued)

- 2004-2005 Evolution of Analgesic Tolerance during Long Term Treatment of Chronic Pain with Opioids, National Institute of Neurological Disorder and Stroke (NINDS)
A Randomized Double-Blind, Placebo-Controlled Trial of Levetiracetam for the Treatment of Pain Associated with Fibromyalgia (UCB Pharma)
Research Physician
A Randomized Double-Blind Placebo-Controlled Trial of Flurbiprofen Tape for Treatment of Chronic Low back Pain (Teikoku Seiyaku Company, LTD.)
Research Physician
A Two-Phase Randomized Enriched-Enrollment Double-Blind, Vehicle-Controlled Trial of Diclofenac Sodium Tape for the Treatment of Pain due to Carpal Tunnel Syndrome and its Symptoms (Teikoku Seiyaku Company, LTD)
Research Physician
- 2002-2003 Pharmacokinetic Interactions between Alcohol and Protease Inhibitors in Heavy and Light Drinkers, Research Physician (including assistance with the study design) (NIAID)
- 2001-2002 A Randomized, Double-Blind Comparison of Three Reverse Transcriptase Inhibitor Strategies for the Initial Treatment of HIV Infection: Correlation of Intracellular Nucleoside Phosphorylation with the Extent and Durability of Therapeutic Response
Authored Concept Paper for the Adult AIDS Clinical Trials Group
Phenotyping Drug Metabolizing Enzymes to Predict Antiretroviral Pharmacokinetics
Authored Concept Paper for the Adult AIDS Clinical Trials Group
Safety and Efficacy of Naltrel™ in the Treatment of Alcohol Dependence
Drug Abuse Sciences, Inc. Research Physician
- 1998-2001 Neuroendocrinologic Responses to Intravenous Nicotine (NIDA, TRDRP)
Principal Investigator
Nicotine Metabolism in Twins, Research Physician, (NCI)
Research physician
- 1998 The Effect of Mecamylamine on Nicotine Metabolism, Medical Investigator
- 1997 A Single Dose Study in Healthy Volunteers to Compare the Anticoagulant Activity of Heparin Following Subcutaneous Injection or Following Heparin with a Novel Carrier System (E414) Administered by Intubation to the Ileum, and Orally by Gavage, Elan Pharmaceuticals, Medical Investigator
An Investigation of Gastrointestinal Sites of Absorption of Sotalol in Healthy Volunteers, Berlex Pharmaceuticals, Medical Investigator
A Study to Evaluate the Pharmacology of OptiMARK™ in Patients with Central Nervous System and Liver Pathology, Mallinckrodt Medical, Inc. Medical Investigator, \$10,990
- 1995 Pharmacokinetics of ¹⁴C Azimilide After a Single Dose to Healthy Normal Volunteers, Proctor and Gamble, Medical Investigator, \$49,634
The Disposition of ¹⁴C Midodrine After a Single Dose of ¹⁴C Midodrine Hydrochloride to Healthy Subjects, Roberts Pharmaceuticals Medical Investigator, \$13,415

RESEARCH ACTIVITIES (continued)

- 1994 A Single Dose, Mass Balance Study of ¹⁴C Labeled CI 283,796 ACAT Inhibitor Administered Orally to Fed Healthy Adult Male Volunteers
American Cyanamid Company, Medical Research Division, Lederle Laboratories
Principle Investigator, \$16,785
- 1993-1995 Nicotine Addiction Education and Smoking Cessation Services Grant Program for Residential Treatment for Pregnant and Postpartum Women, Consultant
- 1993 A Single Dose, Mass Balance Study of ¹⁴C Labeled CI 316,243 Administered Orally to Healthy Adult Male Volunteers
American Cyanamid Company, Medical Research Division, Lederle Laboratories
Principal Investigator, \$16,825
- A Single Dose, Mass Balance Study of ¹³C and ¹⁴C Labeled CI 284,846 Administered Orally to Healthy Adult Male Subjects, American Cyanamid Company, Medical Research Division, Lederle Laboratories, Principal Investigator \$18,848

SERVICE TO PROFESSIONAL PUBLICATIONS

- 2009-2015 **Chair, Publications Council, American Society of Addiction Medicine**
Set the strategic direction for ASAM publications, Chaired search for Chief Editors, Developed new products
2004- 2015 Responsible for the selection of publisher(s) for the ASAM's textbooks, handbooks, journal, and journal reformulation
Portfolio includes:
Principles of Addiction Medicine (PAM), premier reference textbook, contains the core content of addiction medicine (5th Edition; 114 chapters, 1793 pgs)
Essentials of Addiction Medicine, condensed version of PAM (2nd Edition)
Pain and Addiction Medicine, Oxford Press (new product in preparation)
Handbook of Addiction Medicine, Oxford Press (new product in press)
The Journal of Addiction Medicine, Inaugural issue March 2007; cited in Index Medicus, circulation over 3,000
ASAM Criteria, standard to determine 3rd party reimbursement, revised 2013
ASAM Patient Placement Criteria-Medications Supplement
Interactive Patient Journals Co-branded: ASAM and the Change Company
ASAM Weekly Online Newsletter and **ASAM Magazine** Online Content & Discussion Forum
ASAM Daily News (at our National Medical-Scientific Conference)
- 1991-present Editorial Board, Journal of Addictive Diseases
- 1996-present Editorial Board, The Journal of Substance Abuse Treatment
- 2008-2009 Ad hoc reviewer, Journal of General Internal Medicine
- 2003 Editor, Pharmacology Section, Principles of Addiction Medicine, 3rd Ed.
- 1995 Guest Editor, Behavior Genetics; Special Issue entitled "The Role of Genetics and Individual Variability in Tobacco Use."
- 1993 Guest Editor, Medicinal Chemistry Research; Special Issue entitled "Nicotine as a Potential Therapeutic Agent."
- 1993 Guest Editor, The Journal of Substance Abuse Treatment; Special Issue on Nicotine entitled "Towards a Broader View of Recovery."
- 1989 Guest Editor, The Journal of Psychoactive Drugs; Special Issue entitled "Integrating AIDS Prevention and Chemical Dependency Treatment."

BIBLIOGRAPHY

PEER REVIEWED PUBLICATIONS

1. Schnoll, S.H., **Karan, L.D.**: Substance Abuse. Journal of the American Medical Association 261(19): 2890-2892, 1989.
2. **Karan, L.D.**: AIDS Prevention and Chemical Dependence Treatment Needs of Women and Their Children. Journal of Psychoactive Drugs. 21:395-399, 1989.
3. Nathan, J.A., **Karan, L.D.**: Substance Abuse Treatment Modalities in the Age of HIV Spectrum Disease. Journal of Psychoactive Drugs. 21:423-429, 1989.
4. **Karan, L.D.**, AIDS and Chemical Dependency for the Primary Care Physician. The Western Journal of Medicine. 152(5):538-542, 1990.
5. Schnoll, S.H., **Karan, L.D.**: Substance Abuse. Journal of the American Medical Association 263(19): 2682-2683, 1990.
6. **Karan, L.D.**, Hoegerman, G.: Chemical Dependency, HIV Infection and Motherhood: A Case Presentation and Discussion, Pediatric AIDS and HIV Infection: Fetus to Adolescent. 2(5):284-289, 1991.
7. **Karan, L.D.**: Introduction: Towards a Broader View of Recovery. Journal of Substance Abuse Treatment. 10(2): 101-105, 1993.
8. **Karan, L.D.**: Initial Encounters with Tobacco Cessation on the Inpatient Substance Abuse Unit at the Medical College of Virginia. Journal of Substance Abuse Treatment. 10(2):117-123, 1993.
9. Rosecrans, J.A., **Karan, L.D.**: Neurobehavioral Mechanisms of Nicotine Action: Role in the Initiation and Maintenance of Tobacco Dependence. Journal of Substance Abuse Treatment. 10(2): 161-170, 1993.
10. **Karan, L.D.**: Nicotine as a Potential Therapeutic Agent: An Overview and Clinical Perspective. Medicinal Chemistry Research. 2:514-521, 1993.
11. Rosecrans, J.A., Wiley, J.L., Bass, C.E., **Karan, L.D.**., Nicotine-Induced Acute Tolerance: Studies Involving Schedule-Controlled Behavior. Brain Research Bulletin, 37(4):359-362, 1995.
12. Rosecrans, J.A., **Karan, L.D.**, James, J.R.: Nicotine as a Discriminative Stimulus: Individual Variability to Acute Tolerance and the Role of Receptor Desensitization. Effects of Nicotine on Biological Systems 11 (Ed. Clarke, P.B.S., Quik, M, Adlkofer, F., Thurau, K.) Birkhauser Verlag Basel, Boston, 219-223, 1995.
13. Varvel, S.A., James, J.R., Bowen, S., Rosecrans, J.A., **Karan, L.D.**: Discriminative Stimulus (DS) Properties of Nicotine in the C57BL/6 Mouse. Pharmacology, Biochemistry, and Behavior, 63(1):27-32, 1999.
14. Epel, E.S., Dhabhar, F.S., Wolkowitz, O.M., Puterman, E., **Karan, L.**, Blackburn, E.H.: Dynamics of Telomerase Activity in Response to Acute Psychological Stress. Brain, Behavior, and Immunity, 24(4):531-539, 2010.
15. Daubenmier, J., Kristeller, J., Hecht, FM., Maninger, N., Kuwata, M., Jhaveri, K., Lustig, RH, Kemeny, M., **Karan, L.**, Epel, E. Mindfulness Intervention for Stress Eating to Reduce Cortisol and Abdominal Fat among Overweight and Obese Women: An Exploratory Randomized Controlled Study. Journal of Obesity. 2011:651936. 13 pgs. 2011
16. Young-Wolff, K.C, **Karan, L.D.**, Prochaska, J.J. Electronic Cigarettes in Jails: A Panacea or a Public Health Problem? JAMA Psychiatry 72 (2): 103-104. Feb 2015.

ABSTRACT AND POSTER PRESENTATIONS

1. Rosecrans, J.A., James, J.R., **Karan, L.D.**; "Mechanisms of Acute and Chronic Tolerance to the Behavioral Effects of Nicotine. "Abstract for the International Symposium on Nicotine: The Effects of Nicotine on Biological Systems. Montreal, Canada.. 1994.
2. **Karan, L.D.**, Rosecrans, J.A.: "Nicotine Tolerance Development" Seventh National Conference on Nicotine Dependence, Cambridge, Mass. 1994.
3. Rosecrans, J.A., **Karan, L.D.**: "Mecamylamine Versus Nicotine Tolerance" Seventh National Conference on Nicotine Dependence, Cambridge, Mass. 1994.
4. **Karan, L.D.**, Varvel, S.A., Wiley, J.L., Bass, C.E., Rosecrans, J.A., "The Effects of Dietary Choline and Nicotine on Startle and Operant Response Rates in Rats." First Annual Meeting of the Society of Research on Nicotine and Tobacco, San Diego, California. 1995. (published in Addiction in 1996.)
5. **Karan, L.D.**, "Characterization of Nicotine's Discriminative Cue in the C57BL/6 Mouse," special invited poster session, "NIDA: The Next Generation," The 25th Annual Society for Neuroscience Meeting, San Diego, California. 1995.
6. **Karan, L.D.**, Varvel, S.A., James, J.R., Rosecrans, J.A., "Generalization and Antagonism of Nicotine's Discriminative cue in the C57BL/6 Mouse" Second Annual Meeting of the Society of Research on Nicotine and Tobacco, Washington, D.C. 1996.
7. **Karan, L.D.**, Covington, H., Varvel, S.A., James, J.R., Rosecrans, J.A., "Behavioral and Discriminative Stimulus Properties of Nicotine in Fischer and Sprague-Dawley Rats," special invited poster session, "NIDA: The Next Generation," The 26th Annual Society for Neuroscience Meeting, Washington, D.C., 1996.
8. James, J.R., Covington, H., **Karan, L.D.**, and Rosecrans, J.A., "Sensitivity of Different Rat Strains to the Discriminative Stimulus Properties of Nicotine," The 26th Annual Society for Neuroscience Meeting, Washington, D.C., 1996.
9. Rosecrans, J.A., James J.R., Covington 111, H.E., Mansbach, R.S., **Karan , L.D.**, and Jordan, S.D., "Differential Behavioral Effects of Nicotine in Rats Selected for Different Rates of Spontaneous Activity," International Society for Behavioral Neuroscience, Richmond, Virginia, 1998.
10. **Karan, L.D.**, Peng, M., Buley, P.M., and Benowitz, N.L. "Neuroendocrine Response to IV Nicotine," Society for Research on Nicotine and Tobacco, Arlington, Virginia, 2000
11. **Karan, L.D.**, Peng, M., Buley, P.M., and Benowitz, N.L. "Characterizing the Neuroendocrine Response to IV Nicotine" Neuronal Nicotinic Receptors Satellite to the Society for Neuroscience, New Orleans, Louisiana, 2000
12. Swan G, Benowitz N, Carmelli D, Jacob P, **Karan L.** "Pharmacokinetics of Nicotine in Twins" Society for Research on Nicotine and Tobacco, Savannah, Georgia, 2002.
13. Aweeka F, Lizak P, **Karan L**, Kosel B, Au S, Weiner M, and Lu, M "The Effect of Ethanol on Protease Inhibitor Exposure in Chronic Heavy Ethanol Users" Retrovirus Conference, Boston, Massachusetts 2003

BOOK CHAPTERS

1. Haller, D. L., **Karan, L.D.**, Schnoll, S. H.: Hospital Based Treatment of Stimulant Dependence. Hospital Based Substance Abuse Treatment, (Ed., Lerner, W.,) Pergamon Press, Inc., pp.118-131, 1989.
2. **Karan, L.D.**, Haller, D.L., Schnoll, S.H.: Cocaine. The Clinical Textbook of Addictive Disorders, (ed. Frances, R.J. and Miller, S.I.,) Guilford Press, pp. 121-145, 1991.
3. Hurt R.D., Slade J., **Karan L.D.**, Eberman, K.: Treating Nicotine Addiction in Patients with Other Addictive Disorders. Nicotine Addiction: Principles and Management, (Ed. Slade, J. and Orleans, C.T.,) Oxford University Press, Inc., pp. 310-326, 1993.
4. **Karan, L.D.**, Rosecrans, J.A.: The Addictive Capacity of Nicotine. Nicotine in Psychiatry: Psychopathology and Emerging Therapeutics. (Ed. Piasecki, M. and Newhouse, P.) American Psychiatric Press, Inc., pp. 83-107, 2000.
5. **Karan, L.D.**, Haller, D.L., Schnoll, S.H.: Cocaine and Other Stimulants. The Clinical Textbook of Addictive Disorders, (ed. Frances, R.J. and Miller, S.I.,) Guilford Press pp. 168-201. 1998.
6. **Karan, L.D.**, Benowitz, N.L.: Substance Abuse: Dependence and Treatment Melmon and Morelli's. Clinical Pharmacology: Basic Principles in Therapeutics, Fourth Edition (ed Carruthers, S.G., Hoffman, B.B., Melmon, K.L., and Nierenberg, D.W.) McGraw-Hill, Companies, Inc. pp. 1053-1089, 2000.
7. **Karan, L.D.**, Dani, J., Benowitz, N.L. The Pharmacology of Nicotine Dependence. Principles of Addiction Medicine, Third Edition (ed. Graham, A., Schultz, T, Mayo-Smith, M., and Ries, R.) American Society of Addiction Medicine, Inc. pp. 225-248, 2003.
8. **Karan, L.D.**, Zajicek, A., Pating, D. Pharmacologic Principles: An Overview. Principles of Addiction Medicine, Third Edition (ed. Graham, A., Schultz, T, Mayo-Smith, M., and Ries, R.) American Society of Addiction Medicine, Inc. pp. 83-100, 2003.
9. **Karan, L.D.**, McCance-Katz, E., Zajicek, A., Pharmacologic Principles: An Overview. Principles of Addiction Medicine, Fourth Edition (ed. Ries, R., Fiellin, D., Miller, S., and Saitz, R.) Lippincott, Williams & Wilkins, pp. 67-85, 2009.
10. **Karan, L.D.**, McCance-Katz, E., Zajicek, A., Cavacuiti, C. Pharmacokinetic and Pharmacodynamic Principles. Principles of Addiction Medicine: The Essentials (ed. Cavacuiti, C., Ries, R., Fiellin, D., Miller, S., and Saitz, R.) Lippincott, Williams & Wilkins, 2012.
11. Zajicek, A and **Karan, L.D.**, Pharmacologic Principles: An Overview. Principles of Addiction Medicine, Fifth Edition (ed. Ries, R., Fiellin, D., Miller, S., and Saitz, R.) Lippincott, Williams & Wilkins, pp. 85-99, 2014
12. **Karan, L.D.**, and Brown, R. Criminal Justice: Jails and Prisons. Principles of Addiction Medicine, Fifth Edition (ed. Ries, R., Fiellin, D., Miller, S., and Saitz, R.) Lippincott, Williams & Wilkins, 1737-1741, 2014.

13. **Karan, L.D.** and Blank, S.K. "Tobacco Use Disorder" *The ASAM Criteria, Third Edition* (ed. Mee-Lee, D.) The Change Company, pp. 367-392, 2013.
14. Zajicek, A. and **Karan, L.D.** "Pharmacokinetic and Pharmacodynamic Principles." *Principles of Addiction Medicine: The Essentials* (ed. Herron, AJ and Brennan TK.) Wolters Kluwer, 2015. pp 41-46.
15. **Karan, L.D.** "Treatment of Individuals in the Criminal Justice Population." *Criminal Justice: Jails and Prisons* *Principles of Addiction Medicine: The Essentials* (ed. Herron, AJ and Brennan TK.) Wolters Kluwer, 2015 pp 648-651.

PAMPHLETS, SUMMARY COMMENTS, AND OTHER PUBLICATIONS

1. **Karan, L.D.:** Letter to the Editor concerning testimony of the American Council on Alcoholism and Alcohol Policy Council on Alcoholic Warning Signs, Baltimore City Council, Bill #1493. *ASAM Newsletter*, July 1987.
2. Siegel, L., Brown, L., Counts, S., Flavin, D., Forest, J.L., Hawthorne, W.B., **Karan, L.D.**, Pohl, M., Schneider, M., Selwyn, P.A., Smith, D.E., Sorrell, S.J.: *Guidelines for Facilities Treating Chemically Dependent Patients at Risk for AIDS for Infected by the HIV Virus* (Ed., **Karan, L.D.**,) American Medical Society on Alcoholism and other Drug Dependencies, Inc., 1987, 1988, 1991.
3. **Karan, L.D.**, Pohl, M.I.: Editors' Introduction: Integrating AIDS Prevention and Chemical Dependency Treatment. *Journal of Psychoactive Drugs*. 21:361-363, 1989
4. Levin, E., **Karan, L.D.**, Rosecrans, J.: Nicotine: An Addictive Drug With Therapeutic Potential. *Medicinal Chemistry Research*. 2:509-513, 1993.
5. Riley, W.T., **Karan, L.D.:** Smoking Cessation. *Psychiatric Consultant*, The Medical College of Virginia, 1(3), 1993.
6. Riley, W.T., Motley, C.W., **Karan, L.D.:** Nicotine Addiction. *Perinatal Addiction Curriculum*. (ed. Schnoll, S.H. and Terpstra, J.K.) Center for Perinatal Addiction, Division of Substance Abuse Medicine, Medical College of Virginia, Virginia Commonwealth University, Health Sciences Consortium, 1995.
7. **Karan, L.D.:** "The Research Needs of Young Chemically Dependent Women: an Organizational Statement for the American Society of Addiction Medicine," Fourth Annual Scientific Advisory Meeting: Women's Health and the Environment, Washington, D.C., 1994.
8. Overstreet, D.H., **Karan, L.D.**, Rosecrans, J.A.: Genetic, Environmental, and Situational Factors Mediating the Effects of Nicotine - An Introduction. *Behavior Genetics*, 25(2):93-95, 1995.

PAMPHLETS, SUMMARY COMMENTS, AND OTHER PUBLICATIONS (continued)

9. **Karan, L.D., Burns, D.:** Pro and Con., Should patients who can't or won't quit smoking be encouraged to cut down? Internal Medicine News. December 15, 1997, pp. 6.
10. Rosecrans, J.A., **Karan, L.D.:** Effects of Nicotine on the Hypothalamic-Pituitary Axis (HPA) and Immune Function: Introduction to the Sixth Nicotine Round Table Satellite, American Society of Addiction Medicine Nicotine Dependence Meeting, November 15, 1997. Psychoneuroendocrinology 23(2), 95-102, 1998.
11. MacDonald, C., **Karan, L.D.:** Dr. John Slade: Distinguished Leader in Addiction Treatment and Tobacco Prevention, CSAM News (28-1) 10, 2002
12. **Karan, L.D., Martin, J.** Anesthesia-Assisted Rapid Opioid Detoxification. CSAM News (28-2) 4, 2002.
13. **Karan, L.D.** Nicotine Dependence and Tobacco. Audio-Digest Psychiatry. 32(2): January 21, 2003