



Wednesday, February 13

3:00-7:00 p.m.

Kokopelli Lobby

Attendee and Guest Registration

Speaker Information Center

4:30-7:30 p.m.

Kokopelli II & III

Technical Exhibition

Après Ski Refreshments (6:45-7:30 p.m.)

5:00-7:00 p.m.

Kokopelli I

Joint Session: Innovations in Spine Care

Moderators: Patrick C. Hsieh, MD, MS and Michael C. Geraci, Jr., MD, PT

Faculty will address advancing technologies and techniques to improve outcomes in spine care. The role biological and cell-based treatments play in regeneration of cervical and lumbar degenerative disc disease (DDD), medical cannabis and opioids, multimodality pain management, discogenic cell repair for intervertebral disc regeneration, and navigation and robotics in spine surgery.

Upon completion of this session, participants will gain strategies to:

- Recognize advances in multimodality medical treatment for chronic back pain and DDD;
- Know the role of cannabinoids and which patients may still be appropriate for opioids;
- Discuss biological and cell-based treatments in development for regeneration of cervical and lumbar DDD;
- Appreciate advancing technologies and techniques to improve outcomes in spine surgery.

Agenda

5:00-5:20	Medical Cannabis, Opioids and Other Treatment Updates <i>Jerome Schofferman, MD</i>
5:20-5:40	Advances in Multimodality Pain Management for Chronic Back Pain <i>Annie O'Connor MSPT, OCS, Cert. MDT</i>
5:40-6:00	Biologics in Intervertebral Disc Regeneration: Past, Present and Future <i>Zorica Buser, PhD</i>
6:00-6:20	Discogenic Cell Repair for Intervertebral Disc Regeneration: From Basic Science to Clinical Trial <i>Lara Silverman, PhD</i>
6:20-6:40	Navigation and Robotics in Spine Surgery <i>John C. Liu MD</i>
6:40-7:00	Discussion, Questions and Answers <i>Faculty Panel</i>

Thursday, February 14

6:30-7:30 a.m.

Kokopelli II & III

Breakfast

6:30-10:00 a.m.

Kokopelli Lobby

Registration

Speaker Information Center

Kokopelli II & III

Technical Exhibition

7:00-7:05 a.m.

Kokopelli I

Welcome/Introduction

7:05-8:30 a.m.

Kokopelli I

Joint Session: Surface Technologies

Moderator: Patrick C. Hsieh, MD, MS and Zorica Buser, PhD

This pro and con debate session will focus on metallic implants vs. bone vs. PEEK® in addition to using 3D printing for implants. Faculty will discuss and debate science and implant design consideration, surface modification and implant modifications, and spine fusion versus implant osteointegration in spine surgery.

Upon completion of this session, participants will gain strategies to:

- Identify the science and implant design consideration for intervertebral cages;
- Discuss various developments in surface modification and implant modifications to improve osteointegration and spine fusions in instrumented spins surgery;
- Know the biology and science as well as the pros and cons of spine fusion versus implant osteointegration in spine surgery.

Agenda

7:05-7:25 Surface Modified Technologies for Metallic Implant is Superior to Bone and PEEK®
Jean-Jacques Abitbol, MD

7:25-7:45 PEEK® is Superior to Metallic Implants: Science of Smooth and Surface Modified PEEK®
Greg William, PhD

7:45-8:00 3D printing and Porous Titanium Implants for Interbody Fusion
Wellington K. Hsu, MD

Surgical Debate:

8:00-8:10 Osteointegration is Necessary and Sufficient Without Fusion in Instrumented Spine Surgery
Jean-Jacques Abitbol, MD

8:10-8:20 Getting Down to the Basics: Spine Fusion is the Gold Standard
Barrett Woods, MD

8:20-8:30 Discussion, Questions and Answers
Faculty Panel

8:30-9:00 a.m.

Kokopelli I

Industry Innovation Presentations

Kokopelli II & III

Networking Break

White Pine Ballroom

Medical Spine Special Guest Speaker: A Desperate Need to Classify Pain-Our Outcomes Depend On It

Annie O'Connor, MSPT, OCS Cert.MDT

9:00-10:30 a.m.

White Pine Ballroom

Medical Session: Exercise Committee Presents: Exercise Recommendations/Guidelines for LBP Consensus or Conflict?

Moderator: Ryan A. Tuzell PT, MA, Cert. MDT

Many professional societies provide exercise guidelines and recommendations for LBP. However, are they in agreement or not? What are the differences and why? Do the guidelines/recommendations have any clinical relevance? Clinical practice shows that multiple modes of exercise are utilized for the treatment of LBP that are not following guideline recommendations. This session will compare and contrast the milieu of professional guidelines and recommendations produced on the topic of exercise for LBP and determine if there are more similarities or differences.

Upon completion of this session, participants will gain strategies to:

- Identify exercise guidelines/recommendations for LBP from multiple professional societies;
- Compare the differences in guidelines/recommendations;
- Determine why there may be differences in guidelines/recommendations;
- Comprehend the clinical relevance of the differences in guidelines/recommendations.

Agenda

9:00-9:05	Introduction <i>Ryan Tuzell, PT, MA, Cert. MDT</i>
9:05-9:20	Physical Therapy Associations <i>Amy Fletcher, DPT, Dip MDT, FAAOMPT</i>
9:20-9:35	Primary Care Associations <i>Daniel R. Perry, PT, Dip MDT</i>
9:35-9:50	Exercise Science Associations <i>Charity Lane, MS, MA, CPT, USAW, FNS</i>
9:50-10:05	Chiropractic Associations <i>John M. Mayer, DC, PhD, FACSM</i>
10:05-10:20	Surgical Orthopaedic Associations <i>Ronald G. Donelson, MD, MS</i>
10:20-10:30	Discussion, Questions and Answers <i>Faculty Panel</i>

9:00-10:30 a.m.

Kokopelli I

Surgical Session: Outpatient Spine Surgery in 2019

Moderator: Alpesh A. Patel, MD, FACS

Outpatient spine surgery has been widely debated among spine practitioners. Hear the latest information about the economics from the payor, hospital system, surgeon and patient perspectives, as well as patient selection, workflow and safety.

Upon completion of this session, participants will gain strategies to:

- Define the potential value added by outpatient spine surgery;
- Recognize critical patient characteristic when planning for outpatient spine surgery;
- Identify risks and strategies for reducing risk with outpatient spine surgery.

Agenda

9:00-9:15 Economic Analysis: A Payor's and Hospital System Perspective

Alan S. Hilibrand, MD

9:15-9:30 Economic Analysis: Surgeon's and Patient's Perspective

Michael C. Gerling, MD

9:30-9:45 Best Practices: Patient Selection and Workflow

Daniel K. Resnick, MD, MS

9:45-10:00 Safety of Outpatient Surgery

Jason W. Savage, MD

10:00-10:30 Discussion, Questions and Answers

Faculty Panel

10:30 a.m.-4:00 p.m.

BREAK

4:00 p.m.

Kokopelli II & III

Beverage Break

4:00-6:00 p.m.

Kokopelli Lobby

Registration

Speaker Information Center

Kokopelli II & III

Technical Exhibition

4:00-5:30 p.m.

Kokopelli I

Surgical Session: Predicting Outcomes of Spine Surgery

Moderator: Alpesh A. Patel, MD, FACS

Hear the science behind predicting outcomes of spine surgery. Faculty will address correlation vs. prediction, surgeon predictive strengths and weaknesses, predictive analytics, and communicating predictions to patients.

Upon completion of this session, participants will gain strategies to:

- Define the differences between correlation and causation;
- Recognize common errors in predicting outcomes;
- Appraise current literature around predictive analysis in spine surgery;
- Identify key strategies for effective communication to patients.

Agenda

4:00-4:20	Correlation Versus Prediction: Understanding the Difference <i>Sigurd H. Berven, MD</i>
4:20-4:40	What are Our Predictive Strengths and Weaknesses? <i>Gregory Grabowski, MD</i>
4:40-4:50	Translating Science into Clinical Practice: Predictive Analytics in Surgical Decision Making <i>Barrett Woods, MD</i>
4:50-5:10	Communicating Predictions to Patients: Tips, Pearls, and Technology <i>Nick Spina, MD</i>
5:10-5:30	Discussion, Questions and Answers <i>Faculty Panel</i>

4:00-5:30 p.m.

White Pine Ballroom

Medical Session: Can We Handle the Truth? Five Major Blind Spots Fundamental to the Quality of Spine Care Delivery, Research and Guidelines

Moderator: Ronald G. Donelson, MD, MS

Spine care specialists routinely strive to deliver high-value patient-centric care. Researchers likewise focus on designing high-quality, clinically relevant studies to reveal new insights into improving the quality of that care. Clinical guideline panels focus on a thorough review of the latest high-quality, relevant literature in an attempt to provide the best evidence-based recommendations. Despite these noble intentions, at least six major blind spots exist in our fundamental understanding of the care, research and guideline development of painful spinal conditions. These deserve our attention because recognizing them is the first step in removing major obstacles to improving the quality and cost of spine care.

Upon completion of this session, participants will gain strategies to:

- Improve spinal diagnostics and treatment;
- Improve surgical decision-making;
- Minimize iatrogenic disability.

Agenda

4:00-4:12	Misdirected Diagnostics <i>F. Todd Wetzel, MD</i>
4:12-4:24	Misdirected Research and Guidelines <i>Ryan A. Tuzell PT, MA, Cert. MDT</i>
4:24-4:36	Mischaracterization of LBP's Natural History <i>Ronald G. Donelson, MD, MS</i>
4:36-4:48	Mischaracterization of the LBP Healing Process <i>Ronald G. Donelson, MD, MS</i>
4:48-5:08	Unnecessary Surgery: <ul style="list-style-type: none">▪ Therapist's Viewpoint <i>Ryan A. Tuzell PT, MA, Cert. MDT</i>

- Surgeon's Viewpoint

F. Todd Wetzel, MD

5:08-5:18 Latrogenic Disability
Ronald G. Donelson, MD, MS

5:18-5:30 Discussion, Questions and Answers
Faculty Panel

5:30-6:00 p.m.

Kokopelli I

Industry Innovation Presentations

Kokopelli II & III

Networking Break

Après Ski Refreshments

6:00-7:30 p.m.

Kokopelli I

Joint Session: The Opioid Crisis: What Now?

Moderators: John G. DeVine, MD and Jean-Jacques Abitbol, MD

Faculty will present statistics about the current opioid health crisis, as well as discuss risk factors for abuse and avoidance strategies, in addition to heroin use and consequences as it pertains to spine infections.

Upon completion of this session, participants will gain strategies to:

- Understand the current opioid health crisis including use, abuse, overdose and death rates;
- Identify risk factors for opioid abuse and addiction and strategies for avoidance;
- Understand the implications of heroin use on the health system as it pertains to spine infections.

Agenda

6:00-6:20 Crisis Update: The Opioid Epidemic by the Numbers
Sigurd H. Berven, MD

6:20-6:40 Opioids Perspective and Practice: Who is at Risk for Addiction?
Jean-Jacques Abitbol, MD

6:40-7:00 Perioperative Pain Management: Effects of Legislation on Opioid Use and Current Options after Surgery
Gregory Grabowski, MD

7:00-7:20 Discitis/Osteomyelitis on the Rise: Heroin Use and Consequences
John C. France, MD

7:20-7:30 Discussion, Questions and Answers
Faculty Panel

7:30-9:00 p.m.

Kokopelli II & III

Welcome Reception

Friday, February 15

6:30-7:30 a.m.

Kokopelli II & III

Breakfast

6:30-10:00 a.m.

Kokopelli Lobby

Registration

Speaker Information Center

Kokopelli II & III

Technical Exhibition

7:00-8:00 a.m.

Kokopelli I

Joint Session: The Current State of Disc Herniation: Endoscopes, Lasers and Stem Cells

Moderator(s): Brandon D. Lawrence, MD

This case-based session will address operative and nonoperative perspectives on endoscopic discectomy, treatment strategies for symptomatic disc herniation, and treatment algorithms for patients.

Upon completion of this session, participants will gain strategies to:

- Understand the current state of the different treatment strategies for symptomatic disc herniation;
- Identify potential advantages for implementing differing treatment algorithms for patients;
- Differentiating indications of different technology into everyday practice.

Agenda

7:00-7:15	The Nonoperative Perspective on Endoscopic Discectomy: Case and Video Presentation <i>Scott Adelman, MD</i>
7:15-7:30	The Operative Perspective on Endoscopic Discectomy: Case and Video Presentation <i>Michael C. Gerling, MD</i>
7:30-7:40	Incorporating Lasers in to Our Discectomy Procedures: Fact or Fiction? <i>Matthew Colman, MD</i>
7:40-7:50	Stem Cells and Disc Herniation: The Current State of the Literature and What Do We Tell Patients? <i>Scott Adelman, MD</i>
7:50-8:00	Discussion, Questions and Answers <i>Faculty Panel</i>

8:00-8:30 a.m.

Kokopelli I

Industry Innovation Presentations

Kokopelli II & III

Networking Break

White Pine Ballroom

Medical Spine Special Guest Speaker: First Principles of Movement

Craig Liebenson, DC

8:30-10:00 a.m.

Kokopelli I

Surgical Session: Contemporary Treatment of Degenerative Spondylolisthesis

Moderator: Brandon D. Lawrence, MD

In this case-based session, faculty will define stable vs. unstable degenerative spondylolisthesis, and debate the pros and cons of decompression with and without fusion.

Upon completion of this session, participants will gain strategies to:

- Understand the different characteristics that define stable vs. unstable degenerative spondylolisthesis;
- Gain knowledge into alternative treatment strategies related to degenerative spondylolisthesis;
- Discuss the pros and cons of decompression alone vs. the addition of fusion.

Agenda

9:00-9:05	Case Presentation <i>Brandon D. Lawrence, MD</i>
9:05-9:20	Introduction: What Defines Stability in degenerative spondylolisthesis? <i>Nick Spina, MD</i>
9:20-9:30	MIS Decompression Alone is Best <i>W. Ryan Spiker, MD</i>
9:30-9:40	Open Decompression/Fusion is Best <i>Matthew Colman, MD</i>
9:40-9:50	MIS Decompression/TLIF is Best <i>Wellington K. Hsu, MD</i>
9:50-10:00	Indirect Decompression (LLIF) is the Best <i>Jim A. Youssef, MD</i>
10:00-10:10	ISP's (Coflex®) is the Best <i>Andrew T. Dailey, MD</i>
10:10-10:30	Discussion, Questions and Answers <i>Faculty Panel</i>

8:30-10:00 a.m.

White Pine Ballroom

Medical Session: Some Patients are Surgical Successes and Postoperative Rehab Failures: Here Is What You Can Do About It

Moderator: Michael C. Geraci, Jr., MD, PT

The question is often difficult to answer but still needs to be asked. Can a surgeon rehab what they just operated on? Medical spine specialists do not provide surgical care or assist in the operating room, as they lack the necessary training and hospital privileges. However, since providing advice to their patients about pre- and postoperative rehabilitation, spine surgeons do not require privileges nor formal training in rehabilitation. In this session, faculty will attempt to explain--with more than 100 years combined rehabilitation experience--how to prevent patients from becoming a surgical success and a post-op rehab failure.

Upon completion of this session, participants will gain strategies to:

- Comprehend how to prevent patients from becoming rehab failures after a successful spine surgery;
- Describe the correct type of rehabilitation following spine surgery;
- Classify pain before and after spine surgery to guide what type of treatment is specific for the type of pain the patient has;
- Prescribe the exercises that not only complement a good surgical outcome but also help the patient to reduce recurrence rates and improve their Healthspan not just their lifespan.

Agenda

8:30-8:40	Introduction/Overview <i>Michael C. Geraci, Jr., MD PT</i>
8:40-9:00	Pain Mechanism Classification System <i>Annie O'Connor, MSPT, OCS, Cert. MDT</i>
9:00-9:15	Physiatry <i>Michael B. Furman, MD, MS</i>
9:15-9:30	Functional Restoration <i>Carol Hartigan, MD</i>
9:30-9:50	Optimizing Exercises for the Patients Healthspan vs. Lifespan <i>Craig Liebenson, DC</i>
9:50-10:00	Discussion, Questions and Answers <i>Faculty Panel</i>

10:00 a.m.-4:00 p.m.

BREAK

4:00 p.m.

Kokopelli II & III

Beverage Break

4:00-5:00 p.m.

Kokopelli I

Joint Session: Advocacy Update

Moderator: John G. Finkenberg, MD

Participants will receive an update on current legislative trends affecting health care policy in the new Congress and how the split chambers will effect NASS' political agenda in Washington during 2019. In addition, faculty will provide an update to comply with the new rules of Medicare's Quality Payment Program, the Merit-Based Incentive Payment System, and how spine care professionals can successfully adopt the Centers for Medicare & Medicaid Services (CMS) Bundled Payments for Care Improvement Advanced program into their practices. Finally, participants will hear a panel discussion on the merits of popular 'Medicare for All' proposals and how this will impact the future of care delivery.

Upon completion of this session, participants will gain strategies to:

- Learn the health care agenda of Congress and how this overlaps with NASS' advocacy priorities;
- Successfully implement MIPS/QPP in a clinical setting;
- Identify ways to adopt and incorporate the BCPI program into clinical settings;
- Review pending Medicare for All legislation and learn how this policy may impact how spine specialists deliver care to their patients.

Agenda

- 4:00-4:15 NASS Legislative Update, Prospects and Challenges in the 116th Congress
John G. Finkenberg, MD
- 4:15-4:30 Update on Medicare Quality Payment Program and Clinical Adaptation of CMS' Bundled Payments for Care Improvement (BPCI) Program.
Alan S. Hilibrand, MD
- 4:30-5:00 Panel Discussion on Medicare for All Legislation
Moderator: John G. Finkenberg, MD
Panelists: Samy Abdou, MD, and Edward J. Dohring, MD

4:00-6:30 p.m.
Kokopelli Lobby

Registration Speaker Information Center

Kokopelli II & III
Technical Exhibition

5:00-5:30 p.m.
Kokopelli II & III
**Networking Break
Après Ski Refreshments**

Kokopelli I
Industry Innovation Presentations

5:30-7:00 p.m.
Kokopelli I
Surgical Session: Adult Deformity: Pelvic Parameters, Getting it Right the First Time and Strategies for the Fused Flat Back
Moderator: John G. DeVine, MD

Faculty will discuss incorporating pelvic parameters into practice, present alternative fusion techniques to get proper sagittal balance and address fused flat back correction strategies. Hear about a case and decide how you would approach the patient.

Upon completion of this session, participants will gain strategies to:

- Recognize pelvic parameters and how to incorporate them in routine practice for short segment fusions;
- Identify various fusion techniques to obtain proper sagittal balance in short segment fusions;
- Describe the strategies for treating the fused flat back in the setting of positive sagittal balance.

Agenda

- 5:30-5:45 Overview of Pelvic Parameters and How to Incorporate into Routine Practice
Gregory Grabowski, MD
- 5:45-6:05 Obtaining Lordosis with Anterior Surgery: Getting it Right with ALIF and Lateral IF
Darrel S. Brodke MD
- 6:05-6:25 Obtaining Lordosis with Posterior Surgery: Getting it Right with TLIF/PLIF
John C. France, MD

- 6:25-6:45 Fused Flat Back: Strategies for Correction
Sigurd H. Berven, MD
- 6:45-7:00 Case Presentations: How Would You Approach This Patient?
Faculty Panel

5:30-7:00 p.m.
White Pine Ballroom

Medical Session: The Diagnostic and Therapeutic Value of Common Patterns of Pain Response
Moderator: Ronald G. Donelson, MD, MS

Due to the diagnostic limitations of the conventional clinical exam and MRI imaging, patterns of pain response from spinal loading across musculoskeletal and spine care are commonly sought for their diagnostic and treatment decision-making value. Our strong reliance on some patterns for their diagnostic and decision-making value while ignoring others is worth examining. Faculty will review six common patterns of spinal pain response with their prevalence, diagnostic value and treatment implications as well as illustrative cases and a study all focused on important but often ignored pain pattern presentations.

Upon completion of this session, participants will gain strategies to:

- Appreciate the limitations of diagnostic imaging and conventional clinical exam;
- Utilize common pain response patterns in diagnosing and treating LBP;
- Recognize the structural mechanism underlying pain centralization.

Agenda

- 5:30-5:45 Overview of Spinal Diagnostics
Ronald G. Donelson, MD, MS
- 5:45-5:55 Diagnostic Limitations of Imaging
John J. McIntyre, MD
- 5:55-6:20 Six Patterns of Spinal Pain Response: Diagnostic and Treatment Implications
Ronald G. Donelson, MD, MS
- 6:20-6:35 Cases of Pain Centralization with MRI Correlation
Amy Fletcher, DPT, Dip MDT, FAAOMPT
- 6:35-6:50 Pain Centralization Response Before and After Transforaminal Epidural Steroid Injections
Ryan A. Tuzell PT MA, Cert. MDT
- 6:50-7:00 Discussion, Questions and Answers
Faculty Panel

Saturday, February 16

7:00-8:00 a.m.
Kokopelli II & III

Breakfast

7:00-9:30 a.m.
Kokopelli II & III

Technical Exhibition

7:00-10:00 a.m.

Kokopelli Lobby

Registration

Speaker Information Center

7:30-9:00 a.m.

Kokopelli I

Surgical Session: Video Session on Advanced Surgical Techniques and Operative Nuances

Moderator: Patrick C. Hsieh, MD, MS and John C. Liu, MD

In this video session, participants will gain knowledge about operative nuances and complication avoidance techniques for MIS, open spine surgery, spinal osteotomies as well as better understand the preoperative and intraoperative considerations for MIS and open spine surgery.

Upon completion of this session, participants will gain strategies to:

- Understand operative nuances and complication avoidance techniques of Minimally Invasive Spine Surgery (MIS);
- Understand operative nuances and complication avoidance techniques of open spine surgery and spinal osteotomies;
- Understand preoperative and intraoperative considerations for MIS and open spine surgery.

Agenda

7:30-7:50 Minimally Invasive Tubular Decompressions: Operative Nuances of Unilateral Approach for Bilateral Decompression and Complication Avoidance

John C. Liu, MD

7:50-8:10 Intraoperative Navigation and Robotics Assisted Instrumented Spine Surgery

Andrew T. Dailey, MD

8:10-8:30 Posterior Cervical Laminoplasty

Jeffrey C. Wang, MD

8:30-8:50 Thoracolumbar Osteotomy for Adult Spinal Deformity: Surgical Technique and Complication Avoidance

Michael D. Daubs, MD

8:50-9:00 Discussion, Questions and Answers

Faculty Panel

7:30-9:00 a.m.

White Pine Ballroom

Medical Session: Nutritional Considerations in Spine Care

Moderator: Ryan A. Tazzell, PT, MA, Cert. MDT

Nutrition plays an important role in health, wellness, and prevention and treatment of various disorders. Numerous factors and comorbidities are apparent in patients with spinal pain disorders that may be responsive to nutritional interventions, ranging from physiological processes (e.g., inflammation) to general health (e.g., obesity). However, specific information is largely unavailable to assist spine care practitioners with clinical decision-making processes for implementation of nutritional approaches for their patients. Faculty will discuss nutritional considerations for management of spinal pain disorders.

Upon completion of this session, participants will gain strategies to:

- Disseminate evidence regarding nutrition for management of spinal pain disorders;

- Provide knowledge to spine care practitioners to improve clinical decision-making processes related to nutrition for spinal pain disorders;
- Enable spine care practitioners to apply nutritional approaches for management of patients with spinal pain disorders.

Agenda

7:30-7:40	Introduction of Session and Speakers <i>Ryan A. Tazzell, PT, MA, Cert. MDT</i>
7:40-7:55	General Introduction to Nutrition for Spine Care: State of Nutrition in Society, Practitioners/Scope of Practice, Interprofessional Considerations, Misconception and Barriers <i>John M. Mayer, PhD, DC, CCRP, FACSM</i>
7:55-8:10	Physiological Considerations for Nutritional Management Part 1: Inflammation, Hormonal Influences, Nutrition for Healing <i>Carrie A. Diulus, MD</i>
8:10-8:25	Physiological Considerations for Nutritional Management Part 2: Inflammation, Hormonal Influences, Nutrition for Healing <i>Carrie A. Diulus, MD</i>
8:25-8:40	General Health Considerations for Nutritional Management: Obesity Management, Exercise and Nutrition, Prevention <i>Charity Lane, MS, MA, CPT, FNS, USAW</i>
8:40-9:00	Discussion, Questions and Answers <i>All Faculty</i>

9:00-9:30 a.m.

Kokopelli II & III

Networking Break

9:30-11:00 a.m.

Kokopelli I

Surgical Session: Surgical Complications

Moderators: John G. DeVine, MD and Brandon D. Lawrence, MD

Faculty will cover complications and complication avoidance for multiple surgical procedures, including proximal junctional failure, lateral lumbar interbody fusion, vertebral artery injury and postoperative wound infection.

Upon completion of this session, participants will gain strategies to:

- Recognize and treat complications in spine surgery;
- Gain insight into preventive measures for complication avoidance.

Agenda

9:30-9:45	Vertebral Artery Injury <i>Darrel Brodke, MD</i>
9:45-10:00	Esophageal Injury <i>Matthew Colman, MD</i>
10:00-10:15	Post-operative Wound Infections <i>Jason W. Savage, MD</i>

- 10:15-10:30 Proximal Junctional Failure After Adult Spinal Deformity
Michael D. Daubs, MD
- 10:30-10:45 Complications After Lateral Lumbar Interbody Fusion
Jim A. Youssef, MD
- 10:45-11:00 Discussion, Questions and Answers
All Faculty

9:30-11:00 a.m.

White Pine Ballroom

Medical Session: Failed Back Surgery: Evaluation and Treatment

Moderator: Jerome Schofferman, MD

Failed back surgery includes a diverse number of diagnoses with many treatment options depending on etiology. In treating patients with failed back surgery, it is necessary to know the most common structural problems that occur. Thus armed, diagnosis relies upon a careful history that then leads to the best choice(s) of imaging studies and often times diagnostic injections. After establishing a working diagnosis, treatment can be directed in a step-wise fashion with rehabilitation, therapeutic injections and other interventions, medications and possibly repeat surgery. Faculty will highlight the necessary elements for the diagnosis and treatment of patients with failed lumbar spine surgery.

Upon completion of this symposium, the attendees will obtain strategies to:

- Use the history, especially the time course of symptom recurrence, to arrive at a differential diagnosis;
- Describe which imaging studies best fit the clinical situation;
- Maximize rehabilitation benefit;
- Define the role of facet and SI joint radiofrequency procedures and spinal cord stimulation;
- Recognize the role of long-term medications;
- Know the indications for repeat surgery.

Agenda

- 9:30-9:42 Introduction/Differential Diagnosis
Jerome Schofferman, MD
- 9:43-9:55 Radiology of FBS
John J. McIntyre, MD
- 9:56-10:11 Injections and Interventions: Diagnostic and Therapeutic
Michael B. Furman, MD, MS
- 10:12-10:22 Rehabilitation
Carol Hartigan, MD
- 10:23-10:33 Medications
Jerome Schofferman, MD
- 10:34-10:44 Salvage Surgery
Jeffrey C. Wang, MD
- 10:45-11:00 Discussion, Questions and Answers
Faculty Panel
- 11:00 a.m. **Meeting Adjourns**