Final Program

Basic Cardiovascular Sciences 2018 Scientific Sessions:
Innovating in Cardiovascular Research

July 30–August 2, 2018
Grand Hyatt San Antonio | San Antonio, Texas
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<th>Time</th>
<th>Sunday July 29</th>
<th>Monday July 30</th>
<th>Tuesday July 31</th>
<th>Wednesday August 1</th>
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<td>Concurrent Sessions: 3A: Emerging Cardiac Therapeutic Strategies 3B: Excitation-Contraction Coupling</td>
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<td>Concurrent Sessions: 8A: Personalized Cell Models of Arrhythmia 8B: Getting the Message – New Ways to Think About RNA</td>
<td>General Session 13: Basic Science and Precision Medicine – The Interface</td>
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<td>Early Career Pre-Conference Session Opening Welcome</td>
<td>9:15–9:45 AM</td>
<td>General Session 9: Outstanding Early Career Investigator Award Competition</td>
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<td>9:45–10:00 AM</td>
<td>Early Career Pre-Conference Session 1: “Next Big Thing” in Cardiovascular Research</td>
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<td>General Session 14: Metabolic Pathways to Cardiovascular Disease</td>
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<td>Concurrent Sessions: 4A: Transcriptional Regulation and Epigenetics 4B: How to Build a New Heart One Cell at a Time</td>
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<td>General Session 5: Keynote Lecture</td>
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Program Agenda

MONDAY, July 30

8:00 AM  
Texas Ballroom Foyer  
Registration/Exhibits Open

9:45 – 10:00 AM  
Texas Ballroom C  
Early Career Pre-Conference Session: Welcome Address  
Nicole H. Purcell, PhD, University of California San Diego, La Jolla, California  
Sean Wu, PhD, Stanford University, Stanford, California

10:00 – 11:15 AM  
Texas Ballroom C  
Early Career Pre-Conference Session 1: "Next Best Thing" in Cardiovascular Research

Moderators:  
Jean C. Bopassa, PhD, University of Texas Health Science Center, San Antonio, Texas  
Nirmala Hariharan, PhD, University of California at Davis, Davis, California

Oral Abstract Presentations

10:00 Targeting the NAD/NADH Ratio for Heart Failure Therapy  
Matthew A Walker, Univ of Washington, North Bend, WA; Outi Villet, Rong Tian, Univ of Washington, Seattle, WA

10:15 Cytosolic RBFox1 in Cardiac Pathological Remodeling  
Chen Gao, Yun-Hua (Esther) Hsiao, Menglong Wang, Zhaojun Xiong, Shuxun Ren, Christoph D Rau, Katelyn Li, Xinshu(Grace) Xiao, Yibin Wang, Yi Xing, UCLA-Los Angeles, Los Angeles, CA

10:30 A Lack in Endogenous Proteasome Regulation Provokes Exacerbated Cardiac Remodeling and Premature Heart Failure Following Catecholamine Challenge  
Felix A Trogisch, Franziska Koser, Dept of Cardiovascular Physiology, Heidelberg Univ, Heidelberg, Germany; Andreas Jungmann, Dept of Internal Med III, Univ Medical Ctr Heidelberg, Heidelberg, Germany; Oliver J Müller, Dept of Internal Med III, Univ Medical Ctr Kiel, Kiel, Germany; Markus Hecker, Dept of Cardiovascular Physiology, Heidelberg Univ, Heidelberg, Germany; Oliver Drews, DZHK (German Ctr for Cardiovascular Res), partner site Heidelberg/Mannheim, Germany

10:45 Evaluation of Patient Specific MTERF4 Variants in Gene Edited Human iPSC-derived Cardiomyocytes  
Maribel Marquez, Medical Coll of Wisconsin, Milwaukee, WI; Chris McDermott-Roe, Univ of Pennsylvania, Philadelphia, PA; Mike Grzybowski, Daniel Helbling, Medical Coll of Wisconsin, Milwaukee, WI; David P. Dimmock, Rady Children's Inst for Genomic Med, San Diego, CA; James W. Verbsky, Aron M. Geurts, Medical Coll of Wisconsin, Milwaukee, WI

11:00 A Microrna-hippo Pathway Functions in Cardiac Conduction System Homeostasis and Regeneration  
Jun Wang, Baylor Coll of Med, Houston, TX
11:15 – 11:50 AM
Texas Ballroom C
Early Career Pre-Conference Session 2

Moderator:
Maegen Ackerman, PhD, Ohio State University, Columbus, Ohio

11:15 Common Career Hurdles and How to Clear Them
Sakthivel Sadayappan, PhD, MBA, University of Cincinnati College of Medicine, Cincinnati, Ohio

11:50 AM – 12:35 PM
Break/Lunch on your own

12:35 – 1:00 PM
Texas Ballroom A/B
BCVS 2018 Scientific Sessions: Opening Welcome

Ivor J. Benjamin, MD, FACC, FAHA, Medical College of Wisconsin, Milwaukee, Wisconsin and President, American Heart Association

Joseph C. Wu, MD, PhD, FAHA, Stanford University School of Medicine, Stanford, California

1:00 – 2:35 PM
Texas Ballroom A/B
Concurrent Session 1A: Cardiac Fibrosis - Changing the Landscape

Moderators:
Burns Blaxall, PhD, FAHA, Cincinnati Children’s Hospital, Cincinnati, Ohio
TBD

1:00 Novel Fibroblast Functional States in the MI Heart
Jeffrey D. Molketin, PhD, Children’s Hospital Medical Center, Cincinnati, Ohio

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

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

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

Oral Abstract Presentation

2:20 PRDM16 is a Novel Regulator of Cardiac Hypertrophy, Remodeling and Mitochondrial Dynamics
Karla Maria Pires, Sihem Boudina, Univ of Utah, Salt Lake Cty, UT
1:00 – 2:35 PM
Texas Ballroom C
Concurrent Session 1B: The On and Off of Redox

Moderators:
Brian O’Rourke, PhD, Johns Hopkins University, Baltimore, Maryland
TBD

1:00 Cardiovascular Adaptation to Hypoxia and Redox Stress
Joseph Loscalzo, MD, PhD, Harvard Medical School, Boston, Massachusetts

1:20 Nitric Oxide and Cardioprotection
Elizabeth (Tish) Murphy, PhD, NHLBI, Bethesda, Maryland

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

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

Oral Abstract Presentation

2:20 Endothelial Arnt Regulates Microvascular Endothelial Barrier Function in Heart Failure Through a Novel Mmp3 Pathway
Mei Zheng, Maura Knapp, Jorge Andrade, Anna Cheng, Nikola Sladojevic, University of Chicago, Chicago, IL; Konstantin G Birukov, Univ of Maryland, Maryland, IL; Qiong Zhao, Inova Heart and Vascular Inst, Falls Church, VA; James K. liao, Rongxue (Rosie) Wu, University of Chicago, Chicago, IL

2:35 – 3:05 PM
Texas Ballroom Foyer
Refreshment Break, Exhibits

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

Moderators:
Maria Kontardis, PhD, FAHA, Beth Israel Deaconess Medical Center, Boston, Massachusetts
James F. Martin, MD, PhD, Baylor College of Medicine, Houston, Texas

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

3:25 The Role of Co-chaperone BAG3 in Cardiomyocytes
Ju Chen, PhD, University of California San Diego, La Jolla, California

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

4:05 The Role of FGF23 in Uremic Cardiomyopathy
Christian Faul, PhD, The University of Alabama at Birmingham, Birmingham, Alabama
Oral Abstract Presentation

4:25  An Internal Pool of β-Adrenergic Receptors Activates PLC-mediated PI4P Hydrolysis in Cardiac Myocytes  
Alan V Smrcka, Craig A Nash, Wenhui Wei, Univ of Michigan Sch of Med, Ann Arbor, MI

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

Moderators:
Roberta A. Gottleib, MD, Cedars-Sinai Medical Center, Los Angeles, California  
Adam R. Wende, PhD, The University of Alabama at Birmingham, Birmingham, Alabama

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

3:25  Role of Mitochondrial Calcium and Redox Regulation in Heart Failure  
Christoph Maack, MD, University Clinic Würzburg, Wurtzberg, Germany

3:45  Molecular Regulation of Mitochondrial Calcium Uptake  
John W. Elrod, PhD, Temple University, Philadelphia, Pennsylvania

4:05  Targeting Cellular Aging for the Treatment of Cardiovascular Diseases  
Tohru Minamino, MD, PhD, Niigata University Graduate School of Medical and Dental Sciences, Nigata, Japan

Oral Abstract Presentation

4:25  Cytochrome b5 Reductase 3 Regulates Myoglobin Redox State and Controls Cardiac Function  
Nolan Thorne Carew, Helene M Altmann, Joseph C Galley, Scott Hahn, Megan P Miller, Sruti Shiva, Dennis McNamara, Adam C Straub, Univ of Pittsburgh, Pittsburgh, PA

4:40 – 7:00 PM  
Texas Ballroom D/E/F  
Poster Session 1 and Reception

TUESDAY, JULY 31

7:00 AM  
Texas Ballroom Foyer  
Registration

7:00 – 8:00 AM  
Texas Ballroom Foyer  
Continental Breakfast/Exhibits

7:00 – 8:00 AM  
Republic A/B/C  
Women in Science Networking Breakfast  
Ticket required to attend
8:00 – 9:15 AM  
*Texas Ballroom A/B*  
**Concurrent Session 3A: Emerging Cardiac Therapeutic Strategies**

**Moderators:**  
Susmita Sahoo, PhD, Mount Sinai School of Medicine, New York, New York  
Kristin I. Stanford, PhD, The Ohio State University, Columbus, Ohio

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

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

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

**Oral Abstract Presentation**

9:00  
**AAV-Exosomes: A Novel Platform for Myocardial Gene Delivery for Cardioprotection**  
Marta Adamiak, Yaxuan Liang, Prabhu Mathiyalagan, Neha Agarwal, Erik Kohlbrenner, Divya Jha, Elena Chepurko, Dongtak Jeong, Delaine Ceholski, Nicole Dubois, Roger Hajjar, Susmita Sahoo, Icahn Sch of Med at Mount Sinai, New York, NY

8:00 – 9:15 AM  
*Texas Ballroom C*  
**Concurrent Session 3B: Excitation-Contraction Coupling**

**Moderators:**  
Donald M. Bers, PhD, University of California at Davis, Davis, California  
Julia Ritterhoff, PhD, University of Washington, Seattle, Washington

**8:00**  
**Elucidating the Molecular Mechanisms for Increased Contractility in the "Fight or Flight" Response**  
Livia Hool, PhD, University of Western Australia, Crawley, Australia

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

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

**Oral Abstract Presentation**

9:00  
**Tuning EC-Coupling: β-Adrenergic Receptor Activation Stimulates Dynamic Augmentation of CaV1.2 Channel Sarcolemmal Abundance and Cooperativity**  
Danica W Ito, Karen I Hannigan, Luis F Santana, Rose E Dixon, Univ of California Davis, Davis, CA
9:15 AM – 9:45 AM
Texas Ballroom Foyer
Refreshment Break, Exhibits

9:45 – 11:00 AM
Texas Ballroom A/B
Concurrent Session 4A: Transcriptional Regulation and Epigenetics

Moderators:
Sarah Franklin, PhD, University of Utah, Salt Lake City, Utah
Lilei Zhang, MD, Baylor College of Medicine, Houston, Texas

9:45  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  Transcriptional Regulation of Heart Development and Regeneration
Enzo R. Porello, PhD, Murdoch Children’s Research Institute, Parkville, Australia

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

Oral Abstract Presentation

10:45  Identifying Cardiac Conduction System-specific Enhancers That Link Cell-type Specification with Human Conduction Defects
Samadrita Bhattacharyya, Minoti Bhakta, Lin Wang, Nikhil V. Munshi, UT Southwestern Medical Ctr, Dallas, TX

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

Moderators:
Joshua Hare, MD, FAHA, University of Miami, Miami, Florida
Mohsin Khan, PhD, Temple University, Philadelphia, Pennsylvania

9:45  Myocardial Tissue Engineering with Cells Derived from Human Induced-pluripotent Stem Cells and a Native-like, High-resolution, 3D Printed Scaffold
Jianyi (Jay) Zhang, MD, PhD, FAHA, The University of Alabama at Birmingham, Birmingham, Alabama

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

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

Oral Abstract Presentation

10:45  The Mevalonate Pathway Controls Cardiomyocyte Proliferation
James E Hudson, The Univ of Queensland, Brisbane, Australia
11:00 AM – 12:00 PM  
*Texas Ballroom A/B*  
**General Session 5: Keynote Lecture**

**Moderators:**  
Ronglih Liao, PhD, FAHA, Stanford University, Stanford, California  
Joseph C. Wu, MD, PhD, FAHA, Stanford University, Stanford, California

11:00  
**Cellular Heterogeneity and Plasticity in Cardiovascular Disease**  
Stefanie Dimmeler, PhD, Institute of Cardiovascular Regeneration, Goethe University, Frankfurt, Germany

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

**Moderator:**  
Sarah M. Schumacher, PhD, Cleveland Clinic, Cleveland, Ohio

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

**Speed Networking Mentors**

Burns Blaxall, PhD, FAHA, Cincinnati Children's Hospital, Cincinnati, Ohio  
Joan Heller Brown, PhD, University of California, San Diego, La Jolla, California  
Chris Glembotski, PhD, San Diego State University, San Diego, California  
Asa Gustafsson, PhD, FAHA, University of California, San Diego, La Jolla, California  
Joshua Hare, MD, FAHA, University of Miami, Miami, Florida  
Joseph Hill, MD, PhD, FAHA, UT Southwestern Medical School, Dallas, Texas  
Steven Houser, PhD, FAHA, Temple University, Philadelphia, Pennsylvania  
Lorrie Kirshenbaum, PhD, University of Manitoba, Winnipeg, Manitoba, Canada  
Maria Kontaridis, PhD, FAHA, Beth Israel Deaconess Medical Center, Boston, Massachusetts  
Leslie Leinwand, PhD, University of Colorado, Boulder, Colorado  
Ronglih Liao, PhD, FAHA, Stanford University School of Medicine, Stanford, California  
Merry Lindsey, PhD, FAHA, University of Mississippi Medical Center, Jackson, Mississippi  
Donald Menick, PhD, Medical University of South Carolina, Charleston, South Carolina  
Jeffery Molkentin, PhD, Children's Hospital Medical Center, Cincinnati, Ohio  
Susan Steinberg, MD, Columbia University Medical Center, New York, New York  
Mark Sussman, PhD, FAHA, San Diego State University, San Diego, California  
Jil Tardiff, MD PhD, FAHA, University of Arizona, Tucson, Arizona  
Rong Tian, MD, PhD, FAHA, University of Washington, Seattle, Washington  
Jennifer Van Eyk, PhD, FAHA, Cedars- Sinai Medical Center, Los Angeles, California  
Thomas Vondriska, PhD, University of California, Los Angeles, Los Angeles, California  
Joseph Wu, MD, PhD, FAHA, Stanford University School of Medicine, Stanford, California  
Jianyi Zhang, MD, PhD, FAHA, University of Alabama at Birmingham, Birmingham, Alabama

Or

**Lunch on your own; Poster viewing; Exhibits**
1:30 – 2:45 PM  
*Texas Ballroom A/B*

**Concurrent Session 6A: Ion Channels and Arrhythmias**

**Moderators:**  
Geoffrey S. Pitt, MD, PhD, Weill Cornell Medical College, New York, New York  
Henry M. Sucov, PhD, University of Southern California at Los Angeles, California

1:30  
**CaMKII-dependent Regulation of Nav1.5, Late Sodium Current and Arrhythmias**  
Thomas Hund, PhD, The Ohio State University, Columbus, Ohio

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

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

**Oral Abstract Presentation**

2:30  
**Molecular and Electrophysiologic Characterization of Obesity Mediated Atrial Fibrillation in Mc4r-KO Mice**  
Ambili Menon, Mark McCauley, Liang Hong, Arvind Sridhar, Srikanth Perike, Meihong Zhang, Erin Lambers, Dawood Darbar, Univ of Illinois at Chicago, Chicago, IL

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1:30 – 2:45 PM  
*Texas Ballroom C*

**Concurrent Session 6B: The Resurgence of Cardiac Metabolism**

**Moderators:**  
Gary D. Lopaschuk, PhD, University of Alberta, Edmonton, Alberta, Canada  
Anja Karlstaedt, MD, PhD, McGovern Medical School at UT Health, Houston, Texas

1:30  
**Novel Players in Mitophagy**  
Zoltan P. Arany, MD, PhD, University of Pennsylvania, Philadelphia, Pennsylvania

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

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

**Oral Abstract Presentation**

2:30  
**Protein-coupled Receptor Kinase 2 Impairs Fatty Acid Metabolism in the Failing Heart Through Novel Mechanisms**  
Jessica M Pfleger, Polina Gross, Jaslyn Johnson, Erhe Gao, Steven R Houser, Walter J Koch, Temple Univ, Philadelphia, PA

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2:45 – 3:15 PM  
*Texas Ballroom Foyer*

**Refreshment Break, Exhibits**
Concurrent Session 7A: Functional Genomics and Pathogenicity Assessment

Moderators:
Yibin Wang, PhD, FAHA, University of California at Los Angeles David Geffen School of Medicine, Los Angeles, California
Allen Andres, PhD, Cedars-Sinai Medical Center, Los Angeles, California

3:15 – 3:30 PM

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

3:35 – 3:55 PM

Functional Annotation of Variants of Uncertain Significance in Cardiovascular Disease Genes
Kiran Musunuru, MD, PhD, University of Pennsylvania, Philadelphia, Pennsylvania

Oral Abstract Presentation

4:15 Numb Family Proteins Modulate Cardiac Morphogenesis by Regulating N-cadherin Trafficking to Plasma Membrane
Mingfu Wu, Albany Medical Coll, Albany, NY

Concurrent Session 7B: Workshop 1: Imaging in vitro and in vivo

Moderators:
Rebekah L. Gundry, PhD, Medical College of Wisconsin, Milwaukee, Wisconsin
Wang Wang, MD, University of Washington, Seattle, Washington

3:15 – 4:30 PM

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

3:33 – 4:09 PM

Hyperpolarized 13C MRI of Myocardial Metabolism
Charles Cunningham, PhD, University of Toronto, Toronto, Ontario, Canada

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

Optogenetic Tools for Visualizing and Manipulating Cell Metabolism
Yi Yang, PhD, East China University of Science and Technology, Shanghai, China
WEDNESDAY, AUGUST 1

7:00 AM  
Texas Ballroom Foyer  
Registration

7:00 – 8:00 AM  
Texas Ballroom Foyer  
Continental Breakfast/Exhibits

8:00 – 9:15 AM  
Texas Ballroom A/B  
Concurrent Session 8A: Personalized Cell Models of Arrhythmia

Moderators:  
Haodong Xu, MD, University of Washington, Seattle, Washington  
TBD

8:00  
TBD  
Joseph C. Wu, MD, PhD, FAHA, Stanford University, Stanford, California

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

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

Oral Abstract Presentation

9:00  
Dysregulation of Pdgfrb Contributes to the Pathogenesis of LMNA-related Dilated Cardiomyopathy  
8:00 – 9:15 AM
Texas Ballroom C
Concurrent Session 8B: Getting the Message – New Ways to Think About RNA

Moderators:
Sean M. Wu, Stanford University, Stanford, California
Shijun Hu, PhD, Soochow University, Suzhou, China

8:00 Circular RNA. What They Do, and Other RNA Species
Roger S. Foo, MD, PhD, University of Singapore, Singapore

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

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

Oral Abstract Presentation

9:00 Doxorubicin Alters Cardiac Fibroblast Phenotype 112
Trevi R Mancilla, Gregory J Aune, UT Health San Antonio, San Antonio, TX

9:15 – 10:00 AM
Texas Ballroom A/B
General Session 9: Outstanding Early Career Investigator Award Competition

Moderators:
TBD

9:15 Steering Fibroblast Phenotype to Promote Left Ventricular Scar Maturation and Function Post-MI 113
Lisandra E de Castro Brás, East Carolina Univ, Greenville, NC

9:30 A Role for Brain-derived Neurotrophic Factor in Duchenne Cardiomyopathy 114
Cristi L Galindo, Cassandra P Awgulewitsch, Jonathan H Soslow, Erica J Carrier, Anand P Singh, Prachi Umbakar, Qinkun Zhang, Frank Raucci, Vanderbilt Univ Med Ctr, Nashville, TN; Larry W Markham, Indiana Univ Sch of Med, Indianapolis, IN; Hind Lal, Antonis K Hatzopoulos, Vanderbilt Univ Med Ctr, Nashville, TN

9:45 Chromatin Microenvironments with Distinct Functionality During Cardiac Stress 115
Manuel Rosa-Garrido, Douglas J. Chapsky, Maximilian Cabaj, Elaheh Karbassi, Thomas Vondriska, UCLA, Los Angeles, CA
10:00 AM – 10:30 AM  
*Texas Ballroom Foyer*  
Refreshment Break, Exhibits

10:30 – 11:45 AM  
*Texas Ballroom A/B*  
**Concurrent Session 10A: Early Career Session -- Navigating Your Career: Finding Success and Happiness with a PhD**

**Moderators:**  
Rebecca Levit, MD, Emory University, Atlanta, Georgia  
Michael Tranter, PhD, University of Cincinnati, Cincinnati, Ohio

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

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

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

11:15  
**Panel Discussion / Q & A**

10:30 – 11:45 AM  
*Texas Ballroom C*  
**Concurrent Session 10B: Workshop 2 -- Towards Single Cell Analysis**

**Moderators:**  
Liming Pei, PhD, Children’s Hospital of Philadelphia, Philadelphia, Pennsylvania  
TBD

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

10:48  
**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

11:07  
**TBD**  
Baljit Ubhi, PhD, SCIEX, Redwood City, CA

11:26  
**Association of Apolipoprotein A1 Proteoforms and Inter-Individual Differences in HDL Efflux Capacity**  
Neil Kelleher, PhD, Northwestern University, Chicago, Illinois

11:45 AM – 1:30 PM  
Lunch on Your Own, Poster Viewing, Exhibits
Concurrent Session 11A: The Architecture of Contraction

Moderators:
Farid Moussavi-Harami, MD, University of Washington, Seattle, Washington
Michael Greenberg, PhD, Washington University, St. Louis, Missouri

1:30 TBD
Jil Tardiff, MD, PhD, FAHA, University of Arizona, Tucson, Arizona

1:50 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 Genetically Linked Cardiomyopathies. From Molecular Basis to New Treatments.
Beata M. Wolska, PhD, University of Illinois, Chicago, Illinois

Oral Abstract Presentation

2:30 PM Mybphl is a Novel Myofilament Component Implicated in Arrhythmia and Dilated Cardiomyopathy
David Y Barefield, Jordan J Sell, Megan J Puckelwartz, Lisa D. Wilsbacher, Northwestern Univ, Chicago, IL; Glenn I Fishman, New York Univ, New York, NY; Elizabeth M McNally, Northwestern Univ, Chicago, IL

Concurrent Session 11B: Cell Death and Cardiomyopathy

Moderators:
Richard N. Kitsis, MD, FAHA, Albert Einstein College of Medicine, Bronx, New York
TBD

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

1:50 Understanding Alzheimer's Beyond the Brain
Federica del Monte, MD, PhD, Medical University of South Carolina, Charleston, South Carolina

2:10 Regulation of Cardiac Cell Death and Autophagy in Cardiac Myocytes
Lorrie A. Kirshenbaum, PhD, University of Manitoba, Winnipeg, Manitoba, Canada

Oral Abstract Presentation

2:30 Regulation of Cardiac Mitochondrial Function by Chaperone Mediated Autophagy
Yun Chen, Jaehoon Lee, Min Zheng, Victor Paulino, Albert Einstein Coll of Med, Bronx, NY; Christian Garcia, Columbia Univ Medical Ctr, New York, NY; Julio Madrigal Matute, Albert Einstein Coll of Med, Bronx, NY; Hong Li, Rutgers, The State Univ of New Jersey, Newark, NJ; Nina Kaludercic, Univ of Padova, Padova, Italy; Edward Owusu-Ansah, Columbia Univ Medical Ctr, New York, NY; Ana Maria Cuervo, Richard N Kitsis, Albert Einstein Coll of Med, Bronx, NY
2:45 – 3:15 PM  
*Texas Ballroom Foyer*  
Refreshment Break, Exhibits

3:15 – 4:30 PM  
*Texas Ballroom A/B*  
**Concurrent Session 12A: Workshop 3 – Single and Multi-omics**

**Moderators:**  
Piu Yu (Maggie) Lam, PhD, University of Colorado, Denver, Colorado  
Melanie Y. White, PhD, University of Sydney, Sydney, NSW, Australia

- **3:15**  
  Top-down Proteomics in Cardiac Disease and Regeneration  
  Ying Ge, PhD, University of Wisconsin, Madison, Wisconsin

- **3:33**  
  A Multi-omics Approach to Cardiovascular Disease  
  Manuel Mayr, MD, Kings College, London, United Kingdom

- **3:52**  
  The Role of Protein Citrullination in Cardiovascular Disease  
  Justyna P. Fert-Bober, PhD, Cedars-Sinai Medical Center, Los Angeles, California

- **4:11**  
  Quantitative Temporal Analysis of Protein Dynamics in Maladaptive Cardiac Remodeling  
  John R. Yates, III, PhD, The Scripps Research Institute, La Jolla, California

3:15 – 4:30 PM  
*Texas Ballroom C*  
**Concurrent Session 12B: Cardiovascular Stress and Inflammation**

**Moderators:**  
Merry L. Lindsey, PhD, FAHA, University of Mississippi Medical Center, Jackson, Mississippi  
Nikhil Munshi, MD, PhD, UT Southwestern Medical Center, Dallas, Texas

- **3:15**  
  Macrophages and Interorgan Crosstalk in Cardiac Adaptation  
  Ichiro Manabe, MD, PhD, Chiba University Graduate School of Medicine, Chiba, Japan

- **3:35**  
  HFpEF: Epidemiology and Mechanisms  
  Joseph A. Hill, MD, PhD, FAHA, UT Southwestern Medical Center, Dallas, TX

- **3:55**  
  Igniting the Flame of Inflammation Through Cardiomyocyte CaMKII  
  Joan Heller Brown, PhD, University of California San Diego, La Jolla, California

**Oral Abstract Presentation**

- **4:15**  
  NLRP3 Inflammasome Mediates the Obesity-induced Pathogenesis of Atrial Fibrillation  
  Larry Scott Jr., Changqun Yao, Na Li, Baylor Coll of Med, Houston, TX

4:30 -- 7:00 PM  
*Texas Ballroom D/E/F*  
**Poster Session 3 and Reception**
THURSDAY, AUGUST 2

7:00 AM
Texas Ballroom Foyer
Registration

7:00 – 8:00 AM
Texas Ballroom Foyer
Continental Breakfast

8:00 – 9:00 AM
Texas Ballroom A/B
General Session 13: Basic Science and Precision Medicine – The Interface

Moderators:
Frederica Accornero, PhD, The Ohio State University, Columbus, Ohio
Antje D. Ebert, PhD, Goettingen University, Goettingen, Germany

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

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

8:40 Human iPSC as Tools for Guiding Patients Out of the Genetic Purgatory
Bjorn C. Knollmann, MD, PhD, Vanderbilt University, Nashville, Tennessee

9:00 – 9:30 AM
Texas Ballroom Foyer
Refreshment Break
9:30 – 10:45 AM

Texas Ballroom A/B

General Session 14: Metabolic Pathways to Cardiovascular Disease

Moderators:
Deby Ngo, MD, Beth Israel Deaconess Medical Center, Boston, Massachusetts
D. Kent Arrell, PhD, Mayo Clinic, Rochester, Minnesota

9:30  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  Metabolic Dysregulation in Cardiovascular Disease
Svati H. Shah, MD, Duke University Medical Center, Durham, North Carolina

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

Oral Abstract Presentation

10:30  Aberrant Cassein Kinase 2 Signalling Predisposes the Heart to an Apoptotic Phenotype in Type 2 Diabetes
Lauren E Smith, Desmond K Li, Stuart J Cordwell, Melanie Y White, Univ of Sydney, Sydney, Australia

10:45 – 11:45 AM

Texas Ballroom A/B

General Session 15: Novel Cardiac Regulatory Mechanisms

Moderators:
Susan F. Steinberg, MD, Columbia University, New York, New York
TBD

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

11:05  mAKAP: A Master Regulator of Cardiac Hypertrophy
Kimberly Dodge-Kafka, PhD, University of Connecticut Health Center, Farmington, Connecticut

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

11:45 AM

Texas Ballroom A/B

Closing Remarks / Conference Adjourns