



Penn Medicine
Continuing Medical and
Interprofessional Education

LIVE VIRTUAL

1ST ANNUAL

TECHNICAL ASPECTS OF LEAD EXTRACTION SYMPOSIUM

CME-ACCREDITED CONFERENCE

SATURDAY, APRIL 10, 2021

10:00 AM – 4:20 PM EST



<https://upenn.cloud-cme.com/LeadExtraction2021>

PROGRAM OVERVIEW & TARGET AUDIENCE

The *1st Annual Technical Aspects of Lead Extraction Symposium* is designed to provide the audience with a thorough overview of the most up-to-date practices and emerging concepts within the cardiac implantable electronic device extraction and management community. Topics covered include procedural indications, strategies for infected and non-infected scenarios, a thorough review of the available tools and techniques, and consideration for the future of the lead extraction landscape. Experts in lead extraction will give didactic presentations and review case presentations illustrative of best practices and clinical scenarios with unique challenges.

This course is designed for cardiologists, electrophysiologists, cardiothoracic surgeons, fellows-in-training, advanced practice providers, nurses, and electrophysiology technicians.

LEARNING OBJECTIVES

Upon completion of this activity, physicians and health care providers will be able to:

- Manage patients with functional, redundant, and advisory leads.
- Recognize when to consider lead extraction or refer to a specialist.
- Utilize multiple different tools and techniques intraoperatively to increase efficacy.
- Utilize strategies to prevent extraction-related complications.
- Manage patients pre and post-extraction.

HOSTING DEPARTMENT

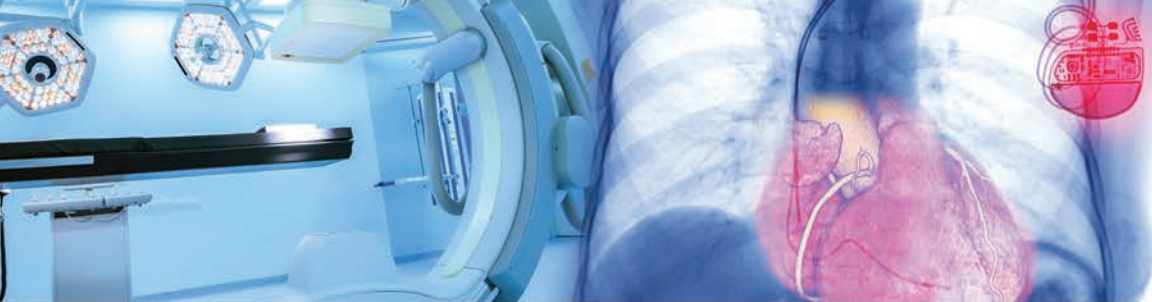
The *1st Annual Technical Aspects of Lead Extraction Symposium* is hosted by the Department of Medicine, Division of Cardiovascular Medicine, Electrophysiology Section at Penn Medicine.

ACCREDITATION



JOINTLY ACCREDITED PROVIDER®
INTERPROFESSIONAL CONTINUING EDUCATION

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 TBD *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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 TBD Category 1 credits for completing this activity.

Certificates and Transcripts: After the conference has concluded, all participants will receive a follow-up email with instructions and a link with 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.

REGISTRATION FEES

There is no registration fee to attend the *1st Annual Technical Aspects of Lead Extraction Symposium*, however pre-registration is required.

Registration includes live stream access to the conference and access to view the presentations (slides) online. All pre-registered attendees will receive a link and instructions to sign-in and join the virtual conference by Thursday, April 8, 2021. **BE SURE TO CHECK YOUR SPAM BOX FOR EMAILS REGARDING THIS CONFERENCE.**

How to Register Online: If you do not already have a UPenn Cloud CME profile, you will need to create one by visiting: <https://upenn.cloud-cme.com> and clicking "Sign-in" and sign-in using your email address and then selecting the "Don't have an account?" option. Please be sure you do not already have an existing UPenn Cloud CME account before creating a new profile. All Penn Medicine employees, faculty and staff must sign-in using your UPenn ID.

Please note: mailed registrations can take up to 5-10 business days before they are received. We are experiencing longer delays receiving mail due to the COVID-19 pandemic. We encourage all attendees to register online with a credit card.

All registrations will be confirmed by email as long as your registration is received no later than April 9, 2021.

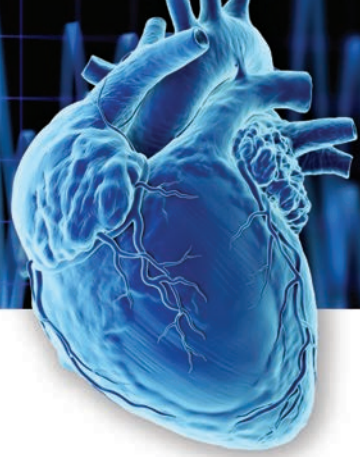
DISCLOSURES

Penn Medicine, Office of Continuing Medical and Interprofessional Education, adheres to the *ACCME Standards for Commercial Support*. 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.

CANCELLATION POLICY

The University reserves the right to cancel or postpone any course due to unforeseen circumstances.

FACULTY



PROGRAM DIRECTOR

Robert D. Schaller, DO, FHRS

Assistant Professor of Clinical Medicine
Director, Cardiac Lead Extraction Program
Department of Cardiovascular Medicine,
Division of Electrophysiology
Hospital of the University of Pennsylvania
Philadelphia, PA

ASSOCIATE PROGRAM DIRECTORS

Joshua M. Cooper, MD, FACC, FHRS

Professor of Medicine
Director, Cardiac Electrophysiology
Lewis Katz School of Medicine at
Temple University
Philadelphia, PA

Mouhannad Sadek, MD

Staff Electrophysiologist
University of Ottawa Heart Institute and
The Ottawa Hospital
Ottawa, Ontario, Canada

FACULTY

Ryan G. Aleong, MD

Associate Professor of Medicine
University of Colorado
Aurora, CO

John A. Andriulli, DO, FACC

Associate Professor of Medicine
Director, Arrhythmia Device Program
Cooper University Healthcare
Camden, NJ

Jeffrey Arkles, MD

Assistant Professor of Medicine
Department of Cardiovascular Medicine
Division of Electrophysiology
Hospital of the University of Pennsylvania
Philadelphia, PA

Maria Grazia Bongiorno, MD

Director of Cardiology
Cardiac Thoracic and Vascular Department
University Hospital of Pisa, Italy

Thomas Callahan, MD

Clinical Assistant Professor of Medicine
Cleveland Clinic Lerner College of Medicine of
Case Western Reserve University
Director of Inpatient Services – Cardiac Pacing
and Electrophysiology
Cleveland Clinic Foundation
Cleveland, OH

Roger Carrillo, MD

Cardiothoracic Surgery
Palmetto General Hospital
Hialeah, FL

Jude Clancy, MD

Associate Professor Term
Director, Lead Management Program
Yale School of Medicine
New Haven, CT

Edmond Cronin, MB BCh BAO, CCDS, FHRS

Associate Professor of Medicine
Lewis Katz School of Medicine at
Temple University
Philadelphia, PA

Mikhael El-Chami, MD

Professor of Medicine
Emory University School of Medicine
Medical Director, Cardiac Electrophysiology
Emory University Hospital Midtown
Atlanta, GA

Christopher R. Ellis, MD, FACC, FHRS

Associate Professor of Medicine
Director LAA Closure Program
Vanderbilt Heart and Vascular Institute
Nashville, TN

Laurence M. Epstein, MD

Professor, Donald and Barbara Zucker
School of Medicine at Hofstra/Northwell
System Director Electrophysiology
Northwell Health
Manhasset, NY

Steven P. Kutalek, MD

Professor Emeritus of Medicine
Drexel University College of Medicine
Philadelphia, PA



Blandine Mondésert, MD

Associate professor Université de Montréal
Cardiac electrophysiology service
Adult Congenital Heart Disease Center
Montreal Heart Institute
Montréal, Quebec, Canada

Hemal Nayak, MD

Associate Professor of Medicine
Director, Cardiac Electrophysiology Fellowship
Director, Lead Management Program
UChicago Medicine
Chicago, IL

Jonathan Piccini, MD

Associate Professor of Medicine
Associate Professor in Population
Health Sciences
Duke University School of Medicine
Durham, NC

**Maully Shah, MBBS, FACC, FHRS,
CCDS, CEPS**

Professor of Pediatrics
Children's Hospital of Philadelphia
Philadelphia, PA

Pierce J. Vatterott, MD

Allina Health
St. Paul, MN

Isaac R. Whitman, MD

Assistant Professor of Medicine
Division of Cardiology
Section of Cardiac Electrophysiology
Lewis Katz School of Medicine
at Temple University Hospital
Philadelphia, PA

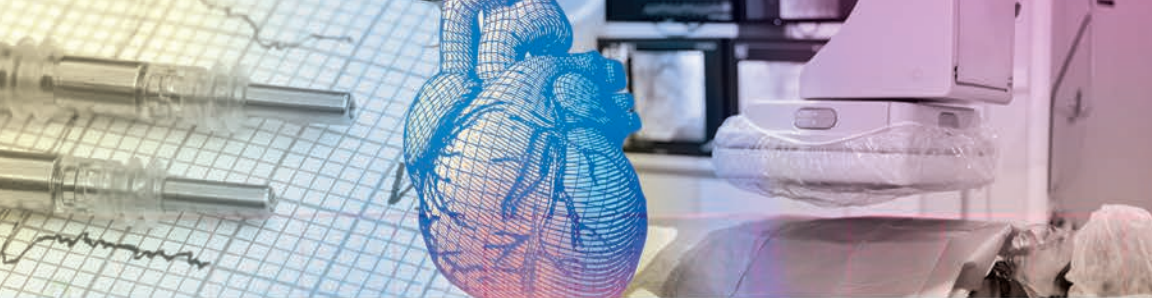
Seth J. Worley, MD

Senior Consultant, Cardiac Electrophysiology
MedStar Health
Washington, DC

Gareth Wynn, MBBS

Consultant Cardiologist
Cardiac Electrophysiologist
Melbourne Heart Rhythm
Parkville, VIC, Australia

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.



1ST ANNUAL TECHNICAL ASPECTS OF LEAD EXTRACTION SYMPOSIUM

AGENDA | SATURDAY, APRIL 10, 2021

10:00 AM – 10:05 AM **Introduction and Welcome**
Robert Schaller, DO

SESSION I TOOLS AND STRATEGIES

Moderator: Joshua Cooper, MD

10:05 AM – 10:20 AM **The Right Tool for the Job: Laser, Rotational, Manual**
Gareth Wynn, MBBS

10:20 AM – 10:35 AM **When to use a Femoral or Jugular Site**
Maria Grazia Bongiorni, MD

10:35 AM – 10:50 AM **Extraction in Non-Traditional Scenarios**
Laurence M. Epstein, MD

10:50 AM – 11:05 AM **Panel Discussion with Q&A**

11:05 AM – 11:10 AM Break

SESSION II AVOIDANCE OF COMPLICATIONS AND EMERGING CONCEPTS

Moderators: Steven Kutalek, MD and Isaac Whitman, MD

11:10 AM – 11:25 AM **Tools and Techniques to Avoid Injuries to the Vasculature, Tricuspid Valve, and Myocardium**
Robert Schaller, DO

11:25 AM – 11:40 AM **Crossing Venous Occlusions: When and How?**
Seth Worley, MD

11:40 AM – 11:55 AM **Thrombus and Vegetation Aspiration: When, Why, How?**
Christopher Ellis, MD

11:55 AM – 12:10 PM **Panel Discussion with Q&A**

12:10 PM – 12:30 PM Lunch Break

SESSION III LEAD EXTRACTION IMAGING

Moderator: Pierce J. Vatterott, MD

12:30 PM – 12:45 PM **How to Use CT Prior to Lead Extraction**
Jonathan Piccini, MD

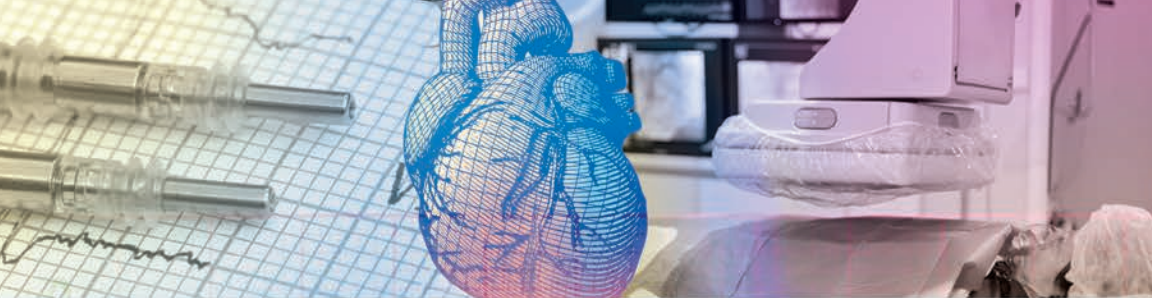
12:45 PM – 1:00 PM **How to Use TEE During Lead Extraction**
Ryan Aleong, MD

1:00 PM – 1:15 PM **How to Use ICE Prior to and During Lead Extraction**
Mouhannad Sadek, MD

1:15 PM – 1:30 PM **How to Use IVUS During Lead Extraction**
Hemal Nayak, MD

1:30 PM – 1:45 PM **Panel Discussion with Q&A**

1:45 PM – 1:50 PM Break



1ST ANNUAL TECHNICAL ASPECTS OF LEAD EXTRACTION SYMPOSIUM

SESSION IV PRE-RECORDED CASES

Roundtable Panel: John Andriulli, MD, Thomas Callahan, MD, Roger Carrillo, MD, Jude Clancy, MD, Robert Schaller, DO

1:50 PM – 2:10 PM **My Biggest Lead Extraction Nightmare**
John Andriulli, DO

2:10 PM – 2:30 PM **My Most Memorable Case**
Thomas Callahan, MD

2:30 PM – 2:50 PM **Case I'm Most Proud of**
Jude Clancy, MD

2:50 PM – 3:00 PM **Panel Discussion with Q&A**

SESSION V SPECIAL SCENARIOS

Moderators: Mouhannad Sadek, MD and Jeffrey Arkles, MD

3:00 PM – 3:15 PM **Extraction of Leads Involving the Conduction System and Within the Coronary Venous System**
Edmond Cronin, MD

3:15 PM – 3:30 PM **Extraction of Leadless Pacemakers and ICDs**
Mikhael El-Chami, MD

3:30 PM – 3:45 PM **Extraction in Children and Patients with Adult Congenital Heart Disease**
Maully Shah, MBBS

3:45 PM – 4:00 PM **Snaring of Lead Fragments**
Blandine Mondésert, MD

4:00 PM – 4:15 PM **Panel Discussion with Q&A**

4:15 PM – 4:20 PM **Final Remarks**
Robert Schaller, DO

4:20 PM **Adjourn**



REGISTRATION FORM

LIVE VIRTUAL

1ST ANNUAL

TECHNICAL ASPECTS OF LEAD EXTRACTION SYMPOSIUM

SATURDAY, APRIL 10, 2021

10:00 AM – 4:30 PM EST

We strongly encourage you to register for this conference online at

<https://upenn.cloud-cme.com/LeadExtraction2021>

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 or Home)

City State Zip

Phone Fax

E-mail

REGISTRATION

There is no fee to register for this conference, however pre-registration is required.

Please register online at **<https://upenn.cloud-cme.com/LeadExtraction2021>**.