

### Non-Accredited Workshop\*—Track 2 (Continuous Session)

- 2:00 **Case-Based Anatomy for RNs, Technologists, NPs, and PAs**  
Jacob F. Baranoski, MD, Vera Sharashidze, MD
- 4:55 **Track 1 & 2 Reconvene**  
5:00 **Adjourn**  
5:00 **Reception**  
6:00 pm **Case Presentations and Panel Discussion\***  
**Moderators:** Jacob F. Baranoski, MD, Edoardo D. Boccardi, MD, Charlotte Y. Chung, MD, Peter K. Nelson, MD, Erez Nossek, MD, Eytan Raz, MD, PhD, Howard A. Riina, MD, William Rutledge, MD, Maksim Shapiro, MD and Vera Sharashidze, MD

### Wednesday, April 29, 2026

#### Lectures

- 7:30 am **Breakfast**
- 8:30 **Choroidal and Posterior Cerebral Arteries**  
Eytan Raz, MD, PhD
- 9:00 **Spectrum of Transvenous Access and Transvenous Embolization**  
René Chapot, MD
- 9:30 **Anterior Cerebral Artery—Ischemic and Hemorrhagic Aspects**  
Erez Nossek, MD
- 10:00 **Middle Cerebral Artery and Implications for Thrombectomy**  
Vera Sharashidze, MD
- 10:30 **Coffee Break**
- 11:00 **Surgical Intracranial Anatomy**  
Howard A. Riina, MD
- 11:30 **Principles of Flow Diversion and Arterial Plasticity**  
Peter K. Nelson, MD, Maksim Shapiro, MD
- 11:30 **Superficial Venous System**  
Eytan Raz, MD, PhD
- 12:00 pm **Deep Venous System**  
Maksim Shapiro, MD
- 1:00 **Lunch Break**

### Workshops—Track 2 (Continuous Session)

- 1:30 **Case-Based Anatomy for RNs, Technologists, NPs, and PAs**  
Charlotte Y. Chung, MD, William Rutledge, MD
- 4:25 **Track 1 & 2 Reconvene**  
Mariya Naumoff, FNP-BC, RN, SCRNP, Linda Warren, NP

### Workshops—Track 1 (3 Rotating Sessions)

- 2:00 **Aneurysm/Advanced Flow Diversion**  
Edoardo D. Boccardi, MD, Peter K. Nelson, MD
- 3:00 **Comprehensive AVM Analysis and Management—Hybrid/Surgical Options**  
Erez Nossek, MD, Maksim Shapiro, MD
- 4:00 **Stroke—Technical and Anatomical Aspects**  
Jacob F. Baranoski, MD, Eytan Raz, MD, PhD
- 4:55 **Track 1 & 2 Reconvene**  
5:00 **Concluding Remarks**  
Eytan Raz, MD, PhD
- 5:15 pm **Adjourn**

\*Presentations for this portion of the activity are not accredited for continuing medical education credits

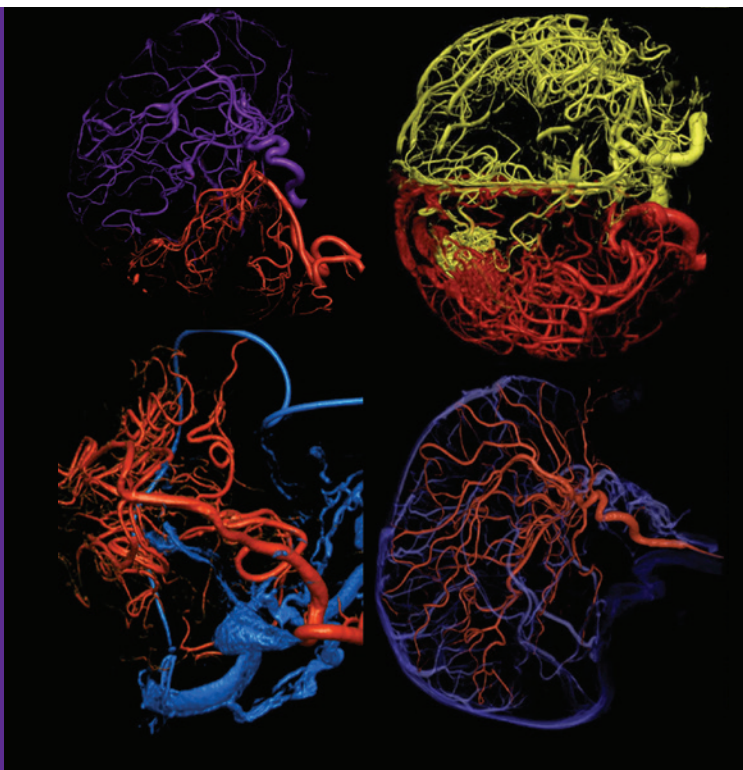
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### Basic and Advanced Neuroendovascular ANATOMY Course (BANANA Course)

Monday-Wednesday, April 27-29, 2026



Continuing Medical Education

# Basic and Advanced Neuroendovascular ANATOMY Course (BANANA Course)

Monday-Wednesday, April 27-29, 2026

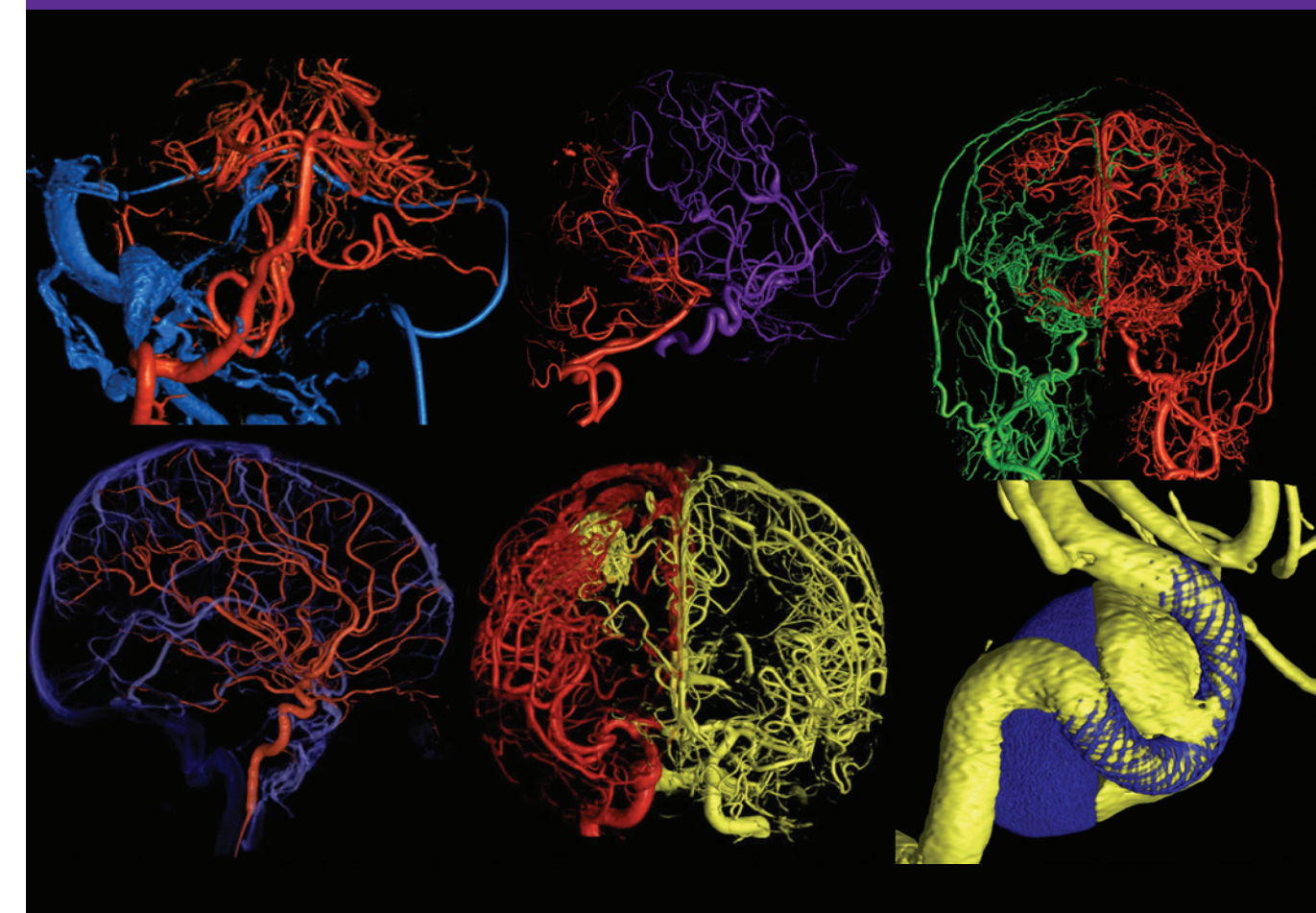
This course is being offered in-person only

NYU Langone Health  
New York, NY

[nyulmc.org/bananacme](https://nyulmc.org/bananacme)



Scan for  
Course Website



## COURSE DESCRIPTION

In the Spring of 2026, the NYU Langone Health Center for Stroke and Neurovascular Diseases will host a 3-day course dedicated to the teaching of advanced neurovascular anatomy. Continued advances in minimally invasive neuroendovascular techniques such as treatment of stroke, cerebral aneurysms, brain and spine fistulas, arteriovenous malformations, tumors, and other pathology place increasing emphasis on the availability of advanced vascular anatomy training. The course is designed for neuroendovascular trainees, faculty, nurses, advanced practice providers, technologists, and other catheterization lab staff. Multimodality instruction will include angiography (including volumetric and stereoscopic imaging), MR, CT, graphic design, and advanced visualization materials. A mixture of lectures, interactive workshops, and online material, delivered by world-class neurovascular anatomy faculty.

## EDUCATIONAL OBJECTIVES

After participating in this activity, participants should be able to:

- Define major features of spinal arterial and venous anatomy and identify vascular pathoanatomy
- Identify intracranial and extracranial arterial vascular disease. Identify major arterial variants and their significance in performance of diagnostic and therapeutic procedures
- Identify intracranial and extracranial venous abnormalities and their significance in performance of diagnostic and therapeutic procedures

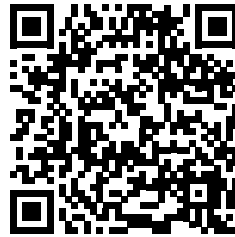
## TARGET AUDIENCE

Neurovascular Fellows and Junior Attendings from Radiology, Neurology, Neurosurgery, Cardiology, and Vascular Surgery

## REGISTRATION

Registration will close April 29, 2026 at 2:45 pm ET

Registration is non-transferable.



[nyulmc.org/  
bananacme](https://nyulmc.org/bananacme)

**This course is in person only. Credits will only be available to those that check in at the registration desk and attend in person.**

## CONTACT INFORMATION

### NYU Grossman School of Medicine

Phone: 212-263-5295

Email: [cme@nyulangone.org](mailto:cme@nyulangone.org)

## LOCATION

### NYU Langone Health

550 First Avenue, New York, NY 10016

**Room Location:** Murphy Auditorium

Upon arrival you will need to check-in at the visitors desk with photo identification and proof of entry (course confirmation, course agenda, course email blast, etc.)

If you are an onsite registrant, be prepared to provide a course email blast or the website/agenda (printed or on a device) as proof of entry.

## FEES

	<b>Early Bird</b> (ends 2/26/2026 at 11:59 pm ET)	<b>Regular</b> (ends 4/22/2026 at 12:00 pm ET)	<b>Late</b>
Full	\$299	\$599	\$619
Reduced*	\$149	\$499	\$519
Fellows	\$149	\$499	\$519
Residents	\$99	\$299	\$319

\*Reduced fee applies to: advanced practice providers (APPs) and all other non-physician healthcare professionals

Registration will close Wednesday, April 29, 2026 at 2:45 pm ET

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## COURSE DIRECTOR

### Eytan Raz, MD, PhD

Associate Professor, Departments of Neurosurgery and Radiology  
NYU Grossman School of Medicine

### Maksim Shapiro, MD

Professor, Departments of Neurosurgery, Radiology and Neurology  
NYU Grossman School of Medicine

## NYU GROSSMAN SCHOOL OF MEDICINE SPEAKERS

### Jacob F. Baranoski, MD

Clinical Assistant Professor, Department of Neurosurgery

### Charlotte Y. Chung, MD

Assistant Professor, Departments of Neurosurgery and Radiology

### Mariya Naumoff, FNP-BC, RN, SCRNP

Nurse Practitioner, Department of Medicine

### Peter K. Nelson, MD

Professor, Department of Radiology  
Professor, Department of Neurosurgery

### Erez Nossek, MD

Professor, Department of Neurosurgery

### Howard A. Riina, MD

Lucius N. Littauer Professor of Neurosurgery, Department of Neurosurgery  
Professor, Department of Radiology  
Professor, Department of Neurology

### CME ACCREDITATION STATEMENT

The NYU Grossman School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

### CREDIT DESIGNATION STATEMENT

The NYU Grossman School of Medicine designates this live activity for a maximum of 15.75 *AMA PRA Category 1 Credits*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

### PHYSICIAN ASSISTANT CREDIT

PAs may claim a maximum of 15.75 *Category 1 credits* for completing this activity. NCCPA accepts *AMA PRA Category 1 Credit*<sup>™</sup> from organizations accredited by ACCME or a recognized state medical society.

### COURSE PLATFORM

Course materials will be distributed electronically via a course platform. Emails regarding this platform will be sent beginning two weeks prior to the course. You will be able to access via a website or by downloading the app

### Caleb Rutledge, MD

Assistant Professor, Department of Neurosurgery

### Vera Sharashidze, MD

Assistant Professor, Department of Radiology  
Assistant Professor, Department of Neurology

### Linda Warren, NP

Nurse Practitioner, Department of Radiology

## GUEST SPEAKERS

### Edoardo D. Boccardi, MD

Professor  
Director of Interventional Neuroradiology, Retired.  
Niguarda Hospital  
Milan, Italy

### René Chapot, MD

Professor of Radiology  
Head of Department  
Alfried Krupp Hospital  
Essen, Germany

### Daniel H. Sahlein, MD

Adjunct Assistant Professor  
Weldon School of Biomedical Engineering, Purdue University  
Indianapolis, IN

## AGENDA

### Monday, April 27, 2026

#### Lectures

- 7:30 am **Registration and Breakfast**
- 8:30 **Introduction**  
Maksim Shapiro, MD
- 8:35 **Imaging Techniques**  
Maksim Shapiro, MD
- 9:00 **Removing Boundaries—Direct Puncture, Transvenous, Combined Open/Endo Access**  
René Chapot, MD
- 9:30 **Practical Embryology**  
Eytan Raz, MD, PhD
- 10:00 **Spinal Arterial Anatomy and Application to Arteriovenous Shunts**  
Maksim Shapiro, MD
- 10:30 **Coffee Break**
- 11:00 **Spinal Venous Anatomy/CSF Venous Fistula Applications**  
Eytan Raz, MD, PhD
- 11:30 **AICA/PICA/Lateral Spinal Region**  
Peter K. Nelson, MD
- 12:00 pm **SCA/Basilar Terminus Perforators in Ischemic and Hemorrhagic Disease**  
Eytan Raz, MD, PhD
- 12:30 **Venous System Overview—Yun Peng Huang Memorial Lecture**  
Maksim Shapiro, MD

#### Lunch Break

### Workshop—Track 1 (3 Rotating Sessions)

- 2:00 **Maximizing Yield of neuroangio.org—Content and Navigation**  
Maksim Shapiro, MD
- 3:00 **Spinal Arteriovenous Shunts—Endovascular and Surgical Approaches**  
Erez Nossek, MD, Eytan Raz, MD, PhD
- 4:00 **Flow Diversion Posterior Circulation**  
Edoardo D. Boccardi, MD, Peter K. Nelson, MD
- 5:00 **Adjourn**
- 5:00 **Reception**
- 6:00 pm **Case Presentations and Panel Discussion\***  
**Moderators:** Jacob F. Baranoski, MD, Edoardo D. Boccardi, MD, Charlotte Y. Chung, MD, Peter K. Nelson, MD, Erez Nossek, MD, Eytan Raz, MD, PhD, Howard A. Riina, MD, William Rutledge, MD, Maksim Shapiro, MD and Vera Sharashidze, MD

### Tuesday, April 28, 2026

7:30 am Breakfast

#### Non-Accredited Lectures\*

- 8:30 **Facial/Lingual/STA/IMAX: Implications for Embolization**  
Eytan Raz, MD, PhD
- 9:00 **Ascending Pharyngeal/Occipital System**  
Peter K. Nelson, MD
- 9:30 **Intracranial Extradural ICA—MHT, ILT: Skull Base Embolization**  
Maksim Shapiro, MD
- 10:00 **Meningeal Arteries and Various Applications**  
Daniel H. Sahlein, MD
- 10:30 **End of Non-Accredited Education**
- 10:30 **Coffee Break**

#### Accredited Education Lectures

- 11:00 **Ophthalmic and Superior Hypophyseal Arteries**  
Eytan Raz, MD, PhD
- 11:30 **Dural Venous Sinuses and Dural Fistula Applications**  
Maksim Shapiro, MD
- 12:00 pm **Cavernous Sinus and Dural Fistula Applications**  
Eytan Raz, MD, PhD
- 12:30 **Supratentorial Venous Anatomy—Applications in AVM Analysis and Treatment**  
Maksim Shapiro, MD
- 1:00 **End of Accredited Education**
- 1:00 **Lunch Break**

#### Non-Accredited Workshop\*—Track 1 (3 Rotating Sessions)

- 2:00 **Dural fistulas 1 (Cavernous, Ethmoid)**  
Daniel H. Sahlein, MD, Maksim Shapiro, MD
- 3:00 **Dural fistulas 2 (Sigmoid/Torcular/Convexity)**  
Edoardo D. Boccardi, MD, Peter K. Nelson, MD
- 4:00 **DYNA/Advanced Image Acquisition and Processing**  
Eytan Raz, MD, PhD
- 4:55 **Track 1 & 2 Reconvene**