Surgical Treatment of the Craniocervical Junction
A Course for 5th & 6th Year Neurosurgery Residents
Cleveland, Ohio
August 27 - 28, 2019

Hosted by:

[Logos of University Hospitals Neurological Institute and Case Western Reserve University School of Medicine]
Surgical Treatment of the Craniocervical Junction

Tuesday and Wednesday, August 27 – 28, 2019

Institute for Surgery and Innovation
University Hospitals Cleveland Medical Center
Cleveland, Ohio

Wolstein Auditorium
Case Western Reserve University
Cleveland, OH 44106

Laboratory Sessions – Surgical Training and Research Lab,
Biomedical Research Building, BRB B68

An educational activity provided by
UH Neurological Institute

Overview
This two-day course is designed for 5th and 6th year neurosurgery residents who seek an intensive, hands-on course in the surgical management of pathologies of the craniocervical junction. Pathologies to be addressed include vascular diseases, tumors, deformities and trauma. Anatomical considerations, patient indications for intervention, decision making, and surgical approaches and techniques will be discussed. Faculty will demonstrate repair, fixation and reconstruction techniques using 3-D imaging, and state-of-the-art devices and instrumentation. Small class size and emphasis on the practicum maximizes faculty and resident interaction, and the opportunity for expert guidance and skill development.

Objectives
After attending this program participants will be able to:

- Describe the anatomical factors involved in the surgical management of pathologies of the craniocervical junction
- Discuss patient indications and the surgical decision making process for selecting appropriate approaches, techniques and devices
- Demonstrate skills in CT and MRI navigation and image guidance
- Demonstrate surgical approaches, techniques and application of devices on tissue models
- Plan intraoperative steps to prevent complications and maximize outcomes
Faculty

**Nicholas C. Bambakidis, MD**
*Course Director*
Professor of Neurological Surgery
Case Western Reserve University School of Medicine
Director, Cerebrovascular and Skull Base Surgery
Director and Vice President, Neurological Institute
Residency Program Director
University Hospitals Cleveland Medical Center
Cleveland, OH

**Sepideh Amin-Hanjani, MD, FAANS, FACS, FAHA**
Professor, Department of Neurosurgery
Residency Program Director
Co-Director, Neurovascular Surgery
University of Illinois at Chicago
Chicago, IL

**Chad A. Glenn, M.D.**
Assistant Professor of Neurological Surgery
University of Oklahoma Medical Center
Department of Neurological Surgery
Oklahoma City, OK

**Alia Hdeib, M.D.**
Assistant Professor of Neurological Surgery
Case Western Reserve University School of Medicine
University Hospitals Neurological Institute
University Hospitals Cleveland Medical Center
Louis Stokes VA Cleveland Medical Center
Cleveland, OH

**Manish Kasliwal, M.D.**
Assistant Professor of Neurological Surgery
Case Western Reserve University School of Medicine
Director, Minimally Invasive Spine Surgery
University Hospitals Neurological Institute
University Hospitals Cleveland Medical Center
Cleveland, OH

**Louis J. Kim, MD**
Professor and Vice Chair of Neurological Surgery
University of Washington School of Medicine
Harborview Medical Center
Seattle, WA

**Varun Kshettry, MD**
Director, Advanced Endoscopic & Microscopic Neurosurgery Laboratory
Cleveland Clinic Foundation
Cleveland, OH

**Cliff A. Megerian, M.D., FACS**
President, University Hospitals Physician Network & System Institutes
President, Physician Services, University Hospitals
Chair, Auditory Surgery and Hearing Sciences, UHCMC
Professor, Otolaryngology – CWRU School of Medicine
University Hospitals Cleveland Medical Center
Sarah E. Mowry, M.D., FACS
Assistant Professor, Otology, Neurotology & Balance Disorders
Department of Otolaryngology/Head & Neck Surgery
Case Western Reserve University School of Medicine
Associate Program Director
University Hospitals Cleveland Medical Center
Cleveland, OH

Peter Nakaji, MD
Barrow Neurological Institute
St. Joseph Hospital and Medical Center
Board Member, Board of Managers
Program Director, Neurosurgery Residency
Director, Division of Minimally Invasive Neurosurgery
Vice Chairman, Institutional Review Board for Human Research
Medical Director, Neurosurgical ICU
Phoenix, AZ

Maroun T. Semaan, M.D.
Associate Professor of Otolaryngology
Case Western Reserve University School of Medicine
Chief – Division of Otology, Neurotology and Lateral Skull Base Surgery
Ear, Nose and Throat Institute
University Hospitals Cleveland Medical Center
Cleveland, OH

Michael P. Steinmetz, MD
Chairman, Department of Neurosurgery
The Cleveland Clinic Foundation
Professor and Chairman of Neurological Surgery
Cleveland Clinic Lerner College of Medicine of
Case Western Reserve University School of Medicine
Cleveland, OH

Vincent C. Traynelis, M.D.
Professor of Neurological Surgery
Rush University Medical Center
Chicago, IL

Peter Weisskopf, M.D.
Professor, Department of Otorhinolaryngology (ENT)/Head and Neck
And Department of Neurosurgery
Mayo Clinic
Phoenix, AZ

Joseph M. Zabramski, MD
Professor of Neurological Surgery
Director of Clinical Neurosurgical Research
Barrow Neurological Institute
St. Joseph’s Hospital and Medical Center
Phoenix, AZ
Program Agenda

The program will consist of the following lectures and laboratory sessions. All lectures will be held in the 1st floor Auditorium of the Wolstein Building.

**Tuesday, August 27, 2019**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>7:30 a.m.</td>
<td>Registration and Continental Breakfast</td>
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<tr>
<td>8:00 a.m.</td>
<td>Welcome and Introduction</td>
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<tr>
<td>8:15 a.m.</td>
<td>Anatomy of the Craniovertebral Junction Joseph Zabramski, MD</td>
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<tr>
<td>8:40 a.m.</td>
<td>Resection of Skull Base Tumors and Complication Management Nicholas C. Bambakidis, M.D.</td>
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<tr>
<td>9:20 a.m.</td>
<td>Vascular Lesions of the Craniocervical Junction Peter Nakaji, M.D.</td>
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<tr>
<td>9:45 a.m.</td>
<td>Revascularization in the Posterior Circulation – Indications and Technique Sepideh Amin-Hanjani, M.D.</td>
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<tr>
<td>10:10 a.m.</td>
<td>The Role of Endovascular Treatment Options in the CVJ Louis Kim, M.D.</td>
</tr>
<tr>
<td>10:35 a.m.</td>
<td>Middle Fossa, Translabyrinthine, Transpetrous and Combined Approaches Drs. Maroun Semaan, Sarah Mowry, Cliff Megerian and Peter Weisskopf, M.D.</td>
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<tr>
<td>11:15 a.m.</td>
<td>Break and Lunch</td>
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<tr>
<td>12:15 – 5:00 p.m.</td>
<td>Laboratory Session – Surgical Training and Research Lab, Biomedical Research Building, BRB B68</td>
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<td>6 stations including pro-section – 3 students per station Retrosigmoid/Translabyrinthine/Transpetrosal (2.5 hours) Far Lateral Approach and Variations – (2 hours)</td>
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<tr>
<td>6:30 p.m.</td>
<td>Course Dinner – Venue to be determined</td>
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<td>Transportation leaves hotel at 6:00 p.m.</td>
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**Wednesday, August 28, 2019**

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<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>8:15 a.m.</td>
<td>Continental Breakfast</td>
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<tr>
<td>8:45 a.m.</td>
<td>Fixation techniques and Indications for Occipito-cervical Fusion</td>
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<td>Vincent C. Traynelis, M.D.</td>
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<tr>
<td>9:30 a.m.</td>
<td>Biomechanics of the Occipito-cervical Joints Michael P. Steinmetz, M.D.</td>
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<tr>
<td>10:00 a.m.</td>
<td>Subaxial Fixation Techniques C3 – Upper Thoracic Spine Alia Hdeib, M.D.</td>
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<tr>
<td>10:30 a.m.</td>
<td>Indications for Treatment and Case Examples Manish Kasliwal, M.D.</td>
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<tr>
<td>11:30 a.m.</td>
<td><strong>Laboratory Session and Lunch -</strong> Surgical Training and Research Lab, Biomedical Research Building, BRB B68</td>
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<td>Occipito-cervical fixation and subaxial fixation/upper thoracic spinal fixation</td>
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<tr>
<td>3:00 p.m.</td>
<td>Course adjourns and departures</td>
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General Information
A map and directions will be sent with your confirmation letter.

Accommodations:
Courtyard by Marriott – University Circle
2021 Cornell Road
Cleveland, OH 44106
216-791-5678
The hotel is within walking distance of the conference venue. For those who drive, valet parking is $20 for overnight guests.

Acknowledgments
This activity will be supported by grants from industry. We hope you enjoy this educational opportunity provided by University Hospitals Cleveland Medical Center.

Acceptance of funding in support of this symposium does not constitute endorsement of any product or manufacturer.

The commitment to exceptional patient care begins with revolutionary discovery. University Hospitals Cleveland Medical Center is the primary affiliate of Case Western Reserve University School of Medicine, a national leader in medical research and education and consistently ranked among the top research medical schools in the country by U.S. News & World Report. Through their faculty appointments at Case Western Reserve University School of Medicine, physicians at University Hospitals Cleveland Medical Center are advancing medical care through innovative research and discovery that bring the latest treatment options to patients.

Resident & Fellow Educational Grant Policy and Procedure
The policy and procedure listed below describes who is eligible to participate in this two day course, what the grant will cover, and the steps to follow to apply.

Fifth & Sixth Year Neurosurgery Residents who are interested in the surgical management of pathologies involving the craniocervical junction may complete the on-line application form to request an educational grant to attend this course.

The educational grant will cover the following for 18 neurosurgery residents:
- Tuition
- Lodging for up to 2 nights, room & tax only. Two residents/fellows assigned per room.
- Roundtrip airfare (nonrefundable coach) or if driving, reimbursement for mileage, tolls and parking.
- Meals & refreshment breaks at the course.

The educational grant will not cover:
- Incidents, miscellaneous expenses at the hotel. A credit card will be required at hotel check-in.
- Transportation to and from the home city airport, and the Cleveland airport and hotel.
- Food & beverage expenses (outside the course agenda).

For questions, call: 216-844-3472 or email lois.hengenius@uhhospitals.org