Basic Cardiovascular Sciences 2018 Scientific Sessions:  
*Innovating in Cardiovascular Research*

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

Preliminary Program

**MONDAY, July 30**

8:00 AM  Registration/Exhibits Open

9:45 AM   Early Career Pre-Conference Session:  Welcome Address  
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
BCVS 2018 Scientific Sessions: Opening Welcome
Ivor Benjamin, MD, Medical College of Wisconsin, Milwaukee, Wisconsin and President, American Heart Association
Joseph C. Wu, MD, PhD, FAHA, Stanford University School of Medicine, Stanford, California

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

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

Refreshment Break, Exhibits
Monday continued

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

3:05 PM    Proteostasis Signaling in Heart Disease
            Chris C. Glembotski, PhD, San Diego State University, San Diego, California

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    The Role of FGF23 in Uremic Cardiomyopathy
            Christian Faul, PhD, The University of Alabama at Birmingham, Birmingham, Alabama

4:25 PM    Oral Abstract Presentation

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

Moderators:
Roberta Gottleib
TBD

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, Niigata, 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
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  Elucidating the Molecular Mechanisms for Increased Contractility in the “Fright or Flight” Response
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
Quinn S. Wells, MD, Vanderbilt University, Nashville, Tennessee

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

3:55 PM  TBD
Kiran Musunuru, MD, PhD, University of Pennsylvania, Philadelphia, Pennsylvania

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  Human iPSC Models of Hypertrophic Cardiomyopathy Suggest New Arrhythmia Mechanisms  
Bjorn C. Knollmann, MD, PhD, Vanderbilt University, Nashville, Tennessee

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  Cosegregation of MYBPC3Δ25bp with MYBPC3 D389V is Associated with a Cardiomyopathic Substrate
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  Metabolic Dysregulation in Cardiovascular Disease
Svati H. Shah, MD, Duke University Medical Center, Durham, North Carolina

10:10 AM  TBD
Deborah Muoio, PhD, Duke University, Durham, North Carolina

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