

Curriculum Vitae

F. Michael Ferrante, M.D., FABPM

Personal History

Business Address and Phone:

UCLA Comprehensive Pain Center
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Education

1972 - 1976	B.S. - Tulane University (Biology)
1976 - 1980	M.D. - New York Medical College

Postgraduate Training and Fellowship Appointments:

1980 - 1981	Internship in Internal Medicine Emory University - Affiliated Hospitals, Atlanta, GA
1981 - 1983	Resident in Internal Medicine Emory University - Affiliated Hospitals, Atlanta, GA
1983 - 1984	Fellowship in Infectious Disease Barnes Hospital, Washington University - St. Louis, MO
1984 - 1986	Resident in Anesthesiology Emory University - Affiliated Hospitals, Atlanta, GA
1986 - 1987	Fellowship in Pain Management Brigham and Women's Hospital, Harvard Medical School – Boston, MA

Licensure

1981	Georgia #22757
1983	Missouri #R9C38
1986	Massachusetts #55563
1995	Pennsylvania #MD-055199-L
2001	California #G86121
2001	California DEA #AF1459355

Specialty Certification

1985	American Board of Internal Medicine
1987	American Board of Anesthesiology
1993	Certificate of Added Qualifications in Pain Management (American Board of Anesthesiology)
1994	Fellow of the American Board of Pain Medicine
2003	Recertification of Added Qualifications in Pain Management (American Board of Anesthesiology)

Specialty Certification (cont.)

2014 Recertification of Added Qualifications in Pain Management
(American Board of Anesthesiology)

Faculty Appointments

2001 - present Professor of Clinical Anesthesiology
Department of Anesthesiology, David Geffen School of Medicine at UCLA, Los Angeles, CA

2002 –present Professor of Clinical Anesthesiology and Internal Medicine
Departments of Anesthesiology and Internal Medicine, David Geffen School of Medicine at UCLA, Los Angeles, CA

Previous Faculty Appointments:

1987 - 1990 Instructor in Anesthesia
Department of Anesthesia, Harvard Medical School, Boston, MA

1990 - 1995 Assistant Professor of Anesthesia
Department of Anesthesia, Harvard Medical School, Boston, MA

1995 - 1999 Associate Professor of Anesthesia and Medicine
University of Pennsylvania School of Medicine, Philadelphia, PA

1999 - 2001 Professor of Anesthesia and Medicine
University of Pennsylvania School of Medicine, Philadelphia, PA

Hospital and Administrative Appointments

2001 - present Director, UCLA Pain Management Center
Department of Anesthesiology, David Geffen School of Medicine at UCLA, Los Angeles, CA

2022 - present Departmnet of Anesthesiology Financial Feedback Committee

Previous Hospital and Administrative Appointments:

1988 - 1989 Associate Director, Pain Management Center
Brigham and Women's Hospital- Harvard University, Boston, MA

1989 - 1995 Director, Pain Management Center
Brigham and Women's Hospital- Harvard University, Boston, MA

1994 - 1995 Anesthesiologist
Division of Physical Medicine and Rehabilitation, Harvard University Boston, MA

1995 - 2001 Director, Pain Management Center and Director, Cancer Pain and Symptom Management, Program of the University of Pennsylvania Cancer Center
Member, University of Pennsylvania Comprehensive Cancer Center, Philadelphia, PA

1997 - 2001 Staff Anesthesiologist, Department of Anesthesiology
Presbyterian Medical Center of the University of Pennsylvania Health System, Philadelphia, PA

2001 - 2004 Co-Director, UCLA Spine Center
Department of Anesthesiology, David Geffen School of Medicine at UCLA, Los Angeles, CA

2006 - 2007 Surgery Committee
UCLA Santa Monica-UCLA Medical Center and Orthopedic Hospital

Memberships in Professional and Scientific Societies (Include offices held)

National Societies:

1987 - 2014	American Academy of Pain Medicine
1980 - 2000	American College of Physicians
1997 - 2009	American Medical Association
2016- 2018	American Pain Association Board of Directors
1987 - 2014	American Pain Society
	American Society of Anesthesiologists
1992 - 1993	Member, Subcommittee on Local Anesthesia and Pain
1993 - 1995	Chairman, Guidelines Committee for Cancer Pain Management
1993	Member, Scientific Papers Subcommittee
1994	Peer Reviewer, Task Force on Practice Guidelines for Management of Acute Pain in the Postoperative Setting
1999 - 2003	Subcommittee on Local Anesthesia and Pain
2005 - 2008	Committee on Anesthesia Subspecialties
2008	Committee on Regional Anesthesia
	The American Society of Regional Anesthesia and Pain Medicine
1990 - 1991	Chairman, Workshops Committee
1992	Member, Scientific Program Committee, Annual Meeting
1992 - 1994	Member, Committee on Pain Management
1996	Labat Award Committee, Member, Awards Committee
1996, 2011	Research Committee for the Distribution of Koller Grant
1996 - 2011	Board of Directors
1997, 2014-2016	Distinguished Service Award Committee
1999 - 2005	Treasurer
2001 - 2004	Chairman, Finance Committee
2005 - 2016	Chairman, Membership Committee
2005 - 2007	President-elect
2007- 2009	President
2009- 2011	Immediate Past President
2014-2017	Member Distinguished Service Award Committee
1991 - 1994	Arthritis Drug Advisory Committee of the Food and Drug Administration
1996 - present	Association of University Anesthesiologists
1995 - 2001	Chester County Medical Society
1999 - 2002	College of Physicians of Philadelphia
2020	Food and Drug Administration. Joint Meeting Drug Safety Committee and Risk Management Advisory Committee and the Anesthetic and Analgesic Drug Products Advisory Committee, Invited Participant,
	Federal Agency for Health Care Policy and Research
1991 - 1993	Peer reviewer, Guidelines for acute and cancer-related pain management
1987 - 2020	International Anesthesia Research Society
1988 - 2016	International Association for the Study of Pain
1988	International Advisory Board, Turkish Chapter IASP
1988 - 1993	Task Force on Acute Pain, Section Leader for: Acutely Painful Medical Conditions
2012- present	International Neurotoxin Association
2004- 2018	International Spinal Injection Society
1994	National Institutes of Health Member of Review Panel, National Cancer Institute RFA: 93-35: "Cancer Pain Management in an Outpatient Setting"

Memberships in Professional and Scientific Societies (cont.)

2005	Neurotoxicity Society
2001 - 2019	Neurotoxin Institute Member of Scientific “think –tank” for the Study of Neurotoxins
1995 – 2001	Pennsylvania Medical Society
2008 - 2009	Western Pain Society Board of Directors

Editorial Positions

1987 - 1988	Consultant Reviewer, Anesthesia and Analgesia
1990, 1993-2004	Abstract Reviewer, Annual Meeting: American Society of Anesthesiologists
1990	Abstract Reviewer, Annual Meeting: American Society of Regional Anesthesia
1991	Consultant Reviewer, Clinical Journal of Pain
1993	Book Editor, Regional Anesthesia
1995, 2001- present	Consultant Reviewer, The New England Journal of Medicine
1995	Consultant Reviewer, Pain
2001 - present	Consultant Reviewer, Anesthesiology
2001 - present	Consultant Reviewer, Regional Anesthesia and Pain Medicine
1991	Editorial Advisory Board, Journal of Pain and Symptom Management
1993 - 2003	Editorial Board, Regional Anesthesia
1994	Editorial Board, Pain Digest
1994 - 1995	Editorial Board, The International Monitor
1995 - 2004	Editorial Board, Techniques in Regional Anesthesia and Pain Management
1998 - present	International Editorial Advisory Board, Turkish Journal of Pain
1999 - 2005	Editorial Board, The Journal of Pain
2009- present	Editorial Board, The European Neurological Journal

Academic Committees

2014-2021	Member, Back Pain Quality Improvement (BPQI) Working Group, UCLA HealthSystem
2014-Present	Member, Comprehensive Pain Center Committee, Department of Anesthesiology UCLA HealthSystem
2014-2021	Member, Health System Priorities, Pain and the Patient Experience Committee Department of Anesthesiology, UCLA HealthSystem
2015	Member, MOVERS (Mortality, Outcome, Value, Experience, Readmission, Safety) Pain group Committee, UCLA Health System
2015	Member, MOVERS Uncontrolled Pain Subcommittee, UCLA Health System
2016-2017	Master’s thesis Committee for Goonjan Shah, MD. Major: Clinical Research
2015-present	Pain Clinical Competency Committee

Previous Academic Committees:

1995 - 1997	Member, Ambulatory Medical Records Oversight Committee, University of Pennsylvania, Philadelphia, PA
1995 - 1997	Co-Chair, Forms, Format(s) and Chart Content Subcommittee, University of Ambulatory Medical Records Oversight Committee. University of Pennsylvania, Philadelphia, PA
1995 -1996	Departmental Representative, Global TeleMedical Network Clinical Task Force, University of Pennsylvania, Philadelphia, PA

1995 -1997	Member, Principles of Practice Executive Committee, University of Pennsylvania, Philadelphia, PA
1995 -1996	Member, Grant Writing Toolbox Committee, Department of Anesthesia, University of Pennsylvania, Philadelphia, PA
1995 -1997	Chairman, Cancer Pain and Symptom Management Research Group, Cancer Center, University of Pennsylvania, Philadelphia, PA
1995 - 1998	Member, Cancer Center Pilot Projects Review Committee, University of Pennsylvania, Philadelphia, PA
1995 - 1998	Departmental Representative, Musculoskeletal Task Force of the Clinical Integrations Steering Committee, University of Pennsylvania, Philadelphia, PA
1995 - 1998	Member, Musculoskeletal Center Quality Improvement Committee, University of Pennsylvania, Philadelphia, PA
1995 - 1996	Member, Hematology-Oncology Inpatient Unit Manual Writing Committee Cancer Center, University of Pennsylvania, Philadelphia, PA
1995 - 1999	Member, Pharmacy and Therapeutics Subcommittee on the Management of Pain, University of Pennsylvania, Philadelphia, PA
1995 - 1997	Member, Cancer Center Clinical Trials Scientific Review and Monitoring Committee, University of Pennsylvania, Philadelphia, PA
1995 - 1997	Member, Ambulatory Medical Record Oversight Committee, University of Pennsylvania, Philadelphia, PA
1995 - 1996	Member, Clinical Competence Committee, Department of Anesthesia, University of Pennsylvania, Philadelphia, PA
1995 - 1999	Member, Steering Committee, Department of Anesthesia, University of Pennsylvania, Philadelphia, PA
1995 - 1997	Member, Education Committee, Department of Anesthesia, University of Pennsylvania, Philadelphia, PA
1995 - 1996	Member, Global TeleMedical Network Committee, University of Pennsylvania, Philadelphia, PA
1995 - 1997	Member, Practice Affairs Committee, University of Pennsylvania, Philadelphia, PA
1995 - 1999	Member, Cancer Services Quality Improvement Committee, University of Pennsylvania, Philadelphia, PA
1995 - 1997	Member, Total Hip Replacement Critical Pathway Committee, University of Pennsylvania, Philadelphia, PA
1994	Member, Cancer Center Rehabilitation Services Task Force, University of Pennsylvania, Philadelphia, PA
1995 - 1997	Associate Medical Director, Board of Directors, Penn Home Infusion Committee, University of Pennsylvania, Philadelphia, PA
1995 - 1997	Member, Therapy Medical Advisory Committee, University of Pennsylvania, Philadelphia, PA
1998 - 2001	Member, Chair's Advisory Committee, University of Pennsylvania,
2004 - 2005	Member, Cancer Pain Committee, David Geffen School of Medicine at UCLA, Los Angeles, CA
2006 - 2007	Member, Surgery Committee, Santa Monica/UCLA Medical Center, Santa Monica, CA

Teaching and Clinical Responsibilities

2001 - present	3rd Year Medical School Anesthesiology Clerkship, David Geffen School of Medicine at UCLA
2001 - present	Director, UCLA Pain Medicine Anesthesiology Fellowship (SU 019), David Geffen School of Medicine at UCLA

2001 - present	Member, Pain Committee, Department of Anesthesiology, David Geffen School of Medicine at UCLA, Los Angeles, CA
2002 - present	4 th Year Pain Medicine Clerkship (AN298.01), David Geffen School of Medicine at UCLA
2002 - present	Lecturer, Primary Care College, David Geffen School of Medicine at UCLA
2003 - present	Lecturer, College of Applied Anatomy, David Geffen School of Medicine at UCLA

Awards, Honors, and Membership in Honorary Societies

1974	Tulane Scholar
1976	Phi Beta Kappa
1976	Summa Cum Laude
1983	The Lloyd Hyde Medical House Staff Research Award Emory University, Department of Internal Medicine for Original Research: <i>"Immune Complexes – An Epiphenomenon in Disseminated Gonococcal Infection"</i>
1987	Harvard Anesthesia Center Residents' Competition, First Prize: <i>"A Statistical Model for the Description of Cyclic Pain in Patients Using Patient-Controlled Analgesia"</i>
1992 - present	Elected to: <i>"The Best Doctors in America"</i>
1995 - 1998	Elected to: <i>"Who's Who in Medicine and Healthcare in North America"</i>
1996	Elected to: <i>"Top Docs"</i> by Philadelphia Magazine
1996	Today Show - Forever Young Series, talk on: <i>"Managing Pain"</i>
1997 - present	Association of University Anesthesiologists
1999 - 2005	Secretary-Treasurer, American Society of Regional Anesthesia and Pain Medicine
1999	Radio: WWBB, "Medical Frontiers"
1999 - 2002	Fellow, College of Physicians of Philadelphia
2001 - 2020	Elected to: <i>"America's Top Doctors"</i>
2002 - 2006	Elected to: <i>"Who's Who in America"</i>
2002 - 2006	Elected to: <i>"Who's Who in Medicine and Healthcare"</i>
2001	2003 Named <i>"One of the Top 35 Pain M.D.'s in the U.S."</i> by <i>Good Housekeeping</i> magazine, May 2003, pp. 104-106
2002	Featured on Korean Broadcasting Systems, "The Human Brain," February
2003	Featured in LA Times: "Doctors Refining Pain Relief," Nov. 24, 2003, p. F8
2003	Featured in <i>Vogue</i> magazine: "Back Stabbers," November 2004, pp. 334-343
2004	Featured in <i>LA Daily News</i> : "No Laughing Matter," November 24, 2004
2004	President-elect, American Society of Regional Anesthesia and Pain Medicine
2005 - 2007	Allergan Institute of Distinction
2006	Featured in <i>Adelphia Cable Network</i> program "Health Zone": "My Aching Back", February 22, 2006
2006	Interviewed by ABC Radio to comment on methadone for chronic pain, June 28, 2006.
2006	Featured in <i>Smart Business in Los Angeles</i> : "A pain in the back," August 2006 Issue
2006 - 2021	Global Directory of Who's Who
2008	American Society of Anesthesiologists Committee on Anesthesia Subspecialties.
2008- 2009	American Society of Regional Anesthesia and Pain Medicine Delegate to American Society of Anesthesiologists House of Delegates
2008- 2009	American Society of Anesthesiologists Regional Anesthesia Committee
2008- 2010	American Society of Anesthesiologists Pain Medicine Committee

Awards, Honors, and Membership in Honorary Societies (cont.)

2009	Featured in Pain Solution Magazine: "Why is my pain worse at night?," April 2009.
2009	Featured in Canwest Global Television Network, Firvalley Productions Inc.: "Reflex Sympathetic Dystrophy," 2009
2008- 2010	Cambridge Who's Who
2009- 2010	Cambridge Who's Who, Professional of the Year in Pain Management
2014	Distinguished Service Award, Amercian Society of Regional Anesthesiology & Pain Medicine
2019 – present	Featured in "Top Docs in Los Angeles" by Los Angeles Magazine
2023	Fellow of the American Society of Regional Anesthesia and Pain Medicine

Lectures by Invitation (Visiting Professorships)

Sept 20, 1995	State University of New York, Buffalo Department of Anesthesia, Buffalo, NY
Feb 20, 1996	Medical College of Pennsylvania and Hahnemann University Department of Anesthesia, Philadelphia, PA
Dec 3-4, 1996	State University of New York, Syracuse, NY
Apr 30, 1997	Memorial Sloan-Kettering Cancer Center, New York, NY
Jun 6, 1997	St. Joseph's Medical Center, Reading, PA
Oct 7-8, 1997	New York University, New York, NY
Apr 12-13, 1999	University of Iowa, Iowa City, IA
Dec 11, 2000	University of Alabama, Birmingham, AL
Jan 15-16, 2001	Cleveland Clinic Foundation, Cleveland, OH
Apr 26, 2001	Columbia University, New York Presbyterian Medical Center, New York, NY
Dec 11-12, 2002	University of Washington, Seattle, WA
Jan 7-9, 2004	University of Florida, Gainesville, FL
Jan 23-24, 2004	Stanford University School of Medicine, Stanford, CA
Aug 26, 2008	Advocate Illinois Masonic Medical Center, Chicago, IL
May 2008	Hospital for Special Surgery, New York, NY
May 2011-2018	Weill Cornell Medical College, New York, NY

Lectures by Invitation (National and International Societies and Institutions)

Jun 15, 1995	"Anatomy and Physiology of Pain", "Postoperative Pain Management", and "Implantable Drug Delivery Systems: Patient Selection and Implant Techniques" , Dannemiller Memorial Education Foundation, San Antonio, TX
Aug 3, 1995	"Postoperative Pain Management" , Deborah Heart and Lung Center, Cardiology Grand Rounds, Browns Mills, NJ
Sep 16, 1995	"When Should the Patient be Managed by the Pain Therapist and How to do That?", "Opioids and Acute Pain: Controversies", and "Critical Analysis of the Use of High Technology in Cancer Pain" , II International Symposium of Pain, Sao Paulo, Brazil
Sep 24, 1995	"Epidural Pain Management" , Astra Pharmaceuticals, Bucks County Anesthesia Seminar, Lahaska, PA
Oct 23, 1995	"Role of Interventions and Update on ASA Guidelines" , American Society of Anesthesiologists, Atlanta, GA
Oct 26, 1995	"Cancer Pain Management" , Neuroscience Conference, Christiana Hospital, Medical Society of Delaware, Newark, DE

Lectures by Invitation (National and International Societies and Institutions) (cont.)

- Nov 16-17, 1995 **“Balanced Analgesia”, “Opioids for Chronic Non-malignant Pain”, “Physician-Assisted Suicide”, and “Herpes Zoster”**, The American Society of Regional Anesthesia, Course Coordinator for Comprehensive Review of Pain Management, Individual Lectures: Comprehensive Review of Pain Management, New Orleans, LA
- Feb 10, 1996 **“The Use of Opioids for Nonmalignant Pain: Current Status”, “The Use of Opioids for Cancer Pain”, “The Nonsteroidal Anti-inflammatory Drugs in the Management of Pain”, “Newer Routes of Administration to Optimize Pain Control”, “Matching the Pain Patient with the Noninvasive Therapeutic Modality and the Avoidance and Treatment of Complications”**, The Fifth Annual Practicing Physician’s Approach to the Pain Patient, Palm Springs,
- Mar 5, 1996 **“Pharmacologic Management of Neuropathic Pain”**, Astra Pharmaceuticals, Wilmington, DE
- Mar 26-31, 1996 **“ASA Guidelines” Lecture, Moderator for “Review of Cancer Pain Treatment”, Moderator for “Poster Discussion Session III: Acute Postop Pain”, “Thoracic/Cervical Epidural Blockade” Workshop**, American Society of Regional Anesthesia Meeting, San Diego, CA
- Apr 19, 1996 **“Cancer Pain Management in a Cost-Effective Way”**, Update on Comprehensive Cancer Pain Management Conference Pennsylvania State University, Hershey, PA
- May 3-5, 1996 **“Patient Safety in Acute Pain Management” and “Pain Management for Surgery of the Thorax”**, 1996 Annual Meeting of the Pennsylvania Society of Anesthesiologists, Hershey, PA
- May 9-11, 1996 **“Update on Receptors, Neuropathways and Mechanisms”, “Intravenous Patient-Controlled Analgesia”, “Neurological Sequelae of Spinal Analgesia”, “The Role of the Nurse in Acute Pain Management”** Symposium 1996 on Acute Pain, University of Heraklion, Heraklion, Crete
- May 24, 1996 **“Managing Pain in the Outpatient Setting”**, Riddle Memorial Hospital Grand Rounds, Media, PA
- Jun 12, 1996 **“Pharmacology of Analgesics”**, Course Director, Harvard Pain Course, Brigham and Women’s Hospital, Boston, MA
- Jun 13, 1996 **“A Rationale for Use of Postoperative Analgesic Services”**, Astra Pharmaceuticals, San Antonio, TX
- Jun 14, 1996 **“Nociceptive Mechanisms and Pathways”, “The Neuroendocrine Stress Response to Surgery”, “Patient-Controlled Analgesia”, “Epidural and Intrathecal Opioids”**, 43rd Annual Anesthesiology Review Course, Dannemiller Educational Foundation, San Antonio, TX
- Jun 26, 1996 **“Epidurals for Lower Extremity Orthopedic Procedures”**, Astra Medical Education Programs, Allamuchy, NJ
- Aug 3-6, 1996 **“Pain Neuroanatomy”, “NSAIDs”, “Local Anesthetics”, “Cancer Pain”, and “Neurolytic Blocks for Cancer Pain”**, ASRA Annual meeting, Comprehensive Review of Pain Management, Chicago, IL
- Sep 3, 1996 **“Pharmacology and Clinical Use of Opioids”, “Pharmacology and Clinical Use of Local Anesthetics”, “Pharmacology and Clinical Use of NSAIDs”, “The Management of Neuropathic Pain”, “The Management of Nociceptive Pain”**, Pain Management: A Comprehensive Review, Chicago, IL
- Sep 21, 1996 **“Thoracic Epidural Anesthesia for Chest and Upper Abdominal Surgery”**, Regional Anesthesia in the Perioperative Period, ASRA, Pittsburgh, PA
- Oct 1, 1996 **“Pain Management”**, Phoenixville Hospital, Phoenixville, PA

Lectures by Invitation (National and International Societies and Institutions) (cont.)

Oct 22, 1996	"Pain Management" , Doylestown Hospital, Doylestown, PA
Nov 4, 1996	"Managing Pain" , NBC Today Show, New York, NY
Nov 6-8, 1996	"Cancer Pain. ASA Guidelines. Therapeutic News" ; "Coming Back to Work after Pain. When Can a Patient (especially with low back pain) be Discharged?" , Update Course on Pain Management, Mallorca, Spain
Nov 21-23, 1996	"Interventional Pain Management" , Pain Management and Chemical Dependency: Evolving Perspectives, New York, NY
Dec 9, 1996	"Postherpetic Neuralgia" , 50th Postgraduate Assembly in Anesthesiology New York, NY
Mar 7, 1997	"Non-malignant Pain Management" , Riddle Memorial Hospital, Media, PA
Mar 7, 1997	"Management of Cancer Pain" , Chester County Hospital, West Chester, PA
Mar 25-28, 1997	"An Anatomic and Neurophysiologic Discussion of Nociceptive Neural Pathways" , "Nonsteroidal Anti-inflammatory Drugs" , "Pharmacology of Medications for the Treatment of Neuropathic Pain" , "Acute Pain" , "Cancer Pain" , 6th John J. Bonica Pain Conference, Maui, HI
Apr 7, 1997	"Pain Management" , Marian Community Hospital, Carbondale, PA Apr 10-13, 1997 "What Works: Cancer Pain Management: Successes, Failures, Palliative Care" , ASRA Annual Meeting, Atlanta, GA
Jul 17, 1997	"Anatomy of Pain: How Pain Differs in Men and Women; Children and Adults" , and Moderator, American Medical Association Media Briefing, "Pain: How to Take Control and Stop the Agony" , New York, NY
Jul 21, 1997	"Neurostimulation" , Mid-Atlantic Pain Society, Washington, D.C.
Sep 13-14, 1997	"Anatomy of the Neuraxis" , "Pharmacology of Anesthetics: What's on the Horizon" , Anatomic Foundations for Pain Medicine and Regional Anesthesia: Workshops and Review Course, Hershey, PA
Sep 18-19, 1997	"Are Opioids Indicated for Non-malignant Pain Syndrome?" , "The 'Difficult' Pain Patient" , "Spinal Cord Stimulation" , "PCA/PCEA" Fourth Annual Regional Anesthesia & Analgesia '97, Toronto, Canada
Oct 8, 1997	"Thoracic Regional Anesthesia" , New York University, New York, NY
Oct 16, 1997	"Chronic Pain Management" , Genex, Wayne, PA
Oct 18-22, 1997	"Chronic Pain Management" , ASA Annual Meeting, San Diego, CA
Nov 20-23, 1997	"Nociception" , "Principles of Cancer Pain Management" , "Neurolytic Blocks" , "Implantable Drug Delivery Systems" , "Cryoanalgesia" , "Controversy: Opioids for Nonmalignant Pain" , Annual ASRA Meeting, New Orleans, LA
Dec 3-7, 1997	"Cancer Pain Management" , "Neurolytic Blocks" , 22nd Puerto Rico/Caribbean Symposium in Anesthesiology and Related Fields, San Juan, Puerto Rico
Dec 10-12, 1997	"Current Concepts in Acute Pain Management" , "Current Concepts in Acute, Chronic, and Cancer Pain" , The World Foundation for Pain Relief and Research Inc, New York, NY
Jan 17-21, 1998	"Pharmacology and Clinical Use of Opioids" , "Pharmacology and Clinical Use of NSAIDs" , "The Management of Neuropathic Pain" , "The Management of Nociceptive Pain" , "Pain and Its Management - An Advanced Course" , Dannemiller Memorial Educational Foundation Meeting, Palm Springs, CA
May 1-3, 1998	"Cancer Pain Management" , "Controversies of the Management of Pain due to Cancer" , "The Pharmacologic Management of Neuropathic Pain" , "The Management of Neurolytic Blocks due to Cancer"

Lectures by Invitation (National and International Societies and Institutions) (cont.)

- Pain:Controversies**", VIII National Meeting on Pain, Bogota, Colombia, South America
- May 14-17, 1998 **"Spinal Cord Stimulators" (Workshop), "Physician Assisted Suicide", "Pain Fellowships - Controversial Areas" (Cracker Barrel Session), "Controversies in Epidural Steroid Injection - Risks, Benefits, Outcome",** American Society of Regional Anesthesia 23rd Annual Meeting, Seattle, WA
- Jun 11-14, 1998 **"Chronic Pain Management", "Acute Pain Management",** The College of Physicians and Surgeons of Columbia University, Anesthesia in the XXI Century, Bolton Landing, NY
- Aug 4-5, 1998 **"Mechanisms of Pain Transmission", "Efficacy and Outcome of Spinal Cord Stimulation", Hands-on Workshops: "Intraspinal Drug Delivery: Case Management, Structure of Device", "Spinal Cord Stimulation: Screening Techniques",** Interventional Therapies, A Hands-on Workshop, Course Coordinator, The American Society of Regional Anesthesia, Boston, MA
- Aug 6-9, 1998 **"Review of NSAID Pharmacology", "Review of Local Anesthetic Pharmacology", "Drugs and Treatment of Neuropathic Pain", "Cancer Pain", "Neurolytic Blocks", "Sympathetic and Somatic Neural Blockade", "Postoperative Pain Management",** The American Society of Regional Anesthesia, Course Coordinator for the Comprehensive Review of Pain Management, Boston, MA
- Aug 12-15, 1998 **"Regional Techniques for Thoracic Surgery", "Mechanisms of Acute Pain: An Anatomic and Neurophysiologic Discussion of Nociceptive Neural Pathways", "Implantable Drug Delivery Systems and Spinal Cord Stimulation", "Herpes Zoster", "Patient-Controlled Analgesia", "Pain in Argentina '98",** An International Symposium on the Management of Acute and Chronic Pain, Buenos Aires, Argentina
- Sep 9, 1998 **"Implantable Drug Delivery Systems and Spinal Cord Stimulation",** Didactic Physical Medicine Seminar Series, Hospital of the University of Pennsylvania and Allegheny-Graduate programs, Philadelphia, PA
- Sep 15, 1998 **"Spinal Pathways, Biochemistry and Endocrinology of Pain",** Pain Symposium Panel for second year medical students, Brain and Behavior Module, The University of Pennsylvania School of Medicine, Philadelphia, PA
- Oct 8, 1998 **"Cancer Pain Management",** Surgical Grand Rounds, University of Pennsylvania, School of Medicine, Philadelphia, PA
- Oct 16, 1998 **"Does Pre-emptive Analgesia Prevent the Development of Chronic Pain?,"** Fourth Annual Local Meeting of the European Society of Regional Anesthesia, Vigo, Spain
- Oct 18, 1998 **"Chronic Pain Management",** Refresher Course Lecture, American Society of Anesthesiologists Annual Meeting, Orlando, FL
- Oct 19, 1998 **"Neuromodulation in the Chronic Pain Patient - What Have We Learned Thus Far and Can We Improve Outcome in the Future?"** American Society of Anesthesiologists, Annual Meeting, Orlando, FL
- Oct 19, 1998 **"What Effective Modalities of Acute Pain Management are Available to Us?,"** American Society of Anesthesiologists, Annual Meeting, Orlando, FL
- Nov 18-21, 1998 **"The Anatomic and Physiologic Basis of Pain", "Pharmacology and Clinical Use of Opioids", "Pharmacology and Clinical Use of Local Anesthetics", "Pharmacology and Clinical Use of NSAIDs", "The Management of Neuropathic Pain", "The Management of Nociceptive Pain", "Current Strategies in Pain Diagnosis and Management",** Dannemiller Memorial Educational Foundation Meeting, Acapulco, Mexico

Lectures by Invitation (National and International Societies and Institutions) (cont.)

- Nov 25, 1998 **“Interventional Pain Management for the Spine”**, Division of Rheumatology, Presbyterian Hospital, Philadelphia, PA
- Jan 11, 1999 **“Approaches to Neuraxial Infusion in the Management of Pain Due to Cancer”**, **“Managing Pain in Patients with Advanced Cancer: The Role of Neuraxial Infusion”**, Symposium sponsored by the journal, *Oncology*, New York City, NY
- Jan 16, 1999 **“Expanding Neurostimulation for Improved Patient Satisfaction: Occipital Neuralgia and Dual Lead Placement”**, Moderator
Medtronic Neurological, Philadelphia, PA
- Feb 8-10, 1999 **“Pain Pathways and Mechanisms of Pain”**, **“Pharmacologic Management of Neuropathic Pain”**, **“Physician-Assisted Suicide”**,
The Inaugural Michael Stanton-Hicks Pain Management and Regional Anesthesia Symposium, The Cleveland Clinic Foundation, Key West, FL
- Feb 19, 1999 **“Chronic Pain”**, Third Year Medical Student Lecture Series,
Department of Anesthesia, Hospital of the University of Pennsylvania School of Medicine, Philadelphia, PA
- Mar 25, 1999 **“Opioid Pharmacology”**, Resident Lecture Series, Department of Anesthesia, Hospital of the University of Pennsylvania, School of Medicine, Philadelphia, PA
- Apr 1, 1999 **“Epidural Treatments for Back Pain”** CA3 Conference, Department of Anesthesia, Hospital of the University of Pennsylvania, School of Medicine, Philadelphia, PA
- Apr 12, 1999 **“Mechanical Low Back Pain: Facet, Sacroiliac Injections, and Diskography”**, Pain Grand Rounds, Department of Anesthesia, University of Iowa, Iowa City, IA
- May 6, 1999 **“Regional Techniques of the Spine”**, American Society of Regional Anesthesia 24th Annual Meeting, Philadelphia, PA
- May 9, 1999 **“Interventional Pain Medicine”**, Moderator, American Society of Regional Anesthesia 24th Annual Meeting, Philadelphia, PA
- May 15, 1999 **“Pain and Relief Strategies”**, Primary Management of Orthopedics, Penn Orthopedics, Cherry Hill, NJ
- July 22, 1999 **“Neuromodulation”**, Neurology Grand Rounds, Hospital of the University of Pennsylvania, Philadelphia, PA
- Aug 14-19, 1999 **“The Anatomy and Physiology of the Nociceptive Pathways: Clinical Correlates”**, **“Physician-Assisted Suicide”**, **“Differential Neural Blockade: Clinical Applications of Basic Science”**, **“Reflex Sympathetic Dystrophy: Pathophysiology, Evaluation, and Treatment”**, **“Acute Herpes Zoster: Pathophysiology, Evaluation, and Treatment”**, **“The Optimal Use of Narcotic Analgesics in the Management of Pain of Malignant Origin”**, **“The Optimal Use of Narcotic Analgesics in the Management of Non-malignant Pain”**, **“Neurolytic Procedures for Cancer Pain Management”**, **“Advanced Pharmacologic Approaches to Neuropathic Pain Management Utilizing Adjuvant Drugs”**, **“Subarachnoid Neurolytic Blocks in the Management of Pain”**, **“Botulinum Toxin in the Management of Pain”**, **“Celiac Plexus and Lumbar Sympathetic Nerve Block: Fifty Years of Progress”**, **“Stellate Ganglion and Sphenopalatine Ganglion Block: Indications and Technique”**, **“Epidural Steroids in the Management of Acute Radicular Pain”**,
Interventional Pain Management, Dannemiller Memorial Educational Foundation, Hamilton, Bermuda

Lectures by Invitation (National and International Societies and Institutions) (cont.)

Sept 25, 1999	“Making the Pain Service Work”, “Thoracic Epidurals”, ASRA/ASTRA One-Day Workshop, New York City, NY
Sept 30, 1999	“Pain Pathways”, Grand Rounds, Children’s Hospital of Philadelphia, Philadelphia, PA
Oct 9-11, 1999	“Chronic Pain Management” (Refresher Course Lecture), “Post Thoracotomy Pain Control: Preemptive Analgesia” (Panel), “Pain Management” (Clinical Forum), American Society of Anesthesiologists, Dallas, TX
Oct 14-16, 1999	“Overview of Cancer Pain”, “Pharmacologic Treatment of Pain: Future Trends”, “Implantable Systems for Drug Administration”, “Management of Pain by Anesthetic Techniques”, II Indor, International Updating Congress on Pain and Stereotactic and Functional Neurosurgery, Goiania, Brazil, South America
Nov 18-21, 1999	“Cancer Pain Management”, “Neurolytic Blockade”, “Botulinum Toxin for Pain Management”, “Workshop: Cryoanalgesia”, Sixth Annual Comprehensive Review of Pain Management, American Society of Regional Anesthesia, New Orleans, LA
Dec 10-12, 1999	“Polyanalgesic Consensus Conference 2000”, New York City, NY
Dec 11-15, 1999	“Cancer Pain: How Early Should I Use Neurolytic Blocks”, “Regional Interventions for Cancer Pain”, PGA 53 rd Annual Meeting, New York State Society of Anesthesiologists, New York, NY
Feb 17, 2000	“Implantable Pumps and Spinal Cord Stimulators”, Philadelphia Workers’ Compensation Claims Association Lecture, Philadelphia, PA
Mar 30-Apr 2, 2000	“Efficacy and Outcomes of Neurostimulation”, “Mechanisms of Pain Transmission”, “Interventional Cadaveric Workshop”, American Society of Regional Anesthesia and Pain Medicine, Annual Meeting, Orlando, FL
Apr 6, 2000	“Nonoperative Management of Painful Spinal Conditions”, Neurosurgery, Grand Rounds, Hospital of the University of Pennsylvania, Philadelphia, PA
May 13, 2000	“Facet Arthropathy”, “Botulinum Toxin for Pain Management”, “Chronic Pain is a Disease: What does the Family Physician Need to Know?”, The Cleveland Clinic Foundation, Cleveland, OH
May 31-Jun 3, 2000	“Sympathetic Blocks”, “Post-op Pain: Which Drugs, Routes?”, “Opioid Therapy for Non-Malignant Pain”, International Society of Regional Anesthesia, Quebec, Canada
Jun 8, 2000	“Cervical Epidural V” and “Cervical Epidural VI”, 12 th World Congress of Anesthesiologists, Montreal, Canada
Jul 13-15, 2000	“Overview of Cancer Pain Management”, “Epidural and Subarachnoid Opioids”, XXVI Annual Refresher Course in Anesthesiology, Mexico City, Mexico
Aug 10-13, 2000	“Neuroanatomy of Nociception”, “Cancer Pain”, “Neurolytic Blocks”, “Drugs for the Treatment of Neuropathic Pain”, “Review of NSAID Pharmacology”, 7 th Annual Comprehensive Review of Pain Management, American Society of Regional Anesthesia and Pain Medicine, Key West, FL
Aug 24-26, 2000	“An Anatomic and Neurophysiologic Discussion of Nociceptive Neural Pathways” (Plenary Session), “Major Challenges in the Control of Non- malignant Chronic Pain”, “Thoracic Regional Analgesic Techniques” (Workshop), Scientific Committee of the 5 th Pan American Symposium on Regional Anesthesia (LASRA), Sao Paulo, Brazil, South America
Sep 12, 2000	“Current Approaches to Management of Chronic Pain”, Case Management Society of Mid-Atlantic Chapter, Thomas Jefferson University Hospital, Philadelphia, PA

Lectures by Invitation (National and International Societies and Institutions) (cont.)

- Sep 16, 2000 **“Management of Neuropathic Pain: Role of Blocks, Stimulators and Implantable Pumps”, “Diagnosis and Treatment of Neuropathic Pain”,** Beth Israel Medical Center, Continuing Medical Education, Philadelphia, PA
- Sep 24-30, 2000 **“Neurolytic Blocks for Cancer Pain” Workshop, “Interventional Approaches to Cancer Pain”, “Pharmacotherapy II – Adjuvant/Analgesics”, “Invasive Modalities in the Treatment of Chronic Pain”, “Back Pain”,** Vth Symposium on Regional Anesthesia and Pain Medicine, Santiago, Chile, South America
- Nov 4, 2000 **“Role of Pain Clinic for Chronic Syndromes”,** The Zurkow Lecture, The Penn Symposium 2000, Facial Pain, Philadelphia, PA
- Nov 8, 2000 **“Pain Management”,** Delaware Chapter of National Multiple Sclerosis Society
Wilmington, DE
- Nov 10, 2000 **“Chronic Pain Management”,** Medical Grand Rounds, Chestnut Hill Hospital
Philadelphia, PA
- Nov 16, 2000 **“An Anatomic and Neurophysiologic Discussion of Nociceptive Neural Pathways”, “Pharmacology of Medications for the Treatment of Neuropathic Pain”, “Mechanical Low Back Pain: Facet and Sacroiliac Injections and Diskography”,** Chicago Society of Anesthesiologists,
Chicago,IL
- Dec 11, 2000 **“Physician-Assisted Suicide”, “Spinal Injection Therapies for Mechanical and Radicular Back Pain”,** Visiting Professor, University of Alabama,
Birmingham, AL
- Jan. 15-16, 2001 **“Physician-Assisted Suicide”, “Regional Anesthesia for the Thorax”, “Regional Analgesia for Spinal Conditions”,** Grand Rounds, Cleveland Clinic
Foundation, Cleveland, OH
- Jan 23, 2001 **“Advanced Concepts in Intrathecal Drug Delivery”,** Medtronic Neurological,
Washington DC
- April 1, 2001 **“Botox”,** WPVI-TV, Action News, Philadelphia, PA
- April 4, 2001 **“Advanced Spinal Cord Stimulation”,** Medtronic Neurological, Newport
Beach, CA
- April 26, 2001 **“Pathophysiology of Low Back Pain”,** Grand Rounds, Columbia University,
New York, NY
- April 26, 2001 **“Management of Intrathecal Morphine Pumps”,** Medtronic Speakers Bureau,
Somerset, NJ
- May 5, 2001 **“Interventional Pain Management”,** Annual Meeting of American Society of
Neurorehabilitation, Philadelphia, PA
- May 9-13, 2001 **“Innovation Therapies for Cancer Pain Management”, “MRI: Imaging Techniques for Chronic Pain Evaluation and Management”,** Annual
Meeting of the American Society of Regional Anesthesia, Vancouver, British
Columbia
- August 1-5, 2001 **“Neurolytic Techniques”, “Implantable Drug Delivery Systems”, “Back Pain: Pathophysiology and Interventions”,** American Society of Regional
Anesthesia 8th Annual Comprehensive Review of Pain Management, Newport
Beach, CA
- Oct 31, 2001 **“Postoperative Pain Management”,** West L.A. VA Anesthesia Grand Rounds,
Los Angeles, CA
- Nov 14, 2001 **“Implantable Drug Delivery Systems”,** UCLA Neurosurgery Resident Lecture,
Los Angeles, CA
- Nov 19, 2001 **“Nonsurgical Management of Low Back Pain”,** UCLA Joint Orthopedic and
Neurosurgery Spine Grand Rounds, Los Angeles, CA

Lectures by Invitation (National and International Societies and Institutions) (cont.)

Nov 20, 2001	"NSAID Pharmacology" , Merck Pharmaceuticals, Los Angeles, CA
Dec 12, 2001	"Postoperative Pain" , UCLA Surgical Grand Rounds, Los Angeles, CA
Dec 17, 2001	"General Overview: Pain Medicine" , Pharmacia Conference, Los Angeles, CA
Jan 18, 2002	"Anesthesiologic Conception of Low Back Pain" , UCLA Rheumatology Grand Rounds, Los Angeles, CA
Jan 19-23, 2002	"Neuropathic Pain, Nociceptive Pain, Opioids" , "Clinical Use of Non-Steroidal Anti-Inflammatory Agents (NSAIDs)" , "Sympathetic Blocks: Stellate Ganglion, Lumbar Sympathetic, Celiac" and "Superior Hypogastric Plexus, Ganglion Impar" , 12 th Annual Pain and its Management: Dannemiller Educational Foundation, Rancho Mirage, Palm Springs, CA
Feb 1, 2002	"Do's and Don'ts of Pain Management" , St. Joseph's Hospital, Orange, CA
Feb 8, 2002	"Current Concepts: Pain Mechanisms, Acute, Chronic and Clinical Implications" , Kaiser Permanente Physical Medicine Regional Meeting, Pasadena, CA
Feb 27, 2002	"Pain Management Seminar" , UCLA Acute Care College for 4 th Year Medicine Students, Los Angeles, CA
March 11-14, 2002	"Pharmacological Management of Neuropathic Pain" , "Low Back Pain" , "Regional Analgesia for the Thorax" , "Neurolytic Blocks for Cancer Pain" , "Case Study: Back Pain Treatment Failure" , 11 th John J. Bonica Pain Conference, Maui, HI
March 21, 2002	"Nonsurgical Management of Low Back Pain" , Orthopedic Hospital Medical Staff Meeting, Los Angeles, CA
March 27, 2002	"Low Back Pain" , UCLA Neurology Outpatient Conference, Los Angeles, CA
April 10, 2002	"Acute Pain Management in Adults" , St. Joseph's Hospital, Orange, CA
April 12, 2002	"Basic Principles in Pain Management" , UCLA 7 th Annual Primary Care Update 2002, Las Vegas, NV
April 16, 2002	"Acute Pain Management in Adults" , Merck, Pasadena, CA
April 17, 2002	"Nonsurgical Management of Low Back Pain" , UCLA Anesthesia Grand Rounds, Los Angeles, CA
April 25-28, 2002	"Imaging Techniques for Chronic Pain Evaluation and Management" , "Pharmacologic Management of Neuropathic Pain" , "Problem-Based Learning Sessions: Spondylotic Lumbar Spine Disease" , American Society of Regional Anesthesia and Pain Medicine, 27 th Annual Spring Meeting and Workshops, Chicago, IL
May 16, 2002	"Nonsurgical Approach to Back Pain" , UCLA Case Managers Update 2002, Pacific Palisades, CA
May 22, 2002	"The Nonsurgical Treatment of Low Back Pain" , Seoul National University, Seoul, South Korea
May 25-26, 2002	"Cryoanalgesia and Radiofrequency Neurolysis" , "The Nonsurgical Treatment of Low Back Pain" , Congress of the Korean Pain Society, Iksan, South Korea
May 30, 2002	"Pain Medicine Roundtable" , Kaiser Permanente, Los Angeles, CA
June 6-8, 2002	"Neurotoxins for Painful Conditions: Myofascial Pain" , Neurotoxin Institute Advisory Board, Celle, Germany
June 12, 2002	"Nonsurgical Management of Low Back Pain" , Harbor-UCLA Anesthesiology Grand Rounds, Torrance, CA
June 12, 2002	"Pain Management, Including Interventional Procedures for Spinal Disorders" , UCLA Update on the Treatment of Spinal Disorders, Lancaster, CA

Lectures by Invitation (National and International Societies and Institutions) (cont.)

- June 21-22, 2002 **“Chronic Pain as a Disease: Clinical and Pharmacologic Management Implications”**, Kaiser Permanente Physical Medicine and Rehabilitation Symposium, Dana Point, CA
- June 25, 2002 **“Managing Acute Pain in Adults”**, Pasadena Medical Association Meeting, Pasadena, CA
- July 12, 2002 **“Practical Pain Management”**, UCLA College of Applied Anatomy, Foundations Week, Los Angeles, CA
- July 22, 2002 **“Opioid Pharmacology”**, Introductory Lecture for 1st Year UCLA Anesthesiology Residents, Los Angeles, CA
- July 30, 2002 **“New Evidence in Cancer Pain Management”**, UCLA Pain Management , Los Angeles, CA
- Sept. 26, 2002 **“Pain Management”**, UCLA-Santa Monica General Staff Conference, Santa Monica, CA
- Sept 30, 2002 **“Nonsurgical Management of Low Back Pain”**, UCLA Primary Care Network Continuing Medical Education, Los Angeles, CA
- Oct. 22, 2002 **“Pharmacology of Local Anesthetics”**, UCLA Department of Anesthesiology Resident Didactic Lecture Program, Los Angeles, CA
- Nov. 1, 2002 **“UCLA Postherpetic Neuralgia Symposium”**, **“Treatment Modalities Used for Postherpetic Neuralgia Parts I and II”**, Parke-Davis Symposium, Los Angeles, CA
- Nov. 2, 2002 **“The Nonsurgical Management of Lower Back Pain”**, UCLA Department of Anesthesiology Update 2002, Los Angeles, CA
- Jan 16, 2003 **“Managing Surgical Pain Following Orthopedic Surgery”**, Oasis Sports Medicine, San Diego, CA
- Jan 18-22, 2003 **“Acute Post-Operative/Post-Traumatic Pain”**, **“Cancer Pain and Its Management”**, **“Nociceptive Pain and its Management”**, **“Pharmacology and Clinical Use of NSAIDs”**, **“Sympathetic Blocks: Stellate Ganglion, Lumbar Sympathetic Celiac Plexus, Superior Hypogastric Plexus and Ganglion Impar Blocks”**, and **“The Technique of Discography and Its Role in the Diagnosis of Discogenic Pain”**, The 13th Annual Symposium Pain and Its Management: An In-Depth Review of Basic Mechanisms and Clinical Solutions, Dannemiller Memorial Educational Foundation, Scottsdale , AZ
- Jan 25-26, 2003 **“Pain: General Principles”**, **“NSAID Selection and Rational Use for Pain Management”**, **“Neck and Back Pain”**, and **“Pharmacological Management of Neuropathic Pain”**, Course Chair of the UCLA Comprehensive Review of Pain Management, Century City, CA
- Feb 3, 2003 **“Pain Management Seminar”**, UCLA Acute Care College, School of Medicine, Los Angeles, CA
- Feb 5, 2003 **“The Human Brain”**, **“The Mind and Body”**, **“The Body and the Brain”**, and **“The Electronic Brain”**, Korean Broadcasting System, Seoul, South Korea.
- Feb 7-9, 2003 **“Neurotoxins for Myofascial Pain”**, (M.E.N.T.O.R.S.), Chairman of Meeting, Santa Monica, CA
- Feb 12, 2003 **“Interventions for Neuropathic Pain”**, Daniel Freeman Hospital, Inglewood, CA
- March 14, 2003 **“Common Co-Morbidities: Management of Chronic Pain in Women”**, 3rd Annual North American Women’s Healthcare Forum, Anaheim, CA
- March 17, 2003 **“Managing Surgical Pain Following Orthopedic Surgery”**, Merck Continuing Education, Santa Monica, CA

Lectures by Invitation (National and International Societies and Institutions) (cont.)

March 21-23, 2003	“Spinal Cord Stimulation” , Third Semi-Annual Interventional Pain Management Symposium, American Society of International Pain Physicians, San Diego, CA
April 3-6, 2003	“Resident Cracker Barrel Designing and Evaluating Clinical Trials” and “Evaluating Clinical Trials” , American Society of Regional Anesthesia and Pain Medicine, 28 th Annual Spring Meeting & Workshops, San Diego, CA
April 24, 2003	“Managing Surgical Pain Following Orthopedic Surgery” , Merck Continuing Education, Beverly Hills, CA
April 25, 2003	“Managing Surgical Pain Following Orthopedic Surgery” , Merck Continuing Education, Thousand Oaks, CA
April 26, 2003	“Neurophysiology of Spinal Cord Stimulators” , Fifth Annual Pain Medicine Exposition, Carlsbad, CA
May 8, 2003	“Managing Surgical Pain Following Orthopedic Surgery: Total Knee Arthroplasty” , Merck Continuing Education, Santa Monica, CA
May 14, 2003	“New Developments in Pain Management: Low Back Pain” , UCLA Internal Medicine Grand Rounds, Los Angeles, CA
May 15, 2003	“Managing Surgical Pain Following Orthopedic Surgery” , Merck Continuing Education, Santa Monica, CA
May 30-June 1, 2003	“Pain Advisory Board Meeting” , Merck, San Francisco, CA
June 18, 2003	“Pain Management” , UCLA Department of Internal Medicine Weekly Didactic Lecture Series, Los Angeles, CA
June 20-21, 2003	“Pharmacology of Pain Management” , “Interventional Procedures (Annuloplasty, Neucloplasty, IDET, LASE, Catheter Disc Decompression, Endoscopy, Radio Frequency, Pumps and Stimulators)” , Kaiser Permanente Southern California Medical Group Physical Medicine and Rehabilitation Symposium 2003, Dana Point, CA
June 27-28, 2003	“Guided Tour of the Injections and Nerve Blocks” , “Botulinum Toxins for Pain” , “Neurolytic Blocks” , Principles and Practice of Pain Medicine. Harvard Medical School, Boston, MA
June 27, 2003	“Management of Acute Pain in Adults” , Merck Continuing Education, Boston, MA
July 3, 2003	“Management of Acute Pain in Adults” , Merck Continuing Education, Santa Monica, CA
July 10, 2003	“Multimodal Acute Pain Management: A Nonsurgical Approach to Torn Meniscus – A Case Study” , Merck Continuing Education, Santa Monica, CA.
July 9-11, 2003	“Pain Management” , College of Applied Anatomy, Foundations Week, UCLA School of Medicine, Los Angeles, CA
July 17 & 24, 2003	“Multimodal Acute Pain Management: A Nonsurgical Approach to Torn Meniscus – A Case Study” , Merck Continuing Education, Santa Monica, CA
July 22, 2003	“Opioid Pharmacology” , First Year Anesthesiology Residents, Department of Anesthesiology, UCLA School of Medicine, Los Angeles, CA
August 1, 2003	“Pain Management” , Primary Care College, UCLA School of Medicine, Foundations Week, Los Angeles, CA
Sept. 6-10, 2003	“Acute Postoperative/Post-Traumatic Pain: Mechanisms and Approaches to Management” , “Nociceptive Pain: Mechanisms and Approaches to Management” , “Fire and Ice: Cryo and Thermoneurolysis” , An Intensive Review of the Specialty of Pain Medicine. Dannemiller Memorial Educational Foundation, Chicago, IL

Lectures by Invitation (National and International Societies and Institutions) (cont.)

Sept. 12, 2003	"Back Pain" , California Medical Association, Santa Clara, CA
Sept 23, 2003	"Pain Management" , UCLA Department of Anesthesiology, Resident Didactic Program, UCLA, Los Angeles, CA
Sept. 24, 2003	"Pain Management" , Department of Medicine Outpatient Didactic Conference, UCLA, Los Angeles, CA
Sept. 24, 2003	"Exploring the Evolving Role of Botulinum Neurotoxin in Pain Management" , Allergan Practice with the Experts, Los Angeles, CA
Oct. 9, 2003	"Management of Acute Pain in Adults" Merck Continuing Education, Santa Monica, CA
Oct. 16, 2003	"Multimodal Acute-Pain Management: A Nonsurgical Approach to Torn Meniscus" , Merck Continuing Education, Santa Monica, CA
Nov. 1, 2003	"The Pharmacology of NSAIDs" , UCLA Department of Anesthesiology Update 2003, Los Angeles, CA
Nov. 13-14, 2003	"Update on Current Use of Anticonvulsants and Other Adjuncts: Evidence for Utility and Pitfalls" , 2003 ASRA Fall Pain Meeting, San Diego, CA
Nov. 14-15, 2003	"Merck National Advisory Board: Analgesia and Arthritis" , Moderator, New York, NY
Nov. 21, 2003	"Invasive Symptom Management" , Interprofessional Fellowship in Palliative Care Lecture Series, VA Wadsworth Hospital, Los Angeles, CA
Nov. 25, 2003	"Pain Management" , UCLA Department of Anesthesiology Resident Lecture, Los Angeles
Dec. 6, 2003	"Pain Management- Advances in Western Medicine" , UCLA 10 th Anniversary Conference on East Meets West for Comprehensive Pain Management, Los Angeles, CA
Jan 17-21, 2004	"Nociceptive Pain: Mechanisms and Approaches to Management" , "Pharmacology and Clinical Use of Local Anesthetics in Acute and Chronic Pain" , "Pharmacology and Clinical Use of NSAIDs in the Management of Pain" , "Sympathetic Blocks, Stellate Ganglion, Lumbar Sympathetic, Celiac Plexus, Superior Hypogastric, Plexus, and Ganglion Impar Blocks" , "Fire and Ice: Cryo and Thermoneurolysis" , "Epidural Steroids for Discogenic Pain: Interlaminar or Transforaminal?" , The 14 th Annual Review of Pain and Its Management, Scottsdale, AZ
Jan 23, 2004	"Raising Awareness: Understanding and Managing of Chronic Pain" , Stanford University, Department of Anesthesiology Grand Rounds, Stanford, CA
Feb 4, 2004	"Local Anesthetic Pharmacology" , Grand Rounds, UCLA Department of Anesthesiology, David Geffen School of Medicine at, Los Angeles, CA
Feb 21-22, 2004	"Pain: General Principles" , "NSAID Selection and Rational Use for Pain Management" , "Pharmacological Management of Neuropathic Pain" , "Botulinum Toxin for Painful Medical Conditions" , Course Chair, 2 nd Annual UCLA Comprehensive Review of Pain Management, Beverly Hills, CA
March 3-7, 2004	"Efficacy Profiles of Pain Products" , The American Academy of Pain Medicine 20 th Annual Meeting, Orlando, FL
March 5, 2004	"Current Therapeutic Options: Profiles of Pain Products" , The American Academy of Pain Medicine 20 th Annual Meeting, Orlando, FL
March 5, 2004	"Experience and Progress in the Management of Myofascial Pain and Headache: A Focus on Neurotoxin Therapy" , Course Chairman, M.E.N.T.O.R.S. (Methodologies for Experts in Neurotoxin Therapy: Outreach, Resources, and Support), Orlando, FL
March 12, 2004	Moderator, Poster Session, 29 th Annual Spring ASRA Meeting, Orlando, FL
May 22, 2004	Moderator, Pain Advisory Board Meeting, New Orleans, LA.

Lectures by Invitation (National and International Societies and Institutions) (cont.)

June 17, 2004	“Introduction to Pain Medicine”, “Interventional Spine Medicine Part I and II”, “Local Anesthetics”, Scott & White 10 th Annual Santa Fe Symposium in Anesthesiology, Santa Fe, New Mexico
June 23-27, 2004	“Guided Tour of Injections and Nerve Blocks”, “Botulinum Toxins for Pain”, Principles and Practices of Pain Medicine. Harvard Medical School, Boston, MA
June 25, 2004	“Multimodal Acute Pain Management”, Merck & Co., Inc., Boston, MA
July 12, 2004	“The Treatment of Neck and Shoulder Pain: Understanding Type A Botulinum as a Neuromodulator with Anti-Nociceptive and Focal Muscle Relaxation Effects”, Department of Neurology, Tokushima University, Tokushima, Japan
July 15-17, 2004	“The Treatment of Neck and Shoulder Pain: Understanding Type A Botulinum as a Neuromodulator with Anti-Nociceptive and Focal Muscle Relaxation Effects”, Japan Society of Pain Clinicians, Tokyo, Japan
July 23, 2004	“Opioid Pharmacology”, Anesthesia Resident Didactic Lecture, Department of Anesthesiology, David Geffen School of Medicine, Los Angeles, CA
July 28, 2004	“Pain Management”, Primary Care College, Foundations Week, David Geffen School of Medicine, Los Angeles, CA
August 13, 2004	“Opioid Pharmacology”, Anesthesia Resident Didactic Lecture, Department of Anesthesiology, David Geffen School of Medicine, Los Angeles, CA
Aug 28 - Sept 1, 2004	“Nociceptive Pain: Mechanisms and Management”, “Cancer Pain: Mechanisms and Management”, “Acute Postoperative /Post-Traumatic Pain Management- Advances in Western Medicine”, UCLA 10 th Anniversary Conference on East Meets West for Comprehensive Pain Management, Los Angeles, CA
Dec. 6, 2003	“Nociceptive Pain: Mechanisms and Approaches to Management”,
Jan 17-21, 2004	“Pharmacology and Clinical Use of Local Anesthetics in Acute and Chronic Pain”, “Pharmacology and Clinical Use of NSAIDs in the Management of Pain”, “Sympathetic Blocks, Stellate Ganglion, Lumbar Sympathetic, Celiac Plexus, Superior Hypogastric, Plexus, and Ganglion Impar Blocks”, “Fire and Ice: Cryo and Thermoneurolysis”, “Epidural Steroids for Discogenic Pain: Interlaminar or Transforaminal?”, The 14 th Annual Review of Pain and Its Management, Scottsdale, AZ
Jan 23, 2004	“Raising Awareness: Understanding and Managing of Chronic Pain”, Stanford University, Department of Anesthesiology Grand Rounds, Stanford, CA
Feb 4, 2004	“Local Anesthetic Pharmacology”, Grand Rounds, UCLA Department of Anesthesiology, David Geffen School of Medicine at, Los Angeles, CA
Feb 21-22, 2004	“Pain: General Principles”, “NSAID Selection and Rational Use for Pain Management”, “Pharmacological Management of Neuropathic Pain”, “Botulinum Toxin for Painful Medical Conditions”, Course Chair, 2 nd Annual UCLA Comprehensive Review of Pain Management, Beverly Hills, CA
March 3-7, 2004	“Efficacy Profiles of Pain Products”, The American Academy of Pain Medicine 20 th Annual Meeting, Orlando, FL
March 5, 2004	“Current Therapeutic Options: Profiles of Pain Products”, The American Academy of Pain Medicine 20 th Annual Meeting, Orlando, FL
March 5, 2004	“Experience and Progress in the Management of Myofascial Pain and Headache: A Focus on Neurotoxin Therapy”, Course Chairman, M.E.N.T.O.R.S. (Methodologies for Experts in Neurotoxin Therapy: Outreach, Resources, and Support), Orlando, FL
March 12, 2004	Moderator, Poster Session, 29 th Annual Spring ASRA Meeting, Orlando, FL
May 22, 2004	Moderator, Pain Advisory Board Meeting, New Orleans, LA.

Lectures by Invitation (National and International Societies and Institutions) (cont.)

June 17, 2004	“Introduction to Pain Medicine”, “Interventional Spine Medicine Part I and II”, “Local Anesthetics”, Scott & White 10 th Annual Santa Fe Symposium in Anesthesiology, Santa Fe, New Mexico
June 23-27, 2004	“Guided Tour of Injections and Nerve Blocks”, “Botulinum Toxins for Pain”, Principles and Practices of Pain Medicine. Harvard Medical School, Boston, MA
June 25, 2004	“Multimodal Acute Pain Management”, Merck & Co., Inc., Boston, MA
July 12, 2004	“The Treatment of Neck and Shoulder Pain: Understanding Type A Botulinum as a Neuromodulator with Anti-Nociceptive and Focal Muscle Relaxation Effects”, Department of Neurology, Tokushima University, Tokushima, Japan
July 15-17, 2004	“The Treatment of Neck and Shoulder Pain: Understanding Type A Botulinum as a Neuromodulator with Anti-Nociceptive and Focal Muscle Relaxation Effects”, Japan Society of Pain Clinicians, Tokyo, Japan
July 23, 2004	“Opioid Pharmacology”, Anesthesia Resident Didactic Lecture, Department of Anesthesiology, David Geffen School of Medicine, Los Angeles, CA
July 28, 2004	“Pain Management”, Primary Care College, Foundations Week, David Geffen School of Medicine, Los Angeles, CA
August 13, 2004	“Opioid Pharmacology”, Anesthesia Resident Didactic Lecture, Department of Anesthesiology, David Geffen School of Medicine, Los Angeles, CA
Aug 28 - Sept 1, 2004	“Nociceptive Pain: Mechanisms and Management”, “Cancer Pain: Mechanisms and Management”, “Acute Postoperative /Post-Traumatic Pain: Mechanisms and Management”, “Pharmacology and Clinical Use of Local Anesthetics in the Management of Pain”, “Pharmacology and Clinical use of NSAIDs in the Management of Pain”, “Sympathetic Blocks: Stellate Ganglion, Lumbar Sympathetic, Celiac Plexus, Superior Hypogastric Plexus, and Ganglion Impar Blocks”, “Cryoanalgesia and Radiofrequency Neurolysis”, “Discography: Indications, Technique, and Complications”, “Minimally Invasive Therapeutic Approaches to Discogenic Pain, Part I and II”, An Intensive Review of the Specialty of Pain Medicine, Dannemiller Memorial Educational Foundation, Chicago, IL
Sept 17, 2004	“Pharmacological Management of Neuropathic Pain”, Grand Rounds, Department of Obstetrics and Gynecology, David Geffen School of Medicine, Los Angeles, CA
Oct. 1, 2004	“Update and Cases on Pharmacotherapy of Pain in Older Adults: Nonopioids”, National Conference on Pain Relief in Older Adults, Baltimore, MD
Oct 30, 2004	“Principles of Chemical Neurolysis for Cancer Pain”, Pain Management and Palliative Care, David Geffen School of Medicine at UCLA, Marina Del Rey, CA
Nov 11 - 14, 2004	“What is New in Membrane Stabilizing Agents”, “Interactive Review of Pain Medicine”, “Diagnosis and Treatment of Low Back Pain”, “Bring Your Tough Cases: An Open Interaction Forum”, American Society of Regional Anesthesia & Pain Medicine (ASRA) Annual Fall Pain Meeting and Workshop, Phoenix, AZ
Nov 19, 2004	“Intrathecal Baclofen for the Treatment of Spasticity”, MS Achievement Center, UCLA Department of Neurology, Los Angeles, CA
Nov 23, 2004	“Pain Management”, Anesthesia Resident Didactic Lecture, Department of Anesthesiology, David Geffen School of Medicine, Los Angeles, CA
Jan 15 - 19, 2005	“Nociceptive Pain: Mechanisms and Management”, “Cancer Pain: Mechanisms and Management”, “Acute Postoperative /Post-Traumatic

Lectures by Invitation (National, and International Societies and Institutions) (cont.)

- Pain: Mechanisms and Management”, “Pharmacology and Clinical Use of Local Anesthetics in the Management of Pain”, “Pharmacology and Clinical use of NSAIDs in the Management of Pain”, “Sympathetic Blocks: Stellate Ganglion, Lumbar Sympathetic Celiac Plexus, Superior Hypogastric Plexus and Ganglion Impar Blocks”, “Discography and Other X-Rays of the Spine: Essential Prerequisite Treatment?”, “Fire and Ice: Cryoanalgesia and Radiofrequency Neurolysis”, “Minimally Invasive Therapeutic Approaches to Discogenic Pain”, “Minimally Invasive Therapeutic Approaches to Non Discogenic Pain”, The 15th Annual Review of Pain and its Management, Dannemiller Memorial Educational Foundation, Scottsdale, AZ**
- Feb 4 - 5, 2005 **“Focus on Stimulation”, Program Moderator, Medtronic Neurological, Seattle, WA**
- Feb 12, 2005 **“Practice Pathways II Focus Group”, (Clinical use of neurotoxins), Moderator, Las Vegas, NV**
- Feb 26-27, 2005 **“Pain: General Principles”, “NSAID Selection and Rational Use for Pain Management”, “The Roles of Opioids for Pain Management”, “Pharmacological Management of Neuropathic Pain”, “Botulinum Toxin for Painful Medical Conditions”, “Spinal Cord Stimulation”, Course Chair 3rd Annual UCLA Comprehensive Review of Pain Management, David Geffen School, Beverly Hills, CA**
- March 12, 2005 **“Focus on Stimulation”, Program Moderator, Medtronic Neurological, Walnut Creek, CA**
- April 1, 2005 **“Rationale for the Usage of NSAIDs and COX-2 Inhibitors in the treatment of Pain”, Advances in the Treatment of Pain: A Debate on Current Therapeutic Options for Chronic Pain. American Pain Society 24th Annual Meeting, Boston, M**
- April 21, 2005 **“Pharmacologic Management of Chronic Pain”, “Fluoroscopy for Dummies”, American Society of Regional Anesthesia and Pain Medicine, 30th Annual Spring Meeting, Toronto, ON, Canada**
- May 12, 2005 **“Pain Management for Neck and Spine Disorders”, UCLA Case Managers Update 2005, Pacific Palisades, CA**
- May 25, 2005 **“Opioid Pharmacology”, “Drug Diversion” and “NSAID Pharmacology”, Grand Rounds, Department of Ophthalmology, Jules Stein Eye Institute, David Geffen School of Medicine, Los Angeles, CA**
- June 8, 2005 **“Reflex Sympathetic Dystrophy”, The Hand Consortium, Los Angeles, CA**
- June 23-25, 2005 **“Headache and other Pain”, Neurotoxins 2005, Denver, CO**
- July 26, 2005 **“Opioid Pharmacology”, Anesthesia Resident Didactic Lecture Series, David Geffen School of Medicine, Los Angeles, CA**
- July 27, 2005 **“Pain Management”, Primary Care College Lecture Series, David Geffen School of Medicine, Los Angeles, CA**
- Oct 14, 2005 **“Interventional procedures for pain patients should be tried as early as possible vs procedures should only be used after conservative therapy has failed”, National Pain Forum, Expert Panel Discussion**
- Oct 23, 2005 **“Radiofrequency Ablation”, Annual Meeting of the American Society of Anesthesiologists, Atlanta, GA**
- Nov 5-6, 2005 **“Botox for Pain Syndromes”, Pain Management for Dermatologists, Division of Dermatology, David Geffen School of Medicine, Beverly Hills, CA**
- Nov 9, 2005 **“Painful Medical Conditions”, “Cancer Pain” and “Neuropathic Pain: Mechanisms” Ophthalmology Basic and Clinical Science Grand Rounds,**

Lectures by Invitation (National, and International Societies and Institutions) (cont.)

Nov 17-20, 2005	Department of Ophthalmology, Jules Stein Eye Institute, David Geffen School of Medicine, Los Angeles, CA. “Diagnostic Evaluation of Cervical Pain” and “Complications of Interventional Techniques and Management” , American Society of Regional Anesthesia and Pain Medicine, Annual Fall Pain Meeting and Workshops, Miami Beach, FL.
Jan 13-15, 2006	“Selection of Invasive Techniques: Ethical and Legal Considerations” , “Pharmacology of Agents used in Implantable Technologies” , “Sympathetic and Neurolytic Blocks” , “Cryoanalgesia and Percutaneous Radiofrequency Lesioning” , and “Discography and Minimally Invasive Approaches for Disc Pain” , Invasive Pain Management: An Advanced Interdisciplinary Comprehensive Course, Scottsdale, AZ.
Feb 15, 2006	“Principles of Pain Management” , Internal Medicine Resident Didactic Lecture Series, David Geffen School of Medicine, Los Angeles, CA
March 15, 2006	“Sympathetic and Neurolytic Block” , Grand Rounds , Department of Anesthesiology, David Geffen School of Medicine at UCLA, Los Angeles, CA
March 22, 2006	“Painful Medical Conditions” , “Cancer Pain” , and “Neuropathic Pain: Mechanisms” Ophthalmology Basic and Clinical Science Grand Rounds, Department of Ophthalmology, Jules Stein Eye Institute, David Geffen School of Medicine, Los Angeles, CA.
March 29, 2006	“Opioid Pharmacology” and “Red Flags for Drug Addiction and Diversion” , Ophthalmology Basic and Clinical Science Grand Rounds, Department of Ophthalmology, Jules Stein Eye Institute, David Geffen School of Medicine, Los Angeles, CA.
April 6-9, 2006	“Fluoroscopy and the Commonly Used Pain Management Procedures” and “Outcome-Based Medicine: Continuous Saga - Cox2 Story” , American Society of Regional Anesthesia and Pain Medicine, ASRA 2006 Annual Spring Meeting, Rancho Mirage, CA.
April 12, 2006	“The Impact of Moderate to Moderately Severe Chronic Pain” , Pri-Med Updates, San Diego, CA
May 6-7, 2006	“Pain: General Principles” , “The Role of Opioids for Pain Management” , “Neuropathic Pain Syndromes” , “Pharmacological Management of Neuropathic Pain” , “Spinal Anatomy: How the PCP Can Read MRIs, CTs, and Radiographs” , and “Botulinum Toxins for Painful Medical Conditions” , 4 th Annual UCLA Comprehensive Review of Pain Management, Anaheim, CA
May 17, 2006	“Principles of Pain Management” , Internal Medicine Resident Didactic Lecture Series, David Geffen School of Medicine, Los Angeles, CA
June 6, 2006	“The Impact of Moderate to Moderately Severe Chronic Pain” , Pri-Med Updates, San Antonio, TX
June 21, 2006	“The Impact of Moderate to Moderately Severe Chronic Pain” , Pri-Med Updates, Sacramento, CA
July 28-29, 2006	“Neurobiology of Pain” and “Pharmacology of Nociceptive Pain Management” , Joint Physical Medicine and Rehabilitation/Pain Management Symposium, Kaiser Permanente, Las Vegas, NV
July, 25, 2006	“Opioid Pharmacology,” Anesthesia Resident Didactic Lecture Series, David Geffen School of Medicine, Los Angeles, CA
August 21, 2006	“Current Concepts in Pain Management” , Century City Grand Rounds, Los Angeles, CA
August 26-30, 2006	“Neuropathic Pain: Diagnosis and Management” , “Cancer Pain” , “Anatomy of the Spine” , “Neck and Back Pain: Clinical Diagnosis and

Lectures by Invitation (National, and International Societies and Institutions) (cont.)

- Treatment”, “Painful Medical Conditions: An Overview”, “Anatomy of the Thorax and Abdomen”, “Painful Conditions of the Thorax and Abdomen”, “Pharmacology of Intrathecal Pharmacological Agents”, “Opioids and Non-Opioids: Pharmacology, Indications, Patient Selection, and Side Effects”, “NSAIDs, NMDA Antagonists, Autonomic Drugs, and other Miscellaneous Drugs: Pharmacology, Indications, Patient Selection, and Side Effects”, “Critical Care in Pain Management” and “Chemical Neurolysis and Radiofrequency Lesioning”, Course Co-Director - An Intensive Review of the Specialty of Pain Medicine: A Board Oriented Review Course, Chicago, IL
- Sept 8, 2006 “Challenging Cases in Chronic Pain for the Frontline Clinician”, 17th Annual Clinical Meeting of The American Academy of Pain Management, Lake Buena Vista, FL.
- Sept 12, 2006 “Pain Management”, Resident Didactic Lectures, UCLA Department of Anesthesiology, David Geffen School of Medicine, Los Angeles, CA
- Sept 13, 2006 “Opioid Pharmacology”, Grand Rounds, Department of Medicine, , David Geffen School of Medicine at UCLA, Los Angeles, CA
- Sept 15, 2006 “The Impact of Moderate to Moderately Severe Chronic Pain”, Pri-Med Updates, Phoenix, AZ
- Sept 27, 2006 “The Impact of Moderate to Moderately Severe Chronic Pain”, Pri-Med Updates, Los Angeles, CA
- Oct 14, 2006 **Regional Anesthesia and Acute Pain: Basic Science and Clinical II**, Poster Discussion Moderator. Annual Meeting of the American Society of Anesthesiologists, Chicago, IL
- Oct 15, 2006 “Radiofrequency Ablation” and “Spinal Cord Stimulation” Fluoroscopy Workshops., Annual Meeting of the American Society of Anesthesiologists, Chicago, IL
- Oct 17, 2006 “Diagnosis and Management of Myofascial Pain”, Refresher Course Lecture. Annual Meeting of the American Society of Anesthesiologists, Chicago, IL
- Oct 26-27, 2006 “Injections and Interventional Therapies”, National Pain Forum 2006, Philadelphia, PA
- Nov 2, 2006 “Changing Paradigm for Herpes Zoster Disease,” Merck & Co., Inc, Santa Monica, CA
- Nov 9, 2006 “Changing Paradigm for Herpes Zoster Disease,” Merck & Co., Inc, Redondo Beach, CA
- Nov 16-18, 2006 “Intensive Low Back Pain Didactic-Putting it All Together,” Intensive Low Back Pain Workshop- Facet and SI injections,” “Problem-Based Learning Discussion-CRPS,” and “Wine and Cheese Session- What would you do? Controversial Cases Discussion,” American Society of Regional Anesthesia Fall Meeting, San Francisco, CA
- Dec 1, 2006 “Panel Discussion: Therapeutic Applications of Non-Botulinum Neurotoxins,” International Conference on Neurotoxins (ICON) 2006 Meeting, Hollywood, FL
- Dec 9, 2006 “Practical Approach to Interventional Medicine,” North American Pain Forum, Rosemont, IL
- Jan 16, 2007 “Changing Paradigm for Herpes Zoster Disease,” Merck & Co., Inc, Long Beach, CA
- Jan 17, 2007 “Changing Paradigm for Herpes Zoster Disease,” Merck & Co., Inc, Bonita, CA
- Feb 1, 2007 “Changing Paradigm for Herpes Zoster Disease,” Merck & Co., Inc, Pasadena, CA

Lectures by Invitation (National, and International Societies and Institutions) (cont.)

- Feb 16, 2007 **“Changing Paradigm for Herpes Zoster Disease,”** Merck & Co., Inc, Fullerton, CA
- Feb 21, 2007 **“Changing Paradigm for Herpes Zoster Disease,”** Merck & Co., Inc, Monrovia, CA
- March 8, 2007 **“Changing Paradigm for Herpes Zoster Disease,”** Merck & Co., Inc, Laguna Beach, CA
- March 16, 2007 **“Non-Surgical Spinal Modalities,”** North American Spine Society, Phoenix, AZ
- March 24, 2007 **“Tame the Pain,”** Medtronic Neurological, Los Angeles, CA
- April 11, 2007 **“Changing Paradigm for Herpes Zoster Disease,”** Merck & Co., Inc, Westminster, CA
- May 16, 2007 **“Changing Paradigm for Herpes Zoster Disease,”** Merck & Co., Inc, Pasadena, CA
- May 17, 2007 **“Changing Paradigm for Herpes Zoster Disease,”** Merck & Co., Inc, Marina Del Rey, CA
- May 23, 2007 **“Changing Paradigm for Herpes Zoster Disease,”** Merck & Co., Inc, Fullerton, CA
- May 31, 2007 **“Changing Paradigm for Herpes Zoster Disease,”** Merck & Co., Inc, Santa Monica, CA
- July 24, 2007 **“Changing Paradigm for Herpes Zoster Disease,”** Merck & Co., Inc, Mission Viejo, CA
- Aug 25-30, 2007 **“Neuropathic Pain: Diagnosis and Management,” “Cancer Pain: Diagnosis and Management,” “Anatomy of the Spine,” “Neck and Back Pain: Diagnosis and Treatment,” “Painful Medical Conditions Including Critical Care,” “Anatomy of the Thorax,” “Painful Conditions of the Thorax and Abdomen,” “Pharmacology of Intrathecal Pharmacology Agents,” “Opioids and Non-Opioids,” “NSAIDs, NMDA Antagonists, Autonomic Drugs and other Miscellaneous Drugs,” “Fluoroscopy and Radiation Safety,” “Neurolysis: Cryoanalgesia, Chemical Neurolysis and RF,”** An Intensive Review of the Specialty of Pain Medicine, Chicago, IL
- Oct 14-16, 2007 **“Cadaver Workshop: Radiofrequency Rhizotomies,” “Diagnosis and Management of Myofascial Pain,” and “Low Back Pain: The Essentials,”** American Society of Anesthesiologists Annual Meeting, San Francisco, CA
- Oct 26, 2007 **“Changing Paradigm for Herpes Zoster Disease,”** Merck & Co., Inc, Van Nuys, CA
- Nov 3, 2007 **“Fire and Ice: Radiofrequency Lesioning and Cryoanalgesia,”** Imaging and Interventional Forum, UCLA Department of Radiological Sciences, David Geffen School of Medicine at UCLA, Santa Barbara, CA
- Nov 15-18, 2007 **“Botox for Pain Management: Headaches, Moderator,” “Botox for Pain Management: Myofascial Pain, Moderator,” “Special Workshop: ELVIS for Botox” (2 sessions),** American Society of Regional Anesthesia and Pain Medicine Annual Pain Medicine Meeting and Workshops, Boca Raton, FL
- Jan 19, 2008 **“Diagnosis and Evaluation of Head and Neck Pain,” “Radiographic Visualization of Head and Neck Pain,” “Neural Blockade for Head and Neck Pain,”** Dental Pain Clinic Grand Rounds, David Geffen School of Medicine at UCLA, Los Angeles, CA
- April 21-22, 2008 **“Non Surgical Management of Post Herniorrhaphy Chronic Pain,”** Chronic Pain In Inguinal Hernia Surgery International Consensus Conference, Catholic University, Rome
- May 7, 2008 **“Opioid Pharmacology,”** Grand Rounds, Department of Medicine, David Geffen School of Medicine at UCLA, Los Angeles, CA

Lectures by Invitation (National, and International Societies and Institutions) (cont.)

- June 24, 2008 **“Pain Management,”** Resident Didactic Lectures, UCLA Department of Anesthesia, David Geffen School of Medicine at UCLA, Los Angeles, CA
- Aug 23-28, 2008 **“Pain in ICU,” “Cancer Pain and Symptom Management,” “Neuropathic Pain: Diagnosis and Management,” “Anatomy of the Spine,” “Interventional Spine Medicine,” “Painful Conditions,” “Fluoroscopy and Radiation Safety,” Anatomy of the Thorax and Abdomen,” “Painful Conditions: Thorax and Abdomen,” Intraspinal Analgesic Pharmacology,” “Neurolysis: Chemical, Cryoanalgesia and Radiofrequency in Pain Management,” “Opioid Pharmacology,” “NSAID Pharmacology,”** Course Co-Director- An Intensive Review of the Specialty of Pain Medicine: A Pain Board Oriented Review Course, Dannemiller Memorial Educational Foundation, Chicago, IL
- Sep 24-27, 2008 **“ASRA/ESRA Recommendations on Ultrasound”,”“Postoperative Pain Management,”** Moderator, Poster Session, XXVII European Society of Regional Anaesthesia Annual Congress, Genoa, Italy
- Oct 17-21, 2008 **“Cadaver Workshops: Radiofrequency Ablations,” “Diagnosis and Management of Myofascial Pain,”** Moderator, Annual Meeting of the American Society of Anesthesiologists, Orlando, FL
- Nov 20-23, 2008 **“Refresher Course Lecture: Cervicothoracic Musculoskeletal Pain Syndrome,” “Special Workshop: ELVIS for Botox” (2 sessions),** American Society of Regional Anesthesia and Pain Medicine Annual Pain Medicine Meeting and Workshops, Huntington Beach, CA
- Dec 10, 2008 **“Myofascial Pain,”** Grand Rounds, Department of Anesthesia, David Geffen School of Medicine at UCLA, Los Angeles, CA
- March 15, 2009 **“Fibromyalgia and Myofascial Pain Syndrome: Evolving Concepts,”** World Institute of Pain Congress Meeting, New York, NY
- April 15, 2009 **“Clinical Pharmacology of Narcotics,”** UCLA Clinical Pharmacology Course, UCLA Department of Medicine, David Geffen School of Medicine at UCLA, Los Angeles, CA
- July 29, 2009 **“Pain Medicine,”** Acute Care College Foundation Lecture Series, David Geffen School of Medicine at UCLA, Los Angeles, CA
- Aug 22-27, 2009 **“Anatomy of the Spine,” “Interventional Spine Pain,” “Pain in the ICU,” “Cancer Pain and Symptom Management,” “Neuropathic Pain: Diagnosis and Management,” “Painful Medical Conditions,” “Fluoroscopy and Radiation Safety,” “Anatomy of the Thorax and Abdomen,” “Intraspinal Analgesic Pharmacology,” “Neurolysis: Chemical, Cryoanalgesia and Radiofrequency in Pain Management,” Opioid Pharmacology,” NSAID Pharmacology,”** Course Co-Director- An Intensive Review of the Specialty of Pain Medicine: A Pain Board Oriented Review Course, Dannemiller Memorial Educational Foundation, Chicago, IL
- Oct 17-21, 2009 **“Workshop: Facet (Lumbar and Cervical) Joint and SI Joint Injections, SI and Piriformis,” “Refresher Course Lecture: Diagnosis and Management of Myofascial Pain,”** Moderator, Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA
- Nov 7-8, 2009 **“Basic Fluoroscopy Concepts,” “Spinal Cord Stimulation (Intrathecal Delivery Systems),” “Hands-on Cadaver Course: Spinal Cord Stimulation,” “Hands-on Cadaver Course: Truncal Blocks,” “Hands-on Cadaver Course: Sympathetic Nerve Blocks,” “Radiofrequency Lesioning,” “Celiac Plexus and Splanchnic Nerve Blocks,”** Course Director, Interventional Pain Management Techniques Using Fluoroscopic Guidance: Basic and Advanced

Lectures by Invitation (National, and International Societies and Institutions) (cont.)

Nov 19-22, 2009	Hands-on Cadaver Course, Dannemiller Memorial Education Foundation, Chicago, IL “Problem Based Learning Discussion: Sacro-Iliac Pain and Treatment Options: An Update,” “Special Workshop: Elvis for Botox” (2 sessions), “Parallel Session: Physiatry and Rehabilitation,” “Management of Myofascial Pain Syndrome,” American Society of Regional Anesthesia and Pain Medicine Meetings and Workshops, San Antonio, TX
April 14, 2010	“Clinical Pharmacology of Narcotics” , M263 UCLA Clinical Pharmacology Course, UCLA Department of Medicine, David Geffen School of Medicine at UCLA, Los Angeles, CA
May 15-16, 2010	“Anatomy of the Spine”, “Interventional Spine Pain”, “Pain in the ICU”, “Cancer Pain and Symptom Management” , “Neuropathic Pain: Diagnosis and Management”, “Painful Medical Conditions”, Fluoroscopy and Radiation Safety”, “Anatomy of the Thorax and Abdomen”, Painful Conditions: Thorax and Abdomen”, “Intraspinal Analgesic Pharmacology”, “Neurolysis: Chemical, Cryoanalgesia and Radiofrequency in Pain Management”. , “Opioid Pharmacology”, NSAID Pharmacology”, Dannemiller Cadaver Workshop, Chicago, IL
Aug 21-26, 2010	“Anatomy of the Spine”, Interventional Spine Pain”, “Pain in the ICU”, “Cancer Pain and Symptom Management”, “Neuropathic Pain: Diagnosis and Management”, “Painful Medical Conditions”, “Fluoroscopy and Radiation Safety”, “Anatomy of the Thorax and Abdomen”, “Painful Conditions: Thorax and Abdomen”, “Intraspinal Analgesic Pharmacology”, “ Neurolysis: Chemical, Cryoanalgesia and Radiofrequency in Pain Management”, “Opioid Pharmacology”, “NSAID Pharmacology” , Dannemiller Pain Review Course 2010, Chicago, IL
Sept 29, 2010	“Intraspinal Analgesic Pharmacology” , Grand Rounds, Department of Anesthesia, David Geffen School of Medicine at UCLA, Los Angeles, CA
Nov 18-21, 2010	“Treatment of Sacroiliac Pain”, “Pain and Health Care Reform”, “Basic Fluoroscopy-Guided Techniques for Pain Medicine”, “Cranial and Peripheral Nerve Stimulators” , American Society of Regional Anesthesia and Pain Medicine Meetings and Workshops, Phoenix, AZ
Jan 26, 2011	UCLA Internal Medicine Didactics: “Principles of Pain Management”
April 13, 2011	“Clinical Pharmacology of Narcotics” , M623 UCLA Clinical Pharmacology Course, UCLA Department of Medicine, David Geffen School of Medicine at UCLA, Los Angeles, CA
May 13, 2011	“Fire and Ice Radiofrequency Lesioning and Cryoanalgesia” Cornell Pain Grand Rounds, Department of Anesthesia, Weill Cornell Medical College, New York, NY
May 14-15, 2011	“Basic Fluroscopic Concepts and Anatomy”, ”Sympathetic Blocks”, ”Spinal Cord Stimulation for Pain Management”, ”Sympathetic Blocks: Celiac Plexus Lumber Hypogastric Impar”, ”Spinal Cord Stimulation Trial/Implant: Thoraco-Lumber”, ”Spinal Cord Stimulatiom Trial/Implant: Cervical”, ” Intrathecal Pump Implantation: Catheter/Pocket” , Dannemiller Cadaver Workshop, Chicago, IL
June 3-5, 2011	“Intraspinal Pharmacology” California Society of Interventional Pain Physicians Meeting, Santa Barbara, CA
June 15, 2011	UCLA Internal Medicine Didactics: “Principles of Pain Management”
Aug 27-30, 2011	“Neuropathic Pain: Diagnosis and Management”, “Cancer Pain and Symptom Management”, “Pain in the ICU”, “Painful Medical Conditions”, “Anatomy of the Thorax and Abdomen”, “Painful Conditions: Thorax and Abdomen”, “Anatomy of the Pelvis”, “Painful Pelvic Conditions”,

Lectures by Invitation (National, and International Societies and Institutions) (cont.)

- Oct 15-17,2011 “Neuromodulation”, “Intraspinal Analgesic Pharmacology”, “Fluoroscopy and Radiation Safety”, Dannemiller Pain Review Course 2011, Chicago, IL
“Fluoroscopic and Ultrasound Cadaver Workshop,” “Diagnostic and Therapeutic Procedures for SIJ,” Moderator, Annual Meeting of the American Society of Anesthesiologists, Chicago,IL
- April 11, 2012 “Clinical Pharmacology of Narcotics”, M263 UCLA Clinical Pharmacology Course, UCLA Department of Medicine, David Geffen School of Medicine at UCLA, Los Angeles, CA
- April 13, 2012 “Rheumatology Grand Rounds”, UCLA Department of Medicine, David Geffen School of Medicine at UCLA, Los Angeles, CA
- April 20-22, 2012 “Pain Management”, UCLA Primary Care Symposium, Las Vegas, NV
May 18, 2012 “Sympathetic Neurolytic Blocks”, Cornell Pain Grand Rounds, Department of Anesthesia, Weill Cornell Medical College, New York, NY
- July 20-26, 2012 “Neuropathic Pain: Diagnosis and Management”, “Cancer Pain and Symptom Management”, “Pain in the ICU”, “Painful Medical Conditions”, “Anatomy of the Thorax and Abdomen”, “Painful Conditions: Thorax and Abdomen”, “Anatomy of the Pelvis”, “Painful Pelvic Conditions”, “Neuromodulation”, “Intraspinal Analgesic Pharmacology”, “Fluoroscopy and Radiation Safety”, Dannemiller Pain Review Course 2012, San Antonio, TX.
- Sept 6-8, 2012 “Fluoroscopy and Radiation Safety”, “Intraspinal Analgesic Pharmacology” Foro Internacional Medicina del Dolor y Paliativa, Instituto Nacional de Ciencias Medicas y Nutricion “Salvador Zubiran”, Mexico City, Mexico
- Sep 22-23, 2012 “Spinal Cord Stimulation Implantation Techniques”, “Intrathecal Pump Implantation”, SPPM Hands-on Interventional Pain Management Cadaver Course, Chicago,IL
- Nov 14-18, 2012 “Botulinum Toxin Injection for Headache”, “Pharmacologic Management of Headaches”, American Society of Regional Anesthesia and Pain Medicine Meetings and Workshops, Miami, FL
- Dec 6, 2012 “Clinical use of Botulinum Neurotoxin for Pain”, Toxins 2012, Miami, FL
April 10, 2013 “Clinical Pharmacology of Narcotics”, M263 UCLA Clinical Pharmacology Course, , UCLA Department of Medicine, David Geffen School of Medicine at UCLA, Los Angeles, CA
- April 11, 2013 “Lumber Facet Arthropathy-Evaluation & Management”, Neuroradiology Fellows Didactics RRMC, UCLA
- April 12-13, 2013 “Pharmacological Approach to the Pain Patient”, “Interventional Pain Medicine”, Dannemiller, Orlando, FL
- May 9-10, 2013 “Sympathetic Neurolytic Blocks” Cornell Pain Grand Rounds, Department of Anesthesia, Weill Cornell Medical College, New York, NY
- June 6-7, 2013 “Best Practices in Chronic Pain Management” Multidimensional Assessment to Multimodal Treatment: Additional Speaking Opportunity, Santa Clara, CA
- July 27-31, 2013 “Neuropathic Pain: Diagnosis and Management”, “Painful Medical Conditions”, “Anatomy of the Thorax and Abdomen”, “Painful Conditions: Thorax and Abdomen”, “Cancer Pain and Symptom Management”, “Anatomy of the Pelvis and Pelvic Conditions”, Neurolysis: Chemical Cryoanalgesia and Radiofrequency in Pain Management”, Dannemiller, Chicago, IL
- Sep 21-22, 2013 “Spinal Cord Stimulation Implantation Techniques”, “Intrathecal Pump Implantation”, SPPM Hands-on Interventional Pain Management Cadaver Course, Chicago, IL

Lectures by Invitation (National, and International Societies and Institutions) (cont.)

Oct 15, 2013	“Botulinum Toxin Therapy for Pain Medicine and Headache”, ASA Meeting, San Francisco, CA
Nov 15-16, 2013	“Neuroanatomy and Physiology of Pain”, “Understanding Technology Options for Successful Patient Outcomes”, “Case Studies”, St. Jude Meeting, Phoenix, AZ
Dec 5-8, 2013	“Treating Hard to-Manage Pain”, “Topics in Neuromodulations Symposium”, North American Neuromodulation Society Meeting, Las Vegas, AZ
April 7, 2014	Evaluation & Management of Lumbar Spine Conditions”, Women’s Health Center, UCLA, Westwood, CA
April 9, 2014	“Opioid Pharmacology”, M263 in CHS Beverly Hills, UCLA Department of Medicine, David Geffen School of Medicine at UCLA, Los Angeles, CA
May 24, 2014	“Sympathetic Neurolytic Blocks”, Cornell Pain Grand Rounds, Department of Anesthesia, Weill Cornell Medical College, New York, NY
July 26-29, 2014	“Neuropathic Pain: Diagnosis and Management”, “Painful Medical Conditions”, “Anatomy of the Thorax and Abdomen”, Painful Conditions: Thorax and Abdomen”, “Cancer Pain and Symptom Management”, Anatomy of the Pelvis and Pelvic Conditions”, Neurolysis: Chemical Cryoanalgesia and Radiofrequency in Pain Management”, Dannemiller, San Antonio, TX
Aug 16-17, 2014	“Course Overview & Introduction”, “Anatomy & Neural Targeting”, “Career Directions: Group, Private, Academic or Hospital Setting”, St. Jude Medical Neuromodulation, Los Angeles, CA
Aug 27, 2014	“Neurolysis: Chemical, Cryoanalgesia & Radiofrequency Lesioning in Pain Management” RRUMC Anesthesiology Grand Rounds
Sept 13, 2014	“Pain”, 2 nd Annual UCLA Review of Clinical Neurology, Westwood, CA
Sept 20-21, 2014	“Botulinum Toxin for Pain Management”, “Intrathecal Pump Implantation”, SPPM Hands-on Interventional Pain Management Cadaver Course,, Chicago, IL
Nov 13, 2014	“Workshop: Botulinum Toxin Injection for Headache”, “Problem Based Learning Discussion: Botulinum Toxin – Indications and Applications for Pain”, ASRA Annual Meeting, San Francisco, CA
March 24, 2015	“Pain” UCLA Entertainment Industry Medical Group,EIMG
May 22, 2015	“ICD9, ICD10 and CPT for Pain Medicine”, Pain Management Center Grand Rounds, Department of Anesthesiology, Cornell Ground Rounds, New York, NY
May 26, 2015	CA2 Chronic Pain Lecture, RRUMC, Department of Anesthesiology
July 10-11, 2015	“Perioperative Acute Pain Management, Taxonomy of Pain Systems, Neuropathic Pain, Nociceptive Pain Mechanisms, Pain in Obstetrics, Visceral Pain, Pelvic & Genitourinary Pain,” SPPM Pain Management Board Review, Chicago, IL
Aug 16-17, 2015	“Painful Medical Conditions”, “Anatomy: Thorax & Abdomen”, “Painful Conditions: Thorax & Abdomen”, “Cancer Pain & Symptoms Management”, “Anatomy of the Spine”, “Spinal & Epidural Blocks including Spinal Medications for Acute & Chronic Pain Management”, “Neurolysis: Chemical, Cryoanalgesia & Radiofrequency in Pain Management (SI)”, Dannemiller, Chicago, IL
Sept 18-20, 2015	“Spinal Cord Stimulation”, “Intrathecal Pump Implantation”, SPPM Hands-on Interventional Pain Management Cadaver Course, Chicago, IL
Aug 12-17, 2016	“Painful Medical Conditions”, “Anatomy Thorax & Abdomen”, “Painful conditions thorax & abdomen”, “Cancer Pain & Symptom Management”,

Lectures by Invitation (National, and International Societies and Institutions) (cont.)

	“Pelvic Pain”, “Anatomy of the Spine”, “Neurolysis: Chemical, Cryoanalgesia & Radiofrequency in Pain Management”, Dannemiller’s Meeting, Chicago, IL
Sept 17-18, 2016	“Spinal Cord Stimulation”, “ Intrathecal Pump Implantation”, SPPM Hands-on Interventional Pain Management Cadaver Course, Chicago, IL
Nov 17-20, 2016	“Botulin Toxin for Headaches and Other Indications”, “Workshop Lead: Botulinum Toxin for Headache Management and Shoulder Girdle/Cervical Myofascial Pain”, “Intravenous Alternative Therapies for Chronic Pain”, ASRA Meeting. San Diego, CA
Feb 4, 2017	“Alternatives to opioid therapy for chronic pain” CME Program, Los Angeles, CA
April 26, 2017	“Introduction to Opioid Pharmacology”, The American Association of Neurological Surgeons (AANS), Los Angeles, CA
June 8-10, 2017	“Anatomy of the Spine, Evaluation of Cervical Pain”, Foro Internacional Medicina del Dolor y Paliativa, Instituto Nacional de Ciencias Medicas y Nutricion “Salvador Zubiran” Mexico City, Mexico
Aug 18-23, 2017	“Painful Medical Conditions” “Anatomy Thorax & Abdomen” “Painful Conditions Thorax & Abdomen” “Cancer Pain & Symptom Management” “Pelvic Pain” “Spine Pain” “Radiofrequency Lesioning”, Dannemiller Pain Meeting, Chicago, IL
Sept 17, 2017	“Case Based Approach to Neurologic Pain Syndromes” 5 th Annual UCLA Review of Clinical Neurology, Los Angeles, CA
Sept 23-24, 2017	“Intrathecal Pump Implantation”, Cooled Radiofrequency of the Knee & Hip”, SPPM Hands-on Interventional Pain Management Cadaver Course,, Chicago, IL
May 1, 2018	“An Introduction to Opioid Pharmacology”, AANS Annual Meeting, New Orleans, LA
May 25, 2018	“CPT Coding for Pain”, Cornell Pain Grand Rounds, Department of Anesthesia, Weill Cornell Medical College, New York, NY
Sept 15-16, 2018	“Cooled Radiofrequency of the Hip & Knee”, “Intrathecal Pump Implantation”, SPPM Hands-on Interventional Pain Management Cadaver Course,, Chicago, IL
Nov 19, 2018	“Cooled Radiofrequency and Sawbones Fluoroscopic Demonstration”, Pain Medicine Center, University of CA, Irvine CA
Apr 16, 2019	“An Introduction to Opioid Pharmacology” AANS Annual Meeting, San Diego, CA
May 24, 2019	“Compliance and Coding for Pain Medicine”, Cornell Pain Grand Rounds, Department of Anesthesia, Weill Cornell Medical College, New York, NY
Sept 14-15, 2019	“Cooled Radiofrequency of the hip & knee”, “ Spinal Cord Stimulation Implantation”, SPPM Hands-on Interventional Pain Management Cadaver Course,, Chicago, IL
Nov 13-17, 2019	“Musculoskeletal & Neurologic Physical Examination for the Pain Medicine Practitioner”, “Botulinum Toxin for Headache & Myofascial Pain”, Moderator for MP-10b Moderated ePosters, ASRA Meeting , New Orleans, LA
Sept 10-11, 2020	Food and Drug Administration. Joint Meeting Drug Safety Committee and Risk Management Advisory Committee and the Anesthetic and Analgesic Drug Products Advisory Committee, Invited Participant
Sept 26, 2020	Cooled RF Lesioning for Chronic Pain Management, Avanos, Inc., Burbank, CA

Lectures by Invitation (National, and International Societies and Institutions) (cont.)

Nov 3, 2021	Pharmacology of Intrathecal Drug Delivery Systems , Grand Rounds, Dept. of Neurosurgery, UCLA
Aug 27, 2022	Cooled RF Lesioning for Chronic Pain Management , Avanos, Inc., Burbank, CA
Sept 22, 2023	Cooled RF Lesioning for Chronic Pain Management , Avanos, Inc., Burbank, CA

Bibliography

Research Publications, Peer Reviewed:

1. **Ferrante FM**, Pike EH: Malate dehydrogenase isoenzymes of liver and plasma in prepatent murine schistosomiasis mansoni. *Trans Roy Soc Trop Med* 74:795-797, 1980.
2. **Ferrante FM**, Myerson GE, Goldman JA: Subclavian artery thrombosis mimicking the aortic arch syndrome in systemic lupus erythematosus. *Arthritis Rheum* 25:1501-1504, 1982.
3. **Ferrante FM**, Orav EJ, Rocco AG, Gallo J: A statistical model for pain in patient-controlled analgesia and conventional intramuscular opioid regimens. *Anesth Analg* 67:457-461, 1988.
4. Johnson LR, Rocco AG, **Ferrante FM**: Continuous subpleural-paravertebral block in acute thoracic herpes zoster. *Anesth Analg* 67:1105-1108, 1988.
5. Rocco AG, Reisman RM, Lief PA, **Ferrante FM**: A two-person technique for epidural needle placement and medication infusion. *Reg Anesth* 14:85-87, 1989.
6. Johnson LR, Magnani BJ, Chan V, **Ferrante FM**: Modifiers of patient-controlled analgesia efficacy. I: Locus of Control. *Pain* 39:17-22, 1989.
7. Magnani BJ, Johnson LR, **Ferrante FM**: Modifiers of patient-controlled analgesia efficacy. II: Chronic pain. *Pain* 39:23-29, 1989.
8. **Ferrante FM**, Chan VWS, Arthur GR, Rocco AG: Interpleural Analgesia after thoracotomy. *Anesth Analg* 72:105-109, 1991.
9. **Ferrante FM**, Lu L, Jamison SB, Datta S: Patient-controlled epidural analgesia: Demand dosing. *Anesth Analg* 73:547-551, 1991.
10. Jamison RN, VadeBoncouer T, **Ferrante FM**: Low back pain patients unresponsive to an epidural injection: Identifying predictive factors. *Clin J Pain* 7:311-315, 1991.
11. **Ferrante FM**, Wilson SP, Iacobo C, Orav EJ, Lipson S: Clinical classification as a predictor of therapeutic outcome after cervical epidural steroid injection. *Spine* 18:730-736, 1993.
12. Jamison RN, Taft K, O'Hara JP, **Ferrante FM**: Psychosocial and pharmacologic predictors of satisfaction with intravenous patient-controlled analgesia. *Anesth Analg* 77:121-125, 1993.
13. Steinbrook RA, Hughes N, Fanciullo C, Manzi D, **Ferrante FM**: Effects of alkalization of lidocaine on the pain of skin infiltration and intravenous catheterization. *Clin J Anesth* 5:456-458, 1993.

Research Publications, Peer Reviewed: (cont.)

14. **Ferrante FM**, Fanciullo GJ, Grichnik KP, Vaisman J, Sacks GM, Concepcion MA: Regression of sensory anesthesia during continuous epidural infusions of bupivacaine and opioid for total knee replacement. *Anesth Analg* 77:1179-1184, 1993.
15. **Ferrante FM**, Rosinia FA, Gordon C, Datta S: The role of continuous background infusions in patient-controlled epidural analgesia for labor and delivery. *Anesth Analg* 79:80-84, 1994.
16. Jamison RN, Anderson KO, Peeters-Asdourian C, **Ferrante FM**: Survey of opioid use in chronic nonmalignant pain patients. *Reg Anesth* 19:225-230, 1994.
17. **Ferrante FM**, Barber MJ, Segal M, Hughes NJ, Datta S: 0.0625% bupivacaine with 0.0002% fentanyl via patient-controlled epidural analgesia for pain of labor and delivery. *Clin J Pain* 11:121-126, 1995.
18. **Ferrante, FM**, Paggioli J, Cherukuri S, Arthur GR: The analgesic response to intravenous lidocaine in the treatment of neuropathic pain. *Anesth Analg* 82:91-97, 1996.
19. **Ferrante FM**, Bedder M, Caplan RA, Chang H-M, et al: Practice guidelines for cancer pain management. *Anesthesiology* 84:1243-1257, 1996.
20. **Ferrante FM**: Principles of opioid pharmacotherapy: Practical implications of basic mechanisms. *J Pain Symptom Manag* 11:265-273, 1996.
21. d'Amours RH, **Ferrante FM**: Postoperative pain management. *JOSPT* 24:227-236, 1996.
22. d'Amours RH, **Ferrante FM**: Perioperative drugs and postoperative pain management. *Anesthesiology Clinics of North America* 15(2):251-268, 1997.
23. Banks PA, Hughes M, **Ferrante FM**, Noordhoek EC, Ramagopal V, Slivka A: Does allopurinol reduce pain of chronic pancreatitis? *Int J of Pancreatology* 22(3):171-176, 1997
24. **Ferrante FM**, Kaufman AG, Dunbar SA, Cain CF, Cherukuri S: Sphenopalatine ganglion block for the treatment of myofascial pain of the head, neck and shoulders. *Reg Anes* 23:30-36, 1998.
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