



The 8th International Hawai'i Cardiovascular Symposium (IHCVS)



**John A. Burns School of Medicine (JABSOM)
University of Hawai'i at Mānoa
Honolulu, Hawai'i**

February 6th- 7th, 2025



WELCOME

Welcome to our *8th 2025 International Hawai'i Cardiovascular Symposium!*

The goal of this meeting is to provide a forum for the exchange of new ideas and concepts in the area of cardiac cell death, mitochondrial biology, autophagy and heart failure. This symposium was designed with the goal of bringing scientists from all over the world together to share new ideas and concepts on the underlying cause of cell death and heart failure, as well as provide a dynamic scientific platform for trainees to discuss their research with leading experts in the field. The meeting will host sessions, oral and poster presentations by international leaders with the primary objective of translating scientific research into new treatments and practices for cardiovascular disease.

We hope that you will enjoy the scientific symposium and gain great insight and new information on the signaling pathways that underlie cardiac disease and heart failure.

Lorrie Kirshenbaum and Takashi Matsui
Scientific Organizers

Naranjan Dhalla, Distinguished Professor, University of Manitoba
Honorary Meeting Chair

Michele Tom
Conference Administrator (on-site)

Kairee Ryplanski
Conference Secretary (off-site)

SPONSORSHIP

We would like to thank the generous support of our sponsors and the individuals who contributed to make this meeting possible.

Institute of Cardiovascular Sciences, Albrechtsen Research Centre, Winnipeg, Canada
John A. Burns School of Medicine, University of Hawai'i at Mānoa, Honolulu, USA

Dr. T. Samuel Shomaker, Dean of Medicine, University of Hawai'i at Mānoa
Dr. W. Steven Ward, Interim Associate Dean of Research, University of Hawai'i at Mānoa
Dr. Mariana Gerschenson, Director, Diabetes Research Center, University of Hawai'i at Mānoa

A very special thank you and appreciation to Ms. Kairee Ryplanski for her hard work in assembling the meeting program and serving as the meeting secretary, and Ms. Michele Tom for her excellent work in the meeting administration at JABSOM.

PROGRAM

CONFERENCE LOCATION

**ROOM: Sullivan Conference Center, University of Hawai'i Cancer Center
John A. Burns School of Medicine (JABSOM)
University of Hawai'i at Mānoa
651 Ilalo Street
Honolulu, Hawai'i 96813**



Thursday, February 6th, 2025

- 8:00 AM **Transportation to Conference Location (JABSOM)**
Pick up location:
Sheraton Waikiki Hotel (in front of Bell Captain)
2255 Kalākaua Ave, Honolulu, HI 96815, USA
- 8:20 AM Arrive at JABSOM
- 8:30 AM **REGISTRATION**

- Group Photograph -
- 8:45 - 9:00 AM **OPENING REMARKS**

Lorrie Kirshenbaum, *Scientific Organizer*
Takashi Matsui, *Scientific Organizer*
T. Samuel Shomaker, *Dean of Medicine, JABSOM*
W. Steven Ward, *Interim Associate Dean of Research, JABSOM*
- 9:00 - 9:45 AM **Plenary Lecture** – Naranjan Dhalla, Honorary Meeting Chair
(University of Manitoba, Canada)
Rationale for the Prevention of Sudden Cardiac Death in Heart Failure
- SESSION I: Signal Transduction, Histone Modification and Gene Expression**
- Session Chairs: 9:00 AM – 12:15 PM***
Joseph Hill & Maha Abdellatif
- 9:45 - 10:05 AM Masayuki Yoshida
(Tokyo Medical Dental University, Japan)
***Citrullination at the Crossroads of Cardiovascular Disease:
Illuminating a Subtle Post-Translational Trigger***
- 10:05 - 10:25 AM Marek Michalak
(University of Alberta, Canada)
***Regulation Of Store-Operated Ca²⁺ Entry By Myotubularin
Related Protein 7 (Mtmr7)***
- 10:25 - 10:55 AM **Coffee Break**

- 10:55 - 11:15 AM Ralph Shoheit
(University of Hawai'i at Manoa, USA)
Sexual dimorphism in the cardiac response to methamphetamines
- 11:15 - 11:35 AM Lynn Megeney
(Ottawa Hospital Research Institute, Canada)
Secretion-associated Ras-related GTPase-1B (Sar1b): A novel regulator of muscle branched-chain ketoacid content, insulin signaling, and mitochondrial function
- 11:35 - 11:55 AM Sakthivel Sadayappan
(University of Cincinnati, USA)
Myosin S2 and cMyBP-C Interactions in Cardiac Contractility and Hypertrophic Cardiomyopathy
- 11:55 - 12:15 PM Takashi Matsui
(University of Hawai'i at Mānoa, USA)
Focal fibrosis in cardiac hypertrophy
- 12:15 - 1:45 PM **Lunch**

SESSION II: Inflammation, Metabolism and Cardiac Repair

***Session Chairs: 1:45 PM – 5:05 PM
Junichi Sadoshima & Robert Rose***

- 1:45 - 2:15 PM **Keynote Lecture** - Doug Lewandowski
(The Ohio State University College of Medicine, USA)
Targeting both adverse and cardioprotective metabolic remodeling in the pathogenesis of heart failure
- 2:15 - 2:35 PM Pilar Alcaide
(Tufts University School of Medicine, USA)
Experimental Pressure Overload Induces A Cardiac Neoantigen Specific Humoral Immune Response
- 2:35 - 2:55 PM Hossein Ardehali
(Northwestern Medicine Feinberg School of Medicine, USA)
Distinct Inflammatory and Metabolic Features of the Border Zone Define Therapeutic Targets Following Myocardial Infarction

- 2:55 - 3:15 PM Maha Abdellatif
(Rutgers New Jersey Medical School, USA)
Targeting Isoleucine Metabolism for Improved Health and Longevity
- 3:15 - 3:45 PM **Coffee Break**
- 3:45 - 4:05 PM Sanjiv Dhingra
(University of Manitoba, Canada)
Allogeneic stem cell therapy for cardiac repair
- 4:05 - 4:25 PM Thomas Pulinilkunnil
(Dalhousie University, Canada)
Non-canonical role of transcription factor EB in cardiometabolic disease
- 4:25 - 4:45 PM Daria Mochly-Rosen
(Stanford University, School of Medicine, USA)
Direct Binding And Inhibition Of Mitochondrial Atp Synthase By The Cytoskeletal Cardiac Troponin I; A Noncanonical Role In The Post-Ischemic Heart
- 4:45 - 5:05 PM Michelle Tallquist
(University of Hawai'i at Mānoa, USA)
Vascular Mesenchymal Cell Fate Determination of Coronary Vessels
- 5:30 PM **Welcome Party at JABSOM**
- 8:00 PM Transportation from JABSOM to Sheraton Waikiki Hotel

Friday, February 7th, 2025

8:00 AM

Transportation to JABSOM

Pick up location:

Sheraton Waikiki Hotel (in front of Bell Captain)
2255 Kalākaua Ave, Honolulu, HI 96815

8:20 AM

Arrive at JABSOM

SESSION III: Cell Signaling, Mitochondria, Cardiac Injury and Autophagy

Session Chairs: 8:30 AM – 11:30 AM

Marek Michalak & Tim McKinsey

8:30 - 9:00 AM

Keynote Lecture – Åsa Gustafsson

(University of California San Diego, USA)

Impact Of Protein Aggregation On Mitochondrial Function And Mitophagy

9:00 - 9:20 AM

Larry Fliegel

(University of Alberta, Canada)

Peculiar Kinase And Phosphatase Regulation Of The Na⁺/H⁺ Exchanger In The Myocardium

9:20 - 9:40 AM

Sebastiano Sciarretta

(University of Rome, Italy)

The Role of MST1 in the development of endothelial dysfunction and vascular damage

9:40 - 10:00 AM

Inna Rabinovich-Nikitin

(University of Manitoba, Canada)

Does shift work increase the risk for preeclampsia?

10:00 - 10:30 AM

Coffee Break

10:30 - 10:50 AM

Andras Bratincsak

(University of Hawai'i at Mānoa, USA)

Electrocardiogram analysis enhanced by machine learning models – prediction of common anomalies and rare disorders

- 10:50 - 11:10 AM Kathryn Schunke
(University of Hawai'i at Mānoa, USA)
Cardioprotection by activation of hypothalamic oxytocin neurons
- 11:10 - 11:30 AM Lorrie Kirshenbaum
(University of Manitoba, Canada)
Regulation of Mitochondrial Dynamics Protein MFN2 in Doxorubicin Cardiomyopathy
- 11:30 - 1:00 PM **Lunch and Poster Session**

SESSION IV: Molecular Basis of Heart Failure

Session Chairs: 1:00 PM – 5:10 PM
Michael Czubryt & Pilar Alcaide

- 1:00 - 1:30 PM **Keynote Lecture** - Vladimir Jakovljevic
(University of Kragujevac, Serbia)
Effects Of Chronic Coadministration Of Empagliflozin And Sacubitril/Valsartan In Experimental Model Of Heart Failure
- 1:30 - 1:50 PM Joseph Hill
(UT Southwestern Medical Center, USA)
Cardiology on High Beam: Obstacles and Opportunities
- 1:50 - 2:10 PM Junichi Sadoshima
(Rutgers New Jersey Medical School, USA)
Sirt1 mediates metabolic remodeling during heart failure via Sub1
- 2:10 - 2:30 PM Noemi Polgar
(University of Hawai'i at Mānoa, USA)
Cardiomyocyte-Specific Disruption Of The Exocyst Trafficking Complex Results In Heart Failure
- 2:30 - 2:50 PM Zoltan Arany
(University of Pennsylvania, USA)
How Do Sgl2 Inhibitors Benefit Heart Failure? (Hint: It's Not Sgl2)
- 2:50 - 3:20 PM **Coffee Break**

SESSION V: Arrhythmogenesis, Fibrosis and Cardiomyopathy

Session Chairs: 3:20 PM – 5:10 PM

Inna Rabinovich-Nikitin & Petra Kienesberger

3:20 - 3:50 PM

Keynote Lecture - Maria Kontaridis
(Masonic Medical Research Institute, USA)
Role of TRPM4 in Cardiac Disease and Arrhythmogenesis

3:50 - 4:10 PM

Timothy McKinsey
(University of Colorado Anschutz Medical Campus, USA)
Phenotypic Screening, Machine Learning and New Therapeutic Targets for Human Cardiac Fibrosis

4:10 - 4:30 PM

Michael Czubryt
(University of Manitoba, Canada)
Interplay Of Scleraxis And Angii Regulates Vascular Smooth Muscle Phenotype And Blood Vessel Structure

4:30 - 4:50 PM

Robert Rose
(University of Calgary, Canada)
The impacts of age and frailty on atrial remodeling and atrial arrhythmogenesis

4:50 - 5:10 PM

Petra Kienesberger
(Dalhousie University, Canada)
Effect of cardiomyocyte-specific lipid phosphate phosphatase 3 modulation on cardiac energy metabolism and function

5:10 PM

Concluding Remarks
Lorrie Kirshenbaum
Takashi Matsui

5:20 PM

Transportation from JABSOM to Sheraton Waikiki Hotel