



Penn Medicine

Continuing Medical and
Interprofessional Education

IN-PERSON AND VIRTUAL

The Mark E. Josephson Thirtieth Annual

State-of-the-Art Arrhythmia Symposium

**Arrhythmia Diagnosis & Treatment Standards 2023
and Leonard N. Horowitz, MD
Memorial Lecture**

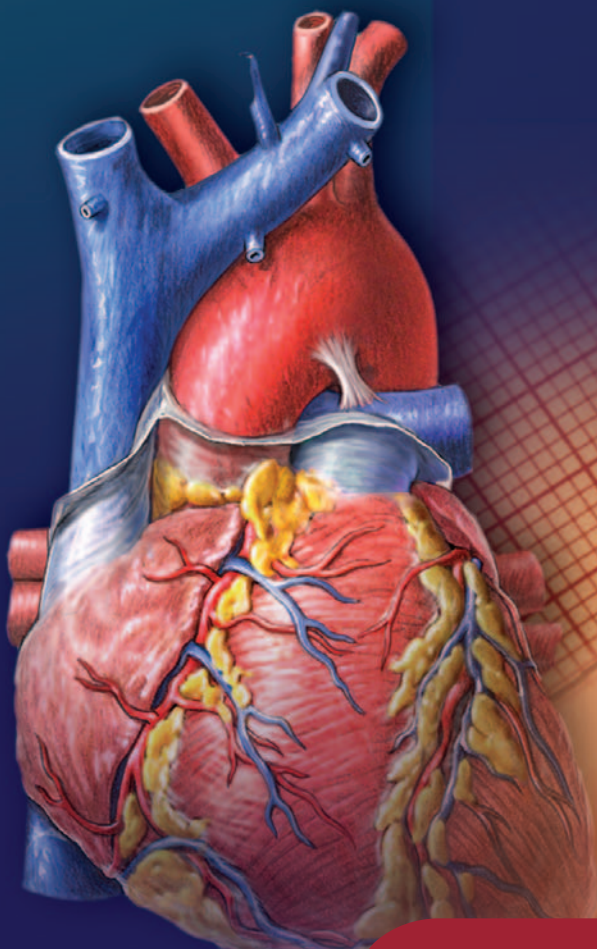
A CME/CNE-ACCREDITED SYMPOSIUM

Saturday, September 9, 2023

7:30 AM – 5:00 PM EST

In-Person Meeting Location

Hilton Philadelphia at Penn's Landing
201 South Christopher Columbus Blvd
Philadelphia, PA 19106



Recognized by



SYNCHRONY
PROGRAM

<https://upenn.cloud-cme.com/arrhythmia2023>

PROGRAM OVERVIEW & TARGET AUDIENCE

This is the 30th year for the *State-of-the-Art Arrhythmia Symposium*. Using a combination of case presentations with audience participation, didactic presentations, and question and answer sessions, our goal is to educate the participants in state of the art information on invasive and non-invasive electrophysiologic and electrocardiographic tools used in the current diagnosis, evaluation and treatment of cardiac rhythm disorders.

The program is taught by members of the faculty and staff from the University of Pennsylvania Health System, Department of Electrophysiology, in addition to invited speakers from other institutions. The course is structured to meet the educational needs of electrophysiologists, cardiologists, internists, nurses, and associated professionals with an interest in the care of patients with cardiac rhythm disorders. In addition to the morning session with lectures aimed at the entire audience, there are three breakout sessions in the afternoon aimed at 1) associated professionals 2) general cardiology and 3) an advanced electrophysiology session aimed at EP fellows, electrophysiologists, and EP lab staff.

The *State-of-the-Art Symposium* is coupled each year with the Leonard N. Horowitz Memorial Lecture which is given by a leader in cardiology.

Learning Objectives

- Describe the appropriate evaluation of patients with frequent PVCs as well as indications for treatment including ablation and antiarrhythmic medications.
- Discuss the differences in the various oral anticoagulants including appropriate use, dosing, risks, and contraindications.
- Recognize ECG clues to detect patients at risk for sudden death.
- Describe new treatment for patients presenting with neurocardiogenic syncope.
- Apply in practice the newest information regarding evaluation and treatment of atrial arrhythmias including screening for episodes and ablation indications, techniques, and endpoints.
- Describe the indications for cardiac resynchronization therapy and conduction system pacing, based on QRS morphology and duration, symptoms, functional class, ejection fraction, and type of heart disease.
- Review the indications, contraindications, and complications associated with left atrial (LA) appendage occlusion and closure.
- Assess the methods, techniques, associated tools, and equipment including emerging technologies to perform to catheter ablation of atrial fibrillation and flutter.
- Describe how to manage bleeding in patients on oral anticoagulation including choice of reversal agents and consequences of reversing anticoagulation.
- Discuss methods to manage pain around EP procedures to avoid overuse of opioids.
- Recognize use and value of new techniques and technologies employed for complex EP device and ablation cases.

IN-PERSON AND VIRTUAL

The Mark E. Josephson Thirtieth Annual State-of-the-Art Arrhythmia Symposium

Arrhythmia Diagnosis & Treatment Standards 2023
and Leonard N. Horowitz, MD Memorial Lecture

A CME/CNE-ACCREDITED SYMPOSIUM

Saturday, September 9, 2023

7:30 AM – 5:00 PM EST

Hosting Department

The Mark E. Josephson Thirtieth Annual State-of-the-Art Arrhythmia Symposium is hosted by the Department of Medicine, Division of Cardiology, Electrophysiology Section, University of Pennsylvania Health System.

Accreditation



In support of improving patient care, Penn Medicine is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

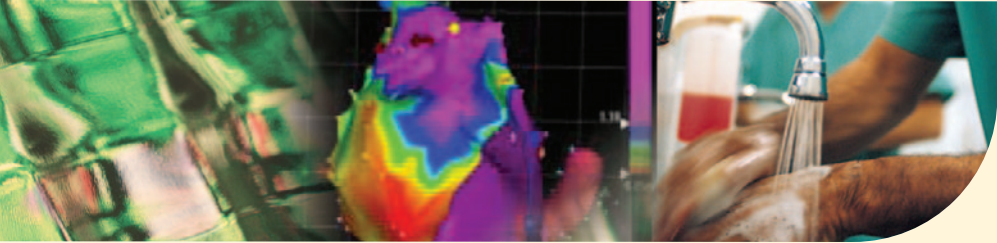
Designation of Credit

Physicians: Penn Medicine designates this live activity for a maximum of 7.75 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Nurses: This program provides 7.75 NCPD hours.

Physician Assistants: Penn Medicine has been authorized by the American Academy of PAs (AAPA) to award AAPA Category 1 CME credit for activities planned in accordance with AAPA CME Criteria. This activity is designated for 7.75 AAPA Category 1 CME credits. PAs should only claim credit commensurate with the extent of their participation.

Certificates and Transcripts: After the conference has concluded, all participants will receive a followup email with a link and instructions on how to claim their credit. Once participants submit the request for credit, the earned credits will be available for viewing on your transcript or available for printing at <https://upenn.cloud-cme.com>. Please note that the individual certificate will not be mailed.



LIVE AND VIRTUAL PRESENTATIONS

The Mark E. Josephson Thirtieth Annual State-of-the-Art Arrhythmia Symposium will be held Saturday, September 9, 2023 by in-person or live-stream (virtual) attendance. The live and virtual presentations will follow the scheduled agenda in real time (EDT).

TO ATTEND IN-PERSON:

Meeting Location

Hilton Philadelphia at Penn's Landing
201 S. Christopher Columbus Blvd
Philadelphia, PA 19106

TO ATTEND BY LIVE-STREAM (VIRTUAL):

Attendees who are registered to attend virtually will receive an email including the link to join the symposium 48 hours in advance. All virtual attendees will be required to sign into the meeting using your first name, last name and email address in order to be marked as attended, receive credit and view the recordings.

REGISTRATION FEES

IN-PERSON ATTENDANCE:

Please register online at <https://upenn.cloud-cme.com/arrhythmia2023>.

The fees to attend in-person are as follows: \$90 for physicians and industry attendees, \$75 for nurse practitioners, physician assistants and other healthcare professionals. There is no fee for residents, fellows, students and Penn Medicine employees, faculty and staff to attend.

All pre-registered, in-person attendees will receive access to the conference, attendee booklet, continental breakfast, lunch, breaks and the reception. Registration also includes access to view the presentations online for one year. Walk-ins are discouraged. Please be sure to register in advance.

LIVE-STREAM (VIRTUAL) ATTENDANCE:

Please register online at <https://upenn.cloud-cme.com/arrhythmia2023>.

The fee to attend virtually is \$75 for all attendees. Pre-registration is required to attend.

48 hours prior to the symposium, all pre-registered virtual attendees will receive an email that includes a link with instructions to sign-in and join the virtual conference, as well as the attendee booklet (downloadable PDF). Registration also includes access to view the presentations online for one year.

Need to Register by Mail?

Please note: mailed registrations may take more than 5-10 business days before they are received because we continue to experience longer delays in receiving mail. We encourage all attendees to register online. See the registration form for mailing instructions.

All registrations will be confirmed by email as long as your registration is received before September 7, 2023.

Please save our Penn Medicine email (penncme@upenn.cloud-cme.com) to alleviate our emails from going to spam.

Cancellation Policy

In order to process refunds for course withdrawals, cancellations must be received in writing by August 25, 2023 (subject to a service charge equivalent to 10% of the registration fee, but no less than \$25.00). No refunds will be issued thereafter.

The University reserves the right to cancel or postpone any course due to unforeseen circumstances. In the event of cancellation or postponement, the University will refund registration fees but is not responsible for related costs or expenses to participants, including cancellation fees assessed by hotels, airlines, and travel agencies.

Disclosures

Penn Medicine, Office of Continuing Medical and Interprofessional Education, adheres to the *ACCME Standards for Integrity and Independence in Accredited Continuing Education*. Faculty disclosure information will be made available in the conference materials and syllabus. Faculty members are also expected to disclose to participants any discussions of off-label and/or investigational uses of pharmaceutical products within their presentations.

Services for the Disabled If special arrangements are required for an individual with a disability to participate this meeting, please contact the Office of Continuing Medical and Interprofessional Education no later than August 25, 2023, at 215-898-6400.

Nondiscrimination Statement The University of Pennsylvania values diversity and seeks talented students, faculty, and staff from diverse backgrounds. The University of Pennsylvania does not discriminate on the basis of race, sex, sexual orientation, gender identity, religion, color, national or ethnic origin, age, disability, or status as a Vietnam Era Veteran or disabled veteran in the administration of educational policies, programs or activities; admissions policies; scholarship and loan awards; athletic, or other University administered programs or employment. Questions or complaints regarding this policy should be directed to Executive Director, Office of Affirmative Action and Equal Opportunity Programs, 3600 Chestnut Street, Sansom Place East Suite 228, Philadelphia PA 19104-6106 or 215-898-6993 (Voice) or 215-898-7803 (TDD). www.upenn.edu/affirm-action.

FACULTY

Symposium Director

Francis Marchlinski, MD

*Richard T. and Angela Clark President's Distinguished Professor
Director, Cardiac Electrophysiology
University of Pennsylvania Health System
Philadelphia, PA*

Guest Faculty

Jesus Almendral, MD, PhD

*Head of Cardiac Electrophysiology and Clinical Arrhythmology Unit
Hospital de Madrid Group
Madrid, Spain*

Daniele Muser, MD, PhD

*Attending Cardiologist
Santa Maria della Misericordia
University Hospital
Udine, Italy*

Faculty

All faculty listed below are affiliated with the Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA

Weeranun Bode, MD

*Assistant Professor of Clinical Medicine
Cardiac Electrophysiology
University of Pennsylvania Health System*

Trevor Bonney, PA-C

*Physician Assistant
Cardiac Electrophysiology
University of Pennsylvania Health System*

John Bullinga, MD

*Associate Professor of Clinical Medicine
Director, Electrophysiology Laboratory
Penn Presbyterian Medical Center*

David Callans, MD

*Professor of Medicine
Co-Director, Cardiac Electrophysiology
University of Pennsylvania Health System*

Kirstan Clay-Weinfeld, CRNP

*Nurse Practitioner
Cardiac Electrophysiology
Pennsylvania Hospital*

Kristine Conn, MSN, RN

*Nurse Manager
Electrophysiology Laboratory – HUP Pavilion*

Rajat Deo, MD

*Associate Professor of Medicine
Director, EP Genetics Program
Cardiac Electrophysiology
University of Pennsylvania Health System*

Sanjay Dixit, MD

*Professor of Medicine
Director, Electrophysiology Laboratory
Philadelphia VA Medical Center*

Andrew Epstein, MD

*Professor of Medicine
Chief, Cardiology Section
Philadelphia VA Medical Center*

Michael Fradley, MD

*Associate Professor of Clinical Medicine
Medical Director, Thalheimer Center for
Cardio-Oncology
Section Chief, Consultative Cardiology
Hospital of the University of Pennsylvania*

David Frankel, MD

*Associate Professor of Medicine
Director, Electrophysiology Laboratory
Hospital of the University of Pennsylvania*

Fermin Garcia, MD

*Associate Professor of Medicine
Director of VT Ablation Program
Cardiac Electrophysiology
Hospital of the University of Pennsylvania*

Gustavo Guandalini, MD

*Assistant Professor of Clinical Medicine
Cardiac Electrophysiology
University of Pennsylvania Health System*

Nicholas Guarino, PA-C

*Physician Assistant
Cardiac Electrophysiology
University of Pennsylvania Health System*

Robert Hipp, PA-C, MS, MBA

*Physician Assistant
Cardiac Electrophysiology
University of Pennsylvania Health System*

Matthew Hyman, MD, PhD

*Assistant Professor of Medicine
Cardiac Electrophysiology
University of Pennsylvania Health System*

Carly Kindbom, PA-C

*Physician Assistant
Cardiac Electrophysiology
University of Pennsylvania Health System*

Ramanan Kumareswaran, MD

*Assistant Professor of Clinical Medicine
Director, ECG Lab/Heart Station
Co-Director, Cardiac Electrophysiology
Fellowship Program
Hospital of the University of Pennsylvania*

David Lin, MD

*Associate Professor of Medicine
Directory of Remote and
Ambulatory Monitoring
Cardiac Electrophysiology
University of Pennsylvania Health System*

Jeffrey Luebbert, MD

*Assistant Professor of Clinical Medicine
Director, Electrophysiology Laboratory
Pennsylvania Hospital*

Timothy Markman, MD

*Assistant Professor of Medicine
Cardiac Electrophysiology
University of Pennsylvania Health System*

Todd Mendelson, MD, MBE

*Assistant Professor of Clinical Medicine
Cardiac Electrophysiology
Penn Presbyterian Medical Center*

Alanna Miller, CRNP

*Nurse Practitioner
Cardiac Electrophysiology
Penn Presbyterian Medical Center*

Tracey Munson, CRNP

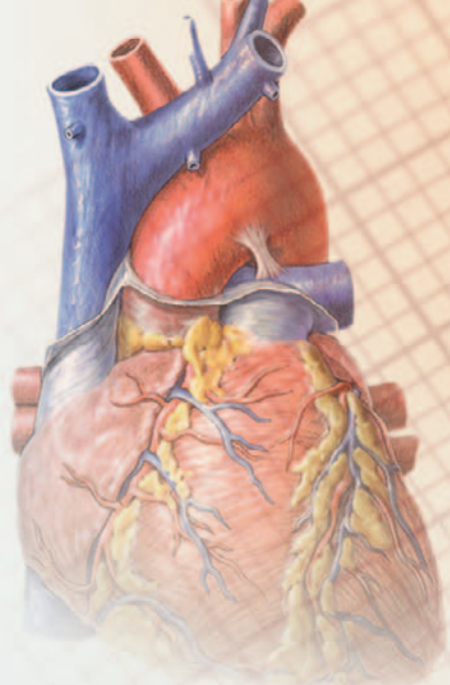
*Nurse Practitioner
Cardiac Electrophysiology
University of Pennsylvania Health System*

Saman Nazarian, MD, PhD

*Professor of Medicine
Director, Arrhythmia Imaging
Cardiac Electrophysiology
Hospital of the University of Pennsylvania*

Lauren Novak, CRNP

*Nurse Practitioner
Cardiac Electrophysiology
University of Pennsylvania Health System*



Tara Parham, DNP, CRNP

*Nurse Practitioner
Cardiac Electrophysiology
University of Pennsylvania Health System*

Michael Riley, MD, PhD

*Associate Professor of Clinical Medicine
Cardiac Electrophysiology
University of Pennsylvania Health System*

Robert Schaller, DO

*Associate Professor of Clinical Medicine
Director, Cardiac Device/Lead Extraction Programs
Hospital of the University of Pennsylvania*

Caroline Scherer, PA-C

*Physician Assistant
Cardiac Electrophysiology
University of Pennsylvania Health System*

Gregory Supple, MD

*Associate Professor of Clinical Medicine
Director, Electrophysiology Fellowship Program
Co-Director, Electrophysiology Laboratory
Hospital of the University of Pennsylvania*

Cory Tschabrunn, PhD

*Assistant Professor of Medicine
Director, Translational Electrophysiology
Lab University of Pennsylvania Health System*

Christian Yacono, PA-C

*Physician Assistant
Cardiac Electrophysiology
University of Pennsylvania Health System*

Amaryah Yaeger, CRNP

*Nurse Practitioner
Cardiac Electrophysiology
Pennsylvania Hospital*

Erica Zado, PA-C

*Physician Assistant
Cardiac Electrophysiology
University of Pennsylvania Health System*

AGENDA

Saturday, September 9, 2023

7:00 – 7:30 AM

Coffee and Light Breakfast

7:30 – 11:45 AM

Morning Combined Group Session

Moderator: Francis Marchlinski, MD

7:30 – 7:35 AM

Welcome and Introduction

Francis Marchlinski, MD

7:35 – 8:05 AM

Josephson Keynote ECG Lecture

Sinus Rhythm ECG Clues to Identify Risk and Origin of VT and VF in Nonischemic Cardiomyopathy and Unique VF Syndromes

- Low QRS voltage
- QRS fragmentation
- Associated AV conduction changes
- ECG of common VPDs that trigger idiopathic VF
- Other high risk ECG patterns

Francis Marchlinski, MD

8:05 – 8:30 AM

Anesthesia and Pain Management During and After EP Procedures: Important Considerations to Eliminate Pain but Not Overmedicate

- Background: Potential to contribute to opioid addiction crisis
- Nerve block 1.0
- Other implantation and anesthetic strategies to minimize postop pain

Timothy Markman, MD

8:30 – 9:40 AM

Rapid Fire Updates on the Management of PVCs

(12 minute presentations + 3 minute Q&A)

Moderator: Francis Marchlinski, MD

- Status of Risk Stratification for Identifying Potential for PVC cardiomyopathy
Weeranun Bode, MD
- Drug Therapy for PVCs – Important considerations
David Frankel, MD
- LV Summit PVC Ablation: What are the Challenges and How to Overcome?
Fermin Garcia, MD
- State of the Art Lecture (20 minute presentation + 5 min Q and A): Role of MRI in Patients with PVCs
Daniele Muser, MD, PhD

9:40 – 10:00 AM

Panel Discussion: Programmed Stimulation, Drug/Ablation Therapy and Imaging in the Management of VPDs (Case based presentation)

Moderator: Francis Marchlinski, MD

Panelists: Daniele Muser, MD, PhD, Weeranun Bode, MD, David Frankel, MD, Fermin Garcia, MD

10:00– 10:35 AM

Debate: Left Atrial Occlusion Device is the Preferred Treatment Strategy to Prevent Bleeding and Strokes in Patients with Atrial Fibrillation

Pro: Robert Schaller, DO (15 minutes)

Con: David Callans, MD (15 minutes)

Q&A: 5 minutes

10:35 – 11:00 AM **Break and Visit Exhibits**

11:00 – 11:45 AM

Leonard N. Horowitz M.D. Memorial Lecture - Keynote

Lessons Learned from Pacing and Programmed Stimulation During Reentrant Arrhythmias

Jesus Almendral, MD, PhD

11:45 AM – 12:45 PM **Lunch and Visit Exhibits**

Afternoon Breakout Sessions

12:45 PM - 2:45 PM

General Cardiology Afternoon Session – PART I

Moderator: David Callans, MD

12:45 – 1:10 PM

Avoiding Intravenous Pacemaker and ICD Leads

- Leadless pacing – patient selection
- Important study results: EV-ICD; Atlas, Praetorian
- Subcutaneous ICD good/poor candidates
- Must know implantation techniques

Robert Schaller, DO

1:10 – 1:35 PM

Inappropriate Sinus Tachycardia

- Etiology and pathophysiology
- Post COVID
- Standard therapy and role of ivabradine
- Role of ablative therapy – sinus node and autonomic ablation

Matthew Hyman, MD, PhD

1:35 – 2:00 PM

Cardioneural Ablation to Prevent Bradyarrhythmias – Are We Ready for Prime Time?

- Pathophysiology
- Preventing recurrent vasovagal syncope
- Preventing AV nodal block and a pacemaker?
- RA versus LA ablation for neuroablation
- Potential long term adverse sequelae?

Timothy Markman, MD

2:00 – 2:45 PM

Case Presentations/Panel Discussion –

Common Device Related Complications: How to Avoid/Recognize/Treat?

- Preventing inappropriate shocks for SVT/ST/AF
- Recognizing loss of BiV/conduction system capture
- Common pacemaker pacing algorithms that mimic dysfunction –How to recognize?
- Threshold for intervention (ablating Afib/VPDs) in CRT non responders
- Pocket features that require device /lead removal

Moderator: Gregory Supple, MD

Panelists: Andrew Epstein, MD, Jeffrey Luebbert, MD, John Bullinga, MD,

Gustavo Guandalini, MD, Michael Riley, MD, PhD

2:45 – 3:00 PM Break and Visit Exhibits

3:00 – 5:00 PM

General Cardiology Afternoon Session - PART II

Moderator: David Lin, MD

3:00 – 3:20 PM

What's HOT in Afib Pathophysiology and Treatment – Part 1

- Cognitive decline in Afib – Swedish Study
- Role of AF ablation in patients with HFpEF – Australian Study
- First line AF ablation therapy to prevent persistent AF
- Surgical LAA ligation – changing threshold for use?
- Pulsed field ablation to reduce ablation risk (latest trial results)

Daniele Muser, MD, PhD

3:20 – 3:40 PM

Management of Arrhythmias in Patients with Oncologic Disease

- Do the most common arrhythmias remain common?
- Considerations in dealing with device replacement
- Anticoagulation – when to withhold?
- Unusual presentations of metastatic disease

Michael Fradley, MD

3:40 – 4:00 PM

My Favorite ECG Unknowns

- Recognizing artifact
- This one stumped Dr. Mark Josephson
- Most common errors with computer assisted interpretations
- Lifesaving pickups

Ramanan Kumareswaran, MD

4:00 – 5:00 PM

**Case Presentations/Panel Discussion:
More Controversies and Frontiers in Managing Atrial Fibrillation – Part 2**

- Moving beyond CHADS₂VASc₂ to identify stroke risk
- How to manage incidental device detected AF
- Advantages of Factor XI inhibitors
- Role of Apple Watch, Kardia, FitBit in monitoring for Afib
- What is the role of “as needed” anticoagulation for infrequent Afib?

Moderator and Case Presentation: Sanjay Dixit, MD

Panelists: David Lin, MD, Todd Mendelson, MD, MBE, Gustavo Guandalini, MD, Rajat Deo, MD, Weeranun Bode, MD

12:45 – 3:00 PM

Advanced EP Afternoon Session – PART I

Moderator: Sanjay Dixit, MD

12:45 – 1:10 PM

Imaging to Improve Outcome of VT ablation

- Which imaging test for which patient?
- Image integration
- Imaging - EP lab correlates
- Role of post procedure imaging?
- Important study outcomes?

Saman Nazarian, MD, PhD

1:10 – 1:35 PM

How I Approach the Patient with SVT in the EP Lab – Pearls from Madrid

- Step 1
- Step 2
- Step 3

Jesus Almendral, MD, PhD

1:35 – 2:00 PM

Challenging WPW cases

- Multiple bypass tracts
- Diverticuli
- Ebstein’s Anomaly
- Mastering mid septal pathways

Ramanan Kumareswaran, MD

2:00 – 2:25 PM

Pacing to Improve Outcome in HEpEF Patients

- When?
- How?
- Outcomes/new study results

Matthew Hyman, MD, PhD

2:25 – 2:45 PM

Lessons Learned from Using ILRs in Patients Undergoing Afib Ablation

- More monitoring means more arrhythmia detection -is it essential?
- How to optimize programming
- Using ILRs to facilitate PRN use of NOACS
- Comparison of monitoring and pulse assessment

David Frankel, MD

2:45 – 3:00 PM Break and Visit Exhibits

3:00 – 5:00 PM

Advanced EP Afternoon Session – PART II

Moderator: Francis Marchlinski, MD

3:00 – 4:00 PM

Rapid Fire Technology/Technique/and EP Science Updates (12 minute presentations, 3 minute Q&A)

- 4D ICE/Direct LA/LV – Images and Clinical Utility
Fermin Garcia, MD
- Pulsed Field Ablation: Insights from Clinical and Preclinical Studies
Cory Tschabrunn, PhD
- Radioablation for VT: Which Patients and Expected Outcomes?
Timothy Markman, MD
- CO2 Insufflation for Epicardial Access: Tips and Tricks
Gregory Supple, MD

4:00 – 4:30 PM

Alcohol Venous Ablation for Atrial and Ventricular Arrhythmias

- Ligament of Marshall: identifying, cannulating and ablating
- VPD ablation
- VT in structural heart disease

Fermin Garcia, MD

4:30 – 5:00 PM

Persistent Atrial Fibrillation Ablation: What to Do Beyond PVI and in Which Patient

David Callans, MD

12:45 – 2:45 PM

Associated Professionals Afternoon Breakout Session – PART I

Moderator: Kristine Conn, MSN, RN

12:45 – 1:15 PM

Reversing Anticoagulation

- Indications for reversal
- Choosing the correct agent/dosing
- What to expect?
- Consequences of reversing anticoagulation and timing of restart

Robert Hipp PA-C, MS

1:15 – 1:45 PM

Clinical Resynchronization/Stimulation for Heart Failure

- Explanation of the different lead positions-CS, left bundle, His bundle
- Expected ECG appearance of paced QRS
- Indications and patient selection
- What to do with nonresponders?
- Cardiac contractility modulation for low EF and narrow QRS

Christian Yacono, PA-C

1:45 – 2:45 PM

Panel Discussion: Case Presentations Highlighting the Use of Digital Health in EP

- Remote monitoring of devices: managing routine transmission and alerts
- Handling data from personal wearables
- Using video visits for post procedure follow-up and routine visits
- Optimizing use of EMR and patient portals

Moderator: Amaryah Yaeger, CRNP

Panelists: Alanna Miller, CRNP, Erica Zado PA-C, Carly Kindbom, PA-C, Kirstan Clay-Weinfeld, CRNP, Caroline Scherer, PA-C

2:45 – 3:00 PM Break and Visit Exhibits

3:00 – 5:00 PM

Associated Professionals Afternoon Breakout Session – PART II

Moderator: Trevor Bonney, PA-C

3:00 – 3:30 PM

Not So Rare Restrictive Cardiomyopathies – Amyloidosis and Sarcoidosis

- Diagnosis and Treatment?
- Atrial arrhythmia management
- Ventricular arrhythmia management
- Sudden death risk and indications for ICD implant
- Anticoagulation concerns

Erica Zado, PA-C

3:30 – 4:00 PM

Demystifying Lead Extraction

- Infection and other indications
- Important information to gather pre-procedure
- Timing of reimplant in infected patients
- Monitoring for and treating complications

Robert Schaller, DO

4:00 – 5:00 PM

ECG and Device Jeopardy

- Device malfunction and arrhythmia diagnosis from electrograms
- Tachycardia and heart block
- Electrolyte abnormalities
- Inherited arrhythmia syndromes

Moderator: Erica Zado, PA-C

Panelists: Nicholas Guarino, PA-C, Tara Parham, CRNP, Lauren Novak, CRNP, Tracy Munson, CRNP, Trevor Bonney, PA-C

5:00 PM

Thank you and Farewell

Francis Marchlinski, MD

IN-PERSON AND VIRTUAL

**The Mark E. Josephson Thirtieth Annual
State-of-the-Art Arrhythmia Symposium**

**Arrhythmia Diagnosis & Treatment Standards 2023
and Leonard N. Horowitz, MD Memorial Lecture**

**Saturday, September 9, 2023
7:30 AM – 5:00 PM EST**

A CME/CNE-ACCREDITED SYMPOSIUM

**We strongly encourage you to register for this conference online by check or credit card at
<https://upenn.cloud-cme.com/arrhythmia2023>**

Questions? Contact us at:

penncme@penmedicine.upenn.edu • Phone: 215-898-6400 or 215-898-8005

Please note we are unable to accept faxed registration forms.

PLEASE PRINT OR TYPE

Name (First) _____ (Last) _____

Academic Degree _____

Medical Specialty _____

Affiliation (Hospital, Office, or Company) _____

Address (affiliation home) _____

City _____ State _____ Zip _____

Phone _____ Fax _____

E-mail _____

REGISTRATION FEES

(pre-payment is required to be officially registered)

IN-PERSON ATTENDANCE:

- Physicians and industry employees – \$90
- Nurse practitioners, nurses, pharmacists, physician assistants, researchers and other healthcare professionals – \$75
- There is no fee for residents, fellows, students and Penn Medicine employees, faculty and staff to attend.

LIVE-STREAM (VIRTUAL) ATTENDANCE:

- \$75 for all virtual attendees. Registration is required to attend.

PAYMENT METHOD

- If you are paying by check or credit card, please register online at **<https://upenn.cloud-cme.com/arrhythmia2023>**
- If you are paying by check, you may mail your completed registration form and check made payable to The Trustees of the University of Pennsylvania/CME to:
Conference Manager
Office of Continuing Medical & Interprofessional Education
Academic Programs, Penn Medicine, JMec, SPE, 6th floor
3400 Civic Center Blvd, Bldg. 421
Philadelphia, PA 19104-5162
- Do not include any credit card information on the registration form or share via email.