



Preliminary Agenda

Monday, July 13

1:45 – 8:00 PM

Welcome Remarks

1:45 – 2:05 PM

Session 1: Novel Signaling Networks in the Heart

2:05 – 3:45 PM

- 2:05 Non-GPCR Roles for GRKs in the Heart
- 2:25 RhoA Kinase and Cardiac Signaling
- 2:45 S-Nitrosylation can control Biased GPCR Signaling
- 3:05 Klf5 in the Heart can influence Systemic Metabolism
- 3:25 Mechanistic insights from genetic discoveries in dilated heart failure syndromes

Session 2: Keynote Lecture

3:45 – 4:30 PM

- 3:45 New Insights into Muscle Development, Disease and Regeneration

Session 3: Exercise and Cardiovascular Disease

4:50 – 6:30 PM

- 4:50 Cardiovascular effects of exercise: clinical insights from imaging and novel biomarkers
- 5:10 PI3Kinase signaling in the benefits of exercise
- 5:30 Non-coding RNA basis of physiological hypertrophy
- 5:50 NO pathways and the protective effects of exercise
- 6:10 Exercise activates cardiac progenitor cells

Poster Session 1

6:30 – 8:00 PM

Tuesday, July 14

8:00 AM – 6:40 PM

Session 4: Regulation of Mitochondrial Function and Metabolism

8:00 – 9:40 AM

- 8:00 Insulin Signaling in the Regulation of Cardiac Hypertrophy
- 8:20 Pathways of Metabolic Adaptation in Heart Failure
- 8:40 Epigenetic modification and metabolism
- 9:00 Regulation of mitochondrial dynamics
- 9:20 Mitochondrial derived vesicles

Session 5: Cellular Quality Control Mechanisms

10:00 – 11:40 AM

- 10:00 Chaperone Mediated Autophagy
- 10:20 Alternative Autophagy
- 10:40 Parkin-Mediated Mitophagy
- 11:00 Proteotoxicity
- 11:20 Beige is the new black: regulation of adaptive thermogenesis in vivo

Session 6: The Mitochondrial Calcium Microdomain in Cardiac Function and Disease

1:30 – 3:10 PM

- 1:30 Calcium Movement in Cardiac Mitochondria
- 1:50 Mitochondrial Calcium Control of Cellular Energetics
- 2:10 Mitochondrial signaling in Cardiac Arrhythmias
- 2:30 Mitochondrial Calcium Uniporter
- 2:50 Mitochondrial Calcium Exchange in MI and Heart Failure

Session 7: Sources of New Myocytes in Diseased Hearts

3:30 – 5:10 PM

- 3:30 Myocyte Derived New Myocytes
- 3:50 Embryonic Stem Cell derived New Myocytes
- 4:10 Bone Stem Cell Derived New Myocytes
- 4:30 Mesenchymal Stem Cell Derived New Myocytes
- 4:50 Induced Pluripotent Stem Cell Derived New Myocytes

Poster Session 2

5:10 – 6:40 PM

Wednesday, July 15

8:00 AM – 7:05 PM

Session 8: Cardiac Stem Cells: Renaissance of Regenerative Mechanisms

8:00 – 9:40 AM

- 8:00 Regulation of cardiomyocyte cell cycle
- 8:20 Proliferation of cardiac myocytes in preadolescence and injury
- 8:40 c-kit positive cardiac progenitor cells
- 9:00 Metabolism and stem cell function
- 9:20 Exosomes in Cardiac Repair

Session 9: Aging and Heart Failure

10:00 – 11:40 AM

- 10:00 GDF11 and age-related heart disease
- 10:20 MicroRNAs and cardiovascular aging
- 10:40 Popeye domain containing (Popdc) genes and the aging cardiac pacemaker
- 11:00 IGFI isoforms, SirT1, and cardiovascular aging
- 11:20 Cardiac progenitor cells and aging

Session 10: Outstanding Early Career Investigator Award Finalists

1:30 – 2:15 PM

Session 11: Heart Failure with Preserved Ejection Fraction

2:15 – 3:55 PM

- 2:15 HFpEF: Insights from the clinic and metabolomic profiling
- 2:35 Multiple etiologies and approaches to HFpEF
- 2:55 Titin's role(s) in diastolic dysfunction and heart failure

- 3:15 Cardiomyocyte proteostasis and diastolic dysfunction
- 3:35 Diet-induced diastolic dysfunction

Session 12: Moving Novel Targets from Bench to Bedside: Academic-Industry Collaboration

4:15 – 5:35 PM

- 4:15 How do we evaluate novel therapeutic strategies for heart failure?
- 4:35 Targeting fibrosis in heart disease
- 4:55 Beginning with the end in mind: clinical strategies for moving from bench to bedside
- 5:15 What can we learn from the recent success of the PARADIGM trial about how we should approach heart failure therapies?

Poster Session 3

5:35 – 7:05 PM

BCVS Council Dinner

7:05 PM

Thursday, July 16

8:00 – 11:20 AM

Session 13: Exploring the Functional Importance of Non-myocytes in Heart Failure

8:00 – 9:40 AM

- 8:00 What makes a myofibroblast?
- 8:20 Fibrotic signaling in the heart: small molecule targeting of TNNI3K
- 8:40 Molecular characterization and small molecule targeting of pathways leading to myocardial fibrosis
- 9:00 A functional role for inflammatory T-cells in the initiation and progression of myocardial fibrosis
- 9:20 TGF-beta and endoglin signaling in non-myocyte cells of the heart

Session 14: Epigenomics/genetics of Cardiac Development and Disease

9:40 – 11:20 AM

- 9:40 Chromatin remodeling
- 10:00 Global regulation of chromatin accessibility in cardiac development
- 10:20 Proteogenomic dissection of cardiac chromatin and disease implications
- 10:40 Reversible histone acetylation
- 11:00 Bromodomain-harboring acetylation readers

Adjourn

11:20 AM