

Institute for Spinal Disorders

Sponsors

Eighth Annual Symposium on Current Concepts in Spinal Disorders 2009

A conference for orthopedists, neurosurgeons, fellows, residents and other physicians interested in the surgical treatment of spinal disorders

Conference:

Thursday, January 29, 2009: Friday, January 30, 2009: Attendees Reception: Saturday, January 31, 2009: 7:30 am to 4:30 pm 7:00 am to 4:30 pm

6:00 pm

7:30 am to 1:00 pm

Mandalay Bay Hotel -Mandalay Bay Conference Center

3950 Las Vegas Boulevard, South • Las Vegas, Nevada

A limited number of rooms at THEHotel at Mandalay Bay have been reserved for meeting attendees.

There will also be non-CME industry sponsored hands-on workshops on various days when the symposium is not in session

Agenda Eighth Annual Symposium on Current Concepts in Spinal Disorders, 2009

THURSE	AY, JANUARY 29, 2009
7:30 am	Registration
7.30 am	Introduction and Overview Neel Anand, MD
CECCIONI.	
SESSION I	PAIN MANAGEMENT
	HEAD AND NECK
	Cervicogenic Headache: Mechanisms and Modalities
	Cervical Pain and Migraine Headaches: Are They Related?
	Diagnostic and Therapeutic Cervical Injections
	Opioid-Induced Hyperalgesia: Neural Mechanisms and Clinical Implications
	Cervical Neuraxial Injection Controversies
	Discussion
	THORACIC AND LUMBAR SPINE
	Vertebroplasty and Kyphoplasty: Pros and Cons
	21st Century Discorgraphy and the HIZ
	Advanced Disc Therapies
	Functional Anesthetic Discography
	Correlating Intro-Operative Chromo-Discography with Endoscopic Patho-Anatomy of the Lumbar Spine
	Discussion
	Break
	ADVANCED TREATMENT MODALITIES
	Spinal Cord Stimulation-Axial Low Back Pain versus Radioculopathy
	Radiofrequency Neurotomy: How is the SI Joint Treated?
	Intrathecal Delivery Pumps: Latest Treatments for Nociceptive Pain
	Peripheral Nerve and Subcutaneous Stimulation
	Discussion
	NON-INVASIVE MODALITIES
	Psychological Assessment and Warning Signs for Invasive Procedures
	Rehabilitation: How to Optimize Outcome
	EMG for the Spine Surgeon
	Discussion
	Lunch
SESSION II	BIOLOGICS
	BMP-2: Facts, Science, Indications and Successes BMP-2: Controversies, Complications and the Future
	Platelet Factors and Bone Graft Extenders Stem Cell Based Fusion
	Stem Cells and Spinal Cord Injury
	Nucleus Regeneration Collagen Crosslinking for Tissue Repair
	Expert Panel Summary
	Expert Paller Summary
SESSION III	
	Rationale and Indications (Overview of all Devices)
	Hydraflex
	NeuDisc
	NuCore
	DASCOR
	PSD
	NUBAC
	Regain

Case Panel Discussion Expert Panel Summary

I HUKSDAT,	JANUARY 29, 2009 - CONTINUES
SESSION IV	VERTEBRAL COMPRESSION FRACTURES (VCF) UPDATES
	VCF - Updates Complications of Cement Augmentation
	StaXx for VCF
	Update on Cement Augmentation for VCF
	OsseoFix
	Discussion
4.70	Expert Summary
4:30 pm	Adjourn
FRIDAY.	JANUARY 30, 2009
7:00 am	Registration and Continental Breakfast
	Introduction and Overview
SESSION V	MINIMALLY INVASIVE INNOVATIVE TECHNOLOGIES
	Minimally Invasive Spinal Surgery - Why Is It Not Universal?
	Endoscopic Lumbar Spinal Surgery
	Percutaneous Endoscopic Cervical Discectomy
	Thoracoscopic and Laparoscopic Spine Surgery 2008
	Discussion
	StaXx for Interbody Fusion
	Outpatient AxialIF
	Transposas Lateral Interbody Fusion XLIF/DLIF
	XLIF for Thoracic Spine
	Minimizing The ALIF
	Multilevel Percutaneous Pedicle Screw Fixation for Spine Trauma
	Discussion
	Expert Summary
SESSION VI	FRONTIER TECHNOLOGIES
	Digital Operating Room For Safer Spine Surgery
	Image Guidance and Robot Assisted Spine Surgery: The New Use of O-Arm
	Cyperknife for Spinal Neoplasms
	PediGuard
	Nucleus Repair
	Annular Repair
	Lunch: Keynote Speaker: Surgeon Reimbursement and Economics of Spine Surgery - 2009 and Beyond (no CME credit for this Lecture) Robin Young, CFA
SESSION VII	POSTERIOR NON-FUSION (PNF)
	Biomechanics of Posterior Non-Fusion Devices
	Interspinous Spacers
	Overview and Indications for Interspinous Spacers
	X-Stop
	DIAM
	Wallis
	Co-flex
	Discussion
	Pedicle Based Devices
	Dynesys Dynesys
	Isobar
	N-Spine (Enhance)
-	DSS
	Stabilimax
	Discussion

	Facet Replacement Devices
	Overview and Indications for Facet Replacment Devices
	TOPS
	Total Facet Arthroplasty System
	Anatomical Facet Replacement System
	Discussion
	Expert Summary
	Break
SESSION VII	I DEFORMITY
	Genetic Testing for Scoliosis
	Outcomes for Adult Spinal Deformity
	Pros and Cons of Thoracic Pedicle Screw Instrumentation in Pediatric Deformity
	Endoscopic Anterior Correction of Thoracolumbar Scolisis
	Mid Cervical Deformity
	Cervical Thoracic Deformity
	PSO in the Thoracic Spine
	Revision Strategies for Sagittal Coronal Deformities
	Surgery of the Unfused Compensatory Thoracolumbar Curve in Adult Scoliosis
	Fusionless Deformity
	Multi-Level Minimally Invasive Fusion for Adult Degenerative Scoliosis
	Q & A
SESSION IX	COMPLICATIONS & PROBLEMS IN ROUTINE SPINAL SURGERY
	Medical Errors and Malpractice
	Strategies for Avoiding Complications and Pitfalls
	Dural Tears and Persistent CSF Leaks
	Revision Strategies for the Previously Operated Patient
	Two Cases Discussions with Two Senior and Two Junior Faculty
	Q & A
4:30 pm	A all a come
4.30 pm	Adjourn
6:00 pm	Attendees Welcome Reception
6:00 pm	
SATURE	Attendees Welcome Reception
SATURE	Attendees Welcome Reception OAY, JANUARY 31, 2009
SATURE SESSION X	Attendees Welcome Reception OAY, JANUARY 31, 2009 LUMBAR ADR
SATURE SESSION X	Attendees Welcome Reception AY, JANUARY 31, 2009 LUMBAR ADR Continental Breakfast
SATURE SESSION X	Attendees Welcome Reception AY, JANUARY 31, 2009 LUMBAR ADR Continental Breakfast Kinematics of Lumbar ADR
SATURE SESSION X	Attendees Welcome Reception AY, JANUARY 31, 2009 LUMBAR ADR Continental Breakfast Kinematics of Lumbar ADR Indications - Patient Selection - Contra-Indications and Summary of Discs Today
SATURE SESSION X	Attendees Welcome Reception AY, JANUARY 31, 2009 LUMBAR ADR Continental Breakfast Kinematics of Lumbar ADR Indications - Patient Selection - Contra-Indications and Summary of Discs Today ADR DOES NOT Prevent Adjacent Segment Degeneration
SATURE SESSION X	Attendees Welcome Reception AY, JANUARY 31, 2009 LUMBAR ADR Continental Breakfast Kinematics of Lumbar ADR Indications - Patient Selection - Contra-Indications and Summary of Discs Today ADR DOES NOT Prevent Adjacent Segment Degeneration ADR DOES Prevent Adjacent Segment Degeneration Discussion
SATURE SESSION X	Attendees Welcome Reception OAY, JANUARY 31, 2009 LUMBAR ADR Continental Breakfast Kinematics of Lumbar ADR Indications - Patient Selection - Contra-Indications and Summary of Discs Today ADR DOES NOT Prevent Adjacent Segment Degeneration ADR DOES Prevent Adjacent Segment Degeneration Discussion Is There a Role for Hybrid Constructs
SATURE SESSION X	Attendees Welcome Reception AY, JANUARY 31, 2009 LUMBAR ADR Continental Breakfast Kinematics of Lumbar ADR Indications - Patient Selection - Contra-Indications and Summary of Discs Today ADR DOES NOT Prevent Adjacent Segment Degeneration ADR DOES Prevent Adjacent Segment Degeneration Discussion Is There a Role for Hybrid Constructs Hybrid Constructs Are Just a Marketing Ploy
SATURE SESSION X	Attendees Welcome Reception OAY, JANUARY 31, 2009 LUMBAR ADR Continental Breakfast Kinematics of Lumbar ADR Indications - Patient Selection - Contra-Indications and Summary of Discs Today ADR DOES NOT Prevent Adjacent Segment Degeneration ADR DOES Prevent Adjacent Segment Degeneration Discussion Is There a Role for Hybrid Constructs
SATURE SESSION X	Attendees Welcome Reception AY, JANUARY 31, 2009 LUMBAR ADR Continental Breakfast Kinematics of Lumbar ADR Indications - Patient Selection - Contra-Indications and Summary of Discs Today ADR DOES NOT Prevent Adjacent Segment Degeneration ADR DOES Prevent Adjacent Segment Degeneration Discussion Is There a Role for Hybrid Constructs Hybrid Constructs Are Just a Marketing Ploy
SATURE SESSION X	Attendees Welcome Reception OAY, JANUARY 31, 2009 LUMBAR ADR Continental Breakfast Kinematics of Lumbar ADR Indications - Patient Selection - Contra-Indications and Summary of Discs Today ADR DOES NOT Prevent Adjacent Segment Degeneration ADR DOES Prevent Adjacent Segment Degeneration Discussion Is There a Role for Hybrid Constructs Hybrid Constructs Are Just a Marketing Ploy Discussion Point: L5-S1 - TDR Has No Benefit Counterpoint - L5-S1 TDR Is Better than Fusion
SATURE SESSION X	Attendees Welcome Reception OAY, JANUARY 31, 2009 LUMBAR ADR Continental Breakfast Kinematics of Lumbar ADR Indications - Patient Selection - Contra-Indications and Summary of Discs Today ADR DOES NOT Prevent Adjacent Segment Degeneration ADR DOES Prevent Adjacent Segment Degeneration Discussion Is There a Role for Hybrid Constructs Hybrid Constructs Are Just a Marketing Ploy Discussion Point: L5-S1 - TDR Has No Benefit
SATURE SESSION X	Attendees Welcome Reception DAY, JANUARY 31, 2009 LUMBAR ADR Continental Breakfast Kinematics of Lumbar ADR Indications - Patient Selection - Contra-Indications and Summary of Discs Today ADR DOES NOT Prevent Adjacent Segment Degeneration ADR DOES Prevent Adjacent Segment Degeneration Discussion Is There a Role for Hybrid Constructs Hybrid Constructs Are Just a Marketing Ploy Discussion Point: L5-S1 - TDR Has No Benefit Counterpoint - L5-S1 TDR Is Better than Fusion Discussion
SATURE SESSION X	Attendees Welcome Reception OAY, JANUARY 31, 2009 LUMBAR ADR Continental Breakfast Kinematics of Lumbar ADR Indications - Patient Selection - Contra-Indications and Summary of Discs Today ADR DOES NOT Prevent Adjacent Segment Degeneration ADR DOES Prevent Adjacent Segment Degeneration Discussion Is There a Role for Hybrid Constructs Hybrid Constructs Are Just a Marketing Ploy Discussion Point: L5-S1 - TDR Has No Benefit Counterpoint - L5-S1 TDR Is Better than Fusion Discussion Vascular Surgeons Perspective on How to Avoid ADR Complications
SATURE SESSION X	Attendees Welcome Reception DAY, JANUARY 31, 2009 LUMBAR ADR Continental Breakfast Kinematics of Lumbar ADR Indications - Patient Selection - Contra-Indications and Summary of Discs Today ADR DOES NOT Prevent Adjacent Segment Degeneration ADR DOES Prevent Adjacent Segment Degeneration Discussion Is There a Role for Hybrid Constructs Hybrid Constructs Are Just a Marketing Ploy Discussion Point: L5-S1 - TDR Has No Benefit Counterpoint - L5-S1 TDR Is Better than Fusion Discussion
SATURE SESSION X	Attendees Welcome Reception OAY, JANUARY 31, 2009 LUMBAR ADR Continental Breakfast Kinematics of Lumbar ADR Indications - Patient Selection - Contra-Indications and Summary of Discs Today ADR DOES NOT Prevent Adjacent Segment Degeneration ADR DOES Prevent Adjacent Segment Degeneration Discussion Is There a Role for Hybrid Constructs Hybrid Constructs Are Just a Marketing Ploy Discussion Point: L5-S1 - TDR Has No Benefit Counterpoint - L5-S1 TDR Is Better than Fusion Discussion Vascular Surgeons Perspective on How to Avoid ADR Complications Surgeons Perspective on Avoiding ADR Complications

	LUMBAR ADR CLINICAL DATA
	Charite Data
	ProDisc Data
	Maverick Data
	Discussion
	Flexicore
	Kineflex
	MobiDisc
	Other Concepts:
	Lateral TDR
	Posterior TDR
	Panel Case Discussions
	Expert Summary
	Keynote Lecture - Consulting Agreements, Product Development and Off-Label Use of Innovative Medical Technologies David Polly, Jr., MD
SESSION XI	CERVICAL ADR
	Kinematics of Cervical ADR
	Indications - Patient Selection - Contra-Indications
	Cervical Fusion is Still the Gold Standard
	Cervical ADR Will Become the Gold Standard
120000	Discussion
-	Cervical ADR is Best Suited for Single Level Disease
	Cervical ADR is Best Suited for Multilevel Disease
	Discussion
	Cervical ADR is Best Suited for Cervical Myelopathy
	Cervical Fusion is Best Suited for Cervical Myelopathy
	Discussion
	Break
	CERVICAL ADR CLINICAL DATA
	Bryan
	Prestige
	ProDisc
	Secure-C
	PCM
	Cervicore
	Kineflex-C
	Mobi C
	NeoDisc
	Panel Discussion
	Expert Summary
1:00 pm	Adjourn
eting Locatio	n

The Mandalay Bay Hotel is located on the South end of the Las Vegas Strip about 2 miles from McCarran International Airport.

Directions to Meeting Location

From North: Take the I-15 South. Exit Right at Russell Road, turn left at Las Vegas Boulevard. Mandalay Bay Hotel is located on the left side of the street, enter driveway for Valet Parking. For Self-Parking, proceed to Mandalay Bay Drive, turn left and proceed to the Garage Parking.

From Los Angeles: Take the I-15 North. Exit Left at Russell Road, turn left at Las Vegas Boulevard. Mandalay Bay Hotel is located on the left side of the street, enter driveway for Valet Parking. For Self-Parking, proceed to Mandalay Bay Drive, parking garage. turn left and proceed to the Garage Parking.

From McCarran Airport: Go toward Airport Exit, bear left onto the highway toward ARRIVING FLIGHTS/PASSENGER PICKUP/LONG TERM PARKING/SHORT TERM PARKING. Continue or Swenson Street toward Airport Exit. Turn left on Tropicana Avenue. Turn left onto South Las Veg Boulevard. Turn into the hotel and follow signs to

Las Vegas Strip: Take Las Vegas Boulevard North to the Mandalay Bay Hotel located between Russell Road and Hacienda Avenue

Activity Information

Course Description

The 8th Annual Symposium on Current Concepts in Spinal Disorders will focus on current treatment methodology, new and emerging technologies and controversies in spine care management. Our faculty will be comprised of internationally recognized experts who will present lectures focusing on conservative care, biologics, cervical and lumbar artificial disc replacement clinical data, new lumbar disc replacement, controversies in motion preservation, deformity, posterior non-fusion technologies, and innovative technologies. Participants will have several opportunities and are encouraged to join faculty for discussions and debates regarding the above topics.

Educational Objectives

- Utilize current conservative care treatment options to assist in surgical decision making for improving patients' surgical outcomes
- Incorporate BMP indications and delivery systems as a way to enhance osteogenesis among future spine surgery candidates to achieve optimal results
- Use basic science to evaluate best options in patient selection for achieving optimal surgical outcomes
- Compare the various types of artificial lumbar discs, surgical indications/outcomes, and guide device selection for individual patients in order to make the best management and treatment decision.
- Assess the pros & cons of various motion preservation techniques to optimize patients' surgical outcomes
- Compare and contrast new artificial lumbar discs and their specific implant outcomes as a way to update surgical decision-making and selection of patients ideally qualified for which application
- Evaluate/critique the current surgical techniques and outcomes for spinal deformity patients and assess proposed management techniques being developed for future use in your practice
- Increase your knowledge regarding the surgical approaches and long term outcomes of artificial discs, by selecting the best candidate and appropriate application for obtaining optimal results
- Increase your knowledge on emerging technology by comparing and contrasting fusion vs. non-fusion technologies' safety and effectiveness and their viability for use in your patients care
- Analyze the efficiencies of innovative technology options on a case by case basis and assess its usefulness for your patients as it applies to real life scenarios

Accreditation Statement

Cedars-Sinai Medical Center is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Credit Designation Statement

Cedars-Sinai Medical Center designates this educational activity for a maximum of 17.25 *AMA PRA Category 1 Credits* $^{\text{TM}}$. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Nurses

The California and Nevada State Boards of Registered Nursing accept courses approved by the ACCME for category 1 credit as meeting the educational requirements for license renewal.

Policy on Disclosure

It is the policy of Cedars-Sinai Medical Center to ensure balance, independence, objectivity, and scientific rigor in all of its educational activities. Cedars-Sinai Medical Center assesses conflict of interest with its faculty, planners and managers of CME activities. Conflicts of interest that are identified are resolved by reviewing that presenter's content for fair balance and absence of bias, scientific objectivity of studies utilized in this activity, and patient care recommendations.

While Cedars-Sinai Medical Center endeavors to review faculty content, it remains the obligation of each physician or other healthcare practitioner to determine the applicability or relevance of the information provided from this course in his or her own practice.

Acknowledgment of Commercial Support

Cedars-Sinai Medical Center gratefully acknowledges educational grants from the following companies in support of this activity:

Medtronic

DePuy Spine

Alphatec Spine

Biomet Spine

Globus Medical

NuVasive

Pioneer

Synthes Spine

Abbott Spine

Advanced Neuromodulation Systems

Anulex Technologies

Apatech

Archus Orthopedics

Applied Spine Technologies

DFine, Inc.

Ellman

HydroCision

Joimax

Orthofix/Blackstone

Pioneer Surgical Technology

SpineWave

Stryker

Trans1

Zimmer Spine

Elsevier

Lippincott Williams

Additional support is pending and will

Faculty (Partial Listing - Complete Faculty Pending)

GUEST FACULTY

JEAN-JACQUES ABITBOL, MD

Orthopaedic Surgeon California Spine Group San Diego, CA

JOHN R. ADLER Jr., MD

Professor in Radiation Oncology Dorothy and T.K. Chan Endowed Professor, Neurosurgery Stanford University School of Medicine Stanford, CA

RANDAL R. BETZ, MD

Chief of Staff
Shriners Hospitals for Children
Medical Director of Shriners' Spinal Cord
Injury Unit
Professor of Orthopaedic Surgery
Temple University School of Medicine
Philadelphia, PA

ANTHONY CASTELLVI, MD

Spine Surgeon Center for Spinal Disorders at Florida Orthopaedic Institute Tampa, FL

BRYAN W. CUNNINGHAM, M.Sc

Director, Spinal Research/Orthopaedic Research Associate Orthopaedic Biomechanics Laboratory The Union Memorial Hospital Baltimore, MD

REGINALD J. DAVIS, MD

Head, Division of Neurosurgery Greater Baltimore Neurosurgical Associates Assistant Professor, Neurosurgery The Johns Hopkins School of Medicine Baltimore, MD

RICHARD DERBY, Jr., MD

Medical Director

Treatment Center
Daly City, CA
Associate Clinical Professor
Department of Physical Medicine
and Rehabilitation
Stanford University School of Medicine
Stanford, CA

JEFFREY A. GOLDSTEIN, MD

Director, Joint Diseases Spine Service Associate Director, Joint Diseases Spine Fellowship NYU Hospital Assistant Professor, Orthopaedic Surgery NYU School of Medicine New York, NY

MATTHEW F. GORNET, MD

Spine Surgeon The Orthopedic Center of St. Louis Chesterfield, MO

RICHARD D. GUYER, MD

Co-Founder
Fellowship Director
Texas Back Institute
Plano, TX
Associate Clinical Professor,
Orthopaedic Surgery
University of Texas Southwestern
Medical School
Dallas, TX

STEPHEN H. HOCHSCHULER, MD

Chairman and Co-Founder Texas Back Institute Plano, TX

SERENA HU, MD

Professor and Vice Chair Chief, Spine Services Department of Orthopaedic Surgery UCSF School of Medicine San Francisco, CA

JONATHAN HYDE, MD

Orthopaedic Surgeon South Florida Spine Institute Miami Beach, FL

SCOTT H. KITCHEL, MD

Orthopaedic Surgeon
Assistant Clinical Professor
Department of Orthopedic Surgery
Oregon Health and Sciences University
Eugene, OR

SANG-HO LEE, MD, PhD

President
Woorldul Spine Hospitals
Seoul, Korea
Honorary President
World Congress of Minimally
Invasive Spine Surgery & Techniques

PAUL C. McAFEE, MD

Chief, Spinal Reconstructive Surgery St. Josephs Hospital Towson, MD

JAMES OGILVIE, MD

Professor Department of Orthopaedic Surgery University of Utah School of Medicine Orthopaedic Surgeon Shriners Hospital Intermountain Unit Salt Lake City, UT

FRANK M. PHILLIPS, MD

Professor, Orthopaedic Surgery Co-Director, Spine Fellowship Director, Section of Minimally Invasive Spine Surgery Rush University Medical Center Chicago, IL

GEORGE D. PICETTI, III, MD

Orthopaedic Surgeon Sutter Neuroscience Medical Group and Sutter Neuroscience Institute at Sutter Medical Center Sacramento, CA

LUIZ PIMENTA, MD, PhD

Chief, Spine Surgery Santa Rita Hospital Assistant Professor, Neurosurgery Federal University Sao Paulo Sao Paulo, Brazil Assistant Professor, Neurosurgery UC San Diego School of Medicine San Diego, CA

DAVID POLLY, Jr., MD

Professor and Chief of the Spine Service Department of Orthopaedic Surgery University of Minnesota School of Medicine Minneapolis, MN

JOHN J. REGAN, MD

Medical Director Spine Group Beverly Hills Beverly Hills, CA

SELVON F. ST. CLAIR, MD, PhD

Chief Resident, Orthopaedic Surgery Cleveland Clinic Foundation Cleveland, OH

IRVING SHAPIRO, PhD

Professor of Orthopaedic Surgery Associate Director, Division of Orthopaedic Research and Tissue Engineering and Regenerative Medicine Program Thomas Jefferson University Medical College Philadelphia, PA

HARVINDER S. SANDHU, MD, MBA

Director, Spine and Scoliosis Fellowship Hospital for Special Surgery Associate Professor, Orthopaedic Surgery Weill Cornell Medical College New York, NY

ALEXANDER R. VACCARO, MD, PhD

Co-Director, Reconstructive Spine Service Rothman Institute at Jefferson Vice-Chairman Department of Orthopaedics Professor, Neurosurgery & Orthopedic Surgery Thomas Jefferson University Medical College Philadelphia, PA

SCOTT WEBB, MD

Director, Spine Fellowship Florida Spine Institute Clearwater, FL

DAVID A. WONG, MD

Director

Advanced Center for Spinal Microsurgety Presbyterian/St Luke's Medical Center Assistant Clinical Professor of Orthopaedic Surgery University of Colorado Health Sciences Center Denver, CO

ROBERT WRIGHT, MD

Founder Denver Pain Management Denver, CO

ANTHONY T. YEUNG, MD

Orthopaedic Surgeon
Arizona Institute for minimally Invasive
Spine Center
Phoenix, AZ
UC San Diego School of Medicine
San Diego, CA
President
World Congress of Minimally Invasive
Spine Surgery & Techniques

ROBIN R. YOUNG, CFA

President and Publisher RRY Publication Wayne, PA

HANSEN A. YUAN, MD

Professor Emeritus, Orthopaedic and Neurological Surgery SUNY Upstate Medical University Syracuse, NY

CEDARS-SINAI MEDICAL CENTER FACULTY

NEEL ANAND, MD

COURSE CO-DIRECTOR

Director, Orthopaedic Spine Surgery Director, Minimally Invasive Spine Surgery Director, Neurological and Orthopaedic Spine Fellowship Institute for Spinal Disorders Cedars-Sinai Medical Center

THOMAS APOSTLE, DO

Psychiatrist and Physiatrist The Pain Center Institute for Spinal Disorders Cedars-Sinai Medical Center

ELI M. BARON, MD

Neurosurgeon Institute for Spinal Disorders Cedars-Sinai Medical Center

JASON A. BERKLEY, DO

Neurologist and Spine Interventionalist Institute for Spinal Disorder Cedars-Sinal Medical Center

DANIEL FARKAS, PhD

Vice-Chairman, Research Department of Surgery Director, Minimally Invasive Surgical Technologies Institute Cedars-Sinai Medical Center

AVROM GART, MD

Director, Physical Medicine and Rehabilitation Institute of Spinal Disorders Cedars-Sinai Medical Center

DAN GAZIT, PhD, DMD

Director, Stem Cell Therapeutics Research Lab Director, Molecular & Micro Imaging Co Department of Surgery and International Stem Cell Institute Cedars-Sinai Medical Center

LUC JASMIN, MD, PhD

Neurosurgeon Department of Neurosurgery Cedars-Sinai Medical Center

J. PATRICK JOHNSON, MD

OURSE CO-DIRECTOR

Director, Education
Director, Neurosurgical and Orthopaed
Fellowship Program
Co-Director, Spine Stem Cell Research
Institute for Spinal Disorders
Cedars-Sinai Medical Center

BURAK OZGUR, MD

Director, Minimally Invasive Spine Surge Assistant Professor, Neurosurgery Department of Neurosurgery Cedars-Sinai Medical Centerr

ROBERT PASHMAN, MD

COURSE CO-DIRECTOR

Director, Scoliosis and Spinal Disorders Institute for Spinal Disorders Cedars-Sinai Medical Center

BRIAN R. PERRI, DO

Orthopaedic Surgeon Institute for Spinal Disorders Cedars-Sinai Medical Center

STEVEN GRAFF-RADFORD, DDS

Co-Director The Pain Center Cedars-Sinai Medical Center

GARY G. ROSENGARTEN, PhD

Health Psychologist The Pain Center Cedars-Sinai Medical Center

HOWARD ROSNER, MD

Medical Director The Pain Center Cedars-Sinai Medical Center

SRINATH SAMUDRALA, MD

Neurosurgeon Institute for Spinal Disorders Cedars-Sinai Medical Center

KHAWAR M. SIDDIQUE, MD

Neurosurgeon Institute for Spinal Disorders Cedars-Sinai Medical Center

WILLIS H. WAGNER, MD

Director, Division of Vascular Surgery Department of Surgery Cedars-Sinai Medical Center

CHRISTOPHER J. ZAREMBINSKI,

Director, Acute Pain Services The Pain Center Cedars-Sinai Medical Center

