

Rhoton Society Pre-Meeting Course –Complex Brain & Skull Base Surgery

STANFORD UNIVERSITY, August 4-6, 2020

*Hands-on dissection: Stanford Clinical Anatomy lab
2 participants per station (Microscopic & Endoscopic)*

Lecture Hall: LKSC Berg Hall, Stanford School of Medicine

Day 1: BRAIN – CISTERNS & VENTRICLES

8:00 Welcome and Introduction

8:15-8:45- Sylvian fissure and Basal Cisterns

- 3D Surgical Anatomy
- Case Illustrations

8:45-9:15- Insula and Medial Temporal Lobe

- 3D Surgical Anatomy
- Case Illustrations

9:15-9:30 Transition to Lab

9:30-12:00 Hands-on Dissection

- Fronto-temporal craniotomy with interfascial temporalis muscle dissection
- Sylvian fissure dissection, basal cisterns exploration, lamina terminalis opening
- Transylvian and transopercular approaches to Insular region
- Transylvian amigdalohippocampectomy vs Antero-medial temporal lobectomy

12:00-12:15 Transition to Lecture Hall

12:15-1:00 Lunch and Lecture: Surgical Anatomy and Approaches to the Third Ventricle

1:00-1:30 Pineal Region

- 3D Surgical Anatomy
- Case Illustrations

1:30-2:00 Fourth Ventricle

- 3D Surgical Anatomy
- Case Illustrations

2:00-2:15 Transition to Lab

2:15-5:30 Hands-on Dissection

- Frontal parasagittal craniotomy and interhemispheric transcallosal approach to the third ventricle
- Suboccipital craniotomy, supracerebellar midline and paramedian approaches to pineal region and posterior midbrain, transtentorial approach to ambient cistern and medial temporal lobe
- Telo-velar approach to the fourth ventricle, foramen of Luchska, and brainstem

Day 2: SKULL BASE: OPEN APPROACHES

8:00-8:30 Middle Cranial Fossa, Cavernous Sinus, and Petrous Region

- 3D Surgical Anatomy
- Case Illustrations

8:30-8:45 Transition to Lab

8:45-12:00 Hands-on Dissection

- Orbito-zygomatic approach (optional)
- Extended middle fossa approach: extradural dissection
- Extradural anterior clinoidectomy
- Third nerve dissection and anterior petroclinoidal ligament transection
- Anterior petrosectomy and Meckel's cave opening
- Fourth nerve dissection and transtentorial access
- Intra-cavernous sinus dissection

12:00-12:15 Transition to Lecture Hall

12:15-1:00 Lunch and Lecture: Surgical Anatomy of the Cerebello-Pontine Angle and Prof. Rhoton's Rule of Three

1:00-1:30 Vertebral Artery and Foramen Magnum

- 3D Surgical Anatomy
- Case Illustrations

1:30-1:45 Transition to Lab

1:45-5:30 Hands-on Dissection

- Retrosigmoid approach to CPA
- Extended Retrosigmoid (Suprameatal Transtentorial) approach to Meckel's cave and supratentorial space

- Far Lateral approach to ventral foramen magnum, lower clival region, and craniocervical junction

Day 3: SKULL BASE: ENDONASAL APPROACHES

8:00-8:30 Principles of Endoscopic Endonasal Surgery: Learning curve, Surgical Technique, and Selection of Approaches

8:30-9:00 Suprasellar and Retrochiasmatic Regions

- 3D Surgical Anatomy
- Case Illustrations

9:00-9:15 Transition to Lab

9:15-12:00 Hands-on Dissection

- Nasoseptal flap harvesting (optional)
- Endonasal approach to sellar region: bilateral sphenoidotomy
- Posterior ethmoidectomy, drilling of tuberculum, prechiasmatic sulcus, and planum sphenoidale
- Optic canal decompression and paraclinoidal artery exposure
- Suprasellar Infrachiasmatic approach
- Suprasellar retrochiasmatic approach
- Transsellar (pituitary transposition) approach to retrochiasmatic space
- Comparison with transcranial approaches

12:00-12:15 Transition to Lecture Hall

12:15-1:00 Lunch and Lecture: Endoscopic Endonasal Transclival Approaches

1:00-1:30 Cavernous Sinus

- 3D Surgical Anatomy
- Case Illustrations

1:30-1:45 Transition to Lab

1:45-5:30 Hands-on Dissection

- Middle transclival approach with paraclival carotid skeletonization
- Nasopharyngectomy and Inferior transclival approach
- Transpterygoid approach, Vidian canal, and Foramen lacerum exposure

- Anterior cavernous sinus access: compartments of the cavernous sinus and posterior clinoidectomy
- Comparison with transcranial approaches