

**12<sup>th</sup> Annual Multimodal Treatment of Spinal Tumors**  
**Saturday, May 21, 2022**  
at the Seattle Science Foundation

**AGENDA**

**7 a.m.**            **Registration & Breakfast**

**7:30 a.m.**        **Welcome and Course Introduction**  
*Jens R. Chapman, M.D., Rod J. Oskouian, Jr., M.D., and Ehud Mendel, M.D., M.B.A.*

**SESSION 1: METASTATIC TUMORS**

**7:35 a.m.**        **Surgical Management of Spinal Metastasis** *(virtual)*  
*Ilya Laufer, M.D.*  
**Objectives:**

- Identify indications for surgery and stereotactic body radiotherapy
- Outline surgical options for treatment of spinal metastases

**7:55 a.m.**        **Q&A**

**8 a.m.**            **Live Demonstration Broadcast from BioSkills Lab No. 1**  
**Percutaneous Spinal Fixation with Fenestrated Screws with Cement**  
*Rod J. Oskouian, Jr., M.D. & Jared Cook, D.O.*  
**Objectives:**

- Summarize how to increase pull-out strength of screw with cement
- Outline potential complications of hardware failure
- Discuss increasing fixation options for tumor reconstruction

**8:45 a.m.**        **Myelopathy and An Unknown Primary: Do You Need A Diagnosis to Treat?** *(virtual)*  
*Mark H. Bilsky, M.D.*  
**Objectives:**

- Summarize the rationale for urgent surgical decompression in patients with myelopathy or cauda equina syndrome in the setting of an unknown primary
- Describe the rationale for urgent surgery even for radio/chemosensitive tumors such as myeloma and lymphoma
- Outline the rationale for urgent surgery even for primary bone tumors

**9:05 a.m.**        **Q&A**

**9:10 a.m.**        **What's New in Radiosurgery for Spine Tumors?** *(virtual)*  
*Yoshiya (Josh) Yamada, M.D.*  
**Objectives:**

- Describe the outcomes of spine radiosurgery for chordomas
- Outline the rationale for spine radiosurgery for back pain
- Explain the radiosurgery for spine metastases from prospective trials

**9:30 a.m.**        **Q&A**

**9:35 a.m.**        **Break & Exhibits** *(not for CME credit)*

- 9:45 a.m. **Radiosurgical Management of Spinal Metastasis** *(virtual)*  
*Yi An, M.D.*  
**Objectives:**
- Define the role of the radiation oncologist in specialty care coordination for patients with spinal metastasis
  - Describe the approach to determination of primary cancer in spinal metastasis patients
  - Outline the concepts of targeted medical therapy of spinal metastasis

10:05 a.m. **Q&A**

10:10 a.m. **Vertebroplasty/Kyphoplasty/Ablation Indications for Patients with Spine Tumors**  
*Amir Abdul-Jabbar, M.D.*

- Objectives:**
- Describe the indications for spine radiosurgery vs. conventional radiation treatments
  - Outline the side effects of radiation and how they affect our patients

10:25 a.m. **Q&A**

10:30 a.m. **[Live Demonstration Broadcast from BioSkills Lab No. 2](#)**  
**[Ablation for Spinal Tumors \(Kyphoplasty vs. Vertebroplasty\)](#)**

*Glen David, M.D. & Yevgeniy Freyvert, M.D.*

- Objectives:**
- Compare and contrast when one should perform a vertebroplasty or a kyphoplasty
  - Outline the different types of cement to be used in both a kyphoplasty and vertebroplasty

## **SESSION 2: PRIMARY BONE TUMORS**

- 11 a.m. **Surgical Management of Primary Malignant Bone Tumors** *(virtual)*  
*Laurence D. Rhines, M.D.*  
**Objectives:**
- Recognize the difference in management between metastatic and primary tumors of the spine
  - Describe the role of en bloc resection in the management of primary bone tumors

11:20 a.m. **Q&A**

11:25 a.m. **Interdisciplinary Considerations in Multimodal Spinal Tumor Treatment**  
*Alekos Theologis, M.D. & Steve Braunstein, M.D., Ph.D.*

- Objectives:**
- Describe the UCSF multidisciplinary therapy concept for spinal tumors and metastasis
  - Outline the dosimetric impact of implant material (Carbon/PEEK vs. Titanium)
  - Explain how surgeon decisions can unlock radiotherapeutic therapy options

11:40 a.m. **Q&A**

11:45 a.m. **Surgical Management of Lumbosacral Primary Bone Tumors** *(virtual)*  
*Ehud Mendel, M.D., M.B.A.*

- Objectives:**
- Identify current diagnosis and treatment of sacral tumors
  - Illustrate indications for operative & non-operative treatment of primary sacral tumors

12:05 p.m. **Q&A**

12:10 p.m. **Break, Exhibits & Pick-up Lunch** *(not for CME credit)*

**12:20 p.m.**     **Live Demonstration Broadcast from BioSkills Lab No. 3** *(working lunch)*  
**Spinal Reconstruction with Radiolucent, Artifact Reducing Carbon/PEEK Implants**  
*Alekos Theologis, M.D. & Nathan Pratt, M.D.*  
**Objectives:**

- Outline intraoperative handling of Carbon/PEEK implants
- Describe considerations of material choice and implant positioning for adjuvant radiation therapy
- List the MIS and open stabilization techniques for spinal tumors and metastasis

### **SESSION 3: OTHER TOPICS**

**12:50 p.m.**     **Surgeon as CEO: Complication Avoidance in Spine Tumor Surgery** *(virtual)*  
*Maxwell Laurans M.D., M.B.A.*  
**Objectives:**

- Appreciate that a detailed surgical plan is critical to avoiding complications
- Describe how an interdisciplinary approach can minimize additional risks
- Summarize how relying on pattern and processes effectively minimizes unintended errors

**1:10 p.m.**     **Q&A**

**1:15p.m.**     **How to Determine Stability in Spinal Tumors?** *(virtual)*  
*Daniel Sciubba, M.D., M.B.A.*  
**Objectives:**

- Identify factors associated with spinal instability from tumors
- Share case examples of instability
- Integrate principles of tumor instability into practice

**1:35 p.m.**     **Q&A**

**1:40 p.m.**     **Live Demonstration Broadcast from BioSkills Lab No. 4**  
**Novel Approaches for the Treatment of Spine Fractures**  
*Rod J. Oskouian, Jr., M.D. & Jerry Robinson, M.D.*  
**Objectives:**

- Outline the height restoration technique
- Compare the bilateral vs. unilateral approach
- Compare & contrast the following techniques: kyphoplasty; vertebroplasty; Intervertebral fraction reduction and fixation

**2:10 p.m.**     **Deformity Correction in the Set-Up of Spine Tumors** *(virtual)*  
*Luis Kolb, M.D.*  
**Objectives:**

- Identify common spinal deformities associated with tumor
- Outline treatment strategies for spinal tumors

**2:30 p.m.**     **Q&A**

**2:35 p.m.**     **Break & Exhibits** *(not for CME credit)*

2:45 p.m.

**Live Demonstration Broadcast from BioSkills Lab No. 5  
Laminectomy Techniques and Principles with Multi-Rod Constructs in  
Spinal Reconstruction**

*Jens R. Chapman, M.D. & Zac Tataryn, M.D.*

**Objectives:**

- Describe techniques to effectively decompress posterior thoracolumbar spine
- Outline the indications for mutli rod constructs
- Describe strategies to effectively create mutli rod constructs

3:30 p.m.

**Augmented Reality for Spine Tumor Resection (virtual)**

*John E. Shin, M.D.*

**Objectives:**

- Recognize the challenges of arthrodesis and reconstruction after resection of primary spinal tumors
- Evaluate the feasibility and applicability of augmented reality in spine tumor surgery.
- Highlight the advantages of augmented reality-based computer navigation in surgery planning and execution

3:50 p.m.

**Q&A**

3:55 p.m.

**Spinal Cord Tumors: Surgery for Intradural Tumors (virtual)**

*Ian E. McCutcheon, M.D.*

**Objectives:**

- Outline surgical techniques for removal of spinal cord tumors
- Explain the steps in diagnosing spinal cord tumors
- Summarize the surgical anatomy of the spinal cord

4:15 p.m.

**Q&A**

4:20 p.m.

**Spine Tumors Case Presentations (virtual)**

*Michael Galgano, M.D.*

**Objectives:**

- Describe the differential diagnosis of both vertebral column and intradural spinal tumors
- Appreciate the technical nuances in the surgical management of spinal tumors

4:40 p.m.

**Q&A**

4:45 p.m.

**Course Wrap Up**

4:50 p.m.

**Adjourn**

**Surgical Demonstrations Supported by Swedish Neuroscience Institute Spine Fellows**

Jared Cook, D.O., Yevgeniy Freyvert, M.D., Nathan Pratt, M.D.,  
Jerry Robinson, M.D., & Zac Tataryn, M.D

**Jens R. Chapman, M.D.**  
**Course Co-Chair**  
Complex Spine Surgeon  
Swedish Neuroscience Institute  
Seattle, Washington

**Ehud Mendel, M.D., M.B.A., FACS (virtual)**  
**Course Co-Chair**  
Executive Vice-Chair & Professor, Neurosurgery  
Director of Spine & Spine Oncology Program  
Yale School of Medicine & Simlow Cancer Hospital  
New Haven, Connecticut

**Rod J. Oskouian, Jr., M.D.**  
**Course Co-Chair**  
Chief of Spine  
Director, Spine Fellowship Program  
Swedish Neuroscience Institute  
Seattle, Washington

**Amir Abdul-Jabbar, M.D.**  
Orthopaedic Surgeon  
Swedish Neuroscience Institute  
Seattle, Washington

**Yi An, M.D. (virtual)**  
Assistant Professor, Radiation Oncology  
Chief, Spine & Genitourinary Radiotherapy Program  
Yale School of Medicine  
New Haven, Connecticut

**Mark H. Bilsky, M.D. (virtual)**  
William E. Snee Endowed Chair  
Vice Chairman of Clinical Affairs, Neurosurgery  
Memorial Sloan Kettering Cancer Center  
New York, New York

**Steve Braunstein, M.D., Ph.D. (virtual)**  
Radiation Oncologist  
University of California San Francisco  
San Francisco, California

**Glen David, M.D.**  
Interventional Pain Specialist  
Swedish Neuroscience Institute  
Seattle, Washington

**Michael Galgano, M.D. (virtual)**  
Spinal Oncology & Deformity Surgery  
Assistant Professor of Neurosurgery  
University of North Carolina  
Chapel Hill, North Carolina

**Luis Kolb, M.D. (virtual)**  
Neurosurgeon  
Yale School of Medicine  
New Haven, Connecticut

**Maxwell Laurans, M.D., M.B.A. (virtual)**  
Assistant Professor of Neurosurgery  
Vice President, Surgical Services  
Yale School of Medicine  
New Haven, Connecticut

**Ilya Laufer, M.D. (virtual)**  
Director, Spine Tumor Program  
NYU Langone  
New York, New York

**Ian E. McCutcheon, M.D. (virtual)**  
Professor of Neurosurgery  
MD Anderson Cancer Center  
Houston, Texas

**Laurence D. Rhines, M.D. (virtual)**  
Professor and Director  
Spine Tumor Program  
MD Anderson Cancer Center  
Houston, Texas

**Daniel Sciubba, M.D. (virtual)**  
Professor & Chair, Northwell Dept. of Neurosurgery  
Professor, Johns Hopkins University School of Medicine  
Baltimore, Maryland

**John E. Shin, M.D. (virtual)**  
Kingdon-Saylor Family Endowed Chair in Spine Neurosurgery  
Director, Spine Oncology & Spinal Deformity Surgery  
Mass General Neurosurgery | Harvard Medical School  
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**Alekos Theologis, M.D.**  
Assistant Professor, Spine  
University of California San Francisco  
San Francisco, California

**Yoshiya (Josh) Yamada, M.D. (virtual)**  
Co-Chief, Multi-Disciplinary Spine Tumor Svc  
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