AUGUST 26-27, 2022
HYBRID FORMAT: ONLINE + IN CHICAGO
RADISSON BLU AQUA HOTEL CHICAGO

4TH ANNUAL
CATHETER AND SURGICAL THERAPIES FOR ATRIAL FIBRILLATION CAST-AF

REGISTER TODAY!

THIS ACTIVITY HAS BEEN APPROVED FOR
11 AMA PRA CATEGORY 1 CREDITS™
NOW: OFFERING 11 MOC POINTS!

SPONSORED BY
Bluhm Cardiovascular Institute of Northwestern Memorial Hospital
Northwestern University Feinberg School of Medicine
Office of Continuing Medical Education

cme.northwestern.edu
4TH ANNUAL CATHETER AND SURGICAL THERAPIES FOR ATRIAL FIBRILLATION CAST-AF

This conference has attracted an international community of leading interventional electrophysiologists and cardiac arrhythmia surgeons, to present the contemporary and most advanced techniques for both catheter and surgical treatment of atrial fibrillation. In addition, current recommendations for the management of the left atrial appendage will be presented and debated and the results of new LAA occlusion devices will be discussed. The format for the conference consists of plenary lectures, plenary roundtables, and plenary debates on topics of controversy as well as extensive specialty roundtables, and plenary debates on topics of controversy as well as extensive specialty intervention EP and surgical breakout sessions.

LEARNING OBJECTIVES
After this activity, participants will be able to:

1. Discuss the electrophysiology of atrial fibrillation.
2. Cite the newest concepts of atrial electrophysiology, including differences in endocardial and epicardial conduction patterns and how they can impact the interpretation of electrophysiologic mapping.
3. Identify the advantages and limitations of activation-time mapping, voltage mapping, and phase mapping for the analysis of the electrophysiology of atrial fibrillation.
4. Demonstrate improved outcomes for the catheter ablation of atrial fibrillation using the most advanced techniques.
5. Demonstrate improved outcomes for the surgical ablation of atrial fibrillation using the most advanced techniques.
6. Discuss the electrophysiological basis of catheter ablation for paroxysmal and non-paroxysmal atrial fibrillation.
7. Cite the current indications for catheter ablation of atrial fibrillation in paroxysmal and non-paroxysmal atrial fibrillation.
8. Explain the current results of catheter and surgical ablation for paroxysmal and non-paroxysmal atrial fibrillation.
9. Implement a safe and effective left atrial appendage closure program using current percutaneous and surgical techniques to reduce the risk of stroke in patients with atrial fibrillation.
10. Determine the limitations of the HRS definitions of success and failure for the interventional (catheter and surgical) treatment of atrial fibrillation.
12. Discuss the electrophysiological basis of concomitant surgical ablation for atrial fibrillation in patients undergoing valve surgery with or without coronary artery disease.
13. Review the surgical options for the treatment of atrial fibrillation in patients undergoing mitral valve, aortic valve, and/or coronary artery bypass surgery.
14. Restate the currently recommended surgical lesion patterns for the concomitant surgical treatment of atrial fibrillation in patients undergoing mitral valve, aortic valve, and/or coronary artery bypass surgery based on recent clinical trial results.
15. Improve the outcomes of patients undergoing catheter and surgical therapies for atrial fibrillation using lifestyle modifications targeting obesity and other risk factors.

TARGET AUDIENCE
This CME program has been designed to meet the educational needs of Cardiologists, Electrophysiologists, Cardiac Surgeons, Internists, Cardiology Trainees, Cardiac Surgery Trainees, Physician Assistants, Nurse Practitioners, Nurses and any other health care professionals who participate in the care of atrial fibrillation.

VIRTUAL PLATFORM
Information regarding access to our virtual platform will be emailed to those who registered for this year’s program.

CONFERENCE LOCATION
The program will be held at Radisson Blu Aqua Hotel, 221 N Columbus Dr. Chicago, IL 60601. Directions and parking information are available at https://www.radissonhotels.com/en-us/hotels/radisson-blu-chicago-aqua/meeting-events.

ACREDITATION STATEMENT
The Northwestern University Feinberg School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

SPECIAL NEEDS
The Northwestern University Feinberg School of Medicine intends to comply fully with the legal requirements of the Americans with Disabilities Act. If any participant of this conference needs accommodation please indicate those needs on the registration form or submit written requests to cvconferences@northwestern.edu at least two weeks prior to the conference date.

CREDIT DESIGNATION STATEMENT
The Northwestern University Feinberg School of Medicine designates this live activity for a maximum of 11 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

MOC POINTS
Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 11 MOC points in the American Board of Internal Medicine’s (ABIM) Maintenance of Certification (MOC) program. It is the CME activity provider’s responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

FACULTY DISCLOSURE
The Northwestern University Feinberg School of Medicine requires course directors, speakers, instructors, planners and other individuals who are able to control the content of this activity to disclose any relevant financial relationships. All identified potential conflicts of interest, scientific objectivity of studies mentioned in the materials or used as the basis for content, and appropriateness of patient care recommendations are thoroughly vetted by the ACCME for fair balance. The faculty disclosures will be indicated in the course syllabus.

ADDITIONAL INFORMATION
Contact the Bluhm Cardiovascular Institute by email: cvconferences@northwestern.edu.
FACULTY

COURSE DIRECTORS

James Cox, MD  
Surgical Director  
Center for Heart Rhythm Disorders  
Director, Comprehensive Atrial Fibrillation Program  
Professor of Surgery  
Bluhm Cardiovascular Institute  
Feinberg School of Medicine  
Northwestern University

Patrick McCarthy, MD  
Executive Director  
Bluhm Cardiovascular Institute  
Vice President  
Northwestern Medical Group  
Chief, Division of Cardiac Surgery  
Heller-Sacks Professor of Surgery  
Feinberg School of Medicine  
Northwestern University

Susan Kim, MD  
Associate Professor of Medicine  
Feinberg School of Medicine  
Northwestern University

Bradley Knight, MD  
Medical Director  
Center for Heart Rhythm Disorders  
Director, Comprehensive Atrial Fibrillation Program  
Chester C. and Deborah M. Cooley Distinguished Professor of Cardiology  
Professor of Medicine  
Feinberg School of Medicine  
Northwestern University

FEINBERG SCHOOL OF MEDICINE FACULTY NORTHWESTERN UNIVERSITY

Faraz Ahmad, MD, MS  
Assistant Professor of Medicine

Jessica Charron, RN  
Electrophysiology Nurse Practitioner

Andrei Churyla, MD  
Assistant Professor of Surgery

Igor Efimov, PhD  
Professor of Biomedical Engineering

Albert Lin, MD  
Associate Professor of Medicine

Chris Malaisrie, MD  
Professor of Surgery

Christopher Mehta, MD  
Assistant Professor of Surgery

Anna Pfenniger, MD, PhD  
Assistant Professor of Medicine

Jane Wilcox, MD, MSc  
Chief, Section of Heart Failure  
Assistant Professor of Medicine

FEINBERG SCHOOL OF MEDICINE FACULTY NORTHWESTERN UNIVERSITY

Jason Andrade, MD  
Director of Electrophysiology  
Vancouver General Hospital  
Vancouver, Canada

Vinay Badhwar, MD  
Professor and Chief  
Division of Cardiac Surgery  
West Virginia University  
Morgantown, WV

Steve Bolling, MD  
Professor of Surgery  
Division of Cardiac Surgery  
University of Michigan  
Ann Arbor, MI

Ralph Damiano, Jr., MD  
Professor and Chief  
Division of Cardiothoracic Surgery  
Washington University School of Medicine  
St. Louis, MO

David Delurgio, MD  
Director of Electrophysiology  
Emory University School of Medicine  
Atlanta, GA

David Haines, MD  
Director, Heart Rhythm Center  
William Beaumont School of Medicine  
Oakland University Royal Oak, MI

Rodney Horton, MD  
Cardiac Electrophysiologist  
St. David’s Medical Center Austin, TX

EXTERNAL FACULTY

Saibal Kar, MD  
Clinical Professor of Medicine  
UCLA Geffen School of Medicine  
Los Angeles, CA

Armin Kiankhooy, MD  
Cardiac Surgeon  
Adventist Health – Saint Helena  
Napa, CA

Peter Kistler, PhD  
Head of Electrophysiology Research  
Baker Heart and Diabetes Institute  
Melbourne, Australia

DJ Lakkireddy, MD  
Medical Director  
Kansas City Heart Rhythm Institute  
Kansas City, MO

Kevin Makati, MD  
Assistant Professor  
University of South Florida Rhythm Chairperson  
BayCare Health Systems  
Tampa, FL

Atul Verma, MD  
Chief of Electrophysiology  
Professor of Medicine  
McGill University School of Medicine  
Montreal, Canada

Peter Weiss, MD  
Cardiac Electrophysiologist  
Banner University Phoenix, AZ

Devil Nair, MD  
Director of Electrophysiology  
St. Bernard’s Healthcare  
Jonesboro, AR

Annabelle Santos Volgman, MD  
Director of Rush Heart Center for Women  
Professor of Cardiology  
Rush University Medical Center  
Chicago, IL
FRIDAY, AUGUST 26, 2022

11:45 am  LUNCH

1:00 pm  Welcome/Opening Comments  Patrick McCarthy, MD

SESSION 1: FUNDAMENTALS OF ATRIAL FIBRILLATION

MODERATORS:
Bradley Knight, MD
James Cox, MD
Patrick McCarthy, MD

1:05 pm  The Pandemic of AF  Bradley Knight, MD

1:15 pm  Basic Mechanisms of AF  Anna Pfenniger, MD, PhD

1:25 pm  AF and Heart Failure  Jane Wilcox, MD, MSc

1:35 pm  PANEL DISCUSSION  MODERATOR: Patrick McCarthy, MD
   PANEL:
   Bradley Knight, MD
   Anna Pfenniger, MD, PhD
   Jane Wilcox, MD, MSc
   James Cox, MD

1:45 pm  A More Efficient Approach to Concomitant Ablation and LAA Closure  Patrick McCarthy, MD

1:55 pm  Wearable AF Detection  Susan Kim, MD

2:05 pm  Patient-directed Anticoagulation  Rod Passman, MD

2:15 pm  PANEL DISCUSSION  MODERATOR: Bradley Knight, MD
   PANEL:
   Patrick McCarthy, MD
   Susan Kim, MD
   Rod Passman, MD
   James Cox, MD

SESSION 2: LAA MANAGEMENT AND CONCOMITANT AF SURGERY

MODERATORS:
Patrick McCarthy, MD
Saibal Kar, MD
Bradley Knight, MD

2:30 pm  LAOSS III and LeAAPS Trials  Patrick McCarthy, MD

2:40 pm  Thoracoscopic LAA Closure  Armin Kiankhooy, MD

2:50 pm  Transcatheter LAA Closure  Saibal Kar, MD

3:00 pm  PANEL DISCUSSION  MODERATOR: Richard Whitlock, MD
   PANEL:
   Armin Kiankhooy, MD
   Saibal Kar, MD
   Bradley Knight, MD

3:10 pm  Side-effects of Endocardial vs Epicardial LAAO
   D) Lakkireddy, MD

3:20 pm  Update on LAA Closure Clinical Trials  Devi Nair, MD

3:30 pm  Surgical and Catheter Approaches to LAA: Time for a Change  Steve Bolling, MD

3:40 pm  PANEL DISCUSSION  MODERATOR: D) Lakkireddy, MD
   PANEL:
   Devi Nair, MD
   Steve Bolling, MD
   Bradley Knight, MD
   Richard Whitlock, MD

4:00 pm  BREAK & EXHIBITS

SESSION 3: EPS AND SURGEONS TOGETHER AGAIN

MODERATORS:
Rod Passman, MD
Anna Pfenniger, MD, PhD
Steve Bolling, MD

4:30 pm  Selection of Patients for Hybrid Procedure Ablation  David DeLurgio, MD

4:40 pm  Results of Convergent Hybrid Procedure for AF  Armin Kiankhooy, MD

5:00 pm  PANEL DISCUSSION  MODERATOR: Rod Passman, MD
   PANEL:
   David DeLurgio, MD
   Armin Kiankhooy, MD
   Andrei Churyla, MD
   Steve Bolling, MD
   Anna Pfenniger, MD, PhD

5:15 pm  Best Catheter Approach in Convergent Procedure  Kevin Makati, MD

5:25 pm  Aortic Stenosis and Atrial Fibrillation  Chris Malaisrie, MD

5:35 pm  Managing Post-Procedure Peri-Mitral Flutter  Peter Kistler, MD

5:45 pm  PANEL DISCUSSION  MODERATOR: Steve Bolling, MD
   PANEL:
   Kevin Makati, MD
   Chris Malaisrie, MD
   Peter Kistler, MD
   Rod Passman, MD
   Anna Pfenniger, MD, PhD

6:00 pm  RECEPTION

SUNDAY, AUGUST 27, 2022

7:00 am  BREAKFAST

SESSION 4: IMAGING AND RISK MITIGATION

MODERATORS:
Susan Kim, MD
Rod Passman, MD
Kevin Makati, MD

8:00 am  Imaging Before AF Ablation or Surgery - CT, MR, TEE  Nassir Marrouche, MD

8:10 am  Robotic Maze Procedure for Atrial Fibrillation  Vinay Badhwar, MD

8:20 am  Optimal Imaging Systems for Hybrid Procedures  Kevin Makati, MD

8:30 am  Advances in Mapping Systems for AF Ablation  David Haines, MD

8:40 am  PANEL DISCUSSION  MODERATOR: Nassir Marrouche, MD
   PANEL:
   Vinay Badhwar, MD
   Kevin Makati, MD
   David Haines, MD
   Rod Passman, MD
   Susan Kim, MD

8:50 am  Anticoagulation Around the Time of Ablation  Rod Passman, MD

9:05 am  Use of 4-D ICE to Guide AF Procedures  Bradley Knight, MD

9:15 am  Reducing the Complications of Catheter Ablation  Susan Kim, MD

9:25 am  Reducing the Complications of Hybrid Procedures  David DeLurgio, MD

9:35 am  Reducing the Complications of Surgical Ablation  Chris Mehta, MD

9:45 am  PANEL DISCUSSION  MODERATOR: Susan Kim, MD
   PANEL:
   Bradley Knight, MD
   Rod Passman, MD
   Chris Mehta, MD
   Kevin Makati, MD

10:00 am  BREAK & EXHIBITS
SESSION 5: BREAKOUT SESSIONS (10:30 - 11:45 AM)

EP BREAKOUT
MODERATORS:
Susan Kim, MD
Albert Lin, MD
D) Lakireddy, MD
10:30 am Watchman vs. Amulet vs. AtriClip
D) Lakireddy, MD
10:40 am Closing Leaks After Percutaneous and Surgical LAAC
Rodney Horton, MD
10:50 am What to do at Time of Redo AF Ablation
Moussa Mansour, MD
11:00 am PANEL DISCUSSION MODERATOR:
Rodney Horton, MD
PANEL:
D) Lakireddy, MD
Moussa Mansour, MD
Susan Kim, MD
Kevin Makati, MD
Albert Lin, MD
11:15 am Vascular Closure
Rodney Horton, MD
11:25 am Pericardial Access and Drainage
Albert Lin, MD
11:35 am AADs After AF Ablation and IV Sotalol
Jessica Charron, RN
11:45 am PANEL DISCUSSION MODERATOR:
Albert Lin, MD
PANEL:
Jessica Charron, RN
Susan Kim, MD
Kevin Makati, MD
Rodney Horton, MD
12:00 pm LUNCH

SURGICAL BREAKOUT
MODERATORS:
Patrick McCarthy, MD
Armin Kiankhooy, MD
Andrei Churyla, MD
10:30 am The Evidence Supporting Concomitant AF Ablation
James Cox, MD
10:40 am Methods for Surgical Closure of LAA
Vinay Badhwar, MD
10:50 am Mitral/Maze – How to do Both
Patrick McCarthy, MD
11:00 am PANEL DISCUSSION MODERATOR:
Vinay Badhwar, MD
PANEL:
James Cox, MD
Patrick McCarthy, MD
Andrei Churyla, MD
Armin Kiankhooy, MD
11:15 am Convergent Procedure: How To Do It
Armin Kiankhooy, MD
11:25 am Totally Thoracoscopic Maze Procedure: How To Do It
Andrei Churyla, MD
11:35 am Should Concomitant Ablation be an STS Quality Criterion?
Steve Bolling, MD
11:45 am PANEL DISCUSSION MODERATOR:
Armin Kiankhooy, MD
PANEL:
Andrei Churyla, MD
Patrick McCarthy, MD
Steve Bolling, MD
Chris Mehta, MD
12:00 pm LUNCH

SESSION 6: NEW TECHNOLOGIES, APPROACHES, AND ENERGY SOURCES
MODERATORS:
Annabelle Volgman, MD
James Cox, MD
Moussa Mansour, MD
1:00 pm Cryoballoons for AF
Jason Andrade, MD
1:10 pm Low-Voltage Multi-Pulse Therapy for AF
Igor Efimov, PhD
1:20 pm Devices for Surgical Ablation for AF
Ralph Damiano, MD
1:30 pm PANEL DISCUSSION MODERATOR:
Annabelle Volgman, MD
PANEL:
Igor Efimov, PhD
Jason Andrade, MD
Ralph Damiano, MD
Moussa Mansour, MD
1:45 pm Pulsed Field Ablation (PFA) for AF
David Haines, MD
1:55 pm Ultra-Low CryoAblation for AF With and Without PFA
Atul Verma, MD
2:05 pm PANEL DISCUSSION MODERATOR:
Moussa Mansour, MD
PANEL:
David Haines, MD
Atul Verma, MD
Annabelle Volgman, MD
2:20 pm BREAK & EXHIBITS

SESSION 7: REMAINING ISSUES AND RECENT PROGRESS IN INTERVENTIONAL AF THERAPY
MODERATORS:
James Cox, MD
Patrick McCarthy, MD
Bradley Knight, MD
3:00 pm Medical Device Innovation Consortium Early Feasibility Study
Peter Weiss, MD
3:10 pm Pacemakers After Concomitant AF Surgery
Patrick McCarthy, MD
3:20 pm Can Intervventional Therapy for AF be Map-Guided?
James Cox, MD
3:30 pm PANEL DISCUSSION MODERATOR:
Patrick McCarthy, MD
PANEL:
Peter Weiss, MD
James Cox, MD
Bradley Knight, MD
Faraz Ahmad, MD
3:45 pm Future Directions in LAA Management
D) Lakireddy, MD
3:55 pm Future Directions in Catheter Ablation of AF
Bradley Knight, MD
4:05 pm Future Directions in Surgical Ablation of AF and LAA Closure
Patrick McCarthy, MD
4:10 pm PANEL DISCUSSION MODERATOR:
D) Lakireddy, MD
PANEL:
Bradley Knight, MD
Patrick McCarthy, MD
James Cox, MD
4:25 pm CLOSING COMMENTS
Patrick McCarthy, MD
Bradley Knight, MD
James Cox, MD
5:00 pm RECEPTION ON THE TERRACE (3rd floor)
REGISTRATION

4TH ANNUAL
CATHETER AND SURGICAL THERAPIES FOR ATRIAL FIBRILLATION
CAST-AF

AUGUST 26-27, 2022 | RADISSON BLU AQUA HOTEL | CHICAGO, ILLINOIS

REGISTRATION FEES

<table>
<thead>
<tr>
<th>Attendance Type</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-Person Attendance</td>
<td>$200</td>
</tr>
<tr>
<td>In-Person Attendance (Fellows)</td>
<td>$50</td>
</tr>
<tr>
<td>U.S. Residents</td>
<td>$50</td>
</tr>
<tr>
<td>Non-U.S. Residents - Complimentary</td>
<td>$0</td>
</tr>
</tbody>
</table>

HOW TO REGISTER

ONLINE - Please visit

[cvconferences.com/castafib](cvconferences.com/castafib)

CANCELLATION POLICY

Cancellations must be made in writing to

cvconferences@northwestern.edu. The paid registrations fee will be refunded if cancellation is received by July 30, 2022. No refunds will be issued after this date.

QUESTIONS

Questions regarding registration should be directed to

cvconferences@northwestern.edu. Registrations will not be accepted by telephone. For more information please visit

cme.northwestern.edu.