

# Sarnoff Cardiovascular Research Foundation 39th Annual Scientific Meeting

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## Program Agenda Hyatt Regency Boston May 2-4, 2019

### Thursday, May 2

- 1:00-5:00 pm**      **Finance Committee Meeting**  
*Chatham Room*
- 3:30-7:00 pm**      **Meeting Registration**  
*Martha's Vineyard Foyer, 3<sup>rd</sup> Floor*
- 4:00-5:00 pm**      **Alumni Committee Meeting**  
*Martha's Vineyard B*
- 5:00-5:30 pm**      **Scientific Committee Meeting with 2018-19 and 2019-20 Fellows**  
*Martha's Vineyard A*
- 5:30-7:30 pm**      **Poster Session Cocktail Reception (casual)**  
*Cape Cod Room*
- 7:30-9:30 pm**      **Evening Entertainment: Karaoke (cash bar)**  
*Cape Cod Room*



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## **Friday, May 3**

- 6:15 am-7:00 pm**      **Meeting Registration**  
*Martha's Vineyard Foyer, 3<sup>rd</sup> Floor*
- 6:15-7:15 am**      **Fun Run**  
Organizer: Sharlene Day, MD  
*Check-in by hotel entrance lobby (street level)*
- 6:30-8:00 am**      **Bird Walk in Boston Public Garden**  
Leader: Thomas Michel, MD, PhD  
*Check-in by hotel entrance lobby (street level)*
- 7:30-8:45 am**      **Continental Breakfast**  
*Cape Cod Room*
- 8:45-10:30 am**      **Scientific Session I**  
*Martha's Vineyard Room*
- Moderators: Richard Kitsis, MD and Jil Tardiff, MD, PhD (*invited*)
- 8:45-8:50 am**      **Opening Remarks and Introduction of Opening Address Speaker**  
**Charles Hong, MD, PhD, (1989-90 Fellow and 2005 Scholar) Chair, 2019 Annual Meeting Program Committee**
- 8:50-9:45 am**      **Opening Address: Modifying Myopathies**  
**Elizabeth McNally, MD, PhD, Ward Professor and Director, Center for Genetic Medicine, Northwestern University**
- 9:45-10:00 am**      **Small Molecule Modulators as Tools in Extricating the Mechanism of  $\beta$ -arrestin Signalling**  
**Henry Kwon, Second Year Fellow**  
Medical School:            Wayne State  
Sponsor:                    Henry Walters, MD  
Host Institution:          Duke  
Preceptors:                Robert Lefkowitz, MD and Alem Khsai, PhD
- 10:00-10:15 am**      **Screening to Identify Novel Modulators of Hypoxia Inducible Factor Activity**  
**Jamie Pfaff, Second Year Fellow**  
Medical School:            University of Texas, Southwestern  
Sponsor:                    Joseph Hill, MD, PhD  
Host Institution:          Dana Farber Cancer Institute  
Preceptor:                 William Kaelin, Jr, MD

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**10:15-10:30 am**      **Machine Learning with Time Series Data to Predict Extubation Failure in Pediatric CICU Patients**

**Sydney Rooney, Second Year Fellow**

Medical School:      Vanderbilt  
Sponsor:              Evan Brittain, MD  
Host Institution:      University of Michigan  
Preceptors:           Michael Gaies, MD and Sara Pasquali, MD

**10:30-10:45 am**      **Break**

*Martha's Vineyard Foyer*

**10:45-12:00 noon**      **Scientific Session II**

*Martha's Vineyard Room*

Moderators: Charles Lowenstein, MD and Philip Tsao, PhD

**10:45-11:00 am**

**Understanding the Link Between *GATA4/TBX5* Haploinsufficiency and Atrioventricular Septal Defects (AVSD) Using Single Cell RNA-sequencing in Human iPSCs**

**Rahul Mital**

Medical School:      University of Toledo  
Sponsor:              Christopher Cooper, MD  
Host Institution:      University of California, San Francisco  
Preceptor:            Deepak Srivastava, MD

**11:00-11:15 am**

**Biomechanics, Calcium Handling, and Metabolism of Hypertrophic Cardiomyopathy Variants in the Thin Filament**

**Giuliana Repetti**

Medical School:      University of Arizona  
Sponsor:              Jil Tardiff, MD, PhD  
Host Institution:      Brigham & Women's Hospital  
Preceptor:            Christine Seidman, MD

**11:15-11:30 am**

**Sex Differences in Protein Synthesis in Cardiac Hypertrophy**

**Terrence Liu**

Medical School:      University of Texas Southwestern  
Sponsor:              Joseph Hill, MD, PhD  
Host Institution:      MIT/Whitehead Institute for Biomedical Research  
Preceptor:            David Page, MD

**11:30-12:00 noon**

**Preceptor Talk: Genetics and Genomics**

**David Page, MD, Director, Whitehead Institute and Professor of Biology, MIT**

**11:30 am-2:15 pm**

**Board of Directors Meeting**

*Chatham Room*

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12:00-1:00 pm

**Luncheon / Break**

*Cape Cod Room*

1:00-2:00 pm

**Scientific Session III**

*Martha's Vineyard Room*

Moderators: Alan Daugherty, PhD and Daniel Greif, MD

1:00-1:15 pm

**Effects of PCSK9 on Inflammation and Foam Cell Formation in Early Atherosclerosis in a Tissue-Engineered Blood Vessel (TEBV) Model**

**Jason Breithaupt**

Medical School: University of Miami

Sponsor: Nanette Bishopric, MD

Host Institution: Duke

Preceptor: George Truskey, PhD

1:15-1:30 pm

**Coronary Microvascular Dysfunction in HIV**

**Leah Rethy**

Medical School: University of Pennsylvania

Sponsor: Jonathan Epstein, MD

Host Institution: Northwestern

Preceptor: Sanjiv Shah, MD

1:30-1:45 pm

**In vivo and in vitro Metabolic Profiling of ANGPTL3 Deficiency**

**Thomas Neufeld**

Medical School: Duke

Sponsor: Neil Freedman, MD

Host Institution: Washington University

Preceptor: Nate Stitzel, MD, PhD

1:45-2:00 pm

**Automated Quantification of Image Phenotypes from Clinical CT Scans Using Deep Learning**

**Matthew MacLean**

Medical School: University of Texas Southwestern

Sponsor: Joseph Hill, MD, PhD

Host Institution: University of Pennsylvania

Preceptor: Daniel Rader, MD

2:00-2:15 pm

**Break**

*Martha's Vineyard Foyer*

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2:15-3:15 pm

**Featured Address: A Genome-first Approach to Understanding Cardiometabolic Disease**

*Martha's Vineyard Room*

**Speaker: Daniel Rader, MD**, *Seymour Gray Professor of Molecular Medicine and Chief, Division of Translational Medicine and Human Genetics, University of Pennsylvania*

*Introduction by Arun Padmanabhan, MD, PhD*

3:15-3:30 pm

**Break**

*Martha's Vineyard Foyer*

3:30-4:15 pm

**Alumni Address: Personalized Therapeutics for Rare Cardiac Disorders**

*Martha's Vineyard Room*

**Speakers:** **Eric Adler, MD**, *(1997-98 Fellow), Associate Clinical Professor and Medical Director of Heart Transplant and Mechanical Circulatory Support, University of California, San Diego*

**Gotham Makker, MD**, *(1997-98 Fellow), Independent Director, Rocket Pharmaceuticals*

*Introduction by Andrew Plump, MD, PhD*

4:15-5:15 pm

**Academia and Industry Crossroads**

*Martha's Vineyard Room*

Moderator: Joseph Hill, MD, PhD

**Panelists:**

**Neil Ahluwalia, MD**, *(2005-07 Fellow) Medical Director, Vertex Pharmaceuticals*

**Fabian Chen, MD, PhD**, *(1986-87 Fellow), Vice President, Clinical Development, Rocket Pharma*

**Jerry Curran, PhD**, *Senior Scientist, Academic Research, ABIOMED, Inc.*

**Saptarsi Haldar, MD**, *(1998-99 Fellow), Vice President, Cardiovascular and Metabolic Discovery, Amgen*

**Albert Kim, MD, PhD**, *Vice President, Clinical Research, Pfizer*

**Gotham Makker, MD**, *(1997-98 Fellow), Independent Director, Rocket Pharmaceuticals*

**Fady Malik, MD, PhD**, *Executive Vice President, Research and Development, Cytokinetics*

**Ben Olenchock, MD, PhD**, *Director, Early Clinical Development & Experimental Sciences, Regeneron*

**Janet Schnee, MD** *(1986-87 Fellow and 1992-94 Scholar), Boehringer Ingelheim*

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5:30-6:30 pm

**Keynote Address: Emerging Science & Technology: A Brave New World**

*Martha's Vineyard Room*

**Victor Dzau, MD**, *President, National Academy of Medicine and Vice Chair, National Research Council*

*Introduction by Svati Shah, MD*

6:30-7:15 pm

**Cocktail Reception**

*Adrienne Salon, 4<sup>th</sup> Floor*

7:15-9:00 pm

**Awards Dinner**

*Ballroom, 4<sup>th</sup> Floor*

7:15 pm

**Dinner**

8:00 pm

**Awards and Recognitions**

- **2019-20 Sarnoff Fellowship and Scholar Awards**  
*Daniel Garry, MD, PhD, Chair, Board of Directors and Sharlene Day, MD, Chair, Scientific Committee*
- **2018-19 Preceptor Recognition**  
*Dr. Garry*
- **Announcement of Alumni Fellow Fund**  
*Jon Lomasney, MD*
- **Recognition of Retiring Board and Committee Members**  
*Dr. Garry*
- **Presentation of Dr. Stanley J. Sarnoff Spirit Award**  
*Dr. Garry*
- **Presentation of Dr. Arnold Katz Achievement Award**  
*Dr. Garry*

9:00-10:00 pm

**Evening Entertainment** (*cash bar*) featuring **Daniel Friedman, MD** (1983-84 Fellow and 1988-90 Scholar) on guitar, **Thomas Michel, MD, PhD** (Board of Directors) on accordion, and **Han Zhu, MD** (2012-13 Fellow), vocalist

*Ballroom, 4<sup>th</sup> Floor*



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## Saturday, May 4

- 7:30 am-10:30 am Meeting Registration**  
*Martha's Vineyard Foyer, 3<sup>rd</sup> Floor*
- 7:30-8:30 am Alumni Mentoring Breakfast with the Board of Directors and Scientific Committee**  
*Cape Cod Room*
- 7:30-8:30 am Continental Breakfast**  
*Chatham Room*
- 8:30-8:45 am Crystallographic Insights into the Mechanism of Calsequestrin-associated CPVT**  
*Martha's Vineyard Room*
- Erron Titus (2014-16 Fellow), MD/PhD Candidate, University of California, San Francisco*  
*Introduction by Arun Padmanabhan, MD, PhD*
- 8:45-10:25 am Scientific Session IV**  
*Martha's Vineyard Room*
- Moderators: H. Scott Baldwin, MD and Maria Kontaridis, PhD
- 8:45-9:00 am Neurodevelopmental Delay in CPVT**  
**Kristina Chambers**  
Medical School: Emory University  
Sponsor: Puja Mehta, MD  
Host Institution: Boston Children's Hospital  
Preceptors: William Pu, MD and Dominic Abrams, MD
- 9:00-9:15 am Transcriptional and Epigenetic Regulation of Human Monocytes by Lipoprotein (a)**  
**Jessica Zhang**  
Medical School: Cleveland Clinic Lerner College of Medicine of Case Western Reserve University  
Sponsor: James Young, MD  
Host Institution: University of California, San Diego  
Preceptor: Christopher Glass, MD, PhD
- 9:15-9:35 am Sarnoff Scholar Talk: Regional Variation in RBM20 Cause a Highly Penetrant Arrhythmogenic Cardiomyopathy**  
**Victoria Parikh, MD, 2009-10 Sarnoff Fellow and 2018-20 Scholar, Clinical Instructor, Stanford School of Medicine**  
Host Institution: Stanford  
Preceptor: Euan Ashley, FRCP, DPhil

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**9:35-9:55 am**      **Sarnoff Scholar Talk: CYP1 Inhibition as a Therapeutic Strategy for Doxorubicin Cardiotoxicity**  
*Aarti Asnani, MD, 2006-07 Fellow and 2017-19 Scholar, Instructor, Harvard Medical School*

**9:55-10:25 am**      **Preceptor Talk: Multi-omic Profiling of Humans: Big Data. Big Promises. Small Results?**  
*Robert Gerszten, MD, Chief of Cardiology, Beth Israel Deaconess Medical Center*

**10:25-10:45 am**      **Break**  
*Martha's Vineyard Foyer*

**10:45-11:45 am**      **Closing Address: Enjoying a Career in Cardiovascular Investigation**  
*Martha's Vineyard Room*

**Speaker: Marc Pfeffer, MD, PhD, Victor J. Dzau Professor of Medicine, Harvard Medical School**

***Introduction by Jonathan Brown, MD***



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## ACCREDITATION

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the University at Buffalo Jacobs School of Medicine and Biomedical Sciences and Sarnoff Cardiovascular Research Foundation.

The University at Buffalo Jacobs School of Medicine and Biomedical Sciences is accredited by the ACCME to provide continuing medical education for physicians.

## CERTIFICATION

The University at Buffalo Jacobs School of Medicine and Biomedical Sciences designates this live activity for a maximum of **10.5 AMA PRA Category 1 Credit(s)™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

### PROGRAM COMMITTEE

*\*Sarnoff Alumni*

**Charles Hong, MD, PhD\*, Chair**

Director of Research, Associate Chief of Cardiology and Melvin Sharoky Chair,  
University of Maryland School of Medicine

**Aaron Aday, MD\***

Instructor in Medicine, Vanderbilt University School of Medicine

**Jonathan Brown, MD\***

Associate Professor of Medicine, Vanderbilt University School of Medicine

**Michael Cain, MD**

Vice President for Health Sciences and Dean, Jacobs School of Medicine and  
Biomedical Sciences, University at Buffalo

**Sharlene Day, MD**

Associate Professor of Medicine, University of Michigan School of Medicine

**Richard Kitsis, MD**

Professor of Medicine and Cell Biology, Albert Einstein College of Medicine

**Rosanne Rouf, MD\***

Assistant Professor of Medicine, Johns Hopkins University School of Medicine

**Svati Shah, MD**

Associate Professor of Medicine, Duke University School of Medicine