



**SAINT LOUIS  
UNIVERSITY™**

**Practical Anatomy & Surgical Education**  
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**Practical Anatomy**

**Our Mission Statement:** *Practical Anatomy & Surgical Education and Center for Anatomical Science and Education, Saint Louis University School of Medicine, is dedicated to the development and presentation of innovative medical health and science workshops. Practical Anatomy strives to promote the concept of lifelong learning by utilizing the latest technology to connect young people, residents, health care professionals and surgeons to world-class experts and faculty.*



**Multidisciplinary Treatment of Spinal Tumors**

**Hands-on Cadaver Workshop**  
November 9-10, 2017 | <http://pa.slu.edu>



**2017**  
Hands-on Cadaver  
Workshop

November 9-10, 2017  
St. Louis, Missouri USA

# Multidisciplinary Treatment of Spinal Tumors

*Includes Cadaver Hands-on Workshops for Surgical and Non-Surgical Approaches to the Spine*

**Jointly Planned by Saint Louis University School of Medicine and Washington University School of Medicine**

**Course Directors**

Paul Santiago, MD  
Jack W. Jennings, MD, PhD  
Clifford G. Robinson, MD  
Saiana N. Waqar, MBBS, MSCI

**Honored Guest:**

Ziya Gokaslan, MD



**SAINT LOUIS UNIVERSITY**  
SCHOOL OF MEDICINE



<http://pa.slu.edu>

An offering through: Practical Anatomy & Surgical Education  
Department of Surgery  
Saint Louis University School of Medicine

**Course Directors:****Paul Santiago, MD**

Professor of Neurological and Orthopedic Surgery  
Co-Director, Spinal Oncology  
and Neurosurgical Spine Fellowship  
Washington University School of Medicine  
St. Louis, MO

**Clifford G. Robinson, MD**

Associate Professor  
Chief, Stereotactic Body Radiation Therapy  
Department of Radiation Oncology  
Washington University School of Medicine  
St. Louis, MO

**Jack W. Jennings, MD, PhD**

Associate Professor in Radiology  
Musculoskeletal Section  
Director of Musculoskeletal and Spine Intervention  
Mallinckrodt Institute of Radiology  
Washington University School of Medicine  
St. Louis, MO

**Saiama N. Waqar, MBBS, MSCI**

Assistant Professor, Medicine  
Division of Oncology  
Section of Medical Oncology  
Washington University School of Medicine  
St. Louis, MO

**Honored Guest:****Ziya Gokaslan, MD**

Gus Stoll, MD Professor and Chair,  
Department of Neurosurgery  
The Warren Alpert Medical School of Brown University  
Neurosurgeon-in-Chief, Rhode Island Hospital  
and The Miriam Hospital  
Providence, RI

**Faculty:****Jacob M. Buchowski, MD**

Professor of Orthopaedic  
and Neurological Surgery  
Director, Center for Spinal Tumors  
Director, Washington University Spine Fellowship  
Washington University School of Medicine  
St. Louis, MO

**Samuel T. Chao, MD**

Associate Professor  
Director of CNS Radiation Oncology  
Quality and Safety Director, Radiation Oncology  
Section Head, Center for Cerebral Radiation Necrosis  
Full Staff, Rose Ella Burkhardt Brain Tumor  
and Neuro-oncology Center  
Cleveland Clinic Lerner College of Medicine of Case  
Western Reserve University

**John Dombrowski, MD, PhD**

Associate Professor  
Chair of Radiation Oncology  
Director of Radiation Medicine  
Saint Louis University  
St. Louis, MO

**Ian Dorward, MD**

Assistant Professor, Neurological Surgery  
and Orthopedic Surgery  
Washington University School of Medicine  
St. Louis, MO

**Sameer Gadani, MD**

Assistant Professor of Interventional Oncology  
Division of Interventional Radiology  
St. Louis University Hospital  
St. Louis, MO

**Nels Knutson, MS**

Instructor, Department of Radiation Oncology  
Washington University School of Medicine  
St. Louis, MO

**Jeremiah R. Long, MD**

Assistant Professor, Radiology  
Division of Diagnostic Radiology  
Section Musculoskeletal Radiology  
Washington University School of Medicine  
St. Louis, MO

**Jonathan M. Morris, MD**

Assistant Professor of Radiology  
Mayo Clinic College of Medicine  
Rochester, MN

**Howard Place, MD**

Professor, Interim Chair  
Department of Orthopaedic Surgery  
Saint Louis University School of Medicine  
St. Louis, MO

**Wilson Zachary Ray, MD**

Associate Professor of Neurological and  
Orthopedic Surgery  
Neurosurgery Residency Associate Director  
Co-Director, Spinal Oncology  
Washington University School of Medicine  
St. Louis, MO

**Brian Van Tine, MD, PhD**

Assistant Professor, Medicine  
Division of Oncology  
Section of Medical Oncology  
Washington University School of Medicine  
St. Louis, MO

**Katherine N. Weilbaecher, MD**

Professor, Medicine  
Oncology Division  
Molecular Oncology & Developmental Therapeutics  
Washington University School of Medicine  
St. Louis, MO

**Neill M. Wright, MD, FAANS**

Herbert Lourie Professor of Neurological Surgery  
Professor of Orthopaedic Surgery  
Co-Director, Neurosurgical Spine Fellowship  
Department of Neurological Surgery  
Washington University School of Medicine  
St. Louis, MO

**Lukas Zebala, MD**

Assistant Professor of Orthopaedic  
and Neurological Surgery  
Department of Orthopaedic Surgery, Spine Service  
Washington University School of Medicine  
St. Louis, MO

**Thursday, November 9, 2017**

5:00 PM - 7:15 PM

- Opening Guest Lecture: En Bloc Resections of Spinal Tumors
- Greet the Faculty Cocktail Reception /Exhibits

**Friday, November 10, 2017**

7:00 AM - 5:00 PM

**Medical Oncology**

- Systemic Treatments for Bone Metastases
- Sarcomas of the Spine
- Biology of Bone Metastases from Solid Tumors
- Q & A/Case Presentation

**Interventional Radiology**

- Radiofrequency Ablation and Vertebral Augmentation of Metastatic Spine Disease
- Cryoablation of the Spine: Benefits, Challenges and Tips
- Challenging Spine Biopsies for Primary and Metastatic Disease
- Combining Spinal Ablation and Radiotherapy
- Q & A/Case Presentation

**Surgical Oncology**

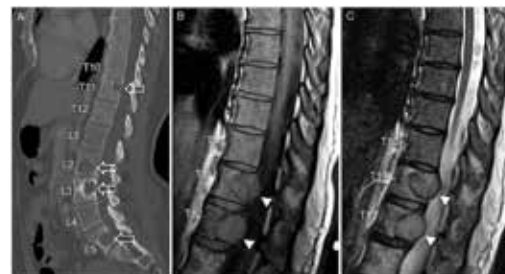
- Apical Lung Tumor/ Upper Thoracic Spinal Tumor Resections
- Minimally Invasive Tumor Surgery
- Tumors of the Cervical Spine and Brachial Plexus
- Sacral Tumor Resections
- Q & A/Case Presentation

**Radiation Oncology**

- Conventionally Fractionated Radiotherapy for Spine Metastases
- Stereotactic Body Radiotherapy (SBRT) for Spine Metastases
- Re-irradiation of Spine Metastases
- Q & A/Case Presentation

**Breakout Sessions – 2 Rotations Per Attendee**

- Surgical Demonstrations:  
Costotransversectomy/Sacrectomy Lab  
Cadaver Lab: Thoracic Pedicle Screws
- Kyphoplasty/Vertebral Augmentation/Spinal Ablation
- SBRT
- Wrap Up Announcements
- "Evening after the Meeting"  
Optional Tour of SBRT and Proton Beam Facilities (5pm - 7pm)  
with Evening Reception (Transportation Provided)

**COURSE DESCRIPTION**

Multidisciplinary Treatment of Spinal Tumors is targeted towards healthcare providers interested in exploring current treatments in the diagnosis and management of patients with spinal tumors. Experts in medical oncology, radiation oncology, interventional radiology, orthopaedics and neurosurgery will lead discussions covering current treatment paradigms with an emphasis on multidisciplinary care. The course is designed to educate participants about treatment options available to their patients in order to provide the safest and best outcomes.

**COURSE OBJECTIVES**

Attending this course will provide the participants with a better understanding of the following as it pertains to multidisciplinary care of spinal tumors:

1. Discuss the development of a multidisciplinary spinal tumor board
2. Review the most current medical treatment paradigms for primary and metastatic tumors of the spine
3. Review and perform minimally invasive percutaneous techniques for the treatment of spinal tumors, with an emphasis on vertebral augmentation and tumor ablation
4. Discuss to understand practical differences between conventional external beam radiation and stereotactic body radiation therapy for spine metastases, including pros and cons of each technique and complex planning.
5. Perform surgical approaches for the management of primary and metastatic tumors of the spine, under the guidance of expert faculty.

Participants will also gain insight in to the treatment of spinal tumors by participating in the following Hands-on labs:

1. Thoracic and Sacral tumor resections
2. Vertebral Augmentation and Tumor Ablation
3. Radiotherapy Treatment Planning

**ACCREDITATION:**

Saint Louis University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The education the participant gains through our CME activities does not satisfy training requirements to perform the surgery.

**CREDIT DESIGNATION:**

Saint Louis University designates this live activity for a maximum of 8.25 AMA PRA Category 1 Credit(s)™.

**REGISTRATION:**

For Further Course Details and REGISTRATION Click On (or type in your internet browser) the link below:

**[HTTP://PA.SLU.EDU](http://pa.slu.edu)**

This workshop will be held at the PASE Learning Center located in Young Hall, 3839 Lindell Boulevard, Saint Louis, MO 63108

**TUITION FEES**

Physicians: .....\$645  
Residents/Fellows/USA Military.....\$395

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