6:00 – 6:55 a.m.  
**Breakfast Roundtable Discussions**  
*Posterior vs. Anterior Treatment of Cervical Radiculopathy*  
Bruce V. Darden, II, M.D.  
Richard G. Fessler, M.D., Ph.D.  
*Treatment of Spinal Fractures in Ankylosing Spondylitis and DISH*  
Todd J. Albert, M.D.  
Mark B. Dekutoski, M.D.  
*Delayed Correction of Post-Traumatic Cervical Kyphosis*  
William E. Krauss, M.D.  
Bradford L. Currier, M.D.

6:55 – 7:00 a.m.  
**Opening Remarks**  
Bradford L. Currier, M.D.  
Michael J. Yaszemski, M.D., Ph.D.

7:00 – 9:00 a.m.  
**Session I**  
*Thoraco-Lumbar Trauma*  
*Moderators:*  
Bruce V. Darden, II, M.D.  
Mark B. Dekutoski, M.D.  
*This is an audience-driven case management session. Participants will be asked via the Audience Response System to choose a management approach to three very common thoraco-lumbar trauma cases. The participants will be able to choose from a menu of brief (5-slide) evidence-based talks to facilitate the ensuing audience-panel discussion.*

7:00 – 7:15 a.m.  
**Case Presentations with Audience Vote**  
Mark B. Dekutoski, M.D.  
*Case #1 – AO-A3 Axial Loading Burst*  
*Case #2 – AO-B1 + AO-A3 Axial Loading Burst with Flexion*  
*Case #3 – Polytrauma with AO-C2 Fracture – Rotational Fracture Dislocation*

7:15 – 7:45 a.m.  
**Case #1 Discussion: AO-A3 Axial Loading Burst**  
*Evidence-Based Mini-Talk Menu*  
**How Do You Examine?**  
Paul M. Huddleston, III, M.D.  
**How Do You Image?**  
William E. Krauss, M.D.  
**How Do You Interpret the MRI?**  
Alexander R. Vaccaro, M.D.  
**Acute Upright X-rays**  
Todd J. Albert, M.D.  
**Classification – Dennis, Magerle, Gaines**  
Ahmad Nassr, M.D.
7:45-8:20 a.m.  
**Case #2 Discussion: AO-B1 + AO-A3 Axial Loading Burst with Flexion**

*Evidence-Based Mini-Talk Menu*

**Treatment Algorithms – TLICS**

*Alexander R. Vaccaro, M.D.*

**Timing of Operative Intervention**

*Frank J. Eismont, M.D.*

**Non-Op Management – Who?**

*William E. Krauss, M.D.*

**Non-Op Outcomes**

*Paul M. Huddleston, III, D.*

**Brace vs. No Brace**

*Choll Kim, M.D., Ph.D.*

**TLSO vs. Cast**

*Paul M. Huddleston, III, M.D.*

**Direct vs. Indirect Decompression**

*Richard G. Fessler, M.D., Ph.D., Ph.D.*

**Timing of Operative Reduction**

*Todd J. Albert, M.D.*

8:20-8:55 a.m.  
**Case #3 Discussion: Polytrauma with AO-C2 Fracture – Rotational Fracture Dislocation**

*Evidence-Based Mini-Talk Menu*

**Stabilization - Femur and Pelvis or Spine First**

*Frank J. Eismont, M.D.*

**MIS Outcomes**

*Choll Kim, M.D., Ph.D.*

**Open Anterior**

*Frank J. Eismont, M.D.*

**Open Posterior**

*William E. Krauss, M.D.*

**Open Endoscopic Anterior**

*Richard G. Fessler, M.D., Ph.D., Ph.D.*

**Return to Work Activity Restrictions**

*Paul M. Huddleston, III, M.D.*

**Return to Sports**

*Alexander R. Vaccaro, M.D.*

8:55 -9:00 a.m.  
**Spinal Curve Ball**

*This is a recurring session consisting of a case presentation that will be discussed the following day. Audience members will be asked to hand in a ballot each day with their presumed diagnosis. The participant with the most correct answers at the end of the meeting will be given a prize.*

9:00 – 9:05 a.m.  
**Session Evaluation**

9:05 – 9:30 a.m.  
**Refreshment Break, Exhibits & E-Poster Viewing**
9:30- 11:00 a.m.  **Session II**  
**Minimally Invasive Surgery Options in Thoraco-Lumbar Trauma**  
This is an audience-driven case management session.  
*Moderators:* James D. Schwender, M.D.  
Paul M. Huddleston, III, M.D.

9:30 – 9:45 a.m.  **Case Presentations with Audience Vote**  
Paul M. Huddleston, III, M.D.  
*Case #1: Flexion Distraction Injury*  
*Case #2: Polytrauma*  
*Case #3: Osteopenic Axial Loading Injury*  
*Case #4: Non-osteopenic Acute Compression Fracture*  

9:45 – 10:55 a.m.  **Audience-Panel Case Discussion**  
**Evidence-Based Mini-Talk Menu**  
**Selective Fusion and Instrumentation in Thoraco-Lumbar Trauma**  
Mark B. Dekutoski, M.D.  
*Which Patient Should Have MIS Stabilization Instead of a Cast?*  
Richard G. Fessler, M.D., Ph.D.  
*Damage Control Early Stabilization and Staged Reconstruction in Polytrauma*  
Choll Kim, M.D., Ph.D.  
*Which Non-osteoporotic Acute Fractures are Appropriate for Vertebroplasty?*  
Timothy P. Maus, M.D.

10:55 – 11:00 a.m.  **Session Evaluation**

11:00 – 11:15 a.m.  **Refreshment Break, Exhibits & E-Poster Viewing**

11:15 – 12:45 p.m.  **Session III**  
**C-Spine Clearance**  
This is an audience-panel case discussion session following an introductory EBM session.  
*Moderators:* Kazuhiro Chiba, M.D.  
Bradford L. Currier, M.D.

11:15 – 11:35 a.m.  **C-Spine Clearance Algorithms**  
Bradford L. Currier, M.D.

**Panel Members**  
Bruce V. Darden, M.D  
Ralph E. Gay, M.D.  
Timothy P. Maus, M.D.  
Ahmad Nassr, M.D.  
Randy A. Shelerud, M.D.  
Alexander R. Vaccaro, M.D.
Case #1: MVA Cervical Strain  
Case #2: MVA Cervical Strain with Arm Symptoms  
Case #3: MVA Polytrauma with Closed Head Injury  
Case #4: Fall on the Stairs - Octogenarian  
Case #5: Gymnast High Energy Fall – High Bars  
Case #6: American football player – Bilateral Arm Numbness

12:45-12:50 p.m.  Session Evaluation

12:50 p.m.  Adjourn

6:30 – 8:00 p.m.  Conference Dinner - Casual, families welcome
MONDAY, February 2, 2009

6:00 – 7:00 a.m.  Breakfast Roundtable Discussions
The Timing of Surgery in SCI
  Alexander R. Vaccaro, M.D.
  W. Richard Marsh, M.D.
Treatment of Dural Tears
  Frank J. Eismont, M.D.
How I do a TLIF
  James D. Schwender, M.D.
  Ahmad Nassr, M.D.

7:00 – 9:00 a.m.  Session IV
Treatment Strategies for Odontoid Fractures
  Moderators:  Todd Albert, M.D.
               Ahmad Nassr, M.D.
7:00 – 7:20 a.m.  Odontoid Fractures in the Young Adult Patient
  Kazuhiro Chiba, M.D.
7:20 – 7:40 a.m.  Odontoid Fractures in the Elderly
  Alexander R. Vaccaro, M.D.
7:40 – 7:50 a.m.  Question & Answer Session

7:50 – 9:00 a.m.  Audience-Panel Case Discussion
Panel Members
  Barry D. Birch, M.D.
  Kazuhiro Chiba, M.D.
  Richard G. Fessler, M.D., Ph.D., Ph.D.
  Alexander R. Vaccaro, M.D.
Case #1:  25 year old with Type II Odontoid Fracture
Case #2:  70 year old with Type II Odontoid Fracture
Case #3:  65 year old with Chronic Type II Odontoid Fracture
Case #4:  65 year old with Type III Odontoid Fracture

9:00 – 9:15 a.m.  Spinal Curve Ball

9:15 – 9:20 a.m.  Session Evaluation

9:20 – 9:40 a.m.  Refreshment Break, Exhibits & E-Poster Viewing
9:40 – 11:30 a.m.  
**Session V**  
**Upper Cervical Spine Trauma**  
*This is an audience-driven case management session.*  
**Moderators:**  
Alexander R. Vaccaro, M.D.  
Bradford L. Currier, M.D.

9:40 - 9:55 a.m.  
**Case Presentations with Audience Vote**  
Alexander R. Vaccaro, M.D.  
Case #1 – Adult with C1 Ring  
Case #2 – Displaced Hangman’s Fracture  
Case #3 – C0-C1 Dislocation

9:55 – 11:30 a.m.  
**Audience-Panel Case Discussion**  
**Evidence-Based Mini-Talk Menu**  
**Imaging of C0 – C2**  
Bruce V. Darden, M.D.  
**Evaluation of Vertebral Injury**  
Richard W. Marsh, M.D.  
**Fixation of C0**  
William E. Krauss, M.D.  
**Fixation of C2**  
Bruce V. Darden, M.D.  
**Hangman’s: When is it Non-Operative?**  
Frank J. Eismont, M.D.  
**Hangman’s: When is it Operative?**  
Richard G. Fessler, M.D., Ph.D.  
**Transverse Ligament Disruption**  
Kazuhiro Chiba, M.D.

11:30 – 11:35 a.m.  
**Session Evaluation**

11:35 – 11:55 a.m.  
**Refreshment Break, Exhibits & E-Poster Viewing**
11:55 a.m. – 1:00 p.m.

**Session VI**

**Bilateral Jumped Facets: Debate on Three Cases**

*Moderator: Bradford L. Currier, M.D.*

**Debators**

*Frank J. Eismont, M.D.*

*Alexander R. Vaccaro, M.D.*

11:55 a.m – 12:00 p.m.

**Case Presentations with Audience Vote**

*Case #1 - Complete Spinal Cord Injury*

*Case #2 – Incomplete Spinal Cord Injury*

*Case #3 – Intact with Radicular Symptoms and Neck Pain*

12:00 - 12:15 p.m. **MRI First**

*Frank J. Eismont, M.D.*

12:15 - 12:30 p.m. **Reduce First**

*Alexander R. Vaccaro, M.D.*

12:30 - 12:35 p.m. **Rebuttal**

*Frank J. Eismont, M.D.*

12:35 - 12:40 p.m. **Rebuttal**

*Alexander R. Vaccaro, M.D.*

12:40 – 12:55 p.m. **Audience Response Follow-up and Q&A**

12:55- 1:00 p.m. **Session Evaluation**

1:00 p.m. **Adjourn**
Breakfast Roundtable Discussions
Cervical Spine Trauma and Vertebral Artery Injury
Richard G. Fessler, M.D., Ph.D.
W. Richard Marsh, M.D.
Comparison of Minimally Invasive Surgery to Open Surgery
Choll Kim, M.D., Ph.D.
Paul A. Huddleston, M.D.
Spinous Process Splitting Laminectomy – Less Invasive Decompression for Lumbar Spinal Stenosis
Kazuhiro Chiba, M.D.

Session VII
Evidence-Based Medicine – State of the Art
Moderators: Frank J. Eismont, M.D.
Ahmad Nassr, M.D.

Surgery Vs. Non-Operative Treatment for Lumbar Disk Herniation - SPORT
Todd J. Albert, M.D.

Question & Answer Session

Cervical Laminoplasty for Myelopathy
Kazuhiro Chiba, M.D.

Question & Answer Session

Surgery Vs. Non-Operative Treatment for Degenerative Spondylolisthesis - SPORT
Todd J. Albert, M.D.

Question & Answer Session

Session VIII
Minimally Invasive Surgery
Moderators: Richard D. Fessler, M.D., Ph.D.
Choll Kim, M.D. Ph. D.

Minimally Invasive Surgery – What is it?
Barry D. Birch, M.D.
8:15 – 8:30 a.m. **What is the Evidence for MIS?**  
*Richard G. Fessler, M.D., Ph.D.*

8:30 – 9:30 a.m. **How Do I Do It? Video Demonstrations**

8:30 – 8:45 a.m. **Video Demonstration: MIS – TLIF**  
*James D. Schwender, M.D.*

8:45 – 9:00 a.m. **Video Demonstration: Cervical MIS**  
*Richard G. Fessler, M.D.*

9:00 – 9:15 a.m. **Video Demonstration: Interspinous Device (ISD)**  
*Bruce V. Darden, M.D.*

9:15 – 9:30 a.m. **Video Demonstration: MIS Deformity**  
*Mark B. Dekutoski, M.D.*

9:30 – 9:45 a.m. **Spinal Curve Ball**

9:45 – 9:50 a.m. **Session Evaluation**

9:50 – 10:20 a.m. Refreshment Break, Exhibits, E-Poster Viewing

10:20 a.m. – 12:00 p.m **Session IX**  
**Translational Research**  
*Moderators: Michael J Yaszemski, M.D. Ph.D.*  
*James C. Watson, M.D.*

10:20 – 10:35 a.m. **Spinal Cord Regeneration**  
*Kazuhiro Chiba, M.D.*

10:35 – 10:50 a.m. **Central Cord Injuries**  
*Todd J. Albert, M.D.*

10:50 – 11:05 a.m. **Timing of Surgery in Regards to Acute Spinal Cord Injury (STACIS)**  
*Alexander R. Vaccaro, M.D.*

11:05 – 11:20 a.m. **Question & Answer Session**

11:20 – 11:35 a.m. **Discitis, Vertebral Osteomyelitis and Wound Infections**  
*Frank J. Eismont, M.D.*
11:35 – 11:50 a.m.  **Bacterial Adherence to Instrumentation: Role of Ultrasound in Detecting Infection**  
*Paul M. Huddleston, III, M.D.*

11:50 – 12:05 p.m.  **Question & Answer Session**

12:05 – 12:10 p.m.  **Session Evaluation**

12:10 p.m.  **Adjourn**
WEDNESDAY, February 4, 2009

6:00 – 7:00 a.m.  Breakfast Roundtable Discussions
Lumbar Radiculopathy: Would Chiropractic Treatment Help?
  Ralph E. Gay, M.D.

MIS and Navigation Pearls
  Choll Kim, M.D., Ph.D.
  Barry D. Birch, M.D.

Lumbar Radiculopathy: What Else Could this Be?
  James C. Watson, M.D.

7:00 – 9:15 a.m  Session X
Evidence-Based Evaluation and Management of Chronic Low Back Pain
Moderators: Randy A. Shelerud, M.D.
            Michael J. Yaszemski, M.D. Ph. D.
This is an audience-driven case management session. Participants will be asked via the Audience Response System to choose evaluation and management approaches to six common presentations of chronic low back pain. The participants will be able to choose from a menu of brief (5-slide) evidence-based talks to facilitate the audience-panel discussion.

Case #1: Acute/Subacute Discogenic LBP
Case #2: Chronic LBP: Spondylolisthesis
Case #3: Chronic LBP: Work Disability
Case #4: Chronic LBP: Chronic Pain Syndrome
Case #5: Chronic LBP: Diffuse and Involving Both Lower Limbs
Case #6: Chronic LBP: Osteoporosis

Panel Members:
Darren Q. Calley, P.T.
Ralph E. Gay, M.D.
Marc A. Huntoon, M.D.
Timothy P. Maus, M.D.
Randy A. Shelerud, M.D.
James C. Watson, M.D.
Paul Huddleston, M.D.

Evidence-Based Mini-Talk Menu
Evaluation Options for Chronic Low Back Pain
Range of Motion
  Ralph E. Gay, M.D.
Palpatory Exam Tests
  Randy A. Shelerud, M.D.
Pain Provocation Tests
  Marc A. Huntoon, M.D.
Soft Tissue Tests
  Darren Q. Calley, P.T.
Straight Leg Raising Test, Neurological Exam  
James C. Watson, M.D.

X-Rays, MRI, Vertebroplasty  
Timothy P. Maus, M.D.

Treatment Options for Chronic Low Back Pain  
Manual Therapy, Massage, Herbals, Acupuncture,  
Traction, Yoga, Pilates  
Ralph E. Gay, M.D.

Medications, Exercise Efficacy, CBT, Functional Restoration, Education  
Randy A. Sheerud, M.D.

Injections, IDET, RF, Spinal Cord Stimulation  
Marc A. Huntoon, M.D.

Heat, Cold, US, IFC, TENS, Corsets, Exercise  
Darren Q. Calley, P.T.

EMG, MRI, Differential Diagnosis, Further Workup  
James C. Watson, M.D.

X-Rays, MRI, Vertebroplasty  
Timothy P. Maus, M.D.

9:15 – 9:30 a.m.  Spinal Curve Ball

9:30 – 9:35 a.m.  Session Evaluation

9:35 – 10:05 a.m.  Refreshment Break, Exhibits & E-Poster Viewing
10:05 – 11:55 a.m.  
Session XI  
Osteoporotic/Pathologic Fractures: Decision, Timing, & Sagittal Balance Issues  
This is an audience-panel case discussion session  
Moderators: William E. Krauss, M.D.  
Ralph E. Gay, M.D.  
Panel Members:  
Bruce V. Darden, M.D.  
Randy A. Shelerud, M.D.  
Choll Kim, M.D., Ph.D. Ph.D.  
W. Richard Marsh, M.D.  
Timothy P. Maus, M.D.  
Michael J. Yaszemski, M.D., Ph.D.  

Case #1 – Osteoporotic Compression Fracture  
Case #2 – Pathologic Fracture Secondary to Solid Tumor  
Case #3 – Multiple Level Osteoporotic Fracture with Kyphosis/Sagittal Imbalance  
Case #4 – Pathologic Fracture Secondary to Myeloma  

11:55 a.m. – 12:00 p.m.  
Session Evaluation  

12:00 p.m.  
Adjourn
THURSDAY, February 5, 2009

6:00 – 7:00 a.m.  Breakfast Roundtable Discussions
Will Cortisone Shots Help? EBM review of ESI’s
Marc A. Huntoon, M.D.
Vertebroplasty Vs Bracing for Thoraco-Lumbar fractures
Timothy P. Maus, M.D.
Michael J. Yaszemski, M.D., Ph.D.
Physical Therapy for Spinal Disorders
Randy A. Shelerud, M.D.
Darren Q. Calley, P.T.

7:00 – 9:35 a.m.  Session XII
MIS and Navigation
Moderator: James D. Schwender, M.D.
Barry Birch, M.D.

7:00 – 7:15 a.m.  Navigation Overview
William E. Krauss, M.D.

7:15 – 7:30 a.m.  Use of Navigation in MIS
Choll Kim, M.D., Ph.D.

7:30 – 7:40 a.m.  Question & Answer Session

7:40 – 7:55 a.m.  MIS Intradural
Barry D. Birch, M.D.

7:55 – 8:10 a.m.  MIS Tumor
Choll Kim, M.D., Ph.D.

8:10 – 8:25 a.m.  Minimally Invasive Fusion in the Morbidly Obese Patient
Richard G. Fessler, M.D., Ph.D.

8:25 – 8:35 a.m.  Question & Answer Session

8:35- 9:15 a.m.  Debate: Minimally Invasive vs. Conventional Diskectomy
Moderator: Barry D. Birch, M.D.
8:35- 8:45 a.m.  Case Presentations and Audience Vote  
Barry D. Birch, M.D.  
Case #1: L4-5 Virgin Posterolateral HNP  
Case #2: L4-5 Recurrent Foraminal HNP  

8:45- 9:00 a.m.  It’s the State of the Art  
James D. Schwender, M.D.  

9:00- 9:15 a.m.  It’s No Better than a Conventional Diskectomy  
William E. Krauss, M.D.  

9:15- 9:20 a.m.  Rebuttal  
James D. Schwender, M.D.  

9:20- 9:25 a.m.  Rebuttal  
William E. Krauss, M.D.  

9:25- 9:35 a.m.  Question & Answer Session  
Audience Vote  

9:35 – 9:50 a.m.  Spinal Curve Ball  

9:50 – 9:55 a.m.  Session Evaluation  

9:55- 10:25 a.m.  Refreshment Break, Exhibits, E-Poster Viewing  

10:25 – 11:55 a.m.  Session XIII  
Lumbar Radiculopathy: Non Operative Management  
This is an audience-panel case discussion session  
Moderators:  
W. Richard Marsh  
Mark A. Huntoon, M.D.  

Case #1 – The Laborer  
Case #2 – The Truck Driver  
Case #3 – The Desk Worker  

Panel Members  
Darren Q. Calley, P.T.  
Marc A. Huntoon, M.D.  
Timothy P. Maus, M.D.  
Ahmad Nassr, M.D.  
James D. Schwender, M.D.  
Randy A. Shelerud, M.D.  
James C. Watson, M.D.
ARS questions for the Audience:

Who do you refer for surgery?  
What is the role of steroid injections?  
What is the role of “chiropractic”?  
What is the role of Physical Therapy?  
What medication options are there?  
Return to work, when and how?

11:55 a.m. –  
12:10 p.m.  Session and Course Evaluation, Future Needs Assessment

12:10 p.m.  Adjourn