

15th International

# Epilepsy Colloquium

September 20-22, 2023 ■ Cleveland, Ohio USA

Case Western Reserve University  
Tinkham Veale University Center  
Cleveland, Ohio



September  
18-19

**Comprehensive Epilepsy Course:  
The Management of Medically Intractable Epilepsy**

September  
20-22

**The 15th International Epilepsy Colloquium:  
Ictal Semiology and its Value in Epilepsy Surgery**



Hôpitaux de Lyon



Epilepsy Center  
Dept. of Neurology  
University of Erlangen



Presented by:



Sponsored by:



SCHOOL OF MEDICINE  
CASE WESTERN RESERVE  
UNIVERSITY

## Introduction

The International Epilepsy Colloquium represents a joint initiative from the epilepsy centers of University Hospitals Cleveland Medical Center in the United States; Goethe Universität in Germany; Lyon University Hospital Institute for Children and Adolescents with Epilepsy (IDEE) in France; Grenoble University Hospital in France; University College in London; Les Hopitaux Universitaires de Strasbourg in France; University of Enlorgen and Université de Lausanne in Switzerland.

The Colloquium will be preceded by a Comprehensive Epilepsy Course which will consist primarily of case discussions with active participation of the audience and a panel of experts. The Course covers all areas of epileptology providing an excellent overview. The faculty participating in this Course was carefully selected to include highly experienced epileptologists who are superb clinicians and excellent teachers.

### Welcome to Cleveland!

<https://www.thisiscleveland.com/meetings/know-before-you-go>



## Target Audience

The course and colloquium are designed for faculty physicians and trainees in the areas of: epilepsy, adult and pediatric neurology, neurosurgery and neuropsychology with emphasis in epilepsy. Epilepsy nurses and EEG technologists will also find this education of value.

## Learning Objectives:

After attending the Course and Colloquium, participants will be able to:

1. Recognize how seizure semiology can be deftly used to localize seizure onset
2. Describe ictal propagation pathways through analysis of the sequence of development of different semiologic features
3. Discuss the traps and pitfalls in applying seizure semiology for localization of the epileptogenic zone
4. Approach difficult cases with an enhanced understanding of the latest medical and surgical options
5. Discuss modern surgical diagnostic and treatment options for intractable focal epilepsy, including laser and thermal coagulation, investigations with subdural and stereotactic EEG in pediatric and adult population

## Continuing Education

Case Western Reserve University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

### Comprehensive Epilepsy Course

Case Western Reserve University School of Medicine designates this live activity for a maximum of 11 *AMA PRA Category 1 Credits*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

### 15th International Epilepsy Colloquium

Case Western Reserve University School of Medicine designates this live activity for a maximum of 24 *AMA PRA Category 1 Credits*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

## Faculty

**Ali Alim-Marvasti**  
Queen Square Institute of Neurology  
University College London  
UK

**Shahram Amina**  
Kaiser Permanente  
Redwood City Medical Center  
USA

**Alexis Arzimanoglou**  
University Hospitals of Lyon  
France

**Christoph Baumgartner**  
General Hospital Hietzing  
Neurological Center Rosenhügel  
Sigmund Freud University  
Austria

**Sándor Beniczky**  
Aarhus University Hospital  
Danish Epilepsy Center  
Denmark

**Adriana Bermeo**  
Rush Epilepsy Center  
Rush University Medical Center  
USA

**Andrew Bleasel**  
The University of Sydney  
Westmead Hospital Clinical School  
Australia

**Francesco Cardinale**  
Niguarda Hospital  
Claudio Munari Center for Epilepsy  
Italy

**Mar Carreño**  
Hospital Clinic Barcelona  
Institut d'Investigacions Biomèdiques  
August Pi i Sunyer  
Spain

**Patrick Chauvel**  
Comprehensive Epilepsy Center University of  
Pittsburgh Medical Center  
USA

**Youssef G. Comair**  
Department of Neurological Surgery  
John Hopkins University  
USA

**Beate Diehl**  
Queen Square Institute of Neurology  
University College London  
UK

**John Duncan**  
Queen Square Institute of Neurology  
University College London  
UK

**Guadalupe Fernandez-Baca Vaca**  
University Hospitals Cleveland  
Case Western Reserve University  
USA

**Neel Fotedar**  
University Hospitals Cleveland  
Case Western Reserve University  
USA

**Stefano Francione**  
Niguarda Hospital  
Claudio Munari Center for Epilepsy Surgery  
Italy

**Naiara Garcia Losarcos**  
University Hospitals Cleveland  
Case Western Reserve University  
USA

**Jorge Gonzalez-Martinez**  
Department of Neurological Surgery  
and Epilepsy Center  
University of Pittsburgh Medical Center  
USA

**Mark Hallett**  
Distinguished NIH Investigator Emeritus  
National Institute of  
Neurological Disorders and Stroke  
USA

**Edouard Hirsch**  
Medical and Surgical Epilepsy Unit  
University Hospital of Strasbourg  
France

**Hans Holthausen**  
Center for Pediatric Neurology and Epileptology  
Shoen-Klinik Vogtareuth  
Germany

**Luisa Londono Hurtado**  
University Hospitals Cleveland  
Case Western Reserve University  
USA

**Lara Jehi**  
Epilepsy Center  
Neurological Institute Cleveland Clinic  
USA

**Philippe Kahane**  
Université Grenoble-Alpes  
CHU Grenoble Alpes  
France

**Roohi Katyal**  
Louisiana State University  
Ochsner Health Sciences Center  
USA

**Karl Martin Klein**  
Hotchkiss Brain Institute  
University of Calgary  
Cumming School of Medicine  
Canada

**Susanne Knake**  
Epilepsy Center Hessen  
Philipps University Marburg  
Germany

## Faculty

### **Prakash Kotagal**

Epilepsy Center  
Neurological Institute Cleveland Clinic  
USA

### **Tobias Loddenkemper**

Division of Epilepsy  
Boston Children's Hospital  
Harvard Medical School  
USA

### **Hans Otto Lüders**

University Hospitals Cleveland  
Case Western Reserve University  
USA

### **Laurence Martineau**

Division of Neurology  
Quebec Centre Hospitalier de l'Université Laval  
Canada

### **Jonathan Miller**

University Hospitals Cleveland  
Case Western Reserve University  
USA

### **Dang Nguyen**

University of Montreal Medical Center  
CHUM Research Center  
Canada

### **Soheyl Noachtar**

Epilepsy Center  
University of Munich  
Ludwig-Maximilians-University  
Germany

### **Lino Nobili**

IRCCS Istituto Giannina Gaslini  
Department of Neuroscience University of Genoa  
Italy

### **André Palmini**

Hospital São Lucas  
Pontificia Universidade Católica  
do Rio Grande do Sul  
Brazil

### **Jun Park**

Rainbow Babies and Children's Hospital  
University Hospitals Cleveland  
Case Western Reserve University  
USA

### **Elia Pestana-Knight**

Epilepsy Center  
Neurological Institute Cleveland Clinic  
USA

### **Jan Remi**

Epilepsy Center  
University of Munich  
Ludwig-Maximilians-University  
Germany

### **Felix Rosenow**

Epilepsy Center Frankfurt Rhine-Main  
Goethe-University Frankfurt  
Germany

### **Philippe Ryvlin**

Department of Clinical Neurosciences  
Lausanne University Hospital  
University of Lausanne  
Switzerland

### **Satya Sahoo**

Department of Population and  
Quantitative Health Sciences  
Case Western Reserve University  
USA

### **Stephan Schuele**

Department of Neurology  
Northwestern University  
Feinberg School of Medicine  
USA

### **Asim Shahid**

New York-Presbyterian  
Brooklyn Methodist Hospital  
Weill Cornell Medicine  
USA

### **Adam Strzelczyk**

Epilepsy Center Frankfurt Rhine-Main  
Goethe-University Frankfurt  
Germany

### **Ákos Szabó**

South Texas Comprehensive Epilepsy Center  
UT Health San Antonio  
USA

### **Nitin Tandon**

UT Health Houston  
McGovern Medical School  
USA

### **Carlo Alberto Tassinari**

Department of Neurological Sciences  
University of Bologna  
Italy

### **Laura Vilella**

UT Health Science Center at Houston  
USA

### **Konrad Werhahn**

UCB Pharma  
Monheim am Rhein  
Germany

### **Elaine Wyllie**

Epilepsy Center  
Neurological Institute Cleveland Clinic  
USA

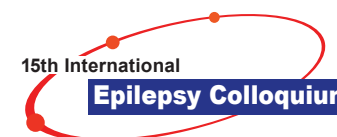
### **Jon Zande**

University Hospitals Cleveland  
Case Western Reserve University  
USA

## Faculty Disclosure Statement

As an organization accredited by the ACCME, the Case Western Reserve University School of Medicine CME Program requires that the content of CME activities and related materials provide balance, independence, objectivity, and scientific rigor. All faculty, planners, and others in a position to control continuing medical education content are required to disclose all financial relationships with ineligible companies within the past 24 months regardless of the amount and their view of the relevance of the relationship to the education. Ineligible companies are organizations whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients. Faculty (authors, presenters, speakers) are encouraged to provide a balanced view of therapeutic options by utilizing either generic names or other options available when utilizing trade names to ensure impartiality.

The Case Western Reserve University School of Medicine CME Program has implemented a mechanism to identify and resolve all conflicts of interest prior to the activity. The intent of this policy is to identify potential conflicts of interest so participants can form their own judgments with full disclosure of the facts. Participants are asked to evaluate whether the speaker's outside interests reflect a possible bias in the planning or presentation of the activity.



## Program Agenda

### *International Epilepsy Course*

#### **Monday, September 18, 2023 ■ ■ ■**

7:15 AM	Registration and Breakfast
8:00 AM	Introduction Guadalupe Fernandez–Baca Vaca
8:15 AM	Introduction to Voting System Neel Fotedar
8:30 AM	Epilepsy After First Unprovoked Seizure Soheyl Noachtar
9:00 AM	Predictors and Causes of Medically Intractable Epilepsy Akos Szabo
9:30 AM	Localization of the Epileptogenic Zone Andrew Bleasel
10:00 AM	Coffee Break
10:30 AM	The Irritative Zone and the Ictal Onset Zone Naiara Garcia Losarcos
11:00 AM	Case Discussions Moderator: Guadalupe Fernandez–Baca Vaca Faculty: Mar Carreño, Adriana Bermeo
12:00 PM	Lunch
1:00 PM	The Importance of Seizure Semiology for the Management of Epilepsy Felix Rosenow
1:30 PM	Adult Seizure Semiology – Case Discussions Moderator: Stephan Schuele Faculty: Neel Fotedar, Shahram Amina, Laura Vilella
3:00 PM	Coffee Break

## Program Agenda

### Monday, September 18, 2023 (continued) ■ ■ ■

- 3:30 PM Pediatric Seizure Semiology – Case Discussions  
Moderator: Andrew Bleasel  
Faculty: Elia Pestana, Asim Shahid, Jun Park
- 5:00 PM Structural Imaging in Epilepsy  
Beate Diehl
- 5:30 PM The Epileptogenic Lesion – Case Discussions  
Moderator: Soheyl Noachtar  
Faculty: Luisa Londono, Guadalupe Fernandez Baca Vaca

### Tuesday, September 19, 2023 ■ ■ ■

- 7:15 AM Registration and Breakfast
- 8:00 AM Rational for Invasive Evaluation  
Jorge Gonzalez–Martinez
- 8:30 AM When to Use SEEG vs Subdural Grids  
Youssef G. Comair
- 9:00 AM Case Discussions  
Moderator: Youssef G. Comair  
Faculty: Nitin Tandon, Jonathan Miller
- 10:00 AM Coffee Break
- 10:30 AM Basics of Invasive EEG Interpretation  
Dang Nguyen
- 11:00 AM Case Discussions  
Moderator: Dang Nguyen  
Faculty: Jon Zande, Laurence Martineau
- 12:00 PM Lunch
- 1:00 PM Pharmaceutical Symposium
- 6:30 PM Reception at the Botanical Garden

## 15th International Epilepsy Colloquium

### Wednesday, September 20, 2023 ■ ■ ■

- 7:00 AM Registration and Breakfast
- 7:45 AM Welcome and Introduction  
Guadalupe Fernandez–Baca Vaca
- 8:00 AM Introduction to the Voting System  
Neel Fotedar
- 8:15 AM Hypermotor Seizures: Stimulation or Release Phenomenon?  
Distinguished Epileptologist Lecture: Carlo Alberto Tassinari
- SESSION 1 Moderators: Andrew Bleasel and Carlo Alberto Tassinari**
- 9:00 AM Four Dimensional Classification of Epilepsies  
Hans Lüders
- 9:25 AM The Epileptogenic Zone and Network – Advantages, Disadvantages  
and Discussion  
Philippe Ryvlin
- 9:50 AM Coffee Break and Visit Exhibits and Posters

## Program Agenda

### SESSION 2 Moderators: Patrick Chauvel and Hans O Lüders

- 10:20 AM Debate – Epileptogenic Zone or Network – The Neurosurgeon's Perspective  
Illustrative Cases and Case Discussions  
Francesco Cardinale Jonathan Miller  
Youssef G. Comair Nitin Tandon  
Jorge Gonzalez-Martinez
- 12:10 PM Lunch

### SESSION 3 Moderators: John Duncan and Edouard Hirsch

- 1:10 PM Prediction and Detection of Epileptic Seizures  
Tobias Loddenkemper
- 1:35 PM Influence of Etiology on Epilepsy Surgery Outcome  
Lara Jehi

### SESSION 4 Moderators: Jorge Gonzalez-Martinez and Adam Strzelczyk Debate – The Symptomatogenic Zone

- 2:00 PM Symptomatogenic Zone Definition and Significance in Surgical  
Decision–making  
Andrew Bleasel
- 2:25 PM Symptomatogenic Network Definition and Significance in Surgical  
Decision–Making  
Patrick Chauvel
- 2:50 PM Direct Cortical Stimulation Parameters and its Role in Epilepsy Surgery  
Philippe Kahane
- 3:15 PM Discussion
- 3:30 PM Unknown Semiology Case 1 and Discussion – Faculty and Participants  
Will Vote  
Elia Pestana
- 4:00 PM Coffee Break and Visit Exhibits and Posters

### SESSION 5 Moderators: Philippe Kahane and Felix Rosenow

- 4:30 PM Introduction to Neuroinformatics – Current and Future Applications in the  
Field of Epilepsy  
Satya Sahoo
- 4:55 PM Probabilistic Landscape of Seizure Semiology Localizing Values – Method,  
Visualization, and Applications  
Ali Alim–Marvasti, John Duncan
- 5:40 PM Unknown Semiology Case 2 and Discussion – Faculty and Participants  
Will Vote  
Luisa Londono
- 6:10 PM End Day 1

### Thursday, September 21, 2023 ■ ■ ■

- 7:15 AM Registration and Breakfast
- SESSION 6 Moderators: Soheyl Noachtar and Stefano Francione**
- 8:00 AM Abdominal Auras and Emetic Seizures  
Christoph Baumgartner
- 8:25 AM Psychic Auras  
Jon Zande
- 8:50 AM Somatosensory and Painful Auras  
Felix Rosenow

## Program Agenda

### Thursday, September 21, 2023 (continued) ■ ■ ■

- 9:15 AM Auditory Auras  
Dang Nguyen
- 9:40 AM Unknown Semiology Case 3 and Discussion – Faculty and Participants Will Vote  
Shahram Amina
- 10:10 AM Coffee Break and Visit Exhibits and Posters

#### **SESSION 7 Moderators: Dang Nguyen, Prakash Kotagal**

- 10:40 AM Vestibular Auras  
Soheyl Noachtar
- 11:05 AM Visual Auras  
Susanne Knake
- 11:30 AM Unknown Semiology Case 4 and Discussion – Participants Will Vote  
Asim Shahid
- 12:00 AM Unknown Semiology Case 5 and Discussion – Faculty and Participants Will Vote  
Mar Carreño
- 12:30 PM Lunch

#### **SESSION 8 Moderators: Guadalupe Fernandez–Baca Vaca, Jan Remi**

- 1:30 PM Ictal Heart Rate Changes During Seizures  
Stephen Schuele
- 1:55 PM Ictal Central Apnea  
Laura Vilella
- 2:20 PM Sialorrheic Seizures or Sialorrhea: A Red Flag in Temporo–Mesial Epilepsy with Hippocampal Sclerosis and Hypermotor Epilepsy  
Edouard Hirsch
- 2:45 PM Pilomotor Seizures – Introduction, Illustrative Case and Discussion  
Naiara Garcia Losarcos
- 3:10 PM Unknown Semiology Case 6 and Discussion – Faculty and Participants Will Vote  
Laurence Martineau
- 3:40 PM Coffee Break and Visit Exhibits and Posters

#### **SESSION 9 Moderators: Sandor Beniczky, Stephan Schuele**

- 4:10 PM Dyscognitive Seizures – Clinical Correlation During the Ictal and Postictal Interview What Can We Measure?  
Guadalupe Fernandez–Baca Vaca
- 4:35 PM Consciousness in Pediatric Seizures  
Prakash Kotagal

#### **SESSION 10 Moderators: Carlo Alberto Tassinari, Philippe Kahane**

- 5:00 PM Hypermotor and Emotional Seizures – Definition, Localizing and Lateralizing Value  
Lino Nobili
- 5:25 PM Automotor Seizures – Definition, Localizing and Lateralizing Value  
Adriana Bermeo
- 5:55 PM End Day 2

### Friday, September 22, 2023 ■ ■ ■

- 7:15 AM Registration and Breakfast

## Program Agenda

### **SESSION 11 Moderators: Christoph Baumgartner and Asim Shahid**

- 8:00 AM Ictal Semiology in the Pediatric Patients – What is Different?  
Alexis Arzimanoglou
- 8:25 AM Challenges of Interpreting Semiology and EEG in Pediatric Candidates for Epilepsy Surgery  
Elaine Wyllie
- 8:50 AM Semiology of Drop Attacks  
Andre Palmieri
- 9:15 AM Epileptic Spasms – Semiology, Neurophysiology and Prognosis  
Jun Park
- 9:40 AM SEEG Studies in Patients with Startle Seizures  
Stefano Francione
- 10:05 AM Bilateral Asymmetric Tonic Seizures  
Hans Holthausen
- 10:30 AM Epileptic vs Non–epileptic Tonic Event  
Roohi Katyal
- 10:55 AM Coffee Break and Visit Exhibits and Posters

#### **SESSION 12 Moderators: Elaine Wyllie and Hans Holthausen**

- 11:25 AM Semiology and Polygraphic Study of Myoclonus, Clonic and Tonic Seizures  
Mark Hallett and Neel Fotedar
- 12:10 PM Negative Motor Seizures  
Soheyl Noachtar and Jan Remi
- 12:55 PM Lunch

#### **SESSION 13 Moderators: Alexis Arzimanoglou and Philippe Ryvlin**

- 1:55 PM Versive Seizures and Early Head Turn  
Hajo Hamer  
Debate: Morbidity and Mortality
- 2:20 PM Aspects of Semiology Relevant to Morbidity and Mortality  
Beate Diehl
- 2:40 PM Generalized Tonic–clonic Seizures Semiology – Akos Szabo  
Peri–Ictal Central Apnea – Laura Vilella  
Changes in Body Position – Adam Strzelczyk  
Discussion

- 3:50 PM Coffee Break and Visit Exhibits and Posters

#### **SESSION 14 Moderators: Hans O Lüders, Patrick Chauvel Debate: Seizure Classification and Terminology**

- 4:20 PM Cluster Analysis for Epilepsy Classification  
Karl Martin Klein
- 4:45 PM Challenges of Seizure Classification Development. How Can We Do Better?  
Sandor Beniczky
- 5:10 PM Summary Results of All Unknown Cases Terminology Voted by Faculty and Participants  
Neel Fotedar
- 5:25 PM Debate: Future Epilepsy Classification and Terminology  
Colloquium Faculty to Participate
- 6:00 PM Closing Remarks and Introduction of Frankfurt International Epilepsy Colloquium 2024

## Call for Posters

You are invited to respond to the Call for Posters for the 15th International Epilepsy Colloquium, September 20-22, 2023. Abstracts for posters (not exceeding 250 words) should be submitted via email to [amy.pisman@case.edu](mailto:amy.pisman@case.edu) by July 20, 2023. Authors are responsible for transporting and mounting their own posters. Easels and 4 foot high by 8 foot wide boards will be provided. Posters will be on display throughout the Colloquium in the area with refreshments and vendor displays.

All poster presenters will receive discounted tuition of \$100 toward the registration fees. A credit will be applied (if already registered) or a discount code will be sent with verification of poster acceptance. In addition prizes of \$1,000 for first place and \$500 for second place will be provided.



## Location/Parking/Accommodations

Tinkham Veale University Center  
11038 Bellflower Road  
Cleveland, Ohio 44106  
216-368-5681

The Tinkham Veale University Center is located in the heart of University Circle. The conference will be held in the Kelvin & Eleanor Smith Foundation Grand Ballroom on the second floor. Persons with disabilities should inform Tinkham Veale staff of any special services required.

### Parking

Guests are encouraged to park in the underground garage located at Campus Center Parking Garage (Lot S-29), 11172 East Boulevard, Cleveland, Ohio 44106. You are responsible for your own parking charges.

### Accommodations

Case Western Reserve University has reserved a block of rooms at the Courtyard Marriott Hotel for the nights of Sunday, September 17 through Friday, September 22, at the rate of \$173/night (plus tax) for single/double occupancy. Our room block is limited and expires August 27, 2023.

Make your reservation by calling the Courtyard Marriott directly at 1-800-MARRIOTT. Ask for the Case Western 2023 Epilepsy Colloquium group rate. Or make your reservation online at [Book Your Group/Corporate Rate | Marriott International](#). Reservations are guaranteed by each individual and a deposit of one night's rate, plus tax, is required.

### Cleveland Botanical Gardens Welcome Reception

On Tuesday evening, September 19, join us for a reception at the Cleveland Botanical Gardens. Spend the evening enjoying fabulous food and drinks, touring ten acres of outdoor gardens at your leisure, and visiting the Eleanor Smith Glasshouse, including the spiny desert of Madagascar and the cloud forest of Costa Rica.

### Cancellation Policy

Cancellations received on or prior to September 8 will be refunded less a \$100.00 cancellation fee. No refund will be given for cancellations received after September 8.

## Additional Information

For more information:

- Visit <https://cwru.cloud-cme.com/Epilepsy2023>
- Email [medcme@case.edu](mailto:medcme@case.edu)
- Telephone 216-983-1239 or 800-274-8263



SCAN ME

## Registration Information

Conference tuition includes all educational sessions, continental breakfast each day, lunch each day excluding Tuesday, a welcome reception on Tuesday evening at the Botanical Gardens and access to an online syllabus in PDF form. Persons with special needs that require assistance should call the CME Program not less than two weeks prior to the start of the activity.

## Registration

### 2023 International Epilepsy Colloquium

#### Tuition:

	Epilepsy Course Only (Sept. 18-19)	International Colloquium Only (Sept. 20-22)	Course & Colloquium (Sept. 18-22)
Physician	\$300	\$550	\$700
Resident/Fellow/Allied Health/Non-Physician	\$175	\$250	\$350

Register here: <https://cwru.cloud-cme.com/Epilepsy2023>  
or scan the QR code above.





SCHOOL OF MEDICINE  
CASE WESTERN RESERVE  
UNIVERSITY

Continuing Medical Education  
10524 Euclid Avenue  
Cleveland, Ohio 44106

## 15th International Epilepsy Colloquium

September  
18-19

Comprehensive Epilepsy Course:  
The Management of Medically  
Intractable Epilepsy

September  
20-22

The 15th International  
Epilepsy Colloquium:  
Ictal Semiology and its Value  
in Epilepsy Surgery

PRESORTED STD  
US POSTAGE  
PAID  
CLEVELAND OH  
PERMIT NO 1764