

CURRICULUM VITAE

Name: Joseph G Akar, MD, PhD

School: Yale School of Medicine

Education:

1988-1991 BS, Biology, Pennsylvania State University, State College, PA
1991-1995 MD, University of Pittsburgh School of Medicine, Pittsburgh, PA
2000-2004 PhD, Molecular Physiology & Biological Physics, University of Virginia, Charlottesville, VA

Career/Academic Appointments:

1995-1996 Intern, Internal Medicine, Yale-New Haven Hospital, New Haven, CT
1996-1998 Resident, Internal Medicine, Yale-New Haven Hospital, New Haven, CT
1998-2003 Fellow, Cardiovascular Medicine, University of Virginia Health Sciences Center, Charlottesville, VA
2003-2004 Fellow in Cardiac Electrophysiology, University of Virginia Health Sciences Center, Charlottesville, VA
2004-2009 Assistant Professor of Medicine, Division of Cardiology, Loyola University Medical Center, Chicago, IL
2009-present Associate Professor of Medicine, Section of Cardiovascular Medicine, Yale School of Medicine, New Haven, CT
2022-present Professor of Medicine, Section of Cardiovascular Medicine, Yale School of Medicine, New Haven, CT

Administrative Positions:

2009-present Director, Complex Ablation Program, Yale-New Haven Hospital, New Haven, CT
2013-2020 Director, Cardiac Electrophysiology Laboratory, Yale-New Haven Hospital
2012-present Director, Academic Electrophysiology, Section of Cardiovascular Medicine, Yale School of Medicine, New Haven, CT
2015-2020 Co-Director, Atrial Fibrillation Program, Yale-New Haven Hospital, New Haven, CT
2018-present Director, Cardiac Electrophysiology, Section of Cardiovascular Medicine, Yale School of Medicine, New Haven, CT

Board Certification:

1998-2008 American Board of Internal Medicine
2003-2013 American Board of Internal Medicine, Cardiovascular Disease
2013-2023 American Board of Internal Medicine, Cardiovascular Disease, Recertification
2005-2015 American Board of Internal Medicine, Cardiac Electrophysiology
2015-2025 American Board of Internal Medicine, Cardiac Electrophysiology, Recertification

Medical Licensure

Connecticut, License Number 047956, Physician/Surgeon Expiration 1/31/22

Professional Honors and Recognition:

International/National/Regional

1988-1991 Dean's Award for Academic Excellence, Pennsylvania State University
1989 College of Science Academic Honors Award, Pennsylvania State University

1989 Historian, Phi Eta Sigma Honor Society, Pennsylvania State University
2001 Finalist, Pfizer Young Investigator Award, American College of Cardiology, Orlando, FL
2002 Finalist, American College of Cardiology, Virginia Affiliate Research Competition
2007 PI for Young Investigator Award Finalist, Heart Rhythm Society Scientific Sessions

Grants/Clinical Trials History

Current Grants

Agency: NIH/NHLBI
ID#: SBIR 1R43HL158467-01
Title: Development and Pre-Clinical Testing of a Smart Defibrillator Algorithm for Treatment of Cardiac Arrhythmias
PI: Joseph G Akar, MD, PhD (co-PI)
Percent Effort: 5%
Total costs: \$251,746 (of which 44,384 indirects)
Project period: 7/2021 – 3/2022

Agency: NIH/NHLBI
ID#: 1 R01 HL148008-01A1
Title: Metabolic signaling in atrial fibrillation and remodeling
PI: Lawrence Young, MD
Role: Co-Investigator
Percent effort: 2%
Total costs: \$2,206,781 (of which 889,301 indirects)
Project period: 4/2021 - 3/2026

Agency: American College of Cardiology
Title: MADIT-CRT Post Approval Registry
PI: Joseph G Akar, MD, PhD
Percent Effort: 10%
Total costs: \$215,500
Project period: 9/2011 – 9/2022

Current Clinical Trials *(Principal Investigator studies only are listed)*

Agency: Corvia Medical, Inc
Title: REDUCE LAP-HF RANDOMIZED TRIAL II: A study to evaluate the Corvia Medical, Inc. IASD System II to REDUCE Elevated Left Atrial Pressure in Patients with Heart Failure
PI: Joseph Akar, MD, PhD
Percent Effort: 5%
Total cost: \$432,781 (of which 991,873 indirects)
Project period: 7/26/2017 – present

Agency: EBR, Inc
Title: Stimulation Of the Left Ventricular Endocardium for Cardiac Resynchronization Therapy in Non-Responders and Previously Untreatable Patients (SOLVE CRT)

PI: Joseph Akar, MD, PhD

Total cost: \$286,540 (of which 66,125 indirects)

Project period: 2/6/2020 - present

Past Grants

Agency: NIH/NHLBI
ID#: R01 HL113352-01A1
Title: Molecular Imaging Predicts Atrial Remodeling and Fibrillation Vulnerability
PI: Joseph G Akar, MD, PhD (co-PI)
Percent effort: 20%
Total cost: \$3,700,441 (of which \$1,450,441 indirects)
Project period: 3/1/2013 - 2/28/2018, no cost extension 2/2019

Agency: American College of Cardiology
Title: Patient Related Determinants of ICD Remote Monitoring (PREDICt RM)
PI: Joseph G Akar, MD, PhD
Percent Effort: 10%
Total costs: \$195,000
Project period: 9/2018 - 9/2019

Agency: Food and Drug Administration
ID#: Yale-Mayo Clinic CERSI B10 Project
Title: Real World Short- and Intermediate-Term Safety Outcomes Following Atrial Fibrillation Ablation
PI: Joseph G Akar, MD, PhD (Co-PI)
Percent Effort: 10%
Total cost: \$30,740 (of which \$6,040 indirects)
Project period: 2/2018 – 2/2020

Agency: Loyola University Medical Center, Beck Scanlon Endowment
Title: Thrombogenesis and Platelet Activation in Atrial Fibrillation
PI: Joseph G Akar, MD, PhD
Total cost: \$50,000 (of which \$0 indirect)
Project period: 07/01/2006 – 06/30/2008

Agency: Medtronic, Inc
Title: Effect of biventricular pacing on endothelial dysfunction
PI: Joseph G Akar, MD, PhD
Percent effort: 10%
Total cost: \$50,000 (of which \$15,000 indirect)
Project period: 06/12/2006 – 06/11/2007

Agency: Loyola University Medical Center
Title: Dean's Office Young Investigator Award
PI: Joseph G Akar, MD, PhD
Total cost: \$50,000 (of which \$0 indirect)
Project period: 07/01/2005 – 06/30/2008

Past Clinical Studies (Principal Investigator studies)

Agency: Sensible Medical, Inc
 Title: SMILE- Sensible Medical Innovations lung fLuid status monitor allows rEducing readmission rate of heart failure patients- a randomized controlled study
 PI: Joseph Akar, MD, PhD
 Percent effort: 5% effort
 Total cost: \$135,882 (of which \$31,357 indirects)
 Project end: 6/28/2018

Agency: Securus, Inc
 Title: AF TEMP-SAFE: Atrial Fibrillation Thermographic and Endoscopic Monitoring of Patients: Safety Algorithm For the Esophagus
 PI: Joseph Akar, MD, PhD
 Percent effort: 10% effort
 Total cost: \$167,993 (of which \$38,768 indirects)
 Project end: 4/3/2018

Agency: Corvia, Inc
 Title: Reduce LAP-HF Randomized Trial I: A study to evaluate the Corvia Medical, Inc. IASD System II to REDUCE Elevated Left Atrial Pressure in Patient with Heart Failure
 PI: Joseph Akar, MD (co-PI)
 Percent effort: 5%
 Total cost: \$255,985 (of which \$59,073 indirects)
 Project end: 5/23/2017

Agency: Impulse Dynamics, Inc
 Title: FIX-HF-5C: Evaluation of the Safety and Efficacy of the OPTIMIZER® System in Subjects with Moderate-to-Severe Heart Failure with Ejection Fraction between 25%and 45%
 PI: Joseph Akar, MD, PhD
 Percent effort: 5% effort
 Total cost: \$729,203 (of which \$168,278 indirects)
 Project end: 2/28/2017

Agency: Biotronik, Inc
 Title: SIELLO Clinical Study
 PI: Joseph Akar, MD, PhD
 Percent effort: 5% effort
 Total cost: \$131,962 (of which \$30,453 indirects)
 Project end: 7/20/2015

Past Clinical Studies (Co-Investigator studies)

Agency: GE Healthcare
 Title: ADMIRE-ICD: AdreView Myocardial Imaging for Risk Evaluation A Multicenter trial to guide ICD Implantation in NYHA class II & III heart failure patients with 25% <LVEF<35%

PI: Michael Chen, MD
 Total cost: \$136,878 (of which \$31,587 indirects)
 Project end: 8/16/2018

Agency: Boston Scientific, Inc
 Title: The Longitudinal Surveillance Study of 4-SITE Lead/Header System
 PI: Jude Clancy, MD
 Total Cost: \$304,725 (of which \$70,321 indirects)
 Project end: 2/17/20

Agency: Boston Scientific, Inc
 Title: Clinical Evaluation of the Blazer Open-irrigated Ablation Catheter for the Treatment of Paroxysmal Atrial Fibrillation: ZERO AF
 PI: Jude Clancy, MD
 Total cost: \$455,162 (of which \$105,037 indirects)
 Project end: 4/25/18

Agency: Boston Scientific, Inc
 Title: Evaluation of AUCITY X4 Quadripolar Coronary Venous Leads and RELIANCE 4-FRONT Defibrillation Leads NAVIGATE X4 Clinical Study
 PI: Jude Clancy, MD
 Total cost: \$321,020 (of which \$74,082 indirects)
 Project end: 11/17/20

Agency: Boston Scientific, Inc
 Title: Understanding Outcomes with the EMBLEM S-ICD in Primary Prevention Patients with Low Ejection Fraction (UNTOUCHED)
 PI: Jude Clancy, MD
 Total cost: \$216,251 (of which \$49,904 indirects)
 Project end: 9/12/19

Agency: Boston Scientific, Inc
 Title: The PRAETORIAN trial: A prospective, randomized comparison of subcutaneous and transvenous implantable cardioverter defibrillator therapy
 PI: Jude Clancy, MD
 Total cost: \$128,271 (of which \$29,601 indirects)
 Project end: 5/1/20

Agency: Medtronic, Inc
 Title: Attain Stability Quad Clinical Study
 PI: Jude Clancy, MD
 Total cost: \$33,857 (of which \$7,813 indirects)
 Project end: 7/24/19

Agency: Boston Scientific, Inc
 Title: Strategic Management to Improve CRT Using Multi-Site Pacing Post Approval Study (SMART MSP)
 PI: Jude Clancy, MD
 Total cost: \$86,750 (of which \$20,019 indirects)

Project end: 4/24/19

Agency: Boston Scientific, Inc
 Title: WATCHMAN for Patients With Atrial Fibrillation Undergoing Transcatheter Aortic Valve Replacement (WATCH-TAVR)
 PI: John Forrest, MD
 Total cost: \$75,995 (of which \$17,537 indirects)
 Project end: 3/18/20

Agency: Bristol Meyers Squibb, Inc
 Title: The AEIOU Trial: Apixaban Evaluation of Interrupted Or Uninterrupted Anticoagulation for Ablation of Atrial Fibrillation
 PI: James Freeman, MD
 Total cost: \$37,008 (of which \$8,540 indirects)
 Project end: 6/21/17

Agency: Atricure, Inc
 Title: aMAZE Study: Left Atrial Appendage Ligation with the Lariat Suture Delivery System as Adjunctive Therapy to Pulmonary Vein Isolation for Persistent or Longstanding Persistent Atrial Fibrillation
 PI: James Freeman, MD
 Total cost: \$248,635 (of which \$57,377 indirects)
 Project end: 9/30/20

Agency: Esosure
 Title: Esophageal Stylet as a strategy to minimize the risk of esophageal injury during the atrial fibrillation catheter ablation procedure - ESOSURE
 PI: Eric Grubman, MD
 Total cost: \$11,050 (of which \$2,550 indirects)
 Project end: 3/29/18

Agency: Medtronic, Inc
 Title: Medtronic ECG Belt for CRT Response
 PI: Eric Grubman, MD
 Total cost: \$27,940 (of which \$6,448 indirects)
 Project end: 7/1/21

Agency: Boston Scientific, Inc
 Title: COVID-19 LATITUDE Study
 PI: Harlan Krumholz, MD
 Total cost: \$99,999 (of which \$23,077 indirects)
 Project end: 5/15/20

Agency: Medtronic, Inc
 Title: Product Surveillance Registry (Medtronic)
 PI: Rachel Lampert, MD
 Total cost: \$29,331 (of which \$6,769 indirects)
 Project end: 5/9/13

Invited Speaking Engagements, Presentations, Symposia & Workshops Not Affiliated With Yale:

International/National

- 2004 “Mechanisms of Atrial Fibrillation: From Bench to Bedside”. University of Virginia Cardiology Grand Rounds, Charlottesville, VA
- 2004 “Mechanisms of Atrial Fibrillation: From Bench to Bedside”. University of California San Francisco Electrophysiology Conference, San Francisco, CA
- 2005 “Advancements in the Treatment of Atrial Fibrillation”. Biotronik EP Fellows Symposium, Las Vegas, NV
- 2005 “Mechanisms of Atrial Fibrillation: From Bench to Bedside”. Loyola University Cardiology Grand Rounds, Maywood, CT
- 2006 “Clinical Applications of Wireless Remote Monitoring”. Biotronik EP Fellows Symposium, Berlin, Germany
- 2006 “Clinical Applications of Wireless Remote Monitoring”. Biotronik EP Fellows Symposium, Miami, FL
- 2007 “Clinical Applications of Wireless Remote Monitoring”. Spectrum Health Medical Group, Grand Rapids, MI
- 2007 “Clinical Applications of Wireless Remote Monitoring”. Biotronik EP Fellows Symposium, New York, NY
- 2008 “Pulmonary Vein Potential Interpretation and Isolation”. Lawrence German Symposium on Electrophysiology, Boston, MA
- 2008 “Clinical Applications of Wireless Remote Monitoring”. Biotronik EP Fellows Symposium, New York, NY
- 2008 “Ablation of complex post-interventional right and left atrial tachycardias”. Boston Scientific EP Fellows Program, Boston, MA
- 2009 “Antithrombotic treatment of atrial fibrillation: when, how and how long?”. Cardiopace, Beirut, Lebanon
- 2009 “Ablation of complex right and left atrial tachycardias”. Lawrence German Symposium on Electrophysiology, Boston, MA
- 2010 “Syncope in the Setting of Structural Heart Disease”. Cardiopace, Beirut, Lebanon
- 2010 “Ablation of Right Atrial Flutter”. Lawrence German Symposium on Electrophysiology, Boston, MA
- 2010 “Atrial Fibrillation Unknowns”. Biotronik EP Fellows Symposium, New York, NY
- 2010 “Pharmacokinetics, Pharmacodynamics, Pharmacogenetics and Clinical Electrophysiology of Antiarrhythmic Agents” University of Balamand Medical School, Beirut, Lebanon
- 2011 “Pathophysiology of Left Atrial Thrombus Formation”. Cardiopace, Beirut, Lebanon
- 2011 “Update on Atrial Fibrillation in Clinical Practice”. King Faisal Specialist Hospital Cardiology Grand Rounds, Riyadh, Saudi Arabia
- 2011 “Atrial Arrhythmias: Unknowns to Test Your Skills”. Lawrence German Symposium on Electrophysiology, Boston, MA
- 2012 “Interpretation and Isolation of Pulmonary Vein Potentials”. Biotronik EP Fellows Symposium, Washington, DC
- 2012 “Sudden Death in the Community”. Saudi Heart Rhythm Association Annual Scientific Sessions, Riyadh, Saudi Arabia
- 2012 “Atrial Arrhythmias: Unknowns to Test Your Skills”. Lawrence German Symposium on Electrophysiology, Boston, MA
- 2013 “Ablation of Ischemic and Epicardial VT”. Katharinen Hospital, Unna, Germany

- 2014 “Novel Mechanisms of Atrial Fibrillation”. St. George University Hospital Medical Grand Rounds, Beirut, Lebanon
- 2015 “Novel Mechanisms of Atrial Fibrillation”. Medical College of Virginia Electrophysiology Grand Rounds, Richmond, VA
- 2015 “Device Remote Monitoring in Clinical Practice”. Boston Scientific EP Symposium, Miami, Florida
- 2015 “Intracardiac Echocardiography- Introduction and Anatomy”. China Atrial Fibrillation Symposium, Dalian, China
- 2015 “Intracardiac Echocardiography- Introduction and Anatomy”. Lebanese Society of Cardiology Annual Scientific Sessions, Beirut, Lebanon
- 2015 Hypertrophic Cardiomyopathy, Arrhythmogenic Right Ventricular Dysplasia and Risk of Sudden Cardiac Death”. Saudi Heart Association Annual Scientific Sessions, Riyadh, Saudi Arabia
- 2016 “Novel Mechanisms of Atrial Fibrillation”. Brown University Cardiology Grand Rounds, Providence, RI
- 2016 “Family evaluation of the SCD survivor: How far should we go?” Gulf Arrhythmia Conference, Riyadh, Saudi Arabia
- 2016 “Localization of Ventricular Tachycardia on 12-Lead ECG”. Gulf Arrhythmia Conference, Dubai, United Arab Emirates
- 2016 “Intracardiac Echocardiography- Introduction and Anatomy”. Lebanese Society of Cardiology Annual Scientific Sessions, Beirut, Lebanon
- 2017 “Of Starbucks and Atrial Fibrillation”. Beaumont Hospital Cardiology Grand Rounds, Royal Oak, MI
- 2017 “Cerebral Embolic Protection Applications in Atrial Fibrillation”. American College of Cardiology satellite symposium, Washington, DC.
- 2018 “Intracardiac Echocardiography- Introduction and Anatomy”. Great Wall Cardiology Symposium, Beijing, China
- 2019 “Radiation-Free Atrial Fibrillation Ablation”. Chinese Heart Rhythm Society, Beijing, China
- 2019 “Of Starbucks and Atrial Fibrillation”. University of Virginia Cardiology Grand Rounds, Charlottesville, VA
- 2019 “Thrombosis and Stroke Prevention in Atrial Fibrillation: Role of Left Atrial Appendage Closure”. St. George Hospital Medical Symposium, Beirut, Lebanon
- 2020 “Radiation-Free Atrial Fibrillation Ablation”. Great Wall Symposium Videoconference, Beijing, China
- 2021 “Use of Intracardiac Echocardiography for AF and VT Ablation”. Hamad Hospital Videoconference, Doha, Qatar
- 2021 “Novel Mechanisms of Atrial Fibrillation: Is it “like déjà vu all over again”. University of Iowa Cardiology Grand Rounds
- 2021 “Mechanisms of Atrial Fibrillation in 2021: Bench to Bedside”. Columbia University Cardiology Grand Rounds

Peer-Reviewed Presentations & Symposia Given at Meetings Not Affiliated With Yale (abstracts not included):

International/National

1. **Akar, JG.** Syncope in the Setting of Structural Heart Disease. American College of Cardiology. Orlando, 2005 (Oral presentation).
2. **Akar, JG.** Atrial Cellular Electrophysiology. American Heart Association. Boston, 2006 (Chair, Oral session).

3. **Akar, JG.** Atrial Tachyarrhythmias Following Catheter and Surgical Ablation. Heart Rhythm Society Advanced Ablation Course. Chicago, 2007 (Oral presentation).
4. **Akar, JG.** Clinical Supraventricular Tachycardia. Heart Rhythm Society. Denver, 2007 (Chair, Oral session).
5. **Akar, JG.** Basic Mechanisms of Atrial Fibrillation. American Heart Association. Denver, 2007 (Chair, Oral session).
6. **Akar, JG.** How to Perform a Transseptal Catheterization. Heart Rhythm Society Advanced Ablation Course. Chicago, 2008 (Oral presentation).
7. **Akar, JG.** Atrioventricular Nodal reentry Tachycardia Ablation. Heart Rhythm Society Advanced Ablation Course. Chicago, 2008 (Oral presentation).
8. **Akar, JG.** Isolation of pulmonary Veins. Heart Rhythm Society Advanced Ablation Course. Chicago, 2008 (Oral presentation).
9. **Akar, JG.** Meet-the-Experts: 3-D Electroanatomic mapping and Lasso. Heart Rhythm Society. Boston, 2009 (Oral presentation).
10. **Akar, JG.** Catheter Ablation in Long-Standing Persistent AF. Heart Rhythm Society. Boston, 2009 (Chair, Oral session).
11. **Akar, JG.** Pathophysiology of Left Atrial Thrombus Formation. Heart Rhythm Society. Denver, 2010 (Oral presentation).
12. **Akar, JG.** Ablation of Left Atrial Tachycardia. Heart Rhythm Society. Denver, 2010 (Oral presentation).
13. **Akar, JG.** Atrial Structure and Physiology in Atrial Fibrillation Patients. Heart Rhythm Society. Denver, 2010 (Chair, Oral session).
14. **Akar, JG.** Update on Electrophysiology Lab Standards. Heart Rhythm Society. Denver, 2013 (Oral presentation).
15. **Akar, JG.** Mapping and Ablation of Atrial Tachycardia After Prior MAZE Surgery. Heart Rhythm Society. San Francisco, 2014 (Oral presentation).
16. **Akar, JG.** Use of Remote Monitoring is Associated with Improved Outcomes Among Patients with Implantable Cardioverter Defibrillators: Late Breaking Clinical Trials. Heart Rhythm Society. San Francisco, 2014 (Oral presentation).
12. **Akar, JG.** Maximizing Value and optimizing Outcomes for Patients with Devices: Today's Available Solutions. Heart Rhythm Society. Boston, 2015 (Oral presentation).
13. **Akar, JG.** Inter-atrial Shunt Devices for Decongestion. Heart Rhythm Society. Boston, 2015 (Oral presentation).
14. **Akar, JG.** Can Remote Monitoring of Implanted Devices Improve Outcomes? American College of Cardiology. Washington DC, 2015 (Oral presentation).
15. **Akar, JG.** How Often and Who Needs Remote Follow-Up? American College of Cardiology. Chicago, 2016 (Oral presentation).
16. **Akar, JG.** Outcomes and Costs of Remote Patient Monitoring among Patients with Implanted Cardiac Defibrillators. European Heart Rhythm Association. Vienna, Austria, 2017 (Oral presentation).
17. **Akar, JG.** Atrial Fibrillation Thermographic and Endoscopic Monitoring of Patients: Safety Algorithm For the Esophagus (AF TEMP-SAFE). Heart Rhythm Society. Chicago, 2018 (Oral presentation).

Professional Service

Peer Review Groups/Grant Study Sections:

2016-2017 American Heart Association Cardiac Electrophysiology BScI Peer Review Study Group, Member

Journals

Editorial Boards

2017-present Editorial Board, *Heart Rhythm Journal*
 2019-present Editorial Board, *Arrhythmia & Electrophysiology Review*
 2019-present Associate Editor, *Pacing and Cardiac Electrophysiology*

Reviewer

Circulation, Circulation: Arrhythmia & Electrophysiology, Circulation: Cardiovascular Outcomes, Heart Rhythm, European Heart Journal, Journal of the American College of Cardiology, Journal of the American College of Cardiology: Electrophysiology, Pacing and Cardiac Electrophysiology, Journal of Cardiovascular Electrophysiology, PLOS One, Trends in Cardiovascular Medicine

Professional Organizations

2007- 2009 Heart Rhythm Society: Advanced Ablation Course Faculty
 2010-2012 Heart Rhythm Society: Scientific and Clinical Documents Committee member
 2013 Heart Rhythm Society: Expert Consensus Statement on EP Laboratory Standards. Writing Committee
 2014 Heart Rhythm Society: Expert Consensus Statement on Remote Monitoring. Writing Committee member
 2015 Heart Rhythm Society/European Heart Rhythm Association: Expert Consensus Statement on Atrial Cardiomyopathies. Writing Committee member
 2016 Heart Rhythm Society: Expert Consensus Statement on Atrial Fibrillation Ablation: Writing Committee
 2016-2021 American College of Cardiology: NCDR Left Atrial Appendage Occlusion Registry. Steering Committee member
 2016-present American College of Cardiology: NCDR Atrial Fibrillation Ablation Registry. Principal Investigator, Data Analytic Center
 2016-present Heart Rhythm Association: Ambassador to the Middle East/North Africa Region

Yale University/Hospital System:

Departmental Committees

2015 Search Committee, Director of Non-Operating Room Anesthesia services. Department of Anesthesia. Department of Anesthesia.
 2021 Diversity Committee. Department of Medicine
 2021 Retention Working Group, Diversity Committee, Department of Medicine

Hospital Committees

2017-2018 YNHH Clinical Redesign Committee for Non-Operating Room Anesthesia
 2010-2012 Yale Cardiovascular Medicine Section - Clinical Leadership Council
 2012-2014 Yale Cardiovascular Medicine Section- Cardiovascular Operations Council
 2013-2016 YNHH- Heart and Vascular Center Operations Subcommittee
 2015- 2019 YNHH Medical Leadership Council
 2016- present YNHH Patient Experience and Quality Forums
 2018- present YNHH/Northeast Purchasing Coalition, Clinical Leadership Council
 2018-present Yale Cardiovascular Medicine Section, Clinical Operations Leadership Committee
 2021-present YNHH Clinical Governance Committee

Patents

Evaluation of presence of and vulnerability to atrial fibrillation and other indications using matrix metalloproteinase-based imaging

Publication number: EP2775906 A4

Application number: EP20120847031

Publication date Jul 15, 2015

Filing date Oct 31, 2012

Also published as EP2775906A1, US20150023873, WO2013070471A1

Bibliography

Peer Reviewed Original Research:

1. Everett TH, Moorman JR, Kok LC, **Akar JG**, Haines DE. Assessment of global atrial fibrillation organization to optimize the timing of atrial defibrillation. *Circulation* 2001; 103:2857-2861.
PMID: 11401945
2. **Akar JG**, Kok LC, Haines DE, DiMarco JP, Mounsey JP. Coexistence of type I atrial flutter and intra-atrial reentrant tachycardia in patients with surgically corrected congenital heart disease. *J Am Coll Cardiol*. 2001; 38:377-384.
PMID: 11499727
3. Everett TH, **Akar JG**, Kok LC, Moorman JR, Haines DE. Use of global atrial fibrillation organization to optimize the success of burst pace termination. *J Am Coll Cardiol*. 2002; 40:1831-1840.
PMID: 12446068
4. **Akar JG**, Everett TH, Kok LC, Moorman JR, Haines DE. Effect of electrical and structural remodeling on spatiotemporal organization in acute and persistent atrial fibrillation. *J Cardiovasc Electrophysiol*. 2002; 13:1027-1034.
PMID: 12435191
5. Kok LC, Everett TH, **Akar JG**, Haines DE. The effect of heating on pulmonary veins: How to avoid pulmonary vein stenosis. *J Cardiovasc Electrophysiol*. 2003; 14:250-254.
PMID: 12716105
6. **Akar JG**, Everett TH, Ho RH, Craft J, Haines DE, Somlyo AP, Somlyo AV. Intracellular chloride accumulation and subcellular elemental distribution during atrial fibrillation. *Circulation* 2003; 107:1810-1815.
PMID: 12665494
7. Xiao Y, Zheng Y, Jordan DA, **Akar JG**, Haines DE. Parameter estimation of spiral waves from atrial electrograms. *IEEE/International Conference on Acoustics, Speech, and Signal Processing* 2003; V245-248.
8. Mell JK, Jordan DA, Xiao Y, Zheng Y, **Akar JG**, Haines DE. Wavelet analysis of atrial fibrillation electrograms. *IEEE/International Conference on Acoustics, Speech, and Signal Processing* 2003; II357-360.
9. Daniels DV, Lu YY, Morton JB, Santucci PA, **Akar JG**, Green A, Wilber DJ. Idiopathic epicardial left ventricular tachycardia originating remote from the sinus of Valsalva: electrophysiological characteristics, catheter ablation, and identification from the 12-lead electrocardiogram. *Circulation* 2006; 113:1659-1666.
PMID: 16567566
10. **Akar JG**, Al-Chekakie MO, Hai A, Brysiewicz N, Porter M, Varma N, Santucci P, Wilber D. Surface Electrocardiographic Patterns and Electrophysiological Characteristics of Atrial Flutter

- Following Modified Radiofrequency MAZE Procedures. *J Cardiovasc Electrophysiol.* 2007; 18:349-355.
PMID: 17394449
11. Joyal D, Leya F, Al-Chekakie MO, Arab D, Dieter RS, Morshedi-Meibodi A, Lewis B, Steen L, Fareed J, Hoppenstead D, **Akar JG**. Presence of Asymmetric Dimethylarginine Gradients Across High-Grade Lesions in Patients with Coronary Artery Disease. *Coronary Artery Dis.* 2007; 18:471-475.
PMID: 17700219
12. Al-Chekakie MO, **Akar JG**, Wang F, Al Muradi H, Wu J, Santucci P, Varma N, Wilber DJ. The Effects of Statins and Renin-Angiotensin System Blockers on Atrial Fibrillation Recurrence Following Wide Area Circumferential Pulmonary Vein Isolation. *J Cardiovasc Electrophysiol.* 2007; 18:942-946.
PMID: 17593228
13. Porter M, Spear W, **Akar JG**, Helms R, Brysiewicz N, Santucci P, Wilber DJ. Prospective Study of Atrial Fibrillation Termination During Ablation Guided by Automated Detection of Fractionated Electrograms. *J Cardiovasc Electrophysiol.* 2008; 19:613-20.
PMID: 18462320
14. **Akar JG**, Jeske W, Wilber DW. Acute onset human atrial fibrillation is associated with local cardiac platelet activation and endothelial dysfunction. *J Am Coll Cardiol.* 2008; 51:1790-1793.
PMID: 18452786
15. **Akar JG**, Al-Chekakie MO, Fugate T, Moran L, Froloshki B, Varma N, Santucci P, Wilber DJ, Matsumura ME. Endothelial Dysfunction in Heart Failure Identifies Responders to Cardiac Resynchronization Therapy. *Heart Rhythm* 2008; 5:1229-1235 (Featured Article).
PMID: 18774094
16. Vasaiwala SC, Finn C, Delpriore J, Leya F, Gaggermeier J, **Akar JG**, Santucci P, Dajani K, Bova D, Picken MM, Basso C, Marcus F, Wilber DJ. Prospective Study of Cardiac Sarcoid Mimicking Arrhythmogenic Right Ventricular Dysplasia. *J Cardiovasc Electrophysiol.* 2009; 20:473-6.
PMID: 19017339
17. Ip J, Waldo AL, Lip GY, Rothwell PM, Martin DT, Bersohn MM, Choucrair WK, **Akar JG**, Wathen MS, Rohani P, Halperin JL; IMPACT Investigators. Multicenter randomized study of anticoagulation guided by remote rhythm monitoring in patients with implantable cardioverter-defibrillator and CRT-D devices: Rationale, design, and clinical characteristics of the initially enrolled cohort The IMPACT study. *Am Heart J.* 2009; 158:364-370.
PMID: 19699858
18. Santucci P, Varma N, Cytron J, **Akar JG**, Wilber D, Al Chekakie MO, Brysiewicz N. Electroanatomic Mapping of Postpacing Intervals Clarifies the Complete Active Circuit and Variants In Atrial Flutter. *Heart Rhythm* 2009; 6:1586-95.
PMID: 19879536
19. Al-Chekakie MO, Welles CC, Metoyer R, Ibrahim A, Shapira AR, Cytron J, Santucci P, Wilber DJ, **Akar JG**. Pericardial Fat is Independently Associated with Human Atrial Fibrillation. *J Am Coll Cardiol.* 2010; 56:784-788. Focus Issue on Heart Rhythm Disorders.
PMID: 20797492
20. Chatterjee NA, Gallagher JJ, Ip J, Poku J, Malik R, **Akar JG**, Mitchell K, Singh J. Telemonitoring in Patients with Congestive Heart Failure and Indication for ICD-Cardiac Resynchronization Therapy: TRIAGE-CRT. *Innovations in Cardiac Rhythm Management* 2011; 2(7).

21. Webber Jr. CL, Hu Z, **Akar JG**. Unstable Cardiac Singularities May Lead to Atrial Fibrillation. *Int J Bifurc Chaos*. 2011; 21: 1141–1151.
22. Mukherjee R, **Akar JG**, Wharton JM, Adams DK, McClure CD, Stroud RE, Rice AD, Desantis SM, Spinale FG, Gold MR. Plasma profiles of matrix metalloproteinases and tissue inhibitors of the metalloproteinases predict recurrence of atrial fibrillation following cardioversion. *J Cardiovasc Transl Res*. 2013; 6:528-35.
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