

## 5<sup>th</sup> Annual ONE Spine Masters Course

Saturday, June 24, 2017  
at the Seattle Science Foundation

7:30 a.m.      **Registration and Breakfast**

7:55 a.m.      **Welcome and Introduction**  
Shane Tubbs, Ph.D., PA-C, David Hanscom, M.D.

8 a.m.          **Spinal Deformity: Getting to a 3D Perspective**  
**Key Note Speaker:** Jean Dubousset, M.D.

***Learning Objectives:***

- Identify the three dimensions of the spine
- Describe the anatomy of the deformed spine
- Review spine corrective strategies

8:45 a.m.      **Spine Navigation**  
J. Patrick Johnson, M.D.

***Learning Objectives:***

- Describe the benefits of spine navigations
- Review the challenges of relying on spine navigation
- Discuss future possibilities with navigation and spine surgery

9:10 a.m.      ***Broadcast from BioSkills Lab***  
**Hands-on Demonstration 1**  
Subaxial Cervical Spine Anatomy  
Shane Tubbs, Ph.D., PA-C

***Learning Objectives:***

- Recognize common fractures and appropriate fixation
- Identify anatomic structures and considerations of and around C1-2
- Review complications related to surgical approaches at C1-2
- Describe common fractures and appropriate fixation

9:35 a.m.      **Craniovertebral Junction (Occipit- Cervical Stabilization), Indications, Techniques, Pearls, and Pitfalls**

D. Kojo Hamilton, M.D.

***Learning Objectives:***

- Identify the ideal patient for fixation
- Describe fixation requirements for trauma and tumor
- Describe how to avoid complications

10 a.m.        **Break & Exhibits**

10:15 a.m.    ***Broadcast from BioSkills Lab***  
**Hands-on Demonstration 2**  
**Vertebrectomy**  
Sigurd Berven, M.D.

***Learning Objectives:***

- Discuss appropriate cases for vertebrectomy
- Describe common complications of a vertebrectomy including avoidance techniques
- Demonstrate a vertebrectomy

10:45 a.m. **Anatomy of the Lumbar Plexus**

Shane Tubbs, Ph.D., PA-C

**Learning Objectives:**

- Review important anatomic considerations for using the lateral spine surgery
- Describe the benefits of knowing the lateral anatomy
- Apply the principles and techniques acquired directly into their patient care of complex spinal disorders

11:10 a.m. **Adult Deformity Correction Techniques**

Sigurd Berven, M.D.

**Learning Objectives:**

- Describe surgical techniques for adult deformity surgery
- Review anatomic considerations
- Discuss timing and indications of adult deformity surgery

11:35 a.m. **Advancements in Robotic Assisted Spine Surgery**

Andrew Manista, M.D.

**Learning Objectives:**

- Review the importance of pre-operative planning for spine surgery
- Discuss the benefits and limitations of robotics for spinal surgery
- Explain the changes in surgical work-flow when using robotics during spine surgery

12 p.m.

**Broadcast from BioSkills Lab**

**Osteotomy Demonstration  
Hands-on Demonstration 3**

J. Patrick Johnson, M.D.

**Learning Objectives:**

- Discuss when osteotomies are useful
- Describe anatomic considerations for osteotomies as pertains to alignment and sagittal balance
- Demonstrate an osteotomy

12:25 p.m. **Exhibits and Pick Up Lunch**

12:40 p.m.

**Broadcast from BioSkills Lab (working lunch)**

**Hands-on Demonstration 4  
Vertebral Column Resection**

Charles Sansur, M.D., MHSc

**Learning Objectives:**

- Discuss when vertebral column resection is useful
- Describe anatomic considerations for vertebral column resection as pertains to alignment and sagittal balance
- Demonstrate how to do an vertebral column resection

1:10 p.m. **The Value of a Complications Database in Spine Surgery**

John Street, M.D., Ph.D., FRCSI

**Learning Objectives:**

- Discuss the components of a complications database
- Describe the benefits of a complications database in spine surgery
- Discuss transparency and pitfalls of the database

1:35 p.m. **Management of Degenerative Adult Scoliosis**

Charles Sansur, M.D., MHSc

***Learning Objectives:***

- Detail when is surgery indicated in degenerative adult scoliosis
- Describe common complications and avoidance techniques
- Review surgical fixation options

2 p.m.

**Spinal Cord Tumors**

David Newell, M.D.

***Learning Objectives:***

- Discuss appropriate work-up for spinal tumors
- Describe treatment options
- Review risks and benefits of surgery

2:25 p.m.

**An Automated Systems Approach to Optimizing Surgical Outcomes**

David Hanscom, M.D.

***Learning Objectives:***

- Discuss the pitfalls of a surgical approach that does adequately prepare and clear patients for surgery
- Describe steps of the automated systems approach benefits of optimizing surgical outcomes
- Review benefits of optimizing surgical outcomes

2:50 p.m.

**Broadcast from BioSkills Lab**

**Hands-on Demonstration 5**

**Iliosacral Screw Fixation**

Jean Dubousset, M.D. and Charles Sansur, M.D., MHSc

***Learning Objectives:***

- Discuss when iliosacral screw fixation is useful
- Describe anatomic considerations for iliosacral screw fixation
- Demonstrate iliosacral screw fixation

3:15 p.m.

**Panel Discussion: Challenging Case Presentation**

Moderator: J. Patrick Johnson, M.D.

Panel Members: Sigurd Berven, M.D., Jean Dubousset, M.D.

***Learning Objectives:***

- Discuss complicated cases and peri-operative challenges
- Describe lessons learned in challenging cases
- Describe patient selection

3:30 p.m.

**Break and Change into Scrubs**

Transition into BioSkills Lab

3:45 p.m.

**Hands-On Cadaver Lab**

**(Rotate every 22 minutes)**

***Learning Objectives:***

- Perform spinal reconstruction in challenging patient cases including identifying anatomic considerations as well as possible surgical techniques

**STATION 1**

D. Kojo Hamilton, M.D.

Spinal Navigation, Thoracic Screw Placement

**STATION 2**

J. Patrick Johnson, M.D.

Occiput Fixation

**STATION 3**

Andrew Manista, M.D.  
Robotic Spine Surgery

**STATION 4**

David Hanscom, M.D. & Jason Dreyer, M.D.  
Advanced Lateral Approaches

**STATION 5**

Sigurd Berven, M.D. & John Street, M.D., Ph.D., FRCSI  
Posterior Osteotomy Techniques

**STATION 6**

Doug Orndorff, M.D.  
Minimally Invasive Posterior Fixation Techniques

**STATION 7**

Posterior Cervical & Posterior Thoracic  
Charles Sansur, M.D., MHSc

6:15 p.m.

**Adjourn**

## DISTINGUISHED FACULTY

**Sigurd Berven, M.D.**  
Professor, Orthopaedics  
University of California, San Francisco  
San Francisco, California

**Jason Dreyer, M.D.**  
Neurosurgeon  
Providence Neuroscience Institute  
Walla Walla, Washington

**David Hanscom, M.D.**  
**Course Chair**  
Co-Director, Spine Fellowship Program  
Swedish Neuroscience Institute  
Seattle, Washington

**Andrew Manista, M.D.**  
Orthopaedic Surgeon  
Olympia Orthopaedic Associates  
Olympia, Washington

**Douglas Orndorff, M.D.**  
Surgery Chairman, Mercy Regional Medical Center  
Spine Colorado PC  
Durango, Colorado

**John Street, M.D., Ph.D., FRCSI**  
Director of Integrated Ambulatory Spine Program  
Vancouver General Hospital  
Assistant Professor of Orthopaedics  
University of British Columbia  
Vancouver, British Columbia

**Jean Dubousset, M.D.**  
Professor, Orthopedic Surgery  
Paris University  
Paris, France

**D. Kojo Hamilton, M.D.**  
Associate Professor of Neurological Surgery  
University of Pittsburgh  
Pittsburgh, Pennsylvania

**J. Patrick Johnson, M.D.**  
Director, Neurosurgery Spine Fellowship Program  
Cedars-Sinai  
Los Angeles, California

**David Newell, M.D.**  
Neurosurgeon  
Seattle Neuroscience Institute  
Seattle, Washington

**Charles Sansur, M.D., MHSc**  
Associate Professor of Neurosurgery  
Director of Spine Surgery  
University of Maryland School of Medicine  
Baltimore, Maryland

**Shane Tubbs, Ph.D., PA-C**  
Chief Scientific Officer  
Seattle Science Foundation  
Seattle, Washington