

Pacific Rim Master Class in Endoscopic Endonasal and Keyhole Surgery

FOR BRAIN, SKULL BASE AND PITUITARY TUMORS WITH HANDS-ON MICRODISSECTION

A Collaboration Between Ohio State University & Pacific Neuroscience Institute



January 24-27, 2019 | Santa Monica, California, USA

(Course starts at 11:00 am on January 24th and ends at 11:30 am on January 27th)

Course Location

DoubleTree Suites by Hilton Santa Monica
Santa Monica, CA USA

Course Directors

Daniel F. Kelly, MD
Garni Barkhoudarian, MD
Pacific Neuroscience Institute
Santa Monica, California

Ricardo L. Carrau, MD
Daniel M. Prevedello, MD
OSUCCC–James
Columbus, Ohio

Guest Faculty

Ivan El-Sayed, MD, FACS
University of California, San Francisco
San Francisco, California

Juan C. Fernandez-Miranda, MD, FACS
Stanford University Medical Center
Stanford, California

Amin B. Kassam, MD
Aurora St. Luke's Medical Center
Milwaukee, Wisconsin

Kris S. Moe, MD, FACS
University of Washington School of Medicine
Seattle, Washington

Charles Teo, AM, MBBS, FRACS
Centre For Minimally Invasive Neurosurgery
Sydney, Australia



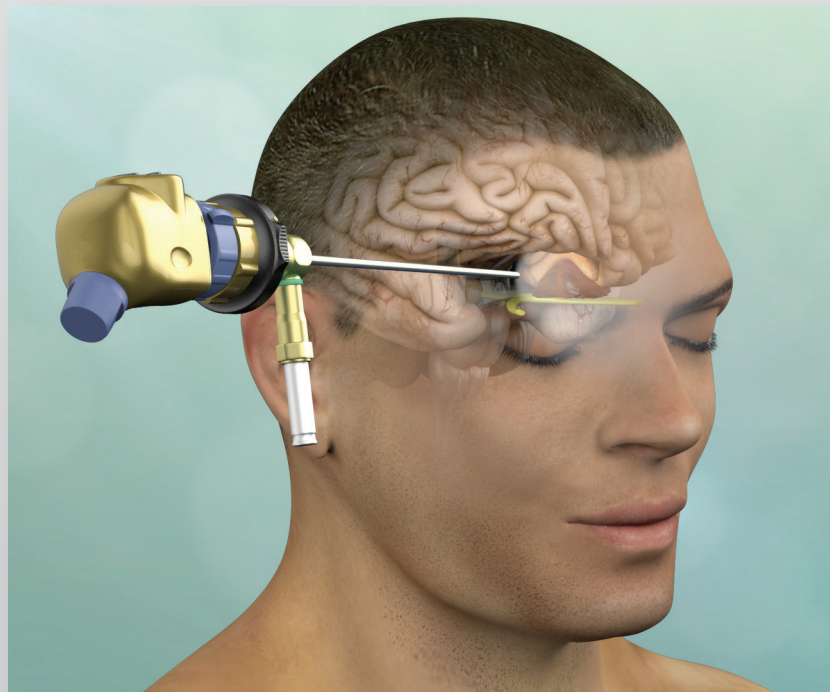
A 4-day hands-on extensive immersion in advanced endonasal and transcranial keyhole surgical techniques using didactic and 3-D anatomical lectures, **cadaveric dissections**, and a live surgery.

Course Description

This course will provide an extensive immersion in advanced endonasal and transcranial keyhole surgical techniques using didactic and 3-D anatomical lectures, cadaveric dissections, and a live surgery on Day 1. The course faculty are highly experienced and recognized world-experts in minimally invasive endoscopic and keyhole surgery. The course emphasis will be on: patient and approach selection, surgical judgement, anatomical awareness, technical nuances, complication avoidance, maintaining quality of life and optimizing clinical outcomes. Specific approaches discussed and performed in the lab will include: endoscopic endonasal route including extended approach variations, supraorbital eyebrow craniotomy, mini-pterional craniotomy, gravity-assisted trans-falcine and trans-tentorial endoscopic approaches and the retromastoid route. A team approach involving neurosurgery, otolaryngology and neuro-ophthalmology will be stressed as well as collaboration with neuro-oncology, endocrinology and radiation oncology. A portion of Day 3 will have parallel sessions on keyhole surgery for neurosurgeons, and endonasal approaches for ENTs/ophthalmologists.

The Course Comprises:

1. Pre-course video-lectures addressing the basic principles of endoscopic skull base surgery, anatomy of the sinonasal tract and skull base, supraorbital eyebrow craniotomy, transfalcine gravity-assisted craniotomy, supracerebellar transtentorial gravity assisted craniotomy and basic surgical technique and instrumentation. These will be provided to registered participants one month prior to the course, as the program will start at a level that presumes familiarity with these principles.
2. Anatomical prosections (videos will be provided one month prior to the course).
3. Laminated dissection manual (a digital version will be provided one month prior to the course).
4. Sequence of complementary didactic lectures, round tables and panel discussions (open format with audience participation), 3-D anatomical reviews and hands-on cadaveric dissection.
5. Live surgery will be transmitted directly to the auditorium where the participants may interact with the surgeons and other members of the faculty.



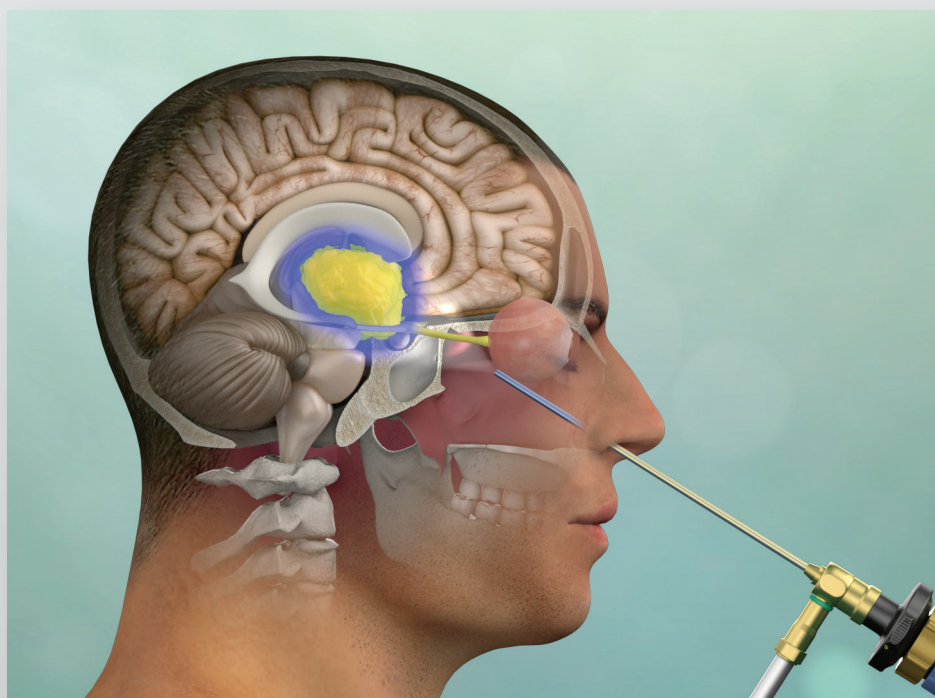
Course Objectives

At the conclusion of this activity, learners should be able to:

1. Gain an advanced understanding of when and how to utilize endonasal endoscopic and keyhole transcranial approaches
2. Understand and gain experience with endoscopic-assisted keyhole surgery via the supraorbital, mini-pterional, gravity-assisted (trans-falcine and sitting supracerebellar trans-tentorial) and retromastoid approaches
3. Understand the essential instrumentation and ancillary services essential for safe endoscopic endonasal and transcranial keyhole surgery
4. Understand methods of skull base reconstruction and avoidance of CSF leaks and meningitis
5. Understand methods of complication avoidance in endonasal endoscopic and keyhole surgery approaches

Target Audience

Neurosurgeons, otolaryngologists/ENT/rhinologists, plastic surgeons, and neuro-ophthalmologists/ophthalmologists with some prior experience in endoscopic and keyhole surgery who want to expand their repertoire and capabilities.



FACULTY

Course Directors

Daniel F. Kelly, MD

Director, Pacific Neuroscience Institute
Director, Brain Tumor Center and Pituitary Disorders Center
Professor of Neurosurgery
John Wayne Cancer Institute at
Providence Saint John's Health Center
Santa Monica, California

Garni Barkhoudarian, MD

Director, Adult Hydrocephalus Center & Facial Pain Center
Co-Director, Pituitary Disorders Center, PNI
Assistant Professor of Neurosurgery
John Wayne Cancer Institute at
Providence Saint John's Health Center
Santa Monica, California

Ricardo L. Carrau, MD

Professor
Department of Otolaryngology-Head and Neck Surgery
OSUCCC-James
Columbus, Ohio

Daniel M. Prevedello, MD

Professor
Department of Neurological Surgery
OSUCCC-James
Columbus, Ohio

Guest Faculty

Ivan El-Sayed, MD, FACS

Professor
Department of Otolaryngology – Head and Neck Surgery
Director, Otolaryngology Center for Minimally
Invasive Skull Base Surgery
University of California, San Francisco
San Francisco, California

Juan C. Fernandez-Miranda, MD, FACS

Professor of Neurosurgery
Surgical Director, Brain Tumor Center
Stanford University Medical Center
Stanford, California

Amin B. Kassam, MD

Vice President, Neurosciences
Medical Director, Neurosurgery
Aurora St. Luke's Medical Center
Milwaukee, Wisconsin

Kris S. Moe, MD, FACS

Professor and Chief
Division of Facial Plastic Surgery
Departments of Otolaryngology & Neurological Surgery
Chief of Otolaryngology-Head & Neck Surgery
Harborview Medical Center
University of Washington School of Medicine
Seattle, Washington

Professor Charles Teo, AM, MBBS, FRACS

Centre For Minimally Invasive Neurosurgery
Sydney, Australia

Faculty-Pacific Neuroscience Institute

Achal Singh Achrol, MD

Director, Neurovascular Surgery and Neurocritical Care
Stroke & Aneurysm Center, PNI
Chief, Glioma Surgery Program
John Wayne Cancer Institute

Pejman Cohan, MD

Endocrinologist, Pituitary Disorders Center, PNI
Associate Professor of Medicine
UCLA School of Medicine

Chester F. Griffiths, MD, FACS

Director, Eye, Ear & Skull Base Center
Head & Neck Surgery and Endoscopic Skull Base Surgery, PNI
Chief of Endoscopic Sinonasal and Skull Base Surgery
John Wayne Cancer Institute at
Providence Saint John's Health Center

Santosh Kesari, MD, PhD, FANA, FAAN

Director of Neuro-oncology, PNI
Chair and Professor
Department of Translational
Neurosciences and Neurotherapeutics
John Wayne Cancer Institute at
Providence Saint John's Health Center
Howard R. Krauss, MD
Director, Eye, Ear & Skull Base Center
Neuro-ophthalmology, PNI

Walavan Sivakumar, MD

Director of Neurosurgery, PNI South Bay
Providence Little Company of Mary Medical Center
Neurosurgery, Providence Saint John's
Health Center

Robert Wollman, MD

Radiation Oncologist, PNI
Medical Director
Vasek Polak Radiation Oncology Department
Providence Saint John's Health Center

AGENDA

One month before the course, we will provide all registered participants with the following lectures in a video format. Participants will be responsible to watch these videos and be familiar with the material. The course will start at a level that assumes familiarity with the concepts exposed in the videos.

- Pre-course Principles of Expanded Endoscopic Endonasal Approaches
- Pre-course The Sinonasal Corridor
- Pre-course Anatomy of the Sinonasal Tract & Skull Base (Extradural)
- Pre-course Anatomy of the Cranial Nerves and Cerebral Circulation (Extradural)
- Pre-course Reconstruction of the Skull Base: From Free Grafting to Vascularized Flaps
- Pre-course Sagittal Plane EEA Modules I: Trans-sellar, Trans-planum, and Trans-cribiform
- Pre-course Practical Approach to Imaging of the Cranial Base
- Pre-course Endovascular Approach: How I can get you out of trouble (even deep, deep, deep...trouble)
- Pre-course Sagittal Plane Modules II: Trans-clival, Trans-odontoid
- Pre-course Trans-orbital Endonasal Approaches
- Pre-course Endoscopic Anterior Skull Base Resection for Sinonasal Malignancy: Principles and Outcomes
- Pre-course Anatomical Basis for the Transpterygoid Approaches
- Pre-course Coronal Plane Modules
- Pre-course Supraorbital Eyebrow Craniotomy
- Pre-course Trans-falcine Gravity-Assisted Craniotomy
- Pre-course Supracerebellar Trans-tentorial Gravity-Assisted Craniotomy

In addition, we will provide copies of the prosection videos, a dissection manual in .pdf format, and references. We encourage the participants to go over this material before the course.

THURSDAY, January 24, 2019 – DAY 1

- | | |
|-----------|--|
| 11:00 am | Registration & Lunch |
| 12:00 pm | Welcome and Course Overview Daniel Kelly, Garni Barkhoudarian |
| 12:10 | Live Surgery Case Introduction PNI Fellow |
| 12:30 | Pre-op Considerations & OR Setup for Endoscopic Endonasal & Keyhole Surgery Walavan Sivakumar |
| 1:00 | Case Discussion / Live Commentary |
| 4:00 | Approach Lecture (based on surgery performed – keyhole or endonasal) Garni Barkhoudarian |
| 5:00 | End of Day 1 |
| 5:00-7:00 | Welcome Reception at PNI Clinic |

FRIDAY, January 25, 2019 – DAY 2

- | | |
|----------|--|
| 7:00 am | Continental Breakfast |
| 7:20 | Welcome and Course Overview Daniel Kelly, Garni Barkhoudarian, Ricardo Carrau, Daniel Prevedello |
| 7:30 | 3-D Endoscopic Skull Base Anatomy: The Sagittal Plane I & II Daniel Prevedello |
| 8:00 | Nuances of Endoscopic Endonasal Approach for Sellar Lesions - Less is More Chester Griffiths |
| 8:20 | Strategies for Maximizing Tumor Removal and Gland Preservation for Pituitary Adenomas and Rathke's Cleft Cysts Daniel Kelly |
| 8:40 | When, Why and How – Nasoseptal Flap or Middle Turbinate Flap for Sellar and Suprasellar Tumors
Ricardo Carrau |
| 9:00 | Endonasal Pituitary Surgery: Complication Avoidance and Management for Sellar/Suprasellar Lesion
Garni Barkhoudarian |
| 9:20 | Break |
| 9:35 | Round Table: Form & Function of Team Surgery in Endoscopic Skull Base Surgery Juan Fernandez-Miranda, Daniel Prevedello, Ricardo Carrau |
| 10:00 | Anatomical Dissection - Lab 1
Approach to Sella and Planum |
| 12:00 pm | Lunch |
| 12:30 | Lunch Lecture – Evolution of a 360-Degree Approach for Brain & Skull Base Tumors Amin Kassam |
| 1:00 | 3-D Endoscopic Skull Base Anatomy: Clinical Relevance of Cavernous Sinus Compartments in Endonasal Surgery Juan Fernandez-Miranda |
| 1:20 | Approaches to Cavernous Sinus and Meckel's Cave – Case Selection - Endonasal or Transcranial
Daniel Prevedello |
| 1:40 | Endoscopic Transpterygoid Approach – When and Why Ricardo Carrau |
| 2:00 | Transclival and Far-Medial Approach Amin Kassam |

AGENDA

FRIDAY, January 25, 2019 – DAY 2, continued

2:20	Break
2:35	Controversies in Endoscopic and Keyhole Surgery: <ul style="list-style-type: none"> • Rathke's Cleft Cysts -Surgery vs Observation • Tuberculum Meningioma – Above or Below • Reconstruction: Flap or No-flap; Fat, Fascia or Allograft; Lumbar Drain or Not <i>Daniel Prevedello, Charlie Teo, Daniel Kelly, Garni Barkhoudarian, Chester Griffiths, Ricardo Carrau</i>
3:15	Anatomical Dissection - Lab 2 Endonasal Coronal Plane & Transclival
5:30	End of Day 2
7:00	Course Dinner

SATURDAY, January 26, 2019 – DAY 3

7:00 am	Continental Breakfast	
	Parallel Neurosurgery Session	Parallel ENT/Ophthalmology Session
7:30	Keyhole Surgery: Supraorbital & Mini-pterional Approaches <i>Daniel Kelly</i>	7:30 Meningitis Risk of Endonasal Skull-Base Surgery and Relation to Sinusitis <i>Chester Griffiths</i>
7:50	Endoscope Assisted Posterior Fossa Surgery <i>Garni Barkhoudarian</i>	7:50 Multidisciplinary Management of Sinonasal Malignancies <i>Ivan El-Sayed</i>
8:10	Keyhole Brainstem Surgery <i>Charlie Teo</i>	8:10 Surgical Management of Esthesioneuroblastoma <i>Ricardo Carrau</i>
8:30	Gravity-Assisted Endoscopic Keyhole Surgery – Trans-falcine, Trans-tentorial <i>Walavan Sivakumar</i>	8:30 Endonasal Resection of Orbital Pathology <i>Howard Krauss</i>
8:50	Keyhole and Fluorescein-Guided Glioma Surgery <i>Achal Achrol</i>	8:50 Combined Transorbital and Endonasal Approaches <i>Kris Moe</i>
9:10	Break	9:10 Break
9:30	Anatomical Dissection - Lab 3 Eyebrow Craniotomy, Mini-pterional, Trans-falcine	9:30 Anatomical Dissection - Lab 3 Endonasal Transorbital and Infratemporal Approaches
12:00 pm	Lunch	
12:30	Lunch Lecture – Transorbital Approach – An Evolving Keyhole Corridor <i>Kris Moe</i>	
1:00	Guidelines for Sinonasal Malignancies - Impact on Surgical Strategy <i>Ivan El-Sayed</i>	
1:20	Targeted Therapies for Aggressive Skull-Base Pathology: Meningioma, Chordoma, Atypical Adenomas <i>Santosh Kesari</i>	
1:40	Round Table: Chordomas, Chondrosarcomas & Other Uncommon Clival Lesions <i>Daniel Prevedello, Charlie Teo, Santosh Kesari, Robert Wollman</i>	
2:20	Break	
2:35	Anatomical Dissection - Lab 4 Dealer's Choice <ul style="list-style-type: none"> • Transorbital Approach • Endoscopic Retrosigmoid & Sitting Supracerebellar • Draf III Approach • Transclival & Transpterygoid 	
5:00	End of Day 3	

SUNDAY, January 27, 2019 – DAY 4

7:30 am	Continental Breakfast	
	Round Table Sessions:	
8:00	Endoscopic and Transcranial Resection of Craniopharyngiomas: Ophthalmological and Endocrinological Considerations <i>Daniel Prevedello, Daniel Kelly, Charlie Teo, Juan Fernandez-Miranda, Amin Kassam</i>	
8:40	How to Handle Challenging Pituitary Adenomas – Invasive, Giant, and/or Recurrent... <i>Garni Barkhoudarian, Charlie Teo, Juan Fernandez-Miranda, Pejman Cohan, Robert Wollman</i>	
9:20	Break	
9:40	Lessons Learned... What Could Have Been Done Differently? Portfolio of My Worst Complications <i>Daniel Kelly, Daniel Prevedello, Ivan El-Sayed, Ricardo Carrau, Charlie Teo, Amin Kassam</i>	
10:20	Predicting the Future of Endoscopic Keyhole & Skull Base Surgery <i>Juan Fernandez-Miranda, Daniel Prevedello, Amin Kassam, Chester Griffiths, Garni Barkhoudarian, Ricardo Carrau, Santosh Kesari</i>	
11:30	Adjourn and Departures	

COURSE LOCATION & HOTEL ACCOMMODATIONS

DoubleTree Suites by Hilton Santa Monica

1707 Fourth Street-Marquee Ballroom
Santa Monica, CA 90401
310-395-3332 Fax 310-458-6493

For hotel reservations, call 1-800-222-8733 and mention group code: **STJ** to get a special rate of \$219.00 per night plus taxes for a single, \$249.00 per night plus taxes for a double. Cut off to get the special rate is **January 4, 2019**. Discounted day valet parking is \$16.00 flat rate. Discounted overnight valet parking is \$28.00. Self-parking is not available.



Local Airport

Los Angeles International (LAX)

Directions From LAX to DoubleTree Suites by Hilton Santa Monica

From LAX -Take Century Blvd to I-405 North to I-10 West. Exit at 4th Street and turn left. The hotel is at the corner of I-10 and 4th Street. Distance from the hotel: 9 miles. Drive time: 30 minutes.

Airport Transport Options

Taxi: \$40.00 USD approx. DoubleTree does not offer airport shuttle service.

Attire

Business Casual. You are welcome to bring your own scrubs. We will provide disposable gowns for the lab portion. Dress warmly, as rooms must be kept at 60° F.

Accreditation Statement

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of CME Outfitters, LLC and Academic Event Management. CME Outfitters, LLC is accredited by the ACCME to provide continuing medical education for physicians.

CME Outfitters, LLC designates this live activity for a maximum of 25.75 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

In accordance with the Americans with Disabilities Act, Academic Event Management seeks to make sure this conference is accessible to all. If you have a disability that might require special accommodations, please contact Pat Fitzwater at 805-300-9154.

REGISTRATION

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January 24-27, 2019 | Santa Monica, California, USA

TUITION: \$3,000 Lectures and Lab • \$5,000 Team of 2 • \$1,500 Didactic Only

SPECIALTY

HOSPITAL

NAME (FIRST, MIDDLE, LAST)

DEGREE

ADDRESS

CITY

PROVINCE/STATE

POSTAL/ZIP CODE

(AREA CODE) BUSINESS PHONE

(AREA CODE) BUSINESS FAX

EMAIL

DIETARY RESTRICTIONS

PAYMENT

Check enclosed payable to: Academic Event Management

☐ Visa ☐ MasterCard ☐ Discover ☐ American Express

CARD NUMBER

EXPIRATION

SIGNATURE

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Pre-course Video-Lectures

Principles of Expanded Endoscopic Endonasal Approaches	Endovascular Approach: How I Can Get You Out of Trouble (even deep, deep, deep... trouble)
The Sinonasal Corridor	Sagittal Plane Modules II: Trans-clival, Trans-odontoid
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Reconstruction of the Skull Base: From Free Grafting to Vascularized Flaps	Anatomical Basis for the Transpterygoid Approaches
Sagittal Plane EEA Modules I: Trans-sellar, Trans-planum, and Trans-cribiform	Coronal Plane Modules
Practical Approach to Imaging of the Cranial Base	Supraorbital Eyebrow Craniotomy
	Trans-falcine Gravity-Assisted Craniotomy
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CANCELLATIONS

Cancellations must be received in writing by December 1, 2018 and will be subject to a \$500 processing fee. No refunds will be given after that date. Academic Event Management reserves the right to cancel, discontinue or reschedule this program at any time and will assume no financial obligation to the registrants in the event of a cancellation. In case of cancellation, registration fees will be refunded in full.

Send completed enrollment form to: **Academic Event Management**

ONLINE

www.academiceventmanagement.com

FAX

805.494.1103

PHONE

805.300.9154

MAIL

1396 Rancho Lane
Thousand Oaks, CA 91362

