

Continuing Medical Education



Perelman
School of Medicine
UNIVERSITY of PENNSYLVANIA

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

**Arrhythmia Diagnosis & Treatment Standards 2017
and Leonard N. Horowitz, MD
Memorial Lecture**

A CME/CNE CERTIFIED COURSE

Saturday, September 9, 2017

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

In Conjunction with



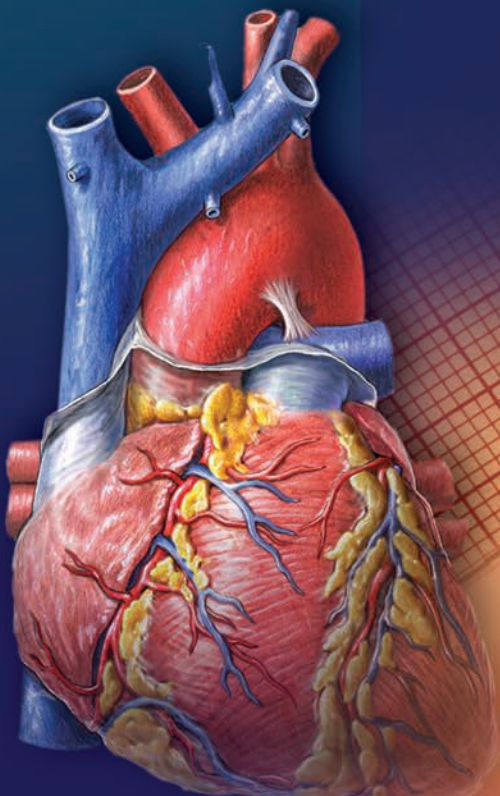
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Co-sponsored with:



**Heart
Rhythm
Society**SM



**The Department of Medicine, Division of Cardiology,
Electrophysiology Program
At the University of Pennsylvania Health System
*Presents***

PROGRAM OVERVIEW & TARGET AUDIENCE

This annual symposium was created to provide the busy clinician, associated professional, and electrophysiologist with “state-of-the-art” information on arrhythmia diagnosis and management. It is presented in a format that permits each group the opportunity to focus on some of their specific issues and concerns as well as to review topics of common interest.

Current information on invasive and non-invasive electrocardiographic and electrophysiologic tools used in the diagnosis, evaluation, and treatment of cardiac rhythm disorders will be presented. Attendees will develop an understanding of the best practice approaches to diagnosing and treating patients with atrial fibrillation, other atrial and ventricular arrhythmias, and risk factors for sudden death.

The symposium is coupled with the Leonard N. Horowitz, MD Memorial Lecture. This annual lecture serves as an ongoing tribute to a colleague and friend who dedicated his much too brief time with us advancing the field of arrhythmia management.

Learning Objectives

Upon completion of this activity, participants should be able to:

- Compare and contrast the various oral anticoagulants, dosing, risks, and contraindications
- Identify and modify risk factors to improve atrial fibrillation outcome
- Review the use and value of new techniques and technologies employed for complex EP device and ablation cases
- Discuss the use of genetic testing for patients and family members of patients with inherited arrhythmia syndromes
- Assess value of ECG screening of athletes to assess risk of sudden death
- Discuss the monitoring techniques available for arrhythmia detection and appropriate patient selection
- Identify the role of rhythm management and pacing in the treatment of heart failure
- Review the appropriate evaluation and treatment plans of patients with syncope

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Philadelphia, PA 19106
215-928-1234

AUDIENCE

Hosting Department

The Mark E. Josephson Twenty Fifth 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

Physicians: The Perelman School of Medicine at the University of Pennsylvania is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Nurses: Penn Medicine Nursing is an approved provider of continuing nursing education by the Pennsylvania State Nurses Association, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation. Approval # 124-3-H-15.

Designation of Credit

Physicians: The Perelman School of Medicine at the University of Pennsylvania designates this live activity for a maximum of 7.5 *AMA PRA Category 1 Credits*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Nurses: The program will award 7.75 contact hours.

Physician Assistants: AAPA accepts certificates of participation for educational activities certified for *AMA PRA Category 1 Credit*[™] from organizations accredited by ACCME or a recognized state medical society. PAs may receive a maximum of 7.5 Category 1 credits for completing this activity.

Certificates and Transcripts: After the symposium has concluded, all participants will receive a follow-up email containing a link to the post-test, symposium evaluation and credit request. Once participants submit the request for credit, the credit can be viewed on a transcript or a certificate can be printed by logging onto www.pennmeonline.com.

Registration Fees

The registration fees for *The Mark E. Josephson Twenty Fifth Annual State-of-the-Art Arrhythmia Symposium* are \$120 for physicians and industry employees, \$100 for nurses and healthcare professionals, and \$65 for residents, fellows and retired physicians. Penn Medicine employees, faculty, staff and students will receive special course rates of \$100 for physicians, \$65 for nurses, healthcare professionals, residents and fellows and \$60 for students. A valid Penn Medicine ID is required to receive the special rate. The registration fee includes attendance to the symposium, a course booklet and a link to view the presentations online, credit certificate, continental breakfast, mid-morning and afternoon refreshments, lunch, post-symposium reception and garage-only parking at the Hilton Philadelphia at Penn's Landing.

If you are registering with a credit card, please register online at www.pennmcmeonline.com, then click on CME activities/Live Events. We cannot accept faxed or mailed registration forms with credit card information. To pay by check, complete the registration form and mail it in with your check. Please see the registration form for mailing information. Please note: mailed registrations can take up to 5-10 business days before they are received. All registrations will be confirmed by email as long as your registration is received no later than August 25, 2017.

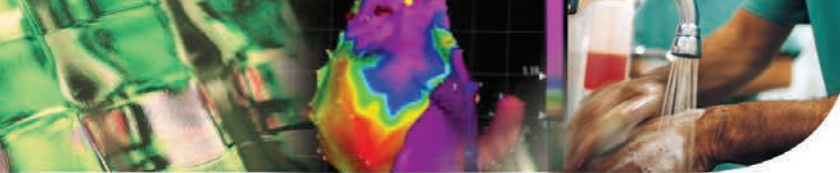
Cancellation and Refund Policy

In order to process refunds for course withdrawals, cancellations must be received in writing by August 25, 2017 (subject to a \$15 service charge). 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.

Services for the Disabled If special arrangements are required for an individual with a disability to attend this meeting, please contact the Office of Continuing Medical Education no later than August 25, 2017, 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.



Meeting Location and Parking

The Mark E. Josephson Twenty Fifth Annual State-of-the-Art Arrhythmia Symposium will take place at the Hilton Philadelphia at Penn's Landing, 201 South Christopher Columbus Boulevard, Philadelphia, PA. The hotel's main number is 215-928-1234. If you need overnight reservations, please call 1-800-233-1234. Please visit the Hilton's website at www.pennslanding.hilton.com for directions and additional information.

The Hilton parking garage is located just past the hotel's main entrance. The parking fee is included in your registration fee. Your parking in the Hilton garage will be validated at the registration desk on the day of the conference.

For information on additional overnight accommodations or what to do or see while you're in Philadelphia, please go to www.gophila.com.

Disclosures

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Course Director

Francis Marchlinski, MD

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

Guest Faculty

Sumeet S. Chugh, MD

*Pauline and Harold Price Professor
in Cardiac Electrophysiology
Associate Director, The Heart Institute
Director, Heart Rhythm Center
Cedars-Sinai Medical Center
Professor of Medicine-in-Residence
David Geffen School of Medicine
at UCLA
Los Angeles, CA*

Brian Olshansky, MD

*Professor Emeritus
University of Iowa Hospitals
Electrophysiologist, Mercy Hospital –
North Iowa
Mason City, IA*

Cory Tschabrunn, PhD, CEPS

*Technical Director, Experimental
Electrophysiology Laboratory
Beth Israel Deaconess Medical Center
Harvard Medical School
Boston, MA*

Faculty

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

Jeffrey Arkles, MD

*Assistant Professor of Medicine
Cardiac Electrophysiology*

Sarah Baxter, PA-C

*Physician Assistant
Cardiac Electrophysiology*

David Callans, MD

*Professor of Medicine
Cardiac Electrophysiology*

Nancy Cash, DNP, CRNP

*Nurse Practitioner
Cardiac Electrophysiology*

Rajat Deo, MD

*Assistant Professor of Medicine
Cardiac Electrophysiology*

Sanjay Dixit, MD

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

Andrew Epstein, MD

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

David Frankel, MD

*Assistant Professor of Medicine
Director, Electrophysiology
Fellowship Program*

Fermin Garcia, MD

*Assistant Professor of Clinical Medicine
Cardiac Electrophysiology*

Robert Hipp, PA-C

*Physician Assistant
Cardiac Electrophysiology*

David Lin, MD

*Associate Professor of Medicine
Cardiac Electrophysiology*

Jeffrey Luebbert, MD

*Clinical Assistant Professor of Medicine
Pennsylvania Hospital*

Saman Nazarian, MD, PhD

*Associate Professor of Medicine
Cardiac Electrophysiology*

Tara Parham, CRNP

*Nurse Practitioner
Cardiac Electrophysiology*

Cynthia Ramos, CRNP

*Nurse Practitioner
Cardiac Electrophysiology*

Michael Riley, MD, PhD

*Assistant Professor of Medicine
Cardiac Electrophysiology*

Pasquale Santangeli, MD, PhD

*Assistant Professor of Medicine
Cardiac Electrophysiology*

Robert Schaller, DO

*Assistant Professor of Clinical Medicine
Cardiac Electrophysiology*

Gregory Supple, MD

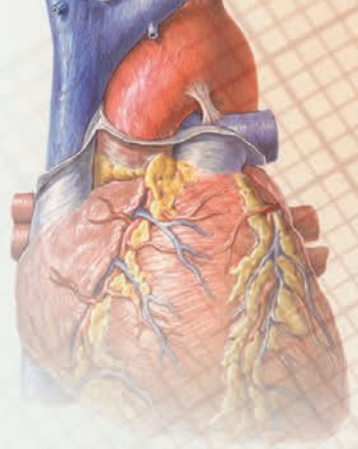
*Assistant Professor of Clinical Medicine
Cardiac Electrophysiology
Co-Director, Electrophysiology
Fellowship Program*

Christian Yacono, PA-C

*Physician Assistant
Cardiac Electrophysiology*

Erica Zado, PA-C

*Physician Assistant
Cardiac Electrophysiology*



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

Saturday, September 9, 2017

7:15 – 7:45 AM

Registration and Continental Breakfast

**General Cardiology
Morning Session – 7:45 – 10:50 AM**

Moderator: Francis Marchlinski, MD

7:45 – 7:50 AM

Welcome & Introduction

Francis Marchlinski, MD

7:50 – 8:15 AM

**Keynote: ECG in Arrhythmia Management –
What Would Mark Say?**

David Callans, MD

- “Burn it in your brain”
- “Don’t forget lead AVR”
- “Cherche le P” wave

8:15 – 8:50 AM

Imaging in Patients with Arrhythmia Disorders

Saman Nazarian, MD, PhD

- Which technique and when
- Value in predicting AF ablation outcome
- Identifying stroke risk
- Role in VT management
- Which patients with PVCs?

8:50 – 9:20 AM

**Update on Managing Neurocardiogenic/
Autonomic Syndromes**

Brian Olshansky, MD

- Role of tilt table testing
- Standard treatment approach
- Role of exercise training
- When to use ivabradine hydrochloride

9:20 – 9:50 AM

**Advances in Pacing Therapy:
Techniques and Patient Selection**

David Lin, MD

- His bundle pacing
- Leadless pacing update
- Biventricular pacing
- Special considerations in the TAVR patient

9:50 – 10:25 AM

**Management Challenges with Anticoagulant
Therapy in Arrhythmia Patients**

Panel discussion/audience participation

Chair: Francis Marchlinski, MD

Panel: David Callans, MD, Sanjay Dixit, MD

Gregory Supple, MD, Sumeet Chugh, MD

Jeffrey Arkles, MD, Brian Olshansky, MD

- When to stop anticoagulant post AF ablation
- What is “nonvalvular” AF?
- Is there still a role for warfarin?
- Who gets bridging with enoxaparin?
- Stopping anticoagulants before ablation and device procedures

10:25 – 10:50 AM

Update on AF Ablation

Francis Marchlinski, MD

- Patient selection
- Procedure techniques
- Outcome
- Special consideration: functional MR, AF with low EF, elderly patients, late recurrences

10:50 – 11:15 AM

Break/Visit Exhibits

11:15 AM – 12:00 PM

**Leonard N. Horowitz, MD
Memorial Lecture**

Sudden Cardiac Death: 2017 Update

Sumeet Chugh, MD

12:00 – 1:00 PM Lunch

**General Cardiology
Afternoon Session – 1:00 – 2:40 PM**

Moderator: David Callans, MD

1:00 – 1:30 PM

Venous Occlusion: Identification and Management

Robert Schaller, DO

- Occlusion from device leads
- Pulmonary vein stenosis
- What to do with SVC filters

1:30 – 2:00 PM

Syncope in the Athlete

Michael Riley, MD, PhD

- ECG markers of increased risk
- Anatomic markers of risk
- When to do EP study
- When to implant loop recorder

2:00 – 2:40 PM

**Inherited Arrhythmia Syndromes:
Identification and Risk Stratification
Case Presentation/Audience Participation**

Moderator: David Callans, MD

Panel Members: Rajat Deo, MD, Pasquale

Santangeli, MD, PhD, Saman Nazarian, MD, PhD,

Sumeet Chugh, MD, Brian Olshansky, MD

- Brugada syndrome
- Long QT syndrome
- Lamin and other familial cardiomyopathies
- Other unique syndromes

2:40 – 3:00 PM

Break/Visit Exhibits

**General Cardiology
Afternoon Session – 3:00 – 5:00 PM**

Moderator: Andrew Epstein, MD

3:00 – 3:30 PM

PVCs – When and How to Treat

Gregory Supple, MD

- Common sites of origin
- PVC-induced cardiomyopathy
- Medical therapy
- Catheter ablation therapy

3:30 – 4:00 PM

**Left Atrial Appendage Exclusion for
Stroke Prevention**

Fermin Garcia, MD

- Basic techniques/technologies
- Patient selection
- Anatomic exclusions
- Comparison with anticoagulants
- Post-procedure follow-up

AGENDA

4:00 – 5:00 PM

Common Device Malfunctions – How to Recognize and Treat?

Case Presentation/Audience Participation

Moderator: Andrew Epstein, MD

Panel Members: David Lin, MD, Robert Schaller, DO, Jeffrey Arkles, MD, Jeffrey Luebbert, MD

- Loss of LV capture
- Failure to defibrillate
- Inappropriate shocks for SVT/ST/AF
- Undersensing atrial arrhythmias

Advanced EP

Afternoon Session – 1:00 – 2:45 PM

Moderator: Francis Marchlinski, MD

1:00 – 1:45 PM

Update on Ablation Treatment of Persistent AF

Sanjay Dixit, MD

- What else beyond pulmonary vein isolation?
- Rotor mapping
- When to do lines and CAFÉ
- Importance of non-PV trigger sites

1:45 – 2:15 PM

Risk Stratification and RV/LV Biopsy Guided by Electroanatomic Mapping in NICM

David Frankel, MD

- Techniques
- Patient selection
- Electrograms to predict LV recovery

2:15 – 2:45 PM

Anticoagulation Challenges During EP Procedures

Jeffrey Arkles, MD

- Current guidelines
- When to cancel the procedure
- Status of reversal agents for NOACs
- Emergency epicardial access when anticoagulated – clinical experience

2:45 – 3:05 PM Break

Advanced EP

Afternoon Session – 3:05 – 5:00 PM

Moderator: Cory Tschabrunn, PhD, CEPS

3:05 – 3:30 PM

Epicardial VT Ablation: Optimizing Outcome

David Callans, MD

- Access challenges
- Ablation targets
- How to protect the phrenic nerve and coronaries
- Small and multielectrode mapping

3:30 – 4:30 PM

Complex Cases

- LV access in patients with double valves – Pasquale Santangeli, MD, PhD
- Complex extraction – Robert Schaller, DO
- What to do when the veins are already isolated at redo – Pasquale Santangeli, MD, PhD
- Papillary muscle VT ablation with cryo – Gregory Supple, MD

4:30 – 5:00 PM

Septal VT Ablation NICM

Pasquale Santangeli, MD, PhD

- Identifying intramyocardial substrate
- Ablation techniques
- How to protect the His Bundle and Purkinje network

Associated Professional

Afternoon Breakout Session – 1:00 – 2:45 PM

Moderator – Nancy Cash, CRNP, DNP

1:00 – 1:40 PM

Optimizing Programming in ICD Devices: Important Considerations

Robert Hipp, PA-C

- Indications for brady pacing/how to minimize RV pacing
- When to program a monitor zone
- How to minimize inappropriate shocks for SVT
- How to avoid programming errors

1:40 – 2:10 PM

Important Considerations in Antiarrhythmic Drug Therapy

Cynthia Ramos, CRNP

- Patient characteristics affecting choice
- Important drug interactions
- How to measure QT interval

2:10 – 2:45 PM

Monitoring the Arrhythmia Patient

Christian Yacono, PA-C

- Which monitor for which patient?
- Evidence-based benefits of remote monitoring of devices
- New monitor types-ILR, Ziopatch, 12 lead Holter

2:45 – 3:00 PM Break

Associated Professional

Afternoon Breakout Session – 3:05 – 5:00 PM

Moderator – Tara Parham, CRNP

3:05 – 3:55 PM

Complications in the EP Lab

Sarah Baxter, PA-C

- Common complications associated with different procedures
- Recognition outside of the lab
- Tests to order
- Treatment considerations

3:55 – 5:00 PM

New Guidelines Update: What you Need to Know

Erica Zado, PA-C

- Atrial fibrillation ablation
- MRI and radiation exposure in patients with devices
- Lead management and extraction

5:00 PM Adjourn

5:00 – 6:00 PM Reception

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Please note we are unable to accept faxed registration forms.

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Academic Degree

Medical Specialty

Affiliation (Hospital, Office, or Company)

Address (affiliation home)

City State Zip

Phone Fax

E-mail

Breakout Session Preference (Please Check One)

General Cardiology Associated Professionals Advanced EP

Registration Fees

(pre-payment is required to be officially registered)

\$120 Physicians or Industry

\$100 Nurses or Healthcare Professionals

\$100 Penn Medicine Physicians

\$65 Residents and Fellows (Penn and Non-Penn)

\$65 Retired Physicians

\$65 Penn Medicine Nurses or Healthcare Professionals

\$60 Penn Medicine Students

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150 Anatomy/Chemistry Building, 3620 Hamilton Walk, Philadelphia, PA 19104-6061
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Please Note: Walk-in registrants must bring payment to the program.

Continuing Medical Education



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