



Heart Failure: Crossing the Translational Divide

January 14–18, 2018 | Keystone Resort | Keystone, Colorado | USA

Scientific Organizers:

Yibin Wang, University of California, Los Angeles, USA

Joseph A. Hill, University of Texas Southwestern Medical Center, USA

Carolyn Lam, Duke-NUS Medical School, Singapore

Heart failure is a major human disease that afflicts millions of people worldwide. Intensive research in the past decade has yielded many exciting new mechanistic insights into the pathogenesis of heart failure, but progress toward successful therapies to prevent, halt and reverse heart failure has been painfully slow. The overall goal of this Keystone Symposia conference is to focus on heart failure and highlight the scientific advances in basic discovery and early-phase therapeutic development in this fast-moving field. The symposium will provide the field with an opportunity for robust discussion about the major issues crossing the translational divide from basic discovery to therapies.

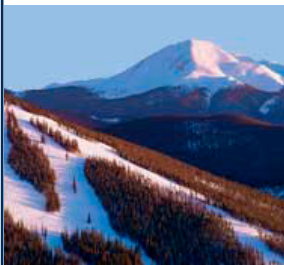
Session Topics:

- HFrEF: Ischemic Heart Disease (I/R Injury and Cell Death)
- Inflammation (Non-Ischemic) HFrEF
- HFrEF: Hypertensive Heart Disease (Hypertrophy, Fibrosis)
- Workshop 1: Big Data and Precision Medicine for Heart Failure
- PH and RV Failure
- HFrEF and Metabolism
- Workshop 2: Pharma for HF, How NOT to Get Lost in Translation
- HFrEF: Genetics and Epigenetics
- HFpEF (Mechanisms and Therapy)
- HFrEF (Cellular and Molecular Therapy)

Scholarship Application & Discounted Abstract Deadline: September 21, 2017

Abstract Deadline: October 19, 2017

Discounted Registration Deadline: November 20, 2017



Note: Scholarships are available for graduate students and postdoctoral fellows and are awarded based on the abstract submitted. Submitting an abstract is an excellent opportunity to gain exposure for your work. Abstracts submitted by the abstract deadline will also be considered for short talks on the program.

Meeting Hashtag: #KShf
www.keystonesymposia.org/18A1

KEYSTONE SYMPOSIA™
on Molecular and Cellular Biology
Accelerating Life Science Discovery

www.keystonesymposia.org/meetings | 1.800.253.0685 | 1.970.262.1230

a 501(c)(3) nonprofit educational organization

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Heart Failure: Crossing the Translational Divide (A1)

January 14-18, 2018 • Keystone Resort • Keystone, Colorado, USA

Scientific Organizers: Yibin Wang, Joseph A. Hill and Carolyn Lam

Sponsored by Amgen Inc.

Abstract & Scholarship Deadline: September 21, 2017 / Abstract Deadline: October 19, 2017 / Discounted Registration Deadline: November 20, 2017

SUNDAY, JANUARY 14

Arrival and Registration

MONDAY, JANUARY 15

Welcome and Keynote Address

***Yibin Wang**, University of California, Los Angeles, David Geffen School of Medicine, USA

***Joseph A. Hill**, University of Texas Southwestern Medical Center, USA

David C. Page, Whitehead Institute for Biomedical Research, USA
Sex and Disease: Do Males and Females Read their Genomes Differently?

HFrEF: Ischemic Heart Disease (I/R Injury and Cell Death)

***Issei Komuro**, Tokyo University Graduate School, Japan

***Zhao Wang**, University of Texas Southwestern Medical Center, USA

Laura Mauri, Brigham and Women's Hospital, USA
What Ischemic HFrEF Looks like Clinically and What I Wish I Had in My Toolbox

Richard N. Kitsis, Albert Einstein College of Medicine, USA
Understanding and Therapeutically Manipulating Cell Death in the Heart

Junichi Sadoshima, Rutgers New Jersey Medical School, USA
Autosis Mediates Myocardial Cell Death During Ischemia/Reperfusion

Yusuke Morita, Kyoto University, Japan
Short Talk: Spatiotemporal and Integrative Analysis of the Transcriptome and Metabolome Response to Systemic Energetic Starvation with Cardiac Dysfunction

Dipayan Chaudhuri, University of Utah, USA
Short Talk: Mitochondrial Cardiomyopathies Feature Compensatory Increases in Mitochondrial Calcium

Workshop and Panel 1: Does an X or Y Make a Difference for the Heart?

***Joseph A. Hill**, University of Texas Southwestern Medical Center, USA

Does XX or XY Make the Heart Grow Fonder?

Leslie A. Leinwand, University of Colorado Boulder, USA
A Woman is Not a Small Man: Sex Differences in the Heart

David C. Page, Whitehead Institute for Biomedical Research, USA
Translate Mechanism to Practice: For Sex Differences in HF

***Vera Regitz-Zagrosek**, Charité - University Medicine Berlin, Germany
Translational Aspects of Sex Differences in Myocardial Ischemia and Hypertrophy

Carolyn Lam, Duke-NUS Medical School, Singapore
Sex Differences in HF-Clinical Trial

Inflammation (Non-Ischemic) HFrEF

***Donald R. Menick**, Medical University of South Carolina, USA

***Merry L. Lindsey**, University of Mississippi Medical Center, USA

Douglas L. Mann, Washington University School of Medicine, USA
What Inflammatory Cardiomyopathy Looks like Clinically and What I Wish I Had in My Toolbox

Peter Liu, University of Ottawa Heart Institute, Canada
Immune System as Sensor/Mediator for Progression in Heart Failure – Translational Considerations

Georg Daniel Duerr, University of Bonn, Germany
Short Talk: Post-Conditioning with CpG-Containing TLR9 Ligand 1668-thioate Attenuates Inflammatory Response and Remodeling Leading to Less Fibrosis and Better Left Ventricular Function in Murine Myocardial Infarction

Dian Cao, University of Texas Southwestern Medical Center, USA
Short Talk: Cytosolic DNA Sensing Governs Myocardial Ischemic Injury by Promoting Macrophage Transformation

Shey-Shing Sheu, Thomas Jefferson University, USA
Short Talk: Mitochondrial Fission Protein Drp1 Clustered at the Sarcoplasmic Reticulum-Mitochondria Junctions to Regulate Cardiac Excitation-Contraction-Energetics Coupling

Poster Session 1

TUESDAY, JANUARY 16

HFrEF: Hypertensive Heart Disease (Hypertrophy, Fibrosis)

***Hina Chaudhry**, Mount Sinai School of Medicine, USA

***Dan Tong**, University of Texas Southwestern Medical Center, USA

Joseph A. Hill, University of Texas Southwestern Medical Center, USA
What Hypertensive HFrEF Looks Like and What I Wish I Had in my Toolbox

Jeffery D. Molkentin, Cincinnati Children's Hospital Medical Center, USA
Fibroblast Dynamics in the MI-Injured Heart

Mark E. Anderson, Johns Hopkins University School of Medicine, USA

CaMKII as a Therapeutic Target in Heart Failure and Arrhythmias

Timothy A. McKinsey, University of Colorado Denver, USA
Epigenetic Regulation of Heart Failure

Toshiyuki Ko, University of Tokyo, Japan
Short Talk: Single-Cell Analysis of Non-Cardiomyocytes Reveals a Critical Regulator of Cardiac Homeostasis

Rajan Jain, University of Pennsylvania, School of Medicine, USA
Short Talk: The Role of Nuclear Architecture in Myocyte Determination and Genetic Cardiomyopathy

Workshop and Panel 2: Big Data and Precision Medicine for Heart Failure

***Thomas Vondriska**, University of California, Los Angeles, USA

Peipei Ping, University of California, Los Angeles, USA
Data Science in CV Biology and Medicine

Elizabeth M. McNally, Northwestern University, USA
Genomic Solutions to Precision Medicine

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Heart Failure: Crossing the Translational Divide (A1)

January 14-18, 2018 • Keystone Resort • Keystone, Colorado, USA

Scientific Organizers: Yibin Wang, Joseph A. Hill and Carolyn Lam

Sponsored by Amgen Inc.

Abstract & Scholarship Deadline: September 21, 2017 / Abstract Deadline: October 19, 2017 / Discounted Registration Deadline: November 20, 2017

Daniel P. Kelly, University of Pennsylvania, USA
Integrated Profiling Approaches to Delineating the Metabolic Origins of Heart Failure

PH and RV Failure

***Kristina Lorenz**, Leibniz Institute for Analytical Sciences- ISAS, Germany

Wai Hong Wilson Tang, Cleveland Clinic, USA
What Pulmonary Hypertension and Right Heart Failure Looks like Clinically and What I Wish I Had in My Toolbox

Stephan Rosenkranz, Klinik III für Innere Medizin, Germany
Novel Targets in Pulmonary Vascular Disease and RV Dysfunction

Yibin Wang, University of California, Los Angeles, David Geffen School of Medicine, USA
Role of Stress-Signaling in Post-Natal RV Development and Maturation

Yingjie Chen, University of Minnesota, USA
Short Talk: Harnessing the T Cell Function as a New Direction in Attenuating the Transition from Left Heart Failure to Right Heart Failure through Modulating Lung Inflammation

***Edda Spiekerkoetter**, Stanford University, USA
Short Talk: Increasing BMPR2 Signaling with FK506 (Tacrolimus) Reduces Cardiac Fibrosis and Improves Right Ventricular Adaptation in Pulmonary Hypertension

Poster Session 2

WEDNESDAY, JANUARY 17

HFrEF and Metabolism

***Chen Gao**, University of California, Los Angeles, USA

***Gemma Figtree**, Kolling Institute, University of Sydney, Australia

E. Dale Abel, University of Iowa, Carver College of Medicine, USA
Mitochondrial Metabolism and Signaling Mechanisms in Heart Failure

Peipei Ping, University of California, Los Angeles, USA
The O-PTM Fingerprints of Mitochondrial Proteome: Molecular Signature and Functional Phenotype

Daniel P. Kelly, University of Pennsylvania, USA
Mitochondrial Remodeling in Heart Failure

Rong Tian, University of Washington, USA
Metabolic Modulation of Cardiac Hypertrophy

Jiandong Liu, University of North Carolina at Chapel Hill, USA
Short Talk: Lin28a Regulates Pathological Hypertrophic Growth through Pck2-Mediated Enhancement of Anabolic Synthesis

Gregory Aubert, Northwestern University, USA
Short Talk: SUR2 as a Regulator of Cardiac Metabolism Plasticity

Workshop and Panel 3: Pharma for HF, How NOT to Get Lost in Translation

***Christine E. Seidman**, Harvard Medical School, USA

***Daria Mochly-Rosen**, Stanford University, USA

Russell A. Miller, Pfizer Inc., USA

Anthony J. Muslin, Sanofi Global Research & Development, USA

Robert N. Willette, GlaxoSmithKline, USA

Aarif Y. Khakoo, Amgen, USA

Yan G. Ni, Regeneron, USA

HFrEF: Genetics and Epigenetics

***Lisa Wilsbacher**, Northwestern University, USA

***Ferhaan Ahmad**, University of Iowa, USA

Elizabeth M. McNally, Northwestern University, USA
How Genetics Informs the Care of HF

Christine E. Seidman, Harvard Medical School, USA
Genetics of Cardiomyopathy: Insights into Cardiac Physiology and Disease

Thomas Thum, Medical School Hannover, Germany
Noncoding RNAs and Other Therapeutic Approaches in Cardiac Remodeling

Manuel Rosa-Garrido, University of California, Los Angeles, USA
Short Talk: Elucidation of Gene Regulation Paradigms by Integrating Chromatin Architecture, Histone Marks and DNA Methylation in Failing Hearts

Anant Chopra, Boston University, USA
Short Talk: From Tissues to Cells: Dissecting the Mechanisms of Genetic Cardiomyopathy using in vitro Engineered Disease Models

Poster Session 3

THURSDAY, JANUARY 18

Keynote Address

***Carolyn Lam**, Duke-NUS Medical School, Singapore

Daria Mochly-Rosen, Stanford University, USA
Cardiac Disease: Crossing the Translational Divide

HFrEF (Mechanisms and Therapy)

***Robert S. Danziger**, University of Illinois at Chicago, USA

David A. Kass, Johns Hopkins Hospital, USA
Dissecting Mechanisms of HFpEF - A Multiscale Approach

Carolyn Lam, Duke-NUS Medical School, Singapore
HFpEF Exists -- We Just Don't Know What to Call It

Wolfgang A. Linke, University of Munster, Germany
Targeting Cardiomyocyte Structure and Function in HFpEF

Gabriele G. Schiattarella, University of Texas Southwestern Medical Center, USA

Short Talk: XBP1s-FoxO1 Axis Regulates Lipid Metabolism and Cardiac Performance in Heart Failure with Preserved Ejection Fraction

Florin Despa, University of Kentucky, USA
Short Talk: Diabetic HFpEF in a Rat Model of Systemic Amylin Dyshomeostasis

HFrEF (Cellular and Molecular Therapy)

***Lior Zangi**, Icahn School of Medicine at Mount Sinai, USA

***Lina A. Shehadeh**, University of Miami Miller School of Medicine, USA

Roger J. Hajjar, Mount Sinai School of Medicine, USA
Gene Therapy for Heart Failure & Pulmonary Hypertension

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Heart Failure: Crossing the Translational Divide (A1)

January 14-18, 2018 • Keystone Resort • Keystone, Colorado, USA

Scientific Organizers: Yibin Wang, Joseph A. Hill and Carolyn Lam

Sponsored by Amgen Inc.

Abstract & Scholarship Deadline: September 21, 2017 / Abstract Deadline: October 19, 2017 / Discounted Registration Deadline: November 20, 2017

Hesham A. Sadek, University of Texas Southwestern Medical Center,
USA

Rethinking the Effect of Hypoxia on Cardiomyocytes

Joseph C. Wu, Stanford University School of Medicine, USA
Genomics and Stem Cells for Precision Cardiovascular Medicine

Erik A. Blackwood, San Diego State University, USA
*Short Talk: Pharmacologic ATF6 Activation Reprograms Cellular
Proteostasis to Mitigate Pathology in a Heart Disease Model*

Carmine Gentile, University of Sydney, Australia
Short Talk: Cardiac Spheroid-Based Therapy for Heart Failure Patients

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)

FRIDAY, JANUARY 19

Departure