



# Cardiology Fellowship

## Newsletter

*July 2017 Edition*

### INSIDE THIS ISSUE:

Welcome!

Fellowship Highlights

Hail to the Chief

New General Fellows

New Subspecialty Fellows

Fellowship Year in Review

- Let's get personal
- Our new graduates
- Honors & Achievements
- Morton Arnsdorf Cardiovascular Research Day

Impressive Academic Production (in 2016-17)

- Publications
- Abstracts
- Cardiology Research Day

### HAIL TO THE CHIEF

We'd like to welcome Joe Venturini as the new Chief Fellow for the 2017 – 2018 fellowship class! Joe has hit the ground running and will do an outstanding job. Big thanks to Rohan Kalathiya for his incredible work as Chief Fellow for the past year!!

## Welcome Our New Fellows

As a new year begins, we are excited to welcome six new Cardiovascular Disease fellows and three new fellows in our subspecialty programs for the 2017-2018 year. We are also delighted to have old friends in new roles in Cardiac Imaging, Interventional Cardiology, and Advanced Heart Failure and Transplant Cardiology.

Our incoming class is an accomplished group and we are confident they will all be great additions to our Section. To get to know each of our new fellows, please see their photos and read their bios on subsequent pages. Here's to a great year!

## A Year for the Books: 2016 to 2017 Fellowship Year

We have just completed a remarkable 2016-17 fellowship year. Our talented fellows made us proud with many accomplishments, honors, and more. They have dedicated many hours to our Section, providing incredible care to our patients, all while developing as leaders, teachers and scientists. On behalf of all Cardiology faculty and staff, we thank you all for your hard work and offer big congratulations to our six graduates.



## The New Faces of Cardiology Fellowship

### Rajeev Anchan

It might take some people nearly a lifetime before they travel through Omaha, NE or discover its location on a map, but this was my home for the past 29 years. I initially had dreams of playing in the NBA, but instead followed my interests in math and science. I attended Creighton University where I majored in biochemistry and mathematics and worked as a part-time EKG tech. This past year has been memorable: I married my wife in March, my wife completed law school, I completed residency at the University of Nebraska, and sadly we sold our red Vespa. You will probably find us searching for a new coffee shop, learning to ride the L, or going for a jog by the lake. We are excited to embark on this new adventure. I look forward to starting my cardiology fellowship at the U of C and, alas, will consign my NBA career to the seats at the United Center!



### Emeka Anyanwu

I'm a first generation Nigerian-Canadian and was born and raised in beautiful and sometimes cold Halifax, Nova Scotia. In search of sunnier days I moved to Bowling Green, Ohio where I have some extended family to study biology and computer science at BGSU. From there I made an easy move across state to study medicine at Case Western Reserve. Finally in my perpetual push for bigger city living I moved to Chicago and began my IM residency here at home base, University of Chicago. I've loved living here for the last 3 years and am excited to stick around for 3 more. Outside of the hospital I spend my time cycling, listening to live music, and dabbling in software development. Looking forward to meeting my co-fellows and getting to know the department's faculty better!



### Ilya Karagodin

I was born in Moscow, Russia and immigrated to the United States when I was three years old. My family lived in Idaho and Ohio before finally settling down in the suburbs of Chicago. I then made the distant 10-mile trek to Evanston where I attended college at Northwestern University. Prior to starting medical school, I took a gap year to teach English in Seville, Spain, where I had the opportunity to experience Andalusian life and culture, and where I started dating my wife Michelle, who was studying abroad at the time. Upon my return to the US, I attended medical school at Northwestern University, and went on to complete residency and chief residency at the Medical College of Wisconsin in Milwaukee. Outside of medicine I enjoy traveling to new places, playing soccer, basketball, and chess, and learning how to play the guitar. I couldn't be more excited to return home to Chicago and start my Cardiology fellowship at the University of Chicago! Most importantly, I cannot wait to meet all my future colleagues at the University of Chicago! -See you all soon!



## Isla McClelland

I was born in New York City but moved with my family to the DC area where I was raised. I attended Georgetown University for undergrad and majored in Biology with an Art History minor. While in college I was a member of the Georgetown Women's Crew Team and had the opportunity to study abroad in Turkey, both of which were wonderful experiences. I truly bled Hoya Blue and stayed at Georgetown for both my medical school and residency training. After exploring DC for so many years I am ready for a change and look forward to exploring Chicago! I am a big foodie so am looking forward to trying out the Chicago food scene and will happily take recommendations! When not at work, I love traveling and exploring the world. I also like to be active and have learned that I enjoy many things including volunteering with dog rescues, Olympic lifting, bourbon tastings and relaxing with friends on a beautiful day. I am so excited to starting fellowship at University of Chicago and meeting my co-fellows!



## Andrew Oehler

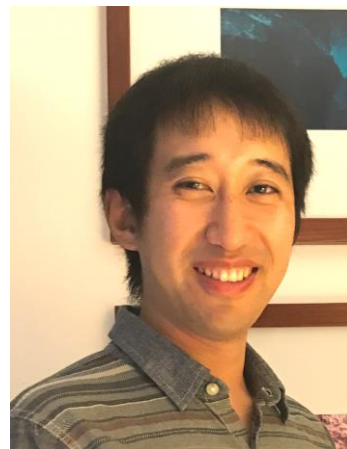
Up until residency I was a Hoosier, born and bred. I grew up in what touts itself as The Crossroads of America: Terre Haute, Indiana. While cardiology was always my plan, I first placed my hopes in placekicking at the University of Toledo in Ohio for the Rockets, ultimately transitioning to Wabash College in Crawfordsville, graduating with a degree in chemistry. I went on to Indiana University for medical school, where I decided to blaze a trail West to Portland, Oregon at the Oregon Health & Science University for residency. There, I further cultivated my interest in cardiac physiology, the physical exam, and medical education. I stayed on for a chief year, during which time I married my wife who happens to be starting her fellowship in Infectious Disease, luckily enough also in Hyde Park. We are excited to get acquainted with the South Side, our new co-fellows, and the breadth of culture this Midwestern metropolis has to offer.



## Dong Bo Yu

As a Chinese boy pursuing a Big American Dream, I took a unique journey to get here. At the age of 15, I immigrated from my childhood home of Shenyang, China to Toronto with my wonderful parents. True to my Asian roots, I was a math geek in high school before enrolling at Harvard as an undergrad where I was biochemistry major. I then pursued my MD/PhD degree at UT Southwestern in Dallas, working on the development of novel RNA-based therapeutics for Huntington's disease. This seven-year cowboy stint concluded with me coming to University of Chicago for residency, where I met some of the most inspiring faculty mentors thus far.

Outside of school, I was big into basketball, traveling, trivia, and foreign languages before discovering my biggest passion in life, my fiancée Jennifer. Estoy esperando vivement tous mes collègues nouveaux!





## The Advanced Fellows of 2017 - 2018

### **Taishi Hirai – Interventional Cardiology**

I grew up in a small city in Japan. My hometown Fukui is located 90 miles north of Kyoto against the Sea of Japan and is known for very good seafood and rice. After graduating from high school, I moved to Nagoya for medical school. After medical school and two years of post-graduate training in Japan, I came to Chicago in 2011. I have completed my medicine residency and general cardiology fellowship at Loyola. I am very excited to join the cardiology division of U of C for my interventional year. Outside the hospital, I enjoy playing and watching soccer. I grew up playing soccer and I have been a member of SHOGUN soccer team in the suburbs since I came to Chicago. If you are interested in playing soccer with us, please let me know!

### **Christopher Jones – Electrophysiology**

I grew up in North Carolina where I enjoyed hiking and the great sunny beaches. I studied biochemistry at North Carolina State University before moving on to East Carolina University for medical school and residency. I then attended Marshall University for my Cardiology fellowship. Outside of the hospital I enjoy tennis, golf, and running. I am also an avid photographer; always looking for great moments to capture. I am very excited to begin the next step of my training at the University of Chicago and look forward to working with everyone.

### **Neha Goyal – Cardiac Imaging**

I was born and raised in New Delhi, India. After completing MBBS from Maulana Azad Medical College, I came to the US where I initially worked in the Diabetes and Cardiovascular disease lab at the University of Missouri, Columbia. After that I completed Internal Medicine residency from Marshall University School of Medicine in Huntington, WV. I moved back to Missouri for Cardiovascular disease fellowship as a Research fellow. Early on during fellowship, I was drawn to multimodality Cardiovascular imaging. I am very excited to start imaging fellowship at the University of Chicago.

## Let's Get Personal

Fellows DO have a life outside of Cardiology! Here are a few major events that took place over the course of 2016-2017:

### Married!

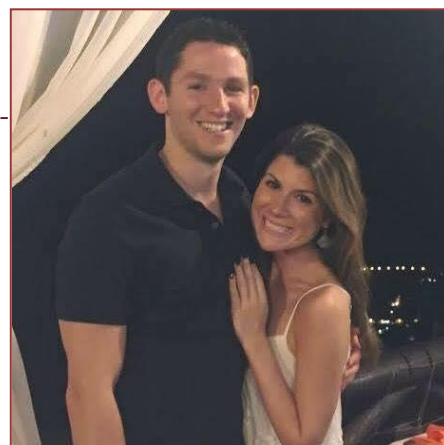
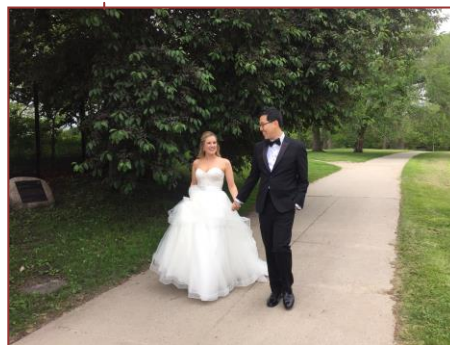
- Ben Chung married Elisabeth Donahey on May 26, 2017 in Chicago.

### Engaged!

- Jonathan Rosenberg got engaged to Marissa Schiff on 03/25/2017.

### Fellowship Class of 2043

- Isida Byku and Tom Kupry's introduced Atticus Liam Bukrys to the world. Atticus arrived 3/31/2017.
- Akhil and Disha Narang brought Shailen Narang into the world. Shailen was born 02/03/2017



## Congratulations to the 2017 Graduates!



Isida Byku will be an Interventional Fellow at Emory University Hospital

Ben Chung will be an Advanced Heart Failure and Transplant fellow here at the University of Chicago

Akhil Narang will be the Advanced Cardiac Imaging fellow here at the University of Chicago

Annie Nguyen will be an Advanced Heart Failure and Transplant fellow here at the University of Chicago

Jonathan Rosenberg will be an Interventional Fellow at University of Chicago

Adam Oesterle will be an Advanced Electrophysiology Fellow at UCSF

## Congratulations to our Graduating Advanced Fellows too!

### **Advanced Cardiac Imaging**

Amita Singh will be moving to Madison where she will be an Assistant Professor of Medicine at University of Wisconsin.

Noreen Nazir will be moving to the University of Illinois at Chicago

### **Non-Invasive Cardiology**

Diego Medvedofsky will be a clinical trial imaging specialist at MedStar Hospital in Washington, DC.

### **Interventional Cardiology**

Ajay Patel will be joining a private practice at Bakersfield Heart Hospital.

### **Advanced Heart Failure and Transplant Cardiology**

Jonathan Grinstein will be moving to Maryland where he will be an Advanced Heart Failure Physician at Medstar Heart and Vascular Institute.

Sara Kalantari will be an Assistant Professor at the University of Chicago.

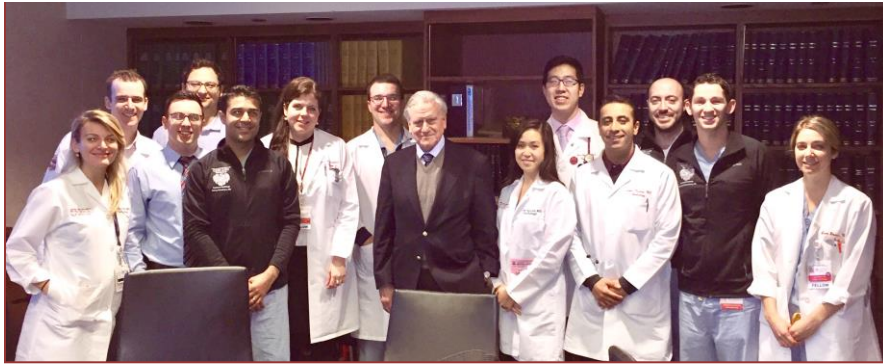
### **Clinical Cardiac Electrophysiology**

Andrew Beaser will be staying at the University Chicago as an Assistant Professor of Medicine in EP.

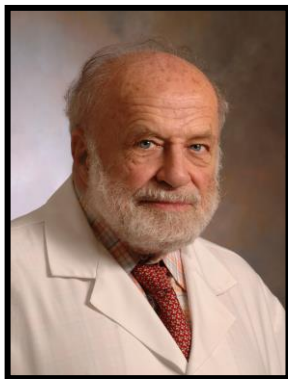
Kelvin Chua will be returning to Singapore where he will be a clinical electrophysiologist.



## Exciting visiting lectures...



For example; fellows had a special Q&A with Dr. Valentin Fuster after he presented at the section's Hans Hecht lecture in October.



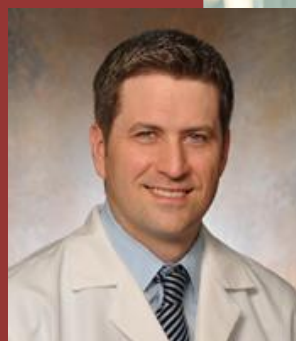
**Rory Childers, M.D.**  
1931 –2014

Dr. Childers came to the University of Chicago in 1963 as a Cardiology fellow and remained here for 50 years. He became a renowned authority on the movement of electrical impulses within the beating heart and the use and interpretation of electrocardiograms. He lectured widely and received many honors. He was awarded the teaching award by the fellows so many times that the award was named after him.

Each year the fellows have the difficult task of choosing a faculty member to give the prestigious Rory Childers Teaching Award. It goes to a faculty member who the graduating class feels has inspired them and provided an outstanding mentorship and teaching.

This year, The *Rory R. Childers Cardiology Teaching Award* was presented to **Michael Broman.**

**Congratulations,  
Dr. Broman!**



## Morton Arnsdorf Cardiovascular Research Day April 20-21, 2017



**Morton Arnsdorf, MD**  
1940 -2010

The Ninth Annual Cardiovascular Research Day (CRD) Symposium was held April 20-21, 2017. The symposium highlighted the research within the Sections of Cardiology, Cardiothoracic Surgery, Vascular Surgery, Cardiac Anesthesiology and Interventional Radiology. This day is named in honor of our esteemed friend, mentor and colleague who we continue to miss greatly.

This year, we had an unprecedented number of abstract submissions; spanning basic research to clinical studies and representing all the disciplines in the cardiovascular field. Of the 106 abstracts, 27 were basic/translational studies and 79 were clinical studies. Many of the studies were performed as collaborations between 2 or more laboratories or groups. This made our Section exceptionally proud.

The Keynote lecture, “Deconstructing cell therapy for heart disease” was given by our guest of honor Eduardo Marbán, MD, PhD from Cedars-Sinai Medical Center on April 21<sup>st</sup>.

**Cardiovascular Research Day wouldn't have been possible without the participation of our faculty!**

**Francis Alenghat, MD, PhD**

**Dottie Hanck, PhD**

**Marion Hofmann Bowman, MD, PhD, FAHA**

**James K. Liao, MD**

**Victor Mor-Avi, PhD**

**Matthew Sorrentino, MD**

**Gaurav Upadhyay, MD**

### Research Day: Featured Abstracts and Presentations

**Mark N. Belkin**

Incidence and Clinical Significance of New Onset Device-Detected Atrial Tachyarrhythmia: A Meta-Analysis

**Amrish Deshmukh**

Left Atrial Appendage Occlusion is associated with decreased Thromboembolic Events in LVAD patients

**Teruhiko Imamura**

Decoupling between Diastolic Pulmonary Artery Pressure and Pulmonary Capillary Wedge Pressure as a Novel Prognostic Factor Following Continuous Flow Ventricular Assist Device Implantation

**Diego Medvedofsky**

2D and 3D Echocardiography Derived Left Ventricular Function and Shape Indices: Relationship with Mortality

**Le Shen**

Cardiomyocyte ZO-1 regulates intercalated disc organization and whole heart physiology

**Nikola Sladojevic**

ROCK2 in T cell differentiation and long-term stroke recovery

**Victoria Thomas**

Temporal variation in ADP P2Y<sub>12</sub> response to clopidogrel and contributors to antiplatelet resistance in a high risk, urban population undergoing PCI



The six featured abstract winners on Cardiovascular Research Day. **From left to right:** Nikola Sladojevic, Le Shen, Victoria Thomas, Mark Belkin, Teruhiko Imamura, Amrish Deshmukh and Diego Medvedofsky



## Impressive Academic Production

### *Arnsdorf Cardiovascular Research Day: Abstracts*

- Mark Belkin<sup>a</sup>, **Bow Benjamin Chung**<sup>b</sup>, Roberto Lang<sup>b</sup>, Kirk Spencer<sup>b</sup>, Gabriel Sayer<sup>b</sup>, Sirtaz Adatya<sup>b</sup>, Nitasha Sarswat<sup>b</sup>, Gene Kim<sup>b</sup>, Nir Uriel<sup>b</sup> "Diffuse Ventricular Hematoma after Heart Transplant and Repeated Myocardial Instrumentation: a Case Report"
- Lane B Benes<sup>1</sup>, Cheeling Chan<sup>2</sup>, Amy C Alman<sup>3</sup>, John J Carr<sup>4</sup>, David C Goff Jr<sup>5</sup>, David R Jacobs<sup>6</sup>, Jamal S Rana<sup>7</sup>, James G Terry<sup>4</sup>, Joseph Yeboah<sup>8</sup>, Kiang Liu<sup>2</sup>, Tamar S Polonsky<sup>1</sup> "Association of 10-Year Change in Cardiovascular Risk Factors with Progression of Pericardial Adipose Tissue: the CARDIA Study"
- Chua, Balkhy, Nayak, Upadhyay, Raiman, Broman, Tung, "**Feasibility of** Intraoperative High-Density Electroanatomic Mapping For Physiologic Optimization of Totally Endoscopic Robotic Epicardial Left Ventricular Lead Placement"
- **Kelvin Chua**, Gaurav Upadhyay, Roderick Tung, "VARIABLE ACTIVATION PATTERNS OF RETROGRADE FAST PATHWAY AND RELATIONSHIP TO TRIANGLE OF KOCH ANATOMY: HIGH RESOLUTION MAPPING OF AV NODAL REENTRY"
- **Ben Bow Chung**, Maura Knapp, Daniel Rodgers, Teruhiko Imamura, Eltayeb Karrar, Jing Zhou, Linlin Zhang, Gene Kim, Sirtaz Adatya, Nitasha Sarswat, Gabriel Sayer, James Liao, Nir Uriel, "Longitudinal Leukocyte Rho Kinase (ROCK) Activity Increases in Acute Heart Transplant Rejection"
- **Ben Bow Chung**, Gene Kim, Sirtaz Adatya, Nitasha Sarswat, Nir Uriel, Gabriel Sayer. "Noncompaction Cardiomyopathy in a Patient with Mitochondrial Disease and Situs Inversus"
- Nimit Desai, Amrish Deshmukh, Nikhil Bassi, **Ann Nguyen**, Sirtaz Adatya, Jayant Raikhelkar, Natasha Sarswat, Gene Kim, Gabriel Sayer, Nir Uriel. Significance and Potential Etiologies of Pericardial Effusions in Orthotopic Heart Transplant Patients"
- Erin E. Flatley, **Amita Singh**, Amit R. Patel, R. Parker Ward, Roberto M. Lang, Gaurav A. Upadhyay, Hemal Nayak, Joshua D. Moss, Roderick Tung." Prevalence of Arrhythmogenic Inflammatory Cardiomyopathy by PET Imaging in Patients with Unexplained Cardiomyopathy and Sustained Ventricular Arrhythmias: A single-center experience."
- **Jonathan Grinstein, Adam Oesterle**, Justin Fried, Arthur R. Garan, Erin Flatley, Gene H. Kim, Xingchen Mai, Nitasha Sarswat, **Sara Kalantari**, Sirtaz Adatya, Jayant Raikhelkar, Gabriel Sayer, Valluvan Jeevanandam, Josh Moss, Nir Uriel. "Increased Rate of Pump Thrombosis and Cardioembolic Events Following Ventricular Tachycardia Ablation in Patients Supported with Continuous Flow Left Ventricular Assist Devices"
- Teruhiko Imamura, Sirtaz Adatya, **Ben Chung, Ann Nguyen**, Daniel Rodgers, Gabriel Sayer, Nitasha Sarswat, Gene Kim, Jayant Raikhelkar, Takeyoshi Ota, Tae Song, Colleen Juricek, **Diego Medvedofsky**, Valluvan Jeevanandam, Roberto Lang, Jerry D Estep, Daniel Burkhoff, Nir Uriel. "Cannula and Pump Positions are Associated with Left Ventricular Unloading and Clinical Outcome in Patients with HeartWare Left Ventricular Assist Device"

*Arnsdorf Cardiovascular Research Day continued...*

- Teruhiko Imamura, **Ben Chung**, **Ann Nguyen**, Daniel Rodgers, Gabriel Sayer, Sirtaz Adatya, Nitasha Sarswat, Gene Kim, Jayant Raikhelkar, Takeyoshi Ota, Tae Song, Colleen Juricek, Valluvan Jeevanandam, Mandeep Mehra, Daniel Burkhoff, Nir Uriel. "Decoupling between Diastolic Pulmonary Artery Pressure and Pulmonary Capillary Wedge Pressure as a Novel Prognostic Factor Following Continuous Flow Ventricular Assist Device Implantation"
- Keigo Kawaji; **Akhil Narang**; **Noreen Nazir**; Donel Tani; Hui Wang; Jouke Smink; Nael Osman; and Amit R. Patel. "A Single Breath-Hold Simultaneous Acquisition Approach of both Cine CMR and Strain Encoded CMR Acquisition for a Combined Assessment of Myocardial Wall Motion."
- Keigo Kawaji; **Noreen Nazir**; **Akhil Narang**; Kohei Matsumoto; Donel Tani; Hui Wang; Jouke Smink; Nael Osman; and Amit R. Patel. "Scan-Time Reduction by Improved Utilization of Idle Times by Permuting Pre-Scan Ordering: Feasibility Demonstration of a single breath-hold Strain-Encoded CMR."
- **Luke J. Laffin**, Stephanie A. Besser, Francis J. Alenghat. "A Map of SPRINT's Data-Free Zone"
- **Diego Medvedofsky**, Francesco Maffessanti, Lynn Weinert, David M. Tehrani, **Akhil Narang**, Karima Addetia, Stephanie A. Besser, Amit R. Patel, Kirk T. Spencer, Victor Mor-Avi, Roberto M. Lang. "2D and 3D Echocardiography Derived Left Ventricular Function and Shape Indices: Relationship with Mortality"
- **Diego Medvedofsky**, Gabriel Sayer, Lynn Weinert, Eric Kruse, Megan Yamat, Victor Mor-Avi, Amit R. Patel, Karima Addetia, Sirtaz Adatya, Nitasha Sarswat, Gene Kim, Takeyoshi Ota, Valluvan Jeevanandam, Nir Uriel, Roberto M. Lang. "Assessment of Left Ventricular Rotational Mechanics Post-LVAD Implantation Using 3D Echocardiography"
- **Diego Medvedofsky**, David Tehrani, Keigo Kawaji, Victor Mor-Avi, Roberto M. Lang, Nir Uriel, Amit R. Patel. "Cardiac Magnetic Resonance Imaging to Diagnose Orthotopic Heart Transplant Rejection"
- **Diego Medvedofsky**, Gabriel Sayer, Sirtaz Adatya, Eric Kruse, Karima Addetia, Victor Mor-Avi, Nitasha Sarswat, Gene Kim, Takeyoshi Ota, Valluvan Jeevanandam, Nir Uriel, Roberto M. Lang. "Differential Right and Left Ventricular Remodeling Post-LVAD Implantation"
- **Diego Medvedofsky**, Sirtaz Adatya, Jiri Maly, Eric Kruse, Peter Ivák, Poornima Sood, Roberto M. Lang, Francesco Maffessanti, Dominik Berliner, Johann Bauersachs, Axel Haverich, Michael Želízko, Ivan Netuka, Jan D. Schmitto, Nir Uriel. "Echocardiographic Changes in Patients Implanted with a Fully Magnetically Levitated Left Ventricular Assist Device (HeartMate 3)"
- **Diego Medvedofsky**, Jacobson Zachary, Negron Jacqueline, Kruse Eric, Jamie Hamilton, Victor Mor-Avi, Roberto M. Lang. "Feasibility of Global Longitudinal Strain Measurements in Contrast-Enhanced Echocardiographic Images"
- **Diego Medvedofsky**, Karima Addetia, Eric Kruse, Victor Mor-Avi, Gabriel Sayer, Sirtaz Adatya, Nitasha Sarswat, Gene Kim, Takeyoshi Ota, Valluvan Jeevanandam, Nir Uriel, Roberto M. Lang. "Role of Left Ventricular Rotational Mechanics in the Optimization of Residual Native Function in Patients with Left Ventricular Assist Devices."
- **Diego Medvedofsky**, Masaaki Takeuchi, Kyoko Otani, Roberto M. Lang, Victor Mor-Avi. "Three-Dimensional Echocardiographic Acquisition and Analysis of the Left Heart Chambers: Comparison between an Automated Adaptive Analytics Algorithm and Conventional Technique"



*Arnsdorf Cardiovascular Research Day continued...*

- Lynn Weinert, **Isida Byku**, **Amita Singh**, Aldo Prado, Victor Mor-Avi, Roberto M Lang, **Diego Medvedofsky**. "Three-Dimensional Echocardiographic Automated Quantification of Left-Heart Chambers Using Adaptive Analytics Algorithm: Importance of Experience"
- **Diego Medvedofsky**, Lynn Weinert, **Isida Byku**, Megan Yamat, Eric Kruse, Boguslaw Ciszek, Alma Nelson, Victor Mor-Avi, Roberto M. Lang. "Three-Dimensional Echocardiographic Automated Quantification of Left Ventricular and Atrial Volumes Using Adaptive Analytics Algorithm: Feasibility in Non-Selected Patients"
- Priya Mehta, David Chapel, **Akhil Narang**, Cara Rosenbaum, Victor Mor-Avi, Nitasha Sarswat, Roberto M. Lang, Aliya N. Husain, Amit R. Patel. "Can Echocardiographic Parameters Predict the Burden of Cardiac Amyloidosis?"
- **Akhil Narang**, Kanako Kishiki, Nimit J. Desai, Kirk T. Spencer MD, Victor Mor-Avi PhD, Roberto M. Lang MD, Karima Addetia MD. "Global Longitudinal Strain Predicts Mortality in Patients with Severe Aortic Insufficiency and Preserved Left Ventricular Ejection Fraction"
- **Akhil Narang MD**, John E. Blair MD, Mita B. Patel MD, Victor Mor-Avi PhD, Savitri E. Fedson MD, Nir Uriel MD, Roberto M. Lang MD, Amit R. Patel MD. "Mechanisms and Functional Consequences of Abnormal Myocardial Perfusion Reserve in Orthotopic Heart Transplantation"
- **Akhil Narang**, Lynn Weinert, Kanako Kishiki, Francesco Maffessanti, Victor Mor-Avi, Roberto M. Lang, Karima Addetia. "Superiority of 3D over 2D Analysis of Right Ventricular Function in Predicting Mortality"
- **Nikhil Narang**, Roberto M. Lang, Vladimir M. Liarski, Valluvan Jeevanandam, Marion A. Hofmann Bowman. "Aortic Valve Replacement for Moderate Aortic Stenosis with Severe Calcification and Left Ventricular Dysfunction—A Case Report"
- **Nikhil Narang**, Kathryn Dryer, Mark M. Gajjar, Ranya Sweis, Daniel Schimmel, Jeanette Ying-Wei Cheng, Sumeet Singh Mitter, Ajay Yadlapati, Hamorabi Mkrdichian, Keith Benzuly, Margaret Lee, Sanjiv J. Shah, John E. A. Blair. "Coronary Microvascular Dysfunction in Patients with Heart Failure and Preserved Ejection Fraction"
- **Nikhil Narang**, **Diego Medvedofsky**, Kathryn Dryer, Sanjiv J. Shah, Charles J. Davidson, Amit R. Patel, John E. A. Blair. "Microvascular Dysfunction and Cardiac Fibrosis in Heart Failure with Preserved Ejection Fraction: a Case Report"
- Victoria Thomas, **Akhil Narang**, Janet Friant, Margaret Lee, Jonathan Miller, KT Jerry Yeo, Atman Shah, Jonathan Paul, John Blair, Sandeep Nathan. "Temporal variations in ADP P2Y12 response to clopidogrel bisulfate and contributors to antiplatelet resistance in a high-risk, urban population undergoing percutaneous coronary intervention (PCI)"
- **Noreen T. Nazir**, John E. Blair, Keigo Kawaji, Donel Tani, Nael Osman, Amit R. Patel. "Improved Assessment of Ischemia: A comparison of Intermediate Dose Dobutamine Strain Encoded Cardiac Magnetic Resonance Against Single Photon Emission Computed Tomography"
- **Noreen T. Nazir**, **Amita Singh**, Gaurav Upadhyay, Amit R. Patel, Karima Addetia. "Utility Of Cardiovascular MRI In Sudden Cardiac Death Survivors"
- **Ann B. Nguyen**, **Ben Bow Chung**, Kathleen Mullane, Nir Uriel. "Acute Myocarditis Secondary to Reactivated Chromosomally-Integrated HHV6"
- **Ann B. Nguyen**, Stephanie A. Besser, **Ben Bow Chung**, Gene Kim, Sirtaz Adatya, Nitasha Sarswat, Gabriel Sayer, Jayant Raikhelkar, Nir Uriel. "Changes in Metabolic Profiles Following Left Ventricular Assist Device Implantation"

**NEW WEBSITE!**

<http://cardsfellows.bsd.uchicago.edu/default.asp>



*Arnsdorf Cardiovascular Research Day continued...*

- **Ann B. Nguyen**, Stephanie A. Besser, **Ben Bow Chung**, Laura Lourenco, Gene Kim, Sirtaz Adatya, Nitasha Sarswat, Gabriel Sayer, Jayant Raikhelkar, Nir Uriel. "Short-term Risk of Rejection in Heart Transplant Patients Receiving Granulocyte Colony-Stimulating Factor"
- **Adam Oesterle**, Gaurav Upadhyay, Michael Broman, Roderick Tung, Hemal Nayak. "Atrial Fibrosis from AF Extends Beyond the Left Atrium: Right Atrial Fibrosis Assessed by Electroanatomic Voltage Mapping Correlates with Left Atrial Fibrosis in Patients with Atrial Fibrillation Undergoing RFA"
- **Adam Oesterle**, Hemal Nayak, Gaurav Upadhyay, Michael Broman, James K. Liao, Roderick Tung. "Rho Kinase Activity is Elevated in Patients Presenting for Atrial Fibrillation Ablation"
- **Andrew Putnam, MD**, Stephanie Besser, PhD, Matthew Churpek, MD, MPH, PhD, Kyle Carey, MA, John Blair, MD, Sandeep Nathan, MD, Atman Shah, MD, Jonathan Paul, MD. "Characteristics of Conservatively versus Invasively Managed Patients with PE at The University of Chicago"
- **Andrew Putnam, MD**, Stephanie Besser, PhD, Matthew Churpek, MD, MPH, PhD, Kyle Carey, MA, John Blair, MD, Sandeep Nathan, MD, Atman Shah, MD, Jonathan Paul, MD. "Characteristics of Conservatively versus Invasively Managed Patients with PE at The University of Chicago"
- **Jonathan Rosenberg**, John Blair, Kalie Kebed, Sandeep Nathan, Atman Shah, Jonathan Paul, Roderick Tung, Cevher Ozcan. "ELECTRICAL REMODELING AND ARRHYTHMIAS AFTER TRANSCATHETER AORTIC VALVE REPLACEMENT"
- **Amita Singh**, Keigo Kawaji, **Noreen T. Nazir**, **Akhil Narang**, Karima Addetia, Roderick Tung, Erin Flatley, Roberto M. Lang, Amit R. Patel. "Burden of Premature Ventricular Contractions and Myocardial Fibrosis as measured by Native Myocardial T1 Time: Is There An Association?"
- **Amita Singh**, Eric Kruse, Lynn Weinert, Karima Addetia, Roberto M. Lang. "Load Dependency of Left Atrial Strain in Healthy Volunteers"
- **Amita Singh**, Keigo Kawaji, Roderick Tung, **Noreen Nazir**, **Akhil Narang**, Javed Zaidi, Ginnie Baker, Roberto M. Lang, Amit R. Patel. "Poor Cardiac Magnetic Resonance Image Quality in Patients with an ICD: Can It Be Improved?"
- **Amita Singh**, Kanako Kishiki, Victor Mor-Avi, Francesco Maffessanti, Mardi Gomberg-Maitland, Roberto M. Lang, Karima Addetia. "Occult Left Atrial Dysfunction in Severe Pulmonary Arterial Hypertension: A Novel Application of Left Atrial Strain"
- **Jeremy Stone MD**, Victor Mor-Avi PhD, Agnieszka Ardelt MD, Roberto M. Lang. "Are Cerebral ECG T-Waves in Stroke Patients a Sign of Associated Transient Cardiac Dysfunction?"
- **Jeremy Stone MD**, Linda Lee MD, R Parker Ward MD. "High Prevalence of Important Echocardiographic Abnormalities in Patients with a Normal Electrocardiogram"
- Upadhyay GA, Gunashekar S, Lee E, **Beaser A**, **Chua K**, Aziz Z, Nayak H, and Tung R. "Automated peak versus manual onset annotation during ultra-high-density mapping: Insights for focal activation mapping using the a sinus activation model"
- Upadhyay GA, **Chua K**, **Beaser A**, Aziz Z, Nayak HN, and Tung R. "Mechanism of His bundle pacing in patients with bundle-branch block: Deductive evidence derived from multielectrode mapping of the left septum"
- **Joseph M Venturini**, Elizabeth Retzer, Janet Friant, David Beiser, Dana Edelson, Jonathan Paul, John Blair, Sandeep Nathan, Atman P Shah. "Use of a Mechanical Compression Device Increases Return of Spontaneous Circulation in Patients with Cardiac Arrest in the Cardiac Catheterization Laboratory"

**DID YOU KNOW?**

*The Section of Cardiology was founded in 1950 at the University of Chicago.*

*Arnsdorf Cardiovascular Research Day continued...*

- Benjamin Weber, Linda Liu, **Adam Oesterle**, Roderick Tung, and Gaurav A. Upadhyay. "Safety, Effectiveness, and Efficacy of Direct Oral Anticoagulants Compared with Vitamin K Antagonists for Stroke Prevention in Atrial Fibrillation: A Meta-Analysis and Systematic Review of Real-World Practice"
- Javed Zaidi, Waseem Cossor, **Amita Singh**, Victor Mor-Avi, David Roberson, Roberto M. Lang, Amit R. Patel. "Three-Dimensional Changes in Regional Right Ventricular Shape and Function in Repaired Tetralogy of Fallot"

**Publications and Abstracts**

- **Balaney B**, Bowman MAH. Acute Ischemic Stroke with Elevated Cardiac Troponin: A Case Report and Review of the Literature. J Clin Case Rep 2016; 6(4):777. Batal O, Jentzer J, Balaney B, et al. The Prognostic significance of troponin I elevation in acute ischemic stroke. J Crit Care 2016; 31:4147.
- **Benes, L**: Association of 10 Year Change in Cardiovascular Risk Factors with Progression of Pericardial Adipose Tissue: the CARDIA Study Omega-3 carboxylic acids monotherapy and combination with statins in the management of dyslipidemia **Benes LB**, Bassi NS, Davidson MH
- The future of n-3 polyunsaturated fatty acid therapy. Intravascular ultrasound to assess for baffle stenosis after Mustard procedure. **Benes LB**, Rosenberg JR, Ozcan C, **Cherian TS**, Shah AP.
- The Risk of Hepatotoxicity, New Onset Diabetes and Rhabdomyolysis in the Era of High-Intensity Statin Therapy: Does Statin Type Matter? **Benes LB**, Bassi NS, Davidson MH
- **Byku**: Three-dimensional Echocardiographic Automated Quantification of Left Heart Chamber Volumes Using an Adaptive Analytics Algorithm: Feasibility and Impact of Image Quality in Non selected Patients
- Effect of Atrial Fibrillation on Mortality, Stroke Risk, and Quality of Life Scores in Patients With Heart Failure (from the Outcomes Registry for Better Informed Treatment of Atrial Fibrillation [ORBITAF]). **Cherian TS**, Shrader P, Fonarow GC, Allen LA, Piccini JP, Peterson ED, Thomas L, Kowey PR, Gersh BJ, Mahaffey KW.
- Intravascular ultrasound to assess for baffle stenosis after Mustard procedure. **Benes LB**, **Rosenberg JR**, Ozcan C, **Cherian TS**, Shah AP.
- Holzhauser L, Hovnanians N, Eshtehardi P, Mojadidi MK, Deng Y, Goodman-Meza D, Msaouel P, Ko YA, Zolty R. Statin therapy improves survival in patients with severe pulmonary hypertension: a propensity score matching study. Heart Vessels. 2017 Mar 16. doi: 10.1007/s00380-017-0957-8
- **L. Holzhauser**, T. Imamura, **A. Nguyen**, **B. Chung**, T. Ota, S. Adatya, G. Kim, G. Sayer, N. Sarswat, J. Raikhelkar, V. Jeevanandam, N. Uriel. Consequence of Retained Defibrillator and Pacemaker Leads Following Heart Transplantation An Under Sensed Problem? International Society for Heart and Lung Transplantation. Annual Scientific Sessions. San Diego 2017
- M. Loebel, **L. Holzhauser**, A. Jenke, S. Pinkert, H. Fechner, H.P. Schultheiss, W. Poller, U. Landmesser, C. Scheibenbogen, C. Skurk.. The forkhead transcription factor FoxO3a negatively regulates NK cell function and viral clearance in myocarditis. European Society of Cardiology. Annual Scientific Sessions. Rome 2016

*continued...*

- Belkin MN, **Chung BB**, Uriel N. Diffuse Ventricular Hematoma after Heart Transplant and Repeated Myocardial Instrumentation. *J Clin Exp Cardiol* 8:518.
- **Chung BB**, Sayer G, Uriel N. Mechanical circulatory support devices: methods to optimize hemodynamics during use. *Expert Rev Med Devices*. 2017 May;14(5):343-353.
- Minner SA, Simone P, **Chung BB**, Shah AP. Successful Reversal of Bradycardia and Dyspnea With Aminophylline After Ticagrelor Load. *J Pharm Pract*. 2016 Dec 5.
- M. Grueger, A. Jenke, **L. Holzhauser**, R. Schur, U. Landmesser, C. Skurk. Myofibroblast transdifferentiation following acute myocardial infarction-the role of Foxo3a in cardiac remodeling. *European Society of Cardiology. Annual Scientific Sessions. Rome 2016*
- **Kalathiya, R**; Shah, A; Nathan, S. In Patients Undergoing Vascular Surgery, Does Preoperative Coronary Revascularization Reduce the Risk of Myocardial Infarction and Death? *Difficult Decisions in Vascular Surgery: An EvidenceBased Approach*. 2017. Springer International Publishing. pp 501512
- **Kalathiya RJ**, Grinstein J, Uriel N, Shah AP. Percutaneous Transcatheter Therapies for the Management of Left Ventricular Assist Device Complications. *J Invasive Cardiol*. 2017 May;29(5):151162. Epub 2017 Feb 15
- **Kalathiya RJ**, Grinstein J, Uriel N, Shah AP. Percutaneous Transcatheter Therapies for the Management of Left Ventricular Assist Device Complications. *J Invasive Cardiol*. 2017 May;29(5):151162. Epub 2017 Feb 15
- **Kalathiya, R. J.**, Houston, B. A., Chaisson, J. M., Grimm, J. C., Stevens, G. R., Sciortino, C. M., Shah, A. S., Whitman, G. J. R., Russell, S. D. and Tedford, R. J. (2016), Cardiac Index Declines During Long Term Left Ventricular Device Support. *Artificial Organs*, 40: 11051112
- B.A. Houston, **R.J. Kalathiya**, S. Hsu, et al. Right ventricular afterload sensitivity dramatically increases after left ventricular assist device implantation: a multicenter hemodynamic analysis. *J Heart Lung Transplant*, 35 (2016), pp. 868876
- **Kebed KY**, Kruse E, Addetia K, Cizek B, Thykattil M, Guile B, Lang RM, MorAviV. Atrial Focused Views Improve the Accuracy of TwoDimensional Echocardiographic Measurements of the Left and Right Atrial Volumes: A Contribution to the Increase in Normal Values in the Guidelines Update. *Int J Cardiovasc Imaging* 2016 Oct 1
- Medvedofsky D, **Kebed K**, **Laffin LJ**, Stone J, Addettia K, Lang RM, Mor-Avi V. Reproducibility and experience dependence of echocardiographic indices of left ventricular function: side-by-side comparison of global longitudinal strain and ejection fraction. "Echocardiography". 2017; (online February 9, 2017.)
- **Laffin LJ**, Bakris GL. Catheter-based renal denervation for hypertension: will it ever be ready for "prime time" ? "Am J Hypertens". 2016; hpw 123 (online November 12, 2016).
- Murtagh G, **Laffin LJ**, Patel KV, Patel AV, Bonham CA, Yu Z, Addettia K, El-Hangouche N, Maffessanti F, Mor-Avi V, Hogarth DK, Sweiss NJ, Beshai JF, Lang RM, Patel AR. Improved detection of myocardial damage in sarcoidosis using longitudinal strain in patients with preserved left ventricular ejection fraction. "Echocardiography". 2016; 33: 1344-52.
- **Laffin LJ**, Majewski C, Liao C, Bakris, GL. Relationship between obesity, hypertension, and aldosterone production in postmenopausal african american females: a pilot study. "JClin Hypertens (Greenwich)". 2016 Dec; 18(12): 1216-1221.



*continued...*

- **Laffin LJ**, Bakris GL. Renal denervation: a field in flux. "Curr Hypertens Rep". 2016; 18(7): 56.
- Patel M, Mor-Avi V, Murtagh G, Bonham CA, **Laffin LJ**, **Medvedofsky D**, Hogarth DK, Lang RM, Patel AR. Right heart involvement in patients with sarcoidosis. "Echocardiography". 2016; 00:1-8.
- Murtagh G, **Laffin LJ**, Beshai JF, Maffessanti F, Bonham CA, Patel AV, Yu Z, Addetia K, Mor-Avi V, Moss JD, Hogarth DK, Sweiss NJ, Lang RM, Patel AR. Prognosis of myocardial damage in sarcoidosis patients with preserved left ventricular ejection fraction: risk stratification using cardiovascular magnetic resonance. "Circ Cardiovasc Imaging". 2016; 9: e003738.
- Iliescu R, Lohmeier TE, Tudorancea I, **Laffin LJ**, Bakris GL. Renal denervation for the treatment of resistant hypertension. "Am J Physiol Renal Physiol". 2015; 309: F583-594, 2015.
- **Laffin LJ**, Bakris GL. Diabetes and Hypertension, In: "Disorders of Blood Pressure Regulation", Berbari A ed. New York, NY: Springer LLC. (submitted 2016 - in press).
- **Laffin LJ**, Tanaka A, Milner R, Ota T. Aorta and Peripheral Arterial Disease in Hypertension, In: "Hypertension: A Companion to Braunwald's Heart Disease (3rd Edition)", Bakris GL, Sorrentino M eds. Philadelphia PA: Elsevier Health Sciences. 2017; pp 416-26.
- **Laffin LJ**, Bakris GL. Cardiovascular Risk Assessment, Summary of Guidelines for the Management of Hypertension and Critical Appraisal of the 2014 Expert Panel Guidelines, In: "Hypertension and Stroke", Aiyagari V, Gorelick PB eds. Springer International Publishing. 2016; pp 131-50.
- **Laffin LJ**, Bakris GL. Carotid Baroreceptor Stimulation, In: "Interventional Therapies for Secondary and Essential Hypertension", Tsioufis C, Schmieder R, Mancia G eds. Springer International Publishing. 2016; pp 339-48.
- **Laffin LJ**, Besser SA, Alenghat FJ. A map of SPRINT's data free zone. "Eur Heart J". accepted: pending publication August 2017.
- **Medvedofsky D**, **Kebed K**, **Laffin L**, **Stone J**, Hamilton J, Addetia K, Mor-Avi V, Lang RM. Is semi-automated assessment of left ventricular global longitudinal strain better than ejection fraction? "J Am Soc Echocardiogr". 2016, 29 (6): B124.
- **Narang A**, Ozcan C. Severe Torsades de Pointes with acquired QT prolongation. Eur Heart J Acute Cardiovasc Care. 2016 May 6. Narang A, Lang RM, Addetia K. 3D Echocardiography and Level III Training. JACC Cardiovasc Imaging. 2016 Aug;9(8):10178.
- **Narang A**, Spencer KT, Addetia K. A Case of Lung Cancer, Myocardial Infarction and a Cardiac Mass: The Added Value of CMR. Society of Cardiovascular Magnetic Resonance Scientific Sessions. 2017. Washington, DC.
- **Narang A**, Kishiki K, Desai NJ, Spencer KT, Mor-Avi V, Lang RM, Addetia L. Global Longitudinal Strain Predicts Mortality in Patients with Severe Aortic Insufficiency and Preserved Left Ventricular Function. American Society of Echocardiography Annual Scientific Sessions. 2017. Baltimore, MD.
- **Beaser AD**, Dia A, **Narang A**, Patel AR, Lang RM, Upadhyay GA. Isolated Twave Abnormalities Correlate with Cardiac Magnetic Resonance Imaging and Clinical Outcomes. Heart Rhythm Society. 2016. San Francisco, CA.
- Kishiki K, **Singh A**, **Narang A**, Gomberg Maitland M, Mor-Avi V, Lang RM, Addetia K. Left Ventricular Mechanics in Patients With Pulmonary Arterial Hypertension: Relationship With Outcomes. American Heart Association. 2016. New Orleans, LA.

*continued...*

- **Narang A**, Patel M, Mor-Avi V, Fedson SE, Lang RM, Patel AR. Vasodilator stress cardiovascular magnetic resonance imaging in post-orthotopic heart transplant recipients: evaluation of safety, hemodynamics, and myocardial perfusion. Society of Cardiovascular Magnetic Resonance Scientific Sessions. 2016. Los Angeles, CA.
- **Nazir NT**, Patel AR, **Narang A**, Matsumoto K, Tani D, Wang H, Smink J, Osman N, Kawaji K. Scan Time Reduction by Improved Utilization of Idle Times by Permuting Pre-Scan Ordering: Feasibility Demonstration of a multi-slice, multi-orientation, single breath-hold Strain Encoded CMR. Society of Cardiovascular Magnetic Resonance Scientific Sessions. 2017. Washington, DC.
- Burden of Premature Ventricular Contractions and myocardial fibrosis as measured by Native Myocardial T1 Time: Is There An Association? **Singh A**, Kawaji K, **Nazir N**, **Narang A**, Addetia K, Tung R, Flatley E, Lang RM, Patel AR. Society of Cardiovascular Magnetic Resonance Scientific Sessions. 2017. Washington, DC.
- **Narang A**, Patel AR, Nazir N, Tani D, Wang H, Smink J, Osman N, Kawaji K. A Single Breath Hold Simultaneous Acquisition Approach of both Cine CMR and Strain Encoded CMR for a Combined Assessment of Myocardial Wall Motion. Society of Cardiovascular Magnetic Resonance Scientific Sessions. 2017. Washington, DC.
- **Narang A**, Blair JE, Mor-Avi V, Kawaji K, Fedson SE, Uriel N, Lang RM, Patel AR. Mechanisms of Abnormal Myocardial Perfusion In Post Heart Transplant Patients. Society of Cardiovascular Magnetic Resonance Scientific Sessions. 2017. Washington, DC.
- **Narang A**, Blair JE, Mor-Avi V, Fedson SE, Uriel N, Lang RM, Patel AR. Abnormalities In Myocardial Perfusion Are Associated With Subclinical Systolic Dysfunction in Post-Heart Transplant Patients. Society of Cardiovascular Magnetic Resonance Scientific Sessions. 2017. Washington, DC.
- **Singh A**, Kawaji K, Tung R, Addetia A, **Nazir N**, **Narang A**, Zaidi J, Baker G, Lang RM, Patel AR. Implementation of a Wideband Late Gadolinium Enhancement Cardiac Magnetic Resonance Protocol to Improve Assessment of Myocardial Scar in Patients With Implantable Cardioverter Defibrillators. American College of Cardiology Scientific Sessions. 2017. Washington, DC.
- **Narang A**, **Nazir N**, Spencer KT, Mor-Avi V, Lang RM, Addetia K. Left Ventricular Mechanical Properties in Patients With Severe Aortic Insufficiency and Normal Ejection Fraction: Impact on Survival. American College of Cardiology Scientific Sessions. 2017. Washington, DC.
- **Narang A**, Blair JE, Mor-Avi V, Fedson SE, Uriel N, Lang RM, Patel AR. Multimodality Analysis of Abnormal Myocardial Perfusion In Post-Heart Transplant Recipients. American College of Cardiology Scientific Sessions. 2017. Washington, DC.
- Kishiki K, **Singh A**, **Narang A**, Gomberg-Maitland M, Mor-Avi V, Lang RM, Addetia K. Prognostic value of left ventricular strain in pulmonary arterial hypertension. American Society of Echocardiography Scientific Sessions. 2017. Baltimore, MD.
- Metha P, Chapel D, **Narang A**, Rosenbaum C, Mor-Avi V, Sarswat N, Lang RM, Husain AN, Patel AR. Can echocardiographic parameters predict the burden of cardiac amyloidosis. American Society of Echocardiography Scientific Sessions. 2017. Baltimore, MD.

*continued...*

- **Medvedofsky D**, Maffessanti F, Weinert L, Tehrani DM, **Narang A**, Addetia K, Besser SA, Patel AR, Spencer KT, Mor-Avi V, Lang RM: 2D and 3D echocardiography derived left ventricular function and shape indices: Which one predicts mortality best? American Society of Echocardiography Scientific Sessions. 2017. Baltimore, MD.
- **Narang A**, Weinert L, Kishiki K, Maffessanti F, Mor-Avi V, Lang RM, Addetia K: Superiority of 3D over 2D analysis of right ventricular function in predicting mortality. American Society of Echocardiography Scientific Sessions. 2017. Baltimore, MD.
- **Narang A**, Kishiki K, Desai NJ, Spencer KT, Mor-Avi V, Lang RM, Addetia K: Global longitudinal strain predicts mortality in patients with severe aortic insufficiency and preserved left ventricular ejection fraction. American Society of Echocardiography Scientific Sessions. 2017. Baltimore, MD.
- **Narang N**, Lang RM, Liarski Jeevanandam V, Hofmann-Bowman MA. Aortic Valve Replacement For Moderate Aortic Stenosis With Severe Calcification and Left Ventricular Dysfunction. A Case Report And Review of the Literature. Front Cardiovasc Med. 2017 Mar 27;4:14. doi: 10.3389/fcvm.2017.00014. eCollection 2017.
- **Narang N**, Dyer K, Blair JE. Novel Association of Microvascular Dysfunction and Cardiac Fibrosis in Heart Failure with Preserved Ejection Fraction: a Case Report. 2016. Manuscript under review at European Journal of Heart Failure.
- Shimizu T, **Narang N**, Yu B, Knapp M, Janardanan J, Blair JE, Liao JK. Fibroblast ROCK2 as a Critical Mediator of Cardiac Hypertrophy, Fibrosis and Heart Failure with Preserved Ejection Fraction Manuscript under review at Circulation.
- Gajjar MM, **Narang N**, Dryer K, Sweis R, Schimmel D, Cheng JY, Mitter SS, Yadlapati A, Mkrdichian H, Benzuly K, Lee M, Shah SJ, Blair JE. Coronary Microvascular Dysfunction in Patients with Heart Failure and Preserved Ejection Fraction. Poster presented at the American Heart Association Scientific Sessions, New Orleans, LA, Nov 15th, 2016.
- Diagnostic Predictors of Pulmonary Hypertension-Associated Mortality in Interstitial Lung Disease. A. Adegunsoye, J.H. Chung, S. Montner, **N. Narang**, C.T. Lee, L.J. Witt, J.M. Oldham, L. Chen, S. Hsu, R. Bag, A. Husain, I. Noth, R. Vij, M.E. Strek. Poster presented at the American Thoracic Society International Conference, Washington, DC, May 20th 2017.
- 2. Diagnostic Predictors of Pulmonary Hypertension-Associated Mortality in Interstitial Lung Disease. A. Adegunsoye, J.H. Chung, S. Montner, **N. Narang**, C.T. Lee, L.J. Witt, J.M. Oldham, L. Chen, S. Hsu, R. Bag, A. Husain, I. Noth, R. Vij, M.E. Strek. Poster presented at the American Thoracic Society International Conference, Washington, DC, May 20th 2017.
- **Nguyen AB**, Uriel N, Adatya S. New Challenges in the Treatment of Patients With Left Ventricular Support: LVAD Thrombosis. Curr Heart Fail Rep. 2016; 13:302309. Case report in print, accepted JHLT
- Flately E, **Oesterle A**, **Singh A**, Ward RP, Lang RM, Upadhyay GA, Nayak H, Patel AR, Moss JD, Tung R. Incidence of Arrhythmogenic Inflammatory Cardiomyopathy in Patients with Unexplained Conduction Disease and Ventricular Arrhythmias Presented at the Heart Rhythm Society Scientific Sessions on 5/11/17 in Chicago, IL 2017
- **Oesterle A**, Nayak H, Upadhyay G, Broman M, Liao JK, Tung R. Rho Kinase Activity is Elevated in Patients Presenting for Atrial Fibrillation Ablation. Presented at the University of Chicago Morton Arnsdorf Cardiology Research day on 4/20/2017



*continued...*

- **Oesterle A**, Upadhyay G, Broman M, Tung R, Nayak H. Atrial Fibrosis from Atrial Fibrillation Extends Beyond the Left Atrium: Right Atrial Fibrosis Assessed by Electroanatomic Voltage Mapping Correlates with Left Atrial Fibrosis in Patients Undergoing Atrial Fibrillation Ablation.
- **Grinstein J**, Garan AR, Flatley E, Kim GH, Mai X, Sarswat N, Kalantari S, Adatya S, Raikhelkar J, Sayer G, **Oesterle A**, Jeevanandam V, Moss J, Uriel N. Increased Rate of Pump Thrombosis and Cardioembolic Events Following Ventricular Tachycardia Ablation in Patients Supported with Left Ventricular Assist Devices. Presented at the International Society for Heart and Lung Transplantation Annual Meeting and Scientific Sessions in San Diego on April, 2017
- **A Oesterle**, B Weber, NK Choudhry, JP Singh, G Upadhyay. Prophylaxis of Atrial Fibrillation after Non-Cardiac Surgery: A MetaAnalysis. Featured Presentation at the University of Chicago Morton Arnsdorf Cardiology research day Abstract poster presented at the American Heart Association Scientific Sessions in New Orleans on November, 2016
- **Oesterle A**, Laufs U, Liao J. Pleiotropic Effects of Statins on the Cardiovascular System. Circulation Research. DOI: 10.1161/circresaha.116.308537 2016
- **Oesterle A, Singh A**, Balkhy H, Husain A, Moyer D, Tung R, Nayak H. Late Presentation of Constrictive Pericarditis after Limited Epicardial Ablation for Inappropriate Sinus Tachycardia. Heart Rhythm Case Reports. DOI: 10.1016/j.hrcr.2016.07.003 2016
- Rahman S, **Oesterle A**, Badhwar N. A Subclavian Arteriovenous Fistula Associated with Implantable Cardioverter-Defibrillator Implantation. Cardiac Electrophysiology Clinics. DOI: 10.1016/j.ccep.2015.10.026 2016
- **Oesterle A**, Balkhy HH, Green J, and Burke MC. Late Manifestation of Coronary Sinus and Left Atrial Perforation of a Left Ventricular Pacemaker Lead at Extraction. Pacing and Clinical Electrophysiology. DOI: 10.1111/pace.12822 2016
- **A Oesterle**, M.A. Hofmann Bowman. The Emerging Therapeutic Potential of the S100A12/RAGE Axis for Atherosclerosis. Published on the International Atherosclerosis Society website, www.athero.org, on 6/20/2016.
- **J. Stone**, H. Balkhy, C. Ozcan. "Unique case of papillary fibroelastoma originating from the right interatrial septum." International Journal of Cardiology, November 2016 223(15):251253.
- **Medvedofsky D, Kebed K, Laffin L, Stone J**, Addetia K, Lang RM, Mor-Avi V: Reproducibility and experience dependence of echocardiographic indices of left ventricular function: Side-by-side comparison of global longitudinal strain and ejection fraction. Echocardiogr 2017; 16 (DOI: 10.1111/echo.13446)
- **J. Stone**, V. Mor-Avi, A. Ardelt, R. Lang. "Are cerebral ECG T-waves in stroke patients a sign of associated transient cardiac dysfunction?" Presented at American Society of Echocardiography Scientific Sessions in Baltimore, June 2017.
- **J. Stone**, L. Lee, R.P. Ward. "High prevalence of important echocardiographic abnormalities in patients with a normal electrocardiogram." Presented at American Society of Echocardiography Scientific Sessions in Baltimore, June 2017.
- **Venturini JM**, Retzer E, Estrada JR, Friant J, Beiser D, Edelson D, Paul J, Blair JE, Nathan S, Shah AP. Mechanical chest compressions improve rate of return of spontaneous circulation and allow for initiation of percutaneous circulatory support during cardiac arrest in the cardiac catheterization laboratory. Resuscitation. 2017;115:5660

*continued...*

- **Venturini JM**, Retzer EM, Estrada JR, Mediratta A, Friant J, Nathan S, Paul JD, Blair J, Lang RM, Shah AP. A Practical Scoring System to Select Optimally Sized Devices for Percutaneous Patent Foramen Ovale Closure. *Structural Heart Disease*. 2016;2(5):217223.
- **Venturini JM**, Retzer E, Estrada JR, Friant J, Beiser D, Edelson D, Paul J, Blair JE, Nathan S, Shah AP. TCT125 Use of a Mechanical Chest Compression Device Increases Return of Spontaneous Circulation in Patients with Cardiac Arrest in the Cardiac Catheterization Laboratory. *Journal of the American College of Cardiology* 68(18):B50B51. November 2016.
- **Venturini JM**, Retzer E, Estrada JR, Friant J, Beiser D, Edelson D, Paul J, Blair JE, Nathan S, Shah AP. TCT134 Mechanical Chest Compressions as a Bridge to Percutaneous Extracorporeal Life Support Increase Return of Spontaneous Circulation in Patients with Cardiac Arrest. *Journal of the American College of Cardiology* 68(18):B54. November 2016.
- **Venturini JM**, Retzer E, Estrada JR, Friant J, Beiser D, Edelson D, Paul J, Blair JE, Nathan S, Shah AP. Abstract 11888: Mechanical Circulatory Support Increases Return of Spontaneous Circulation in Patients Receiving Mechanical Chest Compressions For Cardiac Arrest in the Cardiac Catheterization Laboratory. *Circulation* 2016;134:A11888.

## Posters and Presentations

- **Luise Holzhauser** ISHLT 2017: Consequence of Retained Defibrillator and Pacemaker Leads Following Heart Transplantation An Under-Sensed Problem?
- **Narang A**, Spencer KT, Addetia K. A Case of Lung Cancer, Myocardial Infarction and a Cardiac Mass: The Added Value of CMR. Society of Cardiovascular Magnetic Resonance Scientific Sessions. 2017. Washington, DC.
- **Narang A**, Kishiki K, Desai NJ, Spencer KT, MorAviV, Lang RM, Addetia L. Global Longitudinal Strain Predicts Mortality in Patients with Severe Aortic Insufficiency and Preserved Left Ventricular Function. American Society of Echocardiography Annual Scientific Sessions. 2017. Baltimore, MD.
- Nazir NT, Patel AR, **Narang A**, Matsumoto K, Tani D, Wang H, Smink J, Osman N, Kawaji K. Scan Time Reduction by Improved Utilization of Idle Times by Permuting Pre-Scan Ordering: Feasibility Demonstration of a multi slice, multi orientation, single breath hold Strain Encoded CMR. Society of Cardiovascular Magnetic Resonance Scientific Sessions. 2017. Washington, DC.
- Burden of Premature Ventricular Contractions and myocardial fibrosis as measured by Native Myocardial T1 Time: Is There An Association? **Singh A**, Kawaji K, **Nazir N**, Narang A, Addetia K, Tung R, Flatley E, Lang RM, Patel AR. Society of Cardiovascular Magnetic Resonance Scientific Sessions. 2017. Washington, DC.

*Continued....*

- **Narang A**, Patel AR, **Nazir N**, Tani D, Wang H, Smink J, Osman N, Kawaji K. A Single Breath Hold Simultaneous Acquisition Approach of both Cine CMR and Strain Encoded CMR for a Combined Assessment of Myocardial Wall Motion. Society of Cardiovascular Magnetic Resonance Scientific Sessions. 2017. Washington, DC.
- **Narang A**, Blair JE, MorAvi V, Kawaji K, Fedson SE, Uriel N, Lang RM, Patel AR. Mechanisms of Abnormal Myocardial Perfusion In Post Heart Transplant Patients. Society of Cardiovascular Magnetic Resonance Scientific Sessions. 2017. Washington, DC.
- **Narang A**, Blair JE, MorAvi V, Fedson SE, Uriel N, Lang RM, Patel AR. Abnormalities In Myocardial Perfusion Are Associated With Subclinical Systolic Dysfunction in Post-Heart Transplant Patients. Society of Cardiovascular Magnetic Resonance Scientific Sessions. 2017. Washington, DC.
- **Singh A**, Kawaji K, Tung R, Addetia A, **Nazir N**, **Narang A**, Zaidi J, Baker G, Lang RM, Patel AR. Implementation of a Wideband Late Gadolinium Enhancement Cardiac Magnetic Resonance Protocol to Improve Assessment of Myocardial Scar in Patients With Implantable Cardioverter Defibrillators. American College of Cardiology Scientific Sessions. 2017. Washington, DC.
- **Narang A**, **Nazir N**, Spencer KT, MorAvi V, Lang RM, Addetia K. Left Ventricular Mechanical Properties in Patients With Severe Aortic Insufficiency and Normal Ejection Fraction: Impact on Survival. American College of Cardiology Scientific Sessions. 2017. Washington, DC.
- **Narang A**, Blair JE, MorAvi V, Fedson SE, Uriel N, Lang RM, Patel AR. Multimodality Analysis of Abnormal Myocardial Perfusion In Post Heart Transplant Recipients. American College of Cardiology Scientific Sessions. 2017. Washington, DC.
- Kishiki K, **Singh A**, **Narang A**, Gomberg Maitland M, Mor -Avi V, Lang RM, Addetia K: Prognostic value of left ventricular strain in pulmonary arterial hypertension. American Society of Echocardiography Scientific Sessions. 2017. Baltimore, MD.
- Metha P, Chapel D, **Narang A**, Rosenbaum C, Mor-Avi V, Sarswat N, Lang RM, Husain AN, Patel AR: Can echocardiographic parameters predict the burden of cardiac amyloidosis. American Society of Echocardiography Scientific Sessions. 2017. Baltimore, MD.
- Medvedofsky D, Maffessanti F, Weinert L, Tehrani DM, **Narang A**, Addetia K, **Besser SA**, Patel AR, Spencer KT, Mor-Avi V, Lang RM: 2D and 3D echocardiography derived left ventricular function and shape indices: Which one predicts mortality best? American Society of Echocardiography Scientific Sessions. 2017. Baltimore, MD.
- **Narang A**, Weinert L, Kishiki K, Maffessanti F, Mor-Avi V, Lang RM, Addetia K: Superiority of 3D over 2D analysis of right ventricular function in predicting mortality. American Society of echocardiography Scientific Sessions. 2017. Baltimore, MD.
- **Narang A**, Kishiki K, Desai NJ, Spencer KT, Mor-Avi V, Lang RM, Addetia K: Global longitudinal strain predicts mortality in patients with severe aortic insufficiency and preserved left ventricular ejection fraction. American Society of Echocardiography Scientific Sessions. 2017. Baltimore, MD.
- Gajjar MM, **Narang N**, Dryer K, Sweis R, Schimmel D, Cheng JY, Mitter SS, Yadlapati A, Mkrdichian H, Benzuly K, Lee M, Shah SJ, Blair JE. Coronary Microvascular Dysfunction in Patients with Heart Failure and Preserved Ejection Fraction. Poster presented at the American Heart Association Scientific Sessions, New Orleans, LA, Nov 15th, 2016.



*Continued....*

- Diagnostic Predictors of Pulmonary Hypertension-Associated Mortality in Interstitial Lung Disease. A. Adegunsoye, J.H. Chung, S. Montner, **N. Narang**, C.T. Lee, L.J. Witt, J.M. Oldham, L. Chen, S. Hsu, R. Bag, A. Husain, I. Noth, R. Vij, M.E. Strek. Poster presented at the American Thoracic Society International Conference, Washington, DC, May 20<sup>th</sup> 2017.
- **Nikhil Narang**, Roberto M. Lang, Vladimir M. Liarski, Valluvan Jeevanandam, Marion A. Hofmann Bowman. Aortic Valve Replacement for Moderate Aortic Stenosis with Severe Calcification and Left Ventricular Dysfunction-A Case Report. Poster presented at the 9th annual Morton Arnsdorf Cardiovascular Research Symposium, Chicago, IL, April 21st, 2017.
- **Nikhil Narang**, **Diego Medvedofsky**, Kathryn Dryer, Sanjiv J. Shah, Charles J. Davidson, Amit R. Patel, John E. A. Blair. Microvascular Dysfunction and Cardiac Fibrosis in Heart Failure with Preserved Ejection Fraction: a Case Report. Poster presented at the 9th annual Morton Arnsdorf Cardiovascular Research Symposium, Chicago, IL, April 21st, 2017.
- International Society of Heart and Lung Transplantation 2017 **A. Nguyen**, K. Mullane, **B. Chung**, G. Kim, S. Adatya, N. Sarswat, J. Raikhelkar, G. Sayer, N. Uriel. Acute Myocarditis Secondary to Reactivated Chromosomally Integrated HHV6.
- International Society of Heart and Lung Transplantation 2017 **A. Nguyen**, L. Laurencio, N. Bassi, T. Imamura, N. Sarswat, J. Raikhelkar, S. Adatya, G. Kim, C. Murks, J. Powers, T. Riley, V. Jeevanandam, G. Sayer, N. Uriel. Short-Term Risk of Rejection Increases in Heart Transplant Patients Receiving Granulocyte-Colony Stimulating Factor.
- Flatley E, **Oesterle A**, **Singh A**, Ward RP, Lang RM, Upadhyay GA, Nayak H, Patel AR, Moss JD, Tung R. Incidence of Arrhythmogenic Inflammatory Cardiomyopathy in Patients with Unexplained Conduction Disease and Ventricular Arrhythmias Presented at the Heart Rhythm Society Scientific Sessions on 5/11/17 in Chicago, IL
- **Oesterle A**, Nayak H, Upadhyay G, Broman M, Liao JK, Tung R. Rho Kinase Activity is Elevated in Patients Presenting for Atrial Fibrillation Ablation. Presented at the University of Chicago Morton Arnsdorf Cardiology Research day on 4/20/2017 2017
- **Grinstein J**, Garan AR, Flatley E, Kim GH, Mai X, Sarswat N, Kalantari S, Adatya S, Raikhelkar J, Sayer G, Oesterle A, Jeevanandam V, Moss J, Uriel N. Increased Rate of Pump Thrombosis and Cardioembolic Events Following Ventricular Tachycardia Ablation in Patients Supported with Left Ventricular Assist Devices. Presented at the International Society for Heart and Lung Transplantation Annual Meeting and Scientific Sessions in San Diego on April, 2017
- **Putnam**. Characteristics of Conservatively versus Invasively Managed Patients with PE at The University of Chicago
- **J. Stone**, V. MorAvi, A. Ardelt, R. Lang. "Are cerebral ECG Twaves in stroke patients a sign of associated transient cardiac dysfunction?" Presented at American Society of Echocardiography Scientific Sessions in Baltimore, June 2017.
- **J. Stone**, L. Lee, R.P. Ward. "High prevalence of important echocardiographic abnormalities in patients with a normal electrocardiogram." Presented at American Society of Echocardiography Scientific Sessions in Baltimore, June 2017.

*Continued....*

- **Chung B, Grinstein J, Medvedofsky D**, Flatley E, Moss J, **Nguyen A**, Adatya S, Sayer G, Sarswat N, Raikhelkar J, Kim G, Kagan V, Ota T, Jeevanandam V, Lang R, Uriel N. Right Ventricular Pacing Improves Functional Status and Quality of Life Compared to Biventricular Pacing in LVAD Patients. Gordon Research Seminar - Assisted Circulation, Stowe, VT, Jun 24, 2017.
- **Chung B**, Knapp M, Rodgers D, Kim G, Adatya S, Sarswat N, Imamura T, Karrar E, Zhou J, Zhang L, Sayer G, Liao J, Uriel N. Longitudinal Rho-Associated Kinase (ROCK) Activity Correlates with Rejection in Heart Transplant Recipients. ISHLT Annual Meeting and Scientific Sessions, San Diego, CA, Apr 8, 2017.
- Imamura T, Adatya S, **Chung B**, **Nguyen A**, Rodgers D, Sayer G, Sarswat N, Kim G, Raikhelkar J, Ota T, Song T, Juricek C, Medvedofsky D, Jeevanandam V, Lang R, Estep JD, Burkhoff D, Uriel N. Cannula and Pump Position is Associated with Left Ventricular Unloading and Clinical Outcome in Patients with HeartWare Ventricular Assist Device. ASAIO Annual Conference, Chicago, IL, Jun 22, 2017.
- Jeevanandam V, Onsager D, Song T, **Chung B**, Ota T, Juricek C, Lammy T, Uriel N. The Hemodynamic Effects of Intravascular Ventricular Assist System (iVAS) in Advanced Heart Failure Patients Awaiting Heart Transplant. ISHLT Annual Meeting and Scientific Sessions, San Diego, CA, Apr 7, 2017.
- Sayer G, Imamura T, Adatya S, Kim GH, Rodgers D, **Nguyen A**, **Chung B**, Raikhelkar J, Sarswat N, Abbo R, Burkhoff D, Uriel N. Noninvasive Assessment of Lung Fluid Percentage in Heart Transplant Recipients Using Remote Dielectric Sensing. ISHLT Annual Meeting and Scientific Sessions, San Diego, CA, Apr 8, 2017.
- **Holzhauser L**, Imamura T, **Nguyen A**, **Chung B**, Ota T, Adatya S, Kim G, Sayer G, Sarswat N, Raikhelkar J, Jeevanandam V, Uriel N. Consequence of Retained Defibrillator and Pacemaker Leads Following Heart Transplantation – An Under-Sensed Problem? ISHLT Annual Meeting and Scientific Sessions, San Diego, CA, Apr 8, 2017.
- Imamura T, Adatya S, **Chung B**, **Nguyen A**, Burkhoff D, Sayer G, Sarswat N, Kim G, Raikhelkar J, Ota T, Song T, Juricek C, Medvedofsky D, Jeevanandam V, Lang R, Estep JD, Burkhoff D, Uriel N. Optimal Cannula and Pump Position Associating with Better Left Ventricular Unloading and Clinical Outcome in Patients with HeartMate II Ventricular Assist Device. ASAIO Annual Conference, Chicago, IL, Jun 23, 2017.
- **Chung B**, Knapp M, Rodgers D, Imamura T, Karrar E, Zhou J, Zhang L, Kim G, Adatya S, Sarswat N, Sayer G, Liao J, Uriel N. Longitudinal Rho-Associated Kinase (ROCK) Activity Increases in Acute Heart Transplant Rejection. Cardiovascular Research Day, University of Chicago, Chicago, IL, Apr 20, 2017.
- Adatya S, Imamura T, Kim GH, Sayer G, Rodgers D, Raikhelkar J, **Nguyen A**, **Chung B**, Sarswat N, Abbo R, Burkhoff D, Uriel N. Noninvasive Assessment of Lung Fluid Percentage in Advanced Heart Failure Patients. ISHLT Annual Meeting and Scientific Sessions, San Diego, CA, Apr 5, 2017.
- Kim GH, Rodgers D, Imamura T, **Nguyen A**, **Chung B**, Sarswat N, Raikhelkar J, Adatya S, Sayer G, Abbo R, Burkhoff D, Uriel N. Noninvasive Assessment of Lung Fluid Percentage in Patients with Left Ventricular Assist Devices. ISHLT Annual Meeting and Scientific Sessions, San Diego, CA, Apr 7, 2017.

---

## National Leadership Involvement...

### **Akhil Narang**

2018 American College of Cardiology Scientific Sessions Planning Committee

2018 American Society of Echocardiography Scientific Sessions Planning  
Committee

2017 ACC Leadership Council: FIT Section, Early Career Section, Cardiovascular  
Management Section

2017 ACC FIT Section Leadership Council, IL FIT Co-Representative

*JACC* Editorial Board – Social Media Section Editor