

CSRS 2020 Virtual Instructional Course  
Preliminary Program  
*\*All times are listed in Pacific Standard Time*

Tuesday, Dec. 1, 2020, 4:00-6:35pm

**Session 1. Spinal Cord and Column Injury & Cervical Degenerative - Avoiding Iatrogenic Cervical Deformities**

*Michael Gerling, MD; Brian Kwon, MD, PhD, FRCSC; Gregory Schroeder, MD; Charles Crawford, MD, Steven Hughes, MD*

4:00-4:05pm **Welcome**  
*Michael Gerling, MD*

**Session 1A. Spinal Cord and Column Injury**

*Oaul, Gregory Schroeder, MD*

- 4:05-4:07pm **Central Cord Injury In Stable, Degenerative Spine: Case Presentation**  
*Brian Kwon, MD, PhD, FRCSC*
- 4:07-4:15pm **Central Cord Injury In Stable, Degenerative Spine: The Case for Delayed Surgery and 'Wait for the Cord To Cool Down'**  
*James Harrop, MD, FAANS*
- 4:15-4:23pm **Central Cord Injury In Stable, Degenerative Spine: The Case for Early Surgery**  
*Jefferson Wilson, MD*
- 4:23-4:25pm **Steroids and Other Neuroprotective Measures In Acute Cervical SCI: Case Presentation**  
*Gregory Schroeder, MD*
- 4:25-4:33pm **Steroids and Other Neuroprotective Measures In Acute Cervical SCI: The Case for Avoiding Steroids**  
*Alpesh Patel, MD, FACS*
- 4:33-4:41pm **Steroids and Other Neuroprotective Measures In Acute Cervical SCI: The Case for Giving Steroids**  
*Michael Fehlings, MD, PhD, FRCSC, FACS*
- 4:41-4:43pm **Geriatric Odontoid Fracture: Case Presentation**  
*Gregory Schroeder, MD*
- 4:43-4:51pm **Geriatric Odontoid Fracture: The Case for Non-Operative Management**  
*Timothy Moore, MD*
- 4:51-4:59pm **Geriatric Odontoid Fracture: The Case for Operative Management**  
*John Rhee, MD*
- 4:59-5:04pm **Central Cord Injury In Stable, Degenerative Spine: Discussion**  
*Brian Kwon, MD, PhD, FRCSC*

5:04-5:09pm **Steroids and Other Neuroprotective Measures In Acute Cervical SCI:** Discussion and Making Sense of the 2017 Aospine Guidelines  
*Brian Kwon, MD, PhD, FRCSC*

5:09-5:15pm **Geriatric Odontoid Fracture:** Discussion and Master Technique Video  
*Gregory Schroeder, MD*

5:15-5:25pm **Break**

### Session 1B. Cervical Degenerative – Avoiding Iatrogenic Cervical Deformities

*Charles Crawford, MD; Steven Hughes, MD*

5:25-5:33pm **Anterior Fusion – ACDF & ACCF**  
*Christopher Shaffrey, MD*

5:33-5:41pm **CDA**  
*K. Daniel Riew, MD*

5:41-5:49pm **Posterior Fusion**  
*Peter Passias, MD*

5:49-5:57pm **Laminoplasty**  
*Jason Savage, MD*

5:57-6:05pm **Posterior Disectomy**  
*Steven Hughes, MD*

6:05-6:35pm **Panel Discussion**

Wednesday, Dec. 2, 2020, 4:00-6:35pm

### Session 2. Technology & Cervical Planning

*Michael Gerling, MD; Wayne Cheng, MD; Christopher Ames, MD; and Carlo Bellabarba, MD*

4:00-4:05pm **Welcome**  
*Michael Gerling, MD*

### Session 2A. Technology

*Michael Gerling, MD, Wayne Cheng, MD*

4:05-4:15pm **Cell Based Therapy - Stem Cell:** Current Studies/Trials, Route Of Delivery, Survival in Harsh Microenvironment and the Outlook in the Near Future  
*Jeffrey Wang, MD*

4:15-4:25pm **Growth Factor Therapy - BMPS, PRP:** Current Studies/Trials and Near Future Outlook; Scaffolds For Nucleus and Annulus - Now and Future  
*Zorica Buser, MD*

4:25-4:35pm **Cell Based Allografts:** The Science, Economics and Efficacy in Spine Surgery  
*Brandon Lawrence, MD*

4:35-4:45pm **Implant Technology:** Advances in Material Properties, Surface and Structural Advances  
*Wellington Hsu, MD*

4:45-4:55pm **3D Printed Off-the-Shelf Implants:** Titanium Alloy vs. Peek vs Silicon Nitride  
*Paul Anderson, MD*

4:55-5:05pm **Economic Update on Material Technology**  
*Ahmad Nassr, MD*

5:05-5:15pm **Panel Discussion**

5:15-5:25pm **Break**

### Session 2B. Surgical Planning

*Christopher Ames, Carlo Bellabarba*

5:25-5:35pm **Radiographic Assessment of Cervical Deformity - Update on Measurement**  
*Justin Smith, MD, PhD*

5:35-5:45pm **Cervical Deformity Classification for Treatment Planning Including Cluster Analysis**  
*Han Jo Kim, MD*

5:45-5:55pm **Step by Step Planning for Rigid Deformity Including 3co and Custom Rods**  
*Christopher Ames, MD*

5:55-6:05pm **Level Selection and DJK**  
*Themistocles Protopsaltis, MD*

6:05-6:15pm **Deformity and Trauma**  
*Carlo Bellabarba, MD*

6:15-6:35pm **Cases/Discussion**

Thursday, Dec. 3, 2020, 4:00-6:35pm

### Session 3. Tumor and Infection & Complications

*Michael Gerling, MD, Neill Wright, MD; John France, MD; Paul Arnold, MD, FAANS, FACS;  
Douglass Orndorff, MD*

4:00-4:05pm **Welcome**  
*Michael Gerling, MD*

### Session 3A. Tumor and Infection

*Neill Wright, MD; John France, MD*

4:05-4:15pm **Tumor:** Presentation, Workup, and Initial Management of Tumors in the Cervical Spine  
*Daniel Sciubba, MD*

- 4:15-4:25pm **Tumor:** Update on Management of Metastatic Tumors to the Spine- Current Guidelines to Timing of Surgery/XRT, Surgery Selection  
*Jacob Buchowski, MD, MS*
- 4:25-4:35pm **Tumor:** Dural Closure Techniques- Update on Method of Closure, Role of Sealants, to Place A Wound Drain Or Not  
*Kristen Radcliff, MD*
- 4:35-4:45pm **Tumor:** Intramedullary Tumor Resection  
*Langston Holly, MD, FAANS*
- 4:45-4:55pm **Infection:** Role of Intrasite Antibiotic Therapy- Pros And Cons  
*Ronald Lehman, MD*
- 4:55-5:05pm **Infection:** Management of Cervical Epidural Abscess- Indications for Surgery, Timing of Surgery, Medicolegal Considerations  
*Eric Nottmeier, MD*
- 5:05-5:15pm **Discussion**
- 5:15-5:25pm **Break**

### Session 3B. Complications

*Paul Arnold, MD, FAANS, FACS, Douglas Orndorff*

- 5:25-5:33pm **Vertebral Artery Injury**  
*Andrew Dailey, MD, FAANS*
- 5:33-5:41pm **Esophageal Injury**  
*Erica Bisson, MD, MPH*
- 5:41-5:49pm **C5 Palsy**  
*Bruce Darden, MD*
- 5:49-5:57pm **Junctional Complications/Issues**  
*Douglass Orndorff, MD*
- 5:57-6:05pm **Complications Associated with the use of BMP**  
*Zoher Ghogawala, MD, FACS*
- 6:05-6:13pm **Post-Operative Hematoma**  
*Carlo Santaguida, MD, FRCSC*
- 6:13-6:35pm **Discussion**