



Tina Baykaner

Assistant Professor of Medicine (Cardiovascular Medicine)

Medicine - Cardiovascular Medicine

CLINICAL OFFICES

- **Cardiovascular Medicine**

300 Pasteur Dr

Falk Bldg CVRC MC 5406

Stanford, CA 94305

Tel (650) 723-6141

Fax (650) 725-7568

Bio

BIO

Tina Baykaner is an Instructor in the Department of Internal Medicine, Division of Cardiovascular Medicine and Electrophysiology. Following internal medicine residency, cardiovascular medicine and advanced heart failure fellowship trainings at University of California, San Diego and electrophysiology fellowship at Stanford University, Dr. Baykaner joined Stanford University faculty in 2018. She has published over 200 papers, book chapters and abstracts including over 80 original peer-reviewed articles, and delivered over 40 invited presentations in national and international meetings. She serves as associate editor, section editor and editorial board member of four electrophysiology journals.

Dr. Baykaner's current research interests include outcomes research, epidemiology and mechanisms of rhythm disorders. She is currently funded by the National Institutes of Health to study patient related outcomes regarding atrial fibrillation (AF) ablation. She received prior research funding from American Heart Association and Heart Rhythm Society. Dr. Baykaner's clinical practice focuses on ablation of atrial and ventricular arrhythmias, SVTs, inappropriate sinus tachycardia management, device implantation and device extraction.

Dr. Baykaner is an active member of American Heart Association (AHA), American College of Cardiology (ACC), Heart Rhythm Society (HRS) and European Society of Cardiology (ESC). She serves as an elected member of the Communications Committee for HRS, and previously served as an elected member of the ACC Task Force ICD research committee. She also served in the Organizing Committee for Stanford Cardiovascular Institute Annual Postdoctoral Research Meeting in 2017 and 2018 and for Early Career related sessions for HRS Scientific Sessions in 2019 and 2020.

CLINICAL FOCUS

- Electrophysiology
- Ablation of atrial and ventricular rhythm disorders
- Cardiac implantable devices
- Extraction of cardiac implantable devices
- Treatment of inappropriate sinus tachycardia

- Clinical Cardiac Electrophysiology

ACADEMIC APPOINTMENTS

- Assistant Professor - University Medical Line, Medicine - Cardiovascular Medicine
- Member, Cardiovascular Institute

HONORS AND AWARDS

- Early Career Grant (K23), National Institutes of Health (2019)
- SFRN Fellowship Grant - Atrial Fibrillation, American Heart Association (2018)
- Cardiovascular Institute Travel Scholarship, Stanford University (2016)
- Schulman Early Career Research Award in Cardiology, UCSD (2016)
- Clinical Research Fellowship Award in Honor of Mark Josephson and Hein Wellens, Heart Rhythm Society (2015)
- Fellow in Training Travel Scholarship, American College of Cardiology (2015)
- Post-Doctoral Fellowship Grant, American Heart Association (2015)
- Schulman Early Career Research Award in Cardiology, UCSD (2015)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Associate Editor, JICE (2022 - present)
- Advisory Panel, Circulation AE (2020 - present)
- Editorial Board Member, Heart Rhythm O2 (2019 - present)
- Editorial Board Member, Heart Rhythm Case Reports (2019 - present)
- Member, Communications Committee, Heart Rhythm Society (2019 - present)
- Editorial board member, JICE (2017 - 2020)
- Section Editor, JACC EP (2017 - 2020)
- Member, NCDR task force on ICD Research & Publications Committee, American College of Cardiology (2017 - 2018)
- Member, Organizing Committee for Cardiovascular Institute Annual Postdoctoral Research Symposium, Stanford University (2016 - 2018)

PROFESSIONAL EDUCATION

- Board Certification: Clinical Cardiac Electrophysiology, American Board of Internal Medicine (2019)
- Board Certification, American Board of Internal Medicine , Cardiac Electrophysiology (2019)
- Board Certification: Cardiovascular Disease, American Board of Internal Medicine (2017)
- Board Certification: Internal Medicine, American Board of Internal Medicine (2012)
- Electrophysiology Fellowship, Stanford University (2018)
- Cardiology Fellowship, University of California San Diego (2016)
- Heart Failure Fellowship, University of California San Diego (2013)
- Medicine Residency, University of California San Diego (2012)
- Internship, Jacobi Medical Center, AECOM (2010)
- MPH, University of Massachusetts (2014)
- MD, Hacettepe Universitesi (2007)

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Cardiac Electrophysiology (Fellowship Program)
- Cardiovascular Medicine (Fellowship Program)

Publications

PUBLICATIONS

- **The Esophagus Going Steady.** *Journal of cardiovascular electrophysiology*
Baykaner, T., Nguyen, D. T.
2022
- **Taking the "Pulse" of Pulsed Field Ablation: Real-World Experience.** *Journal of cardiovascular electrophysiology*
Baykaner, T., Fazal, M., Verma, A.
1800
- **The ENHANCE-AF Clinical Trial to Evaluate an Atrial Fibrillation Shared Decision-Making Pathway: Rationale and Study Design.** *American heart journal*
Baykaner, T., Pundi, K., Lin, B., Lu, Y., DeSutter, K., Lhamo, K., Garay, G., Nunes, J. C., Morin, D. P., Sears, S. F., Chung, M. K., Paasche-Orlow, M. K., Sanders, et al
2022
- **Shared Decision-Making in Cardiac Electrophysiology Procedures and Arrhythmia Management.** *Circulation. Arrhythmia and electrophysiology*
Chung, M. K., Fagerlin, A., Wang, P. J., Ajayi, T. B., Allen, L. A., Baykaner, T., Benjamin, E. J., Branda, M., Cavanaugh, K. L., Chen, L. Y., Crossley, G. H., Delaney, R. K., Eckhardt, et al
2021: CIRCEP121007958
- **Virtual Transformation and the Use of Social Media: Cardiac Electrophysiology Education in the Post-COVID-19 Era** *CURRENT TREATMENT OPTIONS IN CARDIOVASCULAR MEDICINE*
Han, J. K., Baykaner, T., DeSimone, C., Etheridge, S. P., Futyma, P., Saha, S. A., Stiles, M. K., Gopinathannair, R., Kabra, R., Merchant, F. M.
2021; 23 (11): 70
- **Ibrutinib-associated atrial fibrillation treatment with catheter ablation.** *HeartRhythm case reports*
Kapoor, R., Fazal, M., Cheng, P., Witteles, R., Rhee, J., Baykaner, T.
2021; 7 (11): 713-716
- **Is There Rule to the Chaos: Defining Stable Patterns in Atrial Fibrillation.** *Journal of cardiovascular electrophysiology*
Baykaner, T., Fazal, M., Patel, S., Zaman, J.
2021
- **IDENTIFICATION OF AREAS OF ORGANIZED 1:1 ACTIVITY IN ATRIAL FIBRILLATION IN PATIENTS POST MAZE SURGERY**
Bhatia, N. K., Shah, R., Ganesan, P., Rogers, A., Pong, T., Purewal, S., Baykaner, T., Wang, P., Lee, A., Rappel, W., Narayan, S.
ELSEVIER SCIENCE INC.2021: 333
- **NON-INVASIVE TRACKING OF ATRIAL FIBRILLATION PREDICTS ACUTE TERMINATION BY ABLATION**
Rodrigo, M., Baykaner, T., Rappel, W., Narayan, S.
ELSEVIER SCIENCE INC.2021: 280
- **Electrical Substrate Ablation for Refractory Ventricular Fibrillation: Results of the AVATAR Study.** *Circulation. Arrhythmia and electrophysiology*
Krummen, D. E., Ho, G. n., Hoffmayer, K. S., Schweis, F. n., Baykaner, T. n., Rogers, A. J., Han, F. T., Hsu, J. C., Viswanathan, M. N., Wang, P. J., Rappel, W. J., Narayan, S. M.
2021
- **Blood Thinners for Atrial Fibrillation Stroke Prevention.** *Circulation. Arrhythmia and electrophysiology*
Pundi, K., Baykaner, T., True Hills, M., Lin, B., Morin, D. P., Sears, S. F., Wang, P. J., Stafford, R. S.
2021: CIRCEP120009389

- **Arrhythmia Patterns in Patients on Ibrutinib.** *Frontiers in cardiovascular medicine*
Fazal, M., Kapoor, R., Cheng, P., Rogers, A. J., Narayan, S. M., Wang, P., Witteles, R. M., Perino, A. C., Baykaner, T., Rhee, J.
1800; 8: 792310
- **Machine Learned Cellular Phenotypes Predict Outcome in Ischemic Cardiomyopathy.** *Circulation research*
Rogers, A. J., Selvalingam, A., Alhousseini, M. I., Krummen, D. E., Corrado, C., Abuzaid, F., Baykaner, T., Meyer, C., Clopton, P., Giles, W. R., Bailis, P., Niederer, S. A., Wang, et al
2020
- **Safety and Efficacy of Minimal- versus Zero-fluoroscopy Radiofrequency Catheter Ablation for Atrial Fibrillation: A Multicenter, Prospective Study.** *The Journal of innovations in cardiac rhythm management*
Zei, P. C., Quadros, K. K., Clopton, P., Thosani, A., Ferguson, J., Brodt, C., O'Riordan, G., Ramsis, M., Mitra, R., Baykaner, T.
2020; 11 (11): 4281–91
- **Left atrial posterior wall isolation in conjunction with pulmonary vein isolation using cryoballoon for treatment of persistent atrial fibrillation (PIVoTAL): study rationale and design.** *Journal of interventional cardiac electrophysiology : an international journal of arrhythmias and pacing*
Aryana, A., Pujara, D. K., Allen, S. L., Baker, J. H., Espinosa, M. A., Buch, E. F., Srivatsa, U., Ellis, E., Makati, K., Kowalski, M., Lee, S., Tadros, T., Baykaner, et al
2020
- **Machine Learning to Classify Intracardiac Electrical Patterns during Atrial Fibrillation.** *Circulation. Arrhythmia and electrophysiology*
Alhousseini, M. I., Abuzaid, F., Rogers, A. J., Zaman, J. A., Baykaner, T., Clopton, P., Bailis, P., Zaharia, M., Wang, P. J., Rappel, W., Narayan, S. M.
2020
- **PREDICTING SUDDEN CARDIAC DEATH BY MACHINE LEARNING OF VENTRICULAR ACTION POTENTIALS**
Selvalingam, A., Alhousseini, M., Rogers, A. J., Krummen, D., Abuzaid, F. M., Baykaner, T., Clopton, P., Bailis, P., Zaharia, M., Wang, P., Narayan, S.
ELSEVIER SCIENCE INC.2020: 427
- **LARGER ORGANIZED AREAS IN PERSISTENT ATRIAL FIBRILLATION PREDICTS TERMINATION DURING ABLATION**
Ravi, N., Rogers, A. J., Bhatia, N., Tung, J. S., Krummen, D., Sauer, W., Alhousseini, M., Baykaner, T., Wang, P., Rappel, W., Narayan, S.
ELSEVIER SCIENCE INC.2020: 279
- **The interconnected atrium: Acute impact of pulmonary vein isolation on remote atrial tissue.** *Journal of cardiovascular electrophysiology*
Rogers, A. J., Baykaner, T. n., Narayan, S. M.
2020
- **Non-Invasive Assessment of Complexity of Atrial Fibrillation: Correlation with Contact Mapping and Impact of Ablation.** *Circulation. Arrhythmia and electrophysiology*
Rodrigo, M. n., Climent, A. M., Hernández-Romero, I. n., Liberos, A. n., Baykaner, T. n., Rogers, A. J., Alhousseini, M. n., Wang, P. J., Fernández-Avilés, F. n., Guillem, M. S., Narayan, S. M., Atienza, F. n.
2020
- **Termination of persistent atrial fibrillation by ablating sites that control large atrial areas.** *Europace : European pacing, arrhythmias, and cardiac electrophysiology : journal of the working groups on cardiac pacing, arrhythmias, and cardiac cellular electrophysiology of the European Society of Cardiology*
Bhatia, N. K., Rogers, A. J., Krummen, D. E., Hossainy, S. n., Sauer, W. n., Miller, J. M., Alhousseini, M. I., Peszek, A. n., Armenia, E. n., Baykaner, T. n., Brachmann, J. n., Turakhia, M. P., Clopton, et al
2020
- **The New Normal.** *JACC. Clinical electrophysiology*
Nguyen, D. T., Baykaner, T. n.
2020; 6 (6): 693–95
- **Mapping and Ablation of Rotational and Focal Drivers in Atrial Fibrillation.** *Cardiac electrophysiology clinics*
Zaman, J., Baykaner, T., Narayan, S. M.
2019; 11 (4): 583–95
- **Safety and efficacy of zero fluoroscopy transseptal puncture with different approaches.** *Pacing and clinical electrophysiology : PACE*
Baykaner, T., Quadros, K., Thosani, A., Yasmeh, B., Mitra, R., Liu, E., Belden, W., Liu, Z., Costea, A., Brodt, C., Zei, P.
2019
- **Another Method That Shows Organization in Persistent AF? That's a RAAP.** *Journal of cardiovascular electrophysiology*

Baykaner, T., Zaman, J. A.
2019

- **Electrographic flow mapping in persistent atrial fibrillation**
Baykaner, T., Alhusseini, M., Rogers, A., Sauer, W., Ruppertsberg, P., Narayan, S.
WILEY.2019: 1745–46
- **Wavefront Field Mapping Reveals a Physiologic Network Between Drivers Where Ablation Terminates Atrial Fibrillation.** *Circulation. Arrhythmia and electrophysiology*
Leef, G., Shenasa, F., Bhatia, N. K., Rogers, A. J., Sauer, W., Miller, J. M., Swerdlow, M., Tamboli, M., Alhusseini, M. I., Armenia, E., Baykaner, T., Brachmann, J., Turakhia, et al
2019; 12 (8): e006835
- **MACHINE LEARNING IDENTIFIES SITES WHERE ABLATION TERMINATES PERSISTENT ATRIAL FIBRILLATION**
Alhusseini, M., Abuzaid, F., Clopton, P., Rogers, A., Rodrigo, M., Baykaner, T., Wang, P., Rappel, W., Narayan, S.
ELSEVIER SCIENCE INC.2019: 301
- **SITES THAT CONTROL LARGER AREAS DURING ATRIAL FIBRILLATION MAY DETERMINE TERMINATION DURING ABLATION**
Bhatia, N. K., Hossainy, S., Rogers, A., Alhusseini, M., Brodt, C., Moosvi, N., Baykaner, T., Wang, P., Rappel, W., Narayan, S.
ELSEVIER SCIENCE INC.2019: 400
- **INTRACLASS CORRELATIONS OF VOLTAGE, FRACTIONATED ELECTROGRAMS, AND DOMINANT FREQUENCY IN PATIENTS WHERE LOCALIZED ABLATION TERMINATED PERSISTENT ATRIAL FIBRILLATION**
Rogers, A. J., Moosvi, N., Singh, A., Alhusseini, M., Baykaner, T., Clopton, P., Rappel, W., Wang, P., Narayan, S.
ELSEVIER SCIENCE INC.2019: 521
- **Electroporation: The End of the Thermal Ablation Era?** *Journal of the American College of Cardiology*
Narayan, S. M., Baykaner, T. n.
2019; 74 (3): 327–29
- **It is time for Turkish Cardiologists to start engaging on Twitter.** *Turk Kardiyoloji Dernegi arsivi : Turk Kardiyoloji Derneginin yayin organidir*
Çinier, G. n., Akgün, T. n., Baykaner, T. n., Mutlu, B. n.
2019; 47 (6): 427–30
- **Low-fluoroscopy atrial fibrillation ablation with contact force and ultrasound technologies: a learning curve.** *Pragmatic and observational research*
Zei, P. C., Hunter, T. D., Gache, L. M., O'Riordan, G., Baykaner, T., Brodt, C. R.
2019; 10: 1–7
- **Urinary tract infection after catheter ablation of atrial fibrillation.** *Pacing and clinical electrophysiology : PACE*
Cluckey, A. n., Perino, A. C., Fan, J. n., Askari, M. n., Nasir, J. n., Marcus, G. M., Baykaner, T. n., Narayan, S. M., Wang, P. J., Turakhia, M. P.
2019
- **Online webinar training to analyse complex atrial fibrillation maps: A randomized trial.** *PloS one*
Mesquita, J. n., Maniar, N. n., Baykaner, T. n., Rogers, A. J., Swerdlow, M. n., Alhusseini, M. I., Shenasa, F. n., Brizido, C. n., Matos, D. n., Freitas, P. n., Santos, A. R., Rodrigues, G. n., Silva, et al
2019; 14 (7): e0217988
- **Comparison of phase-mapping and electrogram-based driver mapping for catheter ablation in atrial fibrillation.** *Pacing and clinical electrophysiology : PACE*
Lin, C., Lin, Y., Narayan, S. M., Baykaner, T., Lo, M., Chung, F., Chen, Y., Chang, S., Lo, L., Hu, Y., Liao, J., Tuan, T., Chao, et al
2018
- **Atypical flutter following lung transplantation involving recipient-to-donor tissue connections.** *HeartRhythm case reports*
Baykaner, T., Cooper, J. M.
2018; 4 (11): 548–52
- **Interaction of Localized Drivers and Disorganized Activation in Persistent Atrial Fibrillation: Reconciling Putative Mechanisms Using Multiple Mapping Techniques** *CIRCULATION-ARRHYTHMIA AND ELECTROPHYSIOLOGY*
Kowalewski, C. B., Shenasa, F., Rodrigo, M., Clopton, P., Meckler, G., Alhusseini, M. I., Swerdlow, M. A., Joshi, V., Hossainy, S., Zaman, J. B., Baykaner, T., Rogers, A. J., Brachmann, et al
2018; 11 (6): e005846

- **Cost effectiveness of focal impulse and rotor modulation guided ablation added to pulmonary vein isolation for atrial fibrillation** *JOURNAL OF CARDIOVASCULAR ELECTROPHYSIOLOGY*
Baykaner, T., Duff, S., Hasegawa, J. T., Mafilios, M. S., Turakhia, M. P.
2018; 29 (4): 526–36
- **Independent mapping methods reveal rotational activation near pulmonary veins where atrial fibrillation terminates before pulmonary vein isolation.** *Journal of cardiovascular electrophysiology*
Navara, R., Leef, G., Shenasa, F., Kowalewski, C., Rogers, A. J., Meckler, G., Zaman, J. A., Baykaner, T., Park, S., Turakhia, M. P., Zei, P., Viswanathan, M., Wang, et al
2018
- **Identification and Characterization of Sites Where Persistent Atrial Fibrillation Is Terminated by Localized Ablation** *CIRCULATION-ARRHYTHMIA AND ELECTROPHYSIOLOGY*
Zaman, J. B., Sauer, W. H., Alhusseini, M. I., Baykaner, T., Borne, R. T., Kowalewski, C. B., Busch, S., Zei, P. C., Park, S., Viswanathan, M. N., Wang, P. J., Brachmann, J., Krummen, et al
2018; 11 (1): e005258
- **Clinical Implications of Ablation of Drivers for Atrial Fibrillation: A Systematic Review and Meta-Analysis.** *Circulation. Arrhythmia and electrophysiology*
Baykaner, T. n., Rogers, A. J., Meckler, G. L., Zaman, J. n., Navara, R. n., Rodrigo, M. n., Alhusseini, M. n., Kowalewski, C. A., Viswanathan, M. N., Narayan, S. M., Clopton, P. n., Wang, P. J., Heidenreich, et al
2018; 11 (5): e006119
- **Ablation of Atrial Fibrillation Drivers** *ARRHYTHMIA & ELECTROPHYSIOLOGY REVIEW*
Baykaner, T., Zaman, J. B., Wang, P. J., Narayan, S. M.
2017; 6 (4): 195–201
- **The continuous challenge of AF ablation: From foci to rotational activity.** *Revista portuguesa de cardiologia : orgao oficial da Sociedade Portuguesa de Cardiologia = Portuguese journal of cardiology : an official journal of the Portuguese Society of Cardiology*
Narayan, S. M., Vishwanathan, M. N., Kowalewski, C. A., Baykaner, T., Rodrigo, M., Zaman, J. A., Wang, P. J.
2017; 36 Suppl 1: 9–17
- **Predicting Determinants of Atrial Fibrillation or Flutter for Therapy Elucidation in Patients at Risk for Thromboembolic Events (PREDATE AF) Study.** *Heart rhythm*
Nasir, J. M., Pomeroy, W., Marler, A., Hann, M., Baykaner, T., Jones, R., Stoll, R., Hursey, K., Meadows, A., Walker, J., Kindsvater, S.
2017
- **Multicentre safety of adding Focal Impulse and Rotor Modulation (FIRM) to conventional ablation for atrial fibrillation.** *Europace*
Krummen, D. E., Baykaner, T., Schricker, A. A., Kowalewski, C. A., Swarup, V., Miller, J. M., Tomassoni, G. F., Park, S., Viswanathan, M. N., Wang, P. J., Narayan, S. M.
2017; 19 (5): 769-774
- **Spatial relationship of organized rotational and focal sources in human atrial fibrillation to autonomic ganglionated plexi.** *International journal of cardiology*
Baykaner, T., Zografos, T. A., Zaman, J. A., Pantos, I., Alhusseini, M., Navara, R., Krummen, D. E., Narayan, S. M., Katritsis, D. G.
2017
- **Mechanistic targets for the ablation of atrial fibrillation.** *Global cardiology science & practice*
Zaman, J. A., Baykaner, T., Schricker, A. A., Krummen, D. E., Narayan, S. M.
2017; 2017 (1): e201707
- **Electrocardiographic spatial loops indicate organization of atrial fibrillation minutes before ablation-related transitions to atrial tachycardia.** *Journal of electrocardiology*
Baykaner, T., Trikha, R., Zaman, J. A., Krummen, D. E., Wang, P. J., Narayan, S. M.
2017
- **Editorial commentary: What can lung transplantation teach us about the mechanisms of atrial arrhythmias?** *Trends in cardiovascular medicine*
Baykaner, T. n., Rogers, A. J., Zaman, J. A., Narayan, S. M.
2017
- **Recurrent Post-Ablation Paroxysmal Atrial Fibrillation Shares Substrates With Persistent Atrial Fibrillation : An 11-Center Study.** *JACC. Clinical electrophysiology*

- Zaman, J. A., Baykaner, T. n., Clopton, P. n., Swarup, V. n., Kowal, R. C., Daubert, J. P., Day, J. D., Hummel, J. n., Schricker, A. A., Krummen, D. E., Mansour, M. n., Tomassoni, G. F., Wheelan, et al
2017; 3 (4): 393–402
- **Spatial relationship of sites for atrial fibrillation drivers and atrial tachycardia in patients with both arrhythmias.** *International journal of cardiology*
Baykaner, T. n., Zaman, J. A., Rogers, A. J., Navara, R. n., AlHusseini, M. n., Borne, R. T., Park, S. n., Wang, P. J., Krummen, D. E., Sauer, W. H., Narayan, S. M.
2017; 248: 188–95
 - **Terminating atrial fibrillation by cooling the heart.** *Heart rhythm*
Narayan, S. M., Baykaner, T., Sahli Costabal, F., Kuhl, E.
2016; 13 (11): 2259-2260
 - **Can Cardiac Conduction System Disease Be Prevented?** *JAMA internal medicine*
Narayan, S. M., Baykaner, T., Maron, D. J.
2016; 176 (8): 1093-1094
 - **Organized Sources Are Spatially Conserved in Recurrent Compared to Pre-Ablation Atrial Fibrillation: Further Evidence for Non-Random Electrical Substrates** *JOURNAL OF CARDIOVASCULAR ELECTROPHYSIOLOGY*
Lalani, G. G., Coysh, T., Baykaner, T., Zaman, J., Hopper, K., Schricker, A. A., Trikha, R., Clopton, P., Krummen, D. E., Narayan, S. M.
2016; 27 (6): 661-669
 - **New Mechanism-based Approaches to Ablating Persistent AF: Will Drug Therapy Soon Be Obsolete?** *JOURNAL OF CARDIOVASCULAR PHARMACOLOGY*
Zaman, J. A., Baykaner, T., Narayan, S. M.
2016; 67 (1): 1-8
 - **Atrial Fibrillation: Can Electrograms Be Interpreted Without Repolarization Information?** *Heart rhythm : the official journal of the Heart Rhythm Society*
Narayan, S. M., Zaman, J., Baykaner, T., Franz, M. R.
2015
 - **Modifying Ventricular Fibrillation by Targeted Rotor Substrate Ablation: Proof-of-Concept from Experimental Studies to Clinical VF** *JOURNAL OF CARDIOVASCULAR ELECTROPHYSIOLOGY*
Krummen, D. E., Hayase, J., Vampola, S. P., Ho, G., Schricker, A. A., Lalani, G. G., Baykaner, T., Coe, T. M., Clopton, P., Rappel, W., Omens, J. H., Narayan, S. M.
2015; 26 (10): 1117-1126
 - **Stability of Rotors and Focal Sources for Human Atrial Fibrillation: Focal Impulse and Rotor Mapping (FIRM) of AF Sources and Fibrillatory Conduction** *JOURNAL OF CARDIOVASCULAR ELECTROPHYSIOLOGY*
Swarup, V., Baykaner, T., Rostamian, A., Daubert, J. P., Hummel, J., Krummen, D. E., Trikha, R., Miller, J. M., Tomassoni, G. F., Narayan, S. M.
2014; 25 (12): 1284-1292