Basic Cardiovascular Sciences 2017 Scientific Sessions:  
*Innovating in Cardiovascular Research*

July 30–August 2, 2018  
Grand Hyatt San Antonio | San Antonio, Texas

Preliminary Program

**MONDAY, July 30**

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<tr>
<td>8:00 AM</td>
<td>Registration/Exhibits Open</td>
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<td>9:45 AM</td>
<td>Early Career Pre-Conference Session: Welcome Address</td>
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|            | Nicole H. Purcell, PhD, University of California San Diego, La Jolla, California  
|            | Sean Wu Stanford, PhD, Stanford University, Stanford, California     |
| 10:00 AM   | Early Career Pre-Conference Session 1: "Next Best Thing"             |
|            | Oral Abstract Presentations                                          |
| 11:20 AM   | Early Career Pre-Conference Session 2                                |
|            | Common Career Hurdles and How to Clear Them                         |
|            | Sakthivel Sadayappan, PhD, MBA, University of Cincinnati College of Medicine, Cincinnati, Ohio |
| 11:50 am   | Break/Lunch on your own                                              |
Monday continued

12:35 PM  **BCVS 2018 Scientific Sessions: Opening Welcome**  
Ivor Benjamin, MD, Medical College of Wisconsin, Milwaukee, Wisconsin and President, American Heart Association

1:00 – 2:35 PM  
**Concurrent Session 1A: Cardiac Fibrosis - Changing the Landscape**

1:00 PM  TBD  
Jeffrey D. Molkentin, PhD, Children’s Hospital Medical Center, Cincinnati, Ohio

1:20 PM  TBD  
Amy Bradshaw, PhD, Medical University of South Carolina, Charleston, South Carolina

1:40 PM  TBD  
Taben M. Hale, PhD, University of Arizona, Phoenix, Arizona

2:00 PM  **Epigenetic Regulation of Cardiac Fibrosis**  
Timothy A. McKinsey, PhD, University of Colorado, Aurora, Colorado

2:20 PM  **Oral Abstract Presentation**

1:00 - 2:35 PM  
**Concurrent Session 1B: The On and Off of Redox**

1:00 PM  TBD  
Joseph Loscalzo, MD, PhD, Harvard Medical School, Boston, Massachusetts

1:20 PM  TBD  
Elizabeth (Tish) Murphy, PhD, NHLBI, Bethesda, Maryland

1:40 PM  **New Aspects of NO-based Cellular Signaling**  
Jonathan S. Stamler, MD, Case Western Reserve University, Cleveland, Ohio

2:00 PM  **New Hope for Measuring and Targeting Redox Dysregulation in Cardiovascular Disease**  
Gemma Figtree, MBBS, PhD, Kolling Institute, University of Sydney, St. Leonards, Australia

2:20 PM  **Oral Abstract Presentation**

2:35 PM – 3:05 PM  
**Refreshment Break, Exhibits**
Monday continued

3:05 - 4:40 PM
Concurrent Session 2A: Signaling Networks in Cardiac Myocyte

3:05 PM  TBD

3:25 PM  TBD
Ju Chen, PhD, University of California San Diego, La Jolla, California

3:45 PM  TBD
Peipei Ping, PhD, David Geffen School of Medicine at UCLA, Los Angeles, California

4:05 PM  TBD

4:25 PM  Oral Abstract Presentation

3:05 - 4:40 PM
Concurrent Session 2B: Mitochondrion and Heart Failure

3:05 PM  Non-canonical Mitophagy in the Heart
Asa Gustafsson, PhD, University of California San Diego, La Jolla, California

3:25 PM  TBD
Christoph Maack, MD, University Clinic Würzburg, Wurtzberg, Germany

3:45 PM  TBD
John W. Elrod, PhD, Temple University, Philadelphia, Pennsylvania

4:05 PM  TBD
Tohru Minamino, MD, PhD, Niigata University Graduate School of Medical and Dental Sciences, Nigata, Japan

4:25 PM  Oral Abstract Presentation

4:40 -- 7:00 PM
Poster Session 1 and Reception

TUESDAY, JULY 31

7:00 AM  Registration

7:00 AM  Continental Breakfast/Exhibits

7:00 AM  Women in Science Networking Breakfast
*Ticket required to attend*
Tuesday continued

8:00 – 9:15 AM
Concurrent Session 3A: Emerging Cardiac Therapeutic Strategies

8:00 AM  Gene Therapy & Genome Editing in Cardiomyopathies
          Roger Hajjar, MD, Mount Sinai School of Medicine, New York, New York

8:20 AM  Myosin Myopathies: Pathogenesis and Potential Therapeutic
          Leslie Leinwand, PhD, University of Colorado, Boulder, Colorado

8:40 AM  Cardiac Regeneration by Stimulating Endogenous Cardiomyocyte Proliferation
          Mauro Giaccia, MD, PhD, International Centre for Genetic Engineering and Biotechnology, Trieste, Italy

9:00 AM  Oral Abstract Presentation

8:00 – 9:15 AM
Concurrent Session 3B: Excitation-Contraction Coupling

8:00 AM  TBD
          Livia Hool, PhD, University of Western Australia, Crawley, Australia

8:20 AM  Preconception Exposure to Air Pollution Alters Adult Excitation-Contraction Coupling
          Loren E. Wold, PhD, The Ohio State University, Columbus, Ohio

8:40 AM  Novel Roles of Junctophilin in Heart Disease Pathogenesis
          Xander Wehrens, MD, PhD, Baylor College of Medicine, Houston, Texas

9:00 AM  Oral Abstract Presentation

9:15 AM – 9:45 AM
Refreshment Break, Exhibits

9:45 – 11:00 AM
Concurrent Session 4A: Transcriptional Regulation and Epigenetics

9:45 AM  Cardiac all-trans Retinoic Acid Deficiency is an Early Feature of Heart Failure Progression
          D. Brian Foster, PhD, Johns Hopkins School of Medicine, Baltimore, Maryland

10:05 AM  Transcriptional Regulation of Heart Development and Regeneration
          Enzo R. Porello, PhD, Murdoch Children’s Research Institute, Parkville, Australia

10:25 AM  Chromatin Structure in Heart Failure
          Tom M. Vondriska, PhD, University of California Los Angeles, Los Angeles, California

10:45 AM  Oral Abstract Presentation
Tuesday continued

9:45 – 11:00 AM
Concurrent Session 4B: How to Build a New Heart One Cell at a Time

9:45 AM  TBD
Jianyi (Jay) Zhang, MD, PhD, The University of Alabama at Birmingham, Birmingham, Alabama

10:05 AM  Deconstructing Regenerative Medicine: Beyond Cells to Exosomes and Defined Factors
Eduardo Marban, MD, Cedars-Sinai Medical Center, Los Angeles, California

10:25 AM  The Transcriptional Landscape of Cardiac Differentiation at Single Cell Resolution
Nathan Palpant, PhD, University of Queensland Institute for Molecular Bioscience, St. Lucia, Queensland, Australia

10:45 AM  Oral Abstract Presentation

11:00 AM – 12:00 PM
General Session 5: Keynote Lecture

11:00 am  TBD
Stephanie Dimmeler, PhD, Institute of Cardiovascular Regeneration, Goethe University, Frankfurt, Germany

12:00 PM – 1:30 PM
Early Career Luncheon: Speed Networking / Mentoring Round Tables
Ticket required to attend

Featured Presentation:
The Importance of Mentoring
Merry L. Lindsey, PhD, FAHA, University of Mississippi Medical Center, Jackson, Mississippi

Or
Lunch on your own; Poster viewing; Exhibits

1:30 – 2:45 PM
Concurrent Session 6A: Ion Channels and Arrhythmias

1:30 PM  TBD
Thomas Hund, PhD, The Ohio State University, Columbus, Ohio

1:50 PM  TBD
Joshua I. Goldhaber, MD, Cedars-Sinai Medical Center, Los Angeles, California

2:10 PM  Identification of an ATP-sensitive Potassium Channel in the Inner Mitochondrial Membrane
Diego De Stefani, PhD, University of Padova, Padova, Italy

2:30 PM  Oral Abstract Presentation
Tuesday continued

1:30 – 2:45 PM
Concurrent Session 6B: The Resurgence of Cardiac Metabolism

1:30 PM  TBD
Zoltan P. Arany, MD, PhD, University of Pennsylvania, Philadelphia, Pennsylvania

1:50 PM  Feeding the Starving Failing Heart
Daniel P. Kelly, MD, University of Pennsylvania, Philadelphia, Pennsylvania

2:10 PM  Metabolism and Myocardial Autopoiesis
Bradford G. Hill, PhD, University of Louisville, Louisville, Kentucky

2:30 PM  Oral Abstract Presentation

2:45 AM – 3:15 PM
Refreshment Break, Exhibits

3:15 – 4:30 PM
Concurrent Session 7A: Functional Genomics and Pathogenicity Assessment

3:15 PM  TBD

3:35 PM  Genetic Mechanisms in Cardiomyopathy
Elizabeth (Beth) McNally, MD, PhD, Northwestern University, Chicago, Illinois

3:55 PM  TBD

4:15 PM  Oral Abstract Presentation

3:15 – 4:30 PM
Concurrent Session 7B: Workshop 1: Imaging in vitro and in vivo

3:15 PM  Single-cell Imaging, Robotics and Deep Learning in Biology and Disease
Irina Epstein, PhD, UCSF Gladstone Institute, San Francisco, California

3:33 PM  Hyperpolarized 13C MRI of Myocardial Metabolism
Charles Cunningham, University of Toronto, Toronto, Ontario, Canada

3:51 PM  Phosphodiesterases Dictate Sub-microscopic Compartmentalisation of cAMP
Manuela Zaccolo, MD, PhD, Oxford Balliol College, Oxford, United Kingdom

4:09 PM  Optogenetic Tools for Visualizing and Manipulating Cell Metabolism
Yi Yang, PhD, East China University of Science and Technology, Shanghai, China

4:30 – 7:00 PM
Poster Session 2 and Reception

7:00 PM
Early Career Investigator Social Event
WEDNESDAY, AUGUST 1

7:00 AM    Registration

7:00 AM    Continental Breakfast/Exhibits

8:00 – 9:15 AM
Concurrent Session 8A: Personalized Cell Models of Arrhythmia

8:00 AM    TBD

8:20 AM    Incorporating the Person in Personalized Cell Models
Jennifer L. Strande, MD, Medical College of Wisconsin, Milwaukee, Wisconsin

8:40 AM    Advances in Using iPSCs for Arrhythmia Modeling
Lior Gepstein, MD, PhD, Technion, Haifa, Israel

9:00 AM    Oral Abstract Presentation

8:00 – 9:15 AM
Concurrent Session 8B: Getting the Message – New Ways to Think About RNA

8:00 AM    TBD
Roger S. Foo, MD, PhD, University of Singapore, Singapore

8:20 AM    iRNA-based Therapy of Myocardial Disease
Stefan Engelhardt, MD, TU Munich, Munich, Germany

8:40 AM    Single Cell Transcriptomics to Study Cardiomyocyte Cell Fate Control
Li Qian, PhD, University of North Carolina, Chapel Hill, North Carolina

9:00 AM    Oral Abstract Presentation

9:15 – 10:00 AM
General Session 9: Outstanding Early Career Investigator Award Competition

10:00 AM – 10:30 AM
Refreshment Break, Exhibits

10:30 – 11:45 AM
Concurrent Session 10A: Early Career Session
Navigating Your Career: Finding Success and Happiness with a PhD

10:30 AM    Omnivert A Misunderstood Personality
Mark A. Sussman, PhD, San Diego State University, San Diego, California

10:45 AM    Postdoc Perspective
Catherine A. Makarewitch, PhD, UT Southwestern Medical Center, Dallas, Texas

11:00 AM    Graduate Student Perspective
Adrian Arrieta, San Diego State University, San Diego, California

11:15 AM    Panel Discussion / Q & A
Wednesday continued

10:30 – 11:45 AM  
Concurrent Session 10B: Workshop 2  
Towards Single Cell Analysis

10:30 AM  
TBD  
Peggi Angel, Medical University of South Carolina, Charleston, South Carolina

10:45 AM  
Proteomics of a Single Cell and Its Lineage in the Developing Frog Embryo using Ultrasensitive Mass Spectrometry  
Aparna Baxi, University of Maryland, College Park, Maryland

11:00 AM  
TBD  
Baljit Ubhi, PhD, SCIEX, Redwood City, CA

11:15 AM  
TBD

11:45 AM – 1:30 PM  
Lunch on Your Own, Poster Viewing, Exhibits

1:30 – 2:45 PM  
Concurrent Session 11A: The Architecture of Contraction

1:30 PM  
TBD  
Jill Tardiff, MD, PhD, University of Arizona, Tucson, Arizona

1:50 PM  
TBD  
Sakthivel Sadayappan, PhD, MBA, University of Cincinnati College of Medicine, Cincinnati, Ohio

2:10 PM  
TBD  
Beata M. Wolska, PhD, University of Illinois, Chicago, Illinois

2:30 PM  
Oral Abstract Presentation

1:30 – 2:45 PM  
Concurrent Session 11B: Cell Death and Cardiomyopathy

1:30 PM  
Molecular mechanisms of cell survival by FoxO1  
Jun Sadoshima, MD, Rutgers New Jersey Medical School, Newark, New Jersey

1:50 PM  
TBD  
Frederica Del Monte, MD, PhD, Medical University of South Carolina, Charleston, South Carolina

2:10 PM  
TBD  
Lorrie A. Kirshenbaum, PhD, University of Manitoba, Winnipeg, Manitoba, Canada

2:30 PM  
Oral Abstract Presentation

2:45 AM – 3:15 PM  
Refreshment Break, Exhibits
Wednesday continued

3:15 – 4:30 PM
Concurrent Session 12A: Workshop 3 – Single and Multi-omics

3:15 PM  TBD
Ying Ge, PhD, University of Wisconsin, Madison, Wisconsin

3:30 PM  A Multi-omics Approach to Cardiovascular Disease
Manuel Mayr, MD, Kings College, London, United Kingdom

3:45 PM  TBD
Neil Kelleher, PhD, Northwestern University, Chicago, Illinois

4:00 PM  The Role of Protein Citrullination in Cardiovascular Disease
Justyna P. Fert-Bober, PhD, Cedars-Sinai Medical Center, Los Angeles, California

4:15 PM  TBD
John R. Yates, III, PhD, The Scripps Research Institute, La Jolla, California

3:15 – 4:30 PM
Concurrent Session 12B: Cardiovascular Stress and Inflammation

3:15 PM  Macrophages and Interorgan crosstalk in cardiac adaptation
Ichiro Manabe, MD, PhD, Chiba University Graduate School of Medicine, Chiba, Japan

3:35 PM  TBD
Joseph A. Hill, MD, PhD, UT Southwestern Medical Center, Dallas, TX

3:55 PM  TBD
Joan Heller Brown, University of California San Diego, La Jolla, California

4:15 PM  Oral Abstract Presentation

4:30 -- 7:00 PM
Poster Session 3 and Reception

7:00 PM
BCVS Council Dinner

THURSDAY, AUGUST 2

7:00 AM  Registration

7:00 AM  Continental Breakfast
Thursday continued

8:00 – 9:00 AM
General Session 13: Basic Science and Precision Medicine – The Interface

8:00 AM  Big Data and Health  
Michael P. Snyder, Stanford University, Stanford, California

8:20 AM  TBD  
Ioannis Karakikes, PhD, Stanford University, Palo Alto, California

8:40 AM  TBD  
Joseph C. Wu, MD, PhD, Stanford University, Stanford, California

9:00 AM – 9:30 AM  
Refreshment Break, Exhibits

9:30 – 10:45 AM  
General Session 14: Metabolic Pathways to Cardiovascular Disease

9:30 AM  Signaling Pathways Downstream of Mitochondrial Dynamics  
E. Dale Abel, MD, PhD, University of Iowa, Roy J. and Lucille A. Carver College of Medicine, Iowa City, Iowa

9:50 AM  TBD  
Svati H. Shah, MD, Duke University Medical Center, Durham, North Carolina

10:10 AM  TBD

10:30 AM  Oral Abstract Presentation

10:45 – 11:45 AM  
General Session 15: Novel Cardiac Regulatory Mechanisms

10:45 AM  Downregulation of Cardiac Sympathetic Tone in Heart Failure  
David J. Lefer, PhD, Louisiana State University, New Orleans, Louisiana

11:05 AM  TBD  
Kimberly Dodge-Kafka, PhD, University of Connecticut Health Center, Farmington, Connecticut

11:25 AM  Role of NF2 in Cardiac Injury  
Dominic Del Re, PhD, Rutgers New Jersey Medical School, Newark, New Jersey

11:45 AM  
Closing Remarks / Conference Adjourns