

# BIOSKILLS LAB 2024

# SBMT 2024

## Annual World Congress

## CEREBROVASCULAR AND SKULLBASE BIOSKILLS LAB



Abilash Haridas, M.D.



Giuseppe E. Umana, M.D.

Organized by



Amin Kassam, M.D.



Akitsugu Kawashima, M.D.



Charles Theo M.D.

**Society for Brain Mapping and Therapeutics (SBMT)**  
**Course on Neurosurgical Innovation**  
**Room: External BioSkills Campus (Brain and Spine Observatory)**

**Saturday, March 16th | Separate Ticketed Event for non-SBMT Members**

Cerebrovascular and Skullbase Innovation labs (Cadaver labs)

### 1. Skull base/Neuroendoscopy Modules

- Cadaver 1: Pterional, FTOZ, anterior petrosectomy
- Cadaver 2: Retrosigmoid, far lateral, presigmoid
- Augmented reality precision guidance for third ventriculostomy, brain biopsy and deep brain stimulation.

### 2. EC-IC Bypass Module Endovascular Module

#### Faculty:

- Charles Teo AM, MBBS
- Abilash Haridas, MD
- Giuseppe E. Umana, M.D, Ph.D
- Amin Kassam, M.D
- Akitsugu Kawashima, M.D, Ph.D

#### Course Description:

This course is designed to share expertise in endoscopic surgery, skull-base approaches, endovascular technologies, and bypass surgery techniques.

- Third ventricular tumors
- Third ventriculostomy
- Skull base tumor
- Aneurysm management/EC-IC bypass
- Live demonstration of augmented reality guidance for precision ventriculostomy, and brain biopsy.
- Deep brain stimulation is an additional use for psychiatric applications.

#### Course Objectives:

At the conclusion of this course, the participant should be able to:

1. Discuss the latest advances and techniques in skull base neurosurgery
2. Perform relevant psychomotor skills in the practical application of intracranial endoscopy.
3. Describe treatment strategies for neurovascular disorders and the relevant techniques in cerebrovascular neurosurgery.
4. Learn how augmented reality surgical navigation increases procedure accuracy, reduces fluoroscopy, radiation exposure and has a nominal OR footprint.

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### Skull Base/Neuroendoscopy Modules:

Faculty: Abilash Haridas, MD  
Amin Kassam, MD  
Sammy Khalili, MD

### Course Overview:

Proctored dissection of the ventral skull base via an Expanded Endonasal Approach with a Pituitary Transposition  
Endonasal Pituitary Tumor resection and advance endonasal skull base approaches  
Surgical approaches to cerebral aneurysms and skull base tumors  
Third Ventricular Tumors  
Microsurgery Vs Endoscopy; Endoscopic-assisted microsurgery

### Objectives:

- Familiarize the learner with the Key Sagittal Plane Models of the Ventral Skull Base
- Provide Surgical nuances based on an experience of Two Thousand Cases
- Demonstrate the technique and accessibility of the midbrain and hypothalamic region via a Pituitary transposition
- Dissection of segments of ICA and identify key relationships (ET, Vidian, rings)
- Dissection of the Orbit to demonstrate medial corridor access to Annulus of Zinn
- Provide a Tour of the Cranial Nerves from Origin to Insertion—Olfactory to Hypoglossal
- Introduce a novel endoscopic visualization system

### EC-IC Bypass Module:

Faculty: Abilash Haridas, MD  
Akitsugu Kawashima, MD

- Principles of Microanastomosis
- Hands-On Lab Session 1: Microanastomosis