

Janice M. Pfeffer, Ph.D.

1943-2001

The Janice M. Pfeffer Lectureship recognizes the scientific contributions of one of the pioneers in the field of cardiac remodeling. Born in Rockford, Illinois on October 31, 1943, Janice Marie Sikorski graduated with honors from Rockford College. There she studied with a lab partner named Marc Pfeffer, who shared her passion for integrative physiology. Janice and Marc became inseparable not only as husband and wife, but also as collaborators in integrative physiology. Janice M. Pfeffer was awarded her Ph.D. in Physiology and Biophysics from the University of Oklahoma, where she studied under Dr. Edward D. Frohlich. Her doctoral thesis, "Longitudinal Changes in Cardiac Function and Geometry During the Development of Left Ventricular Hypertrophy in the Spontaneously Hypertensive Rat," became a classic study on the role of cardiac hypertrophy and left ventricular remodeling. She continued her studies as a post-doctoral fellow in Dr. Eugene Braunwald's laboratory at the Peter Bent Brigham Hospital, Harvard Medical School. There she demonstrated that progressive ventricular enlargement, "ventricular remodeling", occurs following a myocardial infarction, and that this process continues long after the histologic resolution within the infarct zone. Her landmark study, "Influence of Chronic Captopril Therapy on the Infarcted Left Ventricle of the Rat", definitively demonstrated that ventricular enlargement was attenuated by angiotensin converting enzyme inhibitors, and that favorable alterations in ventricular remodeling in the animal model were associated with improved cardiac performance and prolonged survival. These pioneering animal studies introduced the concept of ventricular remodeling as a potential therapeutic target, and subsequently served as the basis for the landmark clinical trial, Survival and Ventricular Enlargement (SAVE), which showed that long-term treatment with an angiotensin converting enzyme inhibitor (captopril) prevented cardiac remodeling and resulted in improved clinical outcomes in humans. Based upon the results of this seminal translational study, angiotensin converting enzyme inhibitors have become one of the mainstays of therapy for the treatment of myocardial infarction.

In addition to being a meticulous and thoughtful scientist, Janice M. Pfeffer was a devoted mother and wife, who serves as a role model for countless women scientists. The intent of the Janice M. Pfeffer Lectureship is to acknowledge not only the latest insights and advances in the field of cardiac remodeling, but also to remember the remarkable personal and professional qualities that were emblematic of Dr. Janice M. Pfeffer.

About the Award...

Each year, the International Council selects a speaker to deliver the Pfeffer Distinguished Lecture at the World Congress or at the annual section meeting of one of the three largest ISHR Sections. The purpose of this lecture is to honor the memory of Dr. Pfeffer and to recognize her contributions to cardiovascular research. The topic of the lecture must be in the field of remodeling, heart failure and/or hypertrophy. The speaker receives a plaque and \$1,000. honorarium in addition to travel expenses.



ISHR

International Society for Heart Research

President

E Murphy, *USA*

President Elect

T Eschenhagen, *Germany*

Past President

M Avkiran, *UK*

Secretary General

L Delbridge, *Australia*

Treasurer

A Gustafsson, *USA*

Journal Editor

J Solaro, *USA*

Bulletin Editors

L Anderson Lobaugh, *USA*

T Ruigrok, *The Netherlands*

Council 2016-2019

H Ardehali, *USA*

M Avkiran, *UK*

J Backs, *Germany*

L Delbridge, *Australia*

F Del Monte, *USA*

F Di Lisa, *Italy*

D Eisner, *UK*

T Eschenhagen, *Germany*

R Fischmeister, *France*

A Gustafsson, *USA*

L Hool, *Australia*

L Kranias, *USA*

D Lefer, *USA*

G Lopaschuk, *USA*

T Miura, *Japan*

T Murohara, *Japan*

E Murphy, *USA*

S Pepe, *Australia*

P Ping, *USA*

Y Saito, *Japan*

RJ Solaro, *USA*

Y Takeishi, *Japan*

KK Talwar, *India*

T Thum, *Germany*

M Vila-Petroff, *Argentina*

R-P Xiao, *China*

Y Zhu, *China*



ISHR

International Society for Heart Research

The Janice Pfeffer Distinguished Lecture 2017



Janice M. Pfeffer, Ph.D.
1943-2001

Honored Speaker:

Tetsuji Miura, M.D., Ph.D.

**“Diabetic Cardiomyopathy—
Adaptation and Maladaptation
of Pro-Survival Signals and
Metabolism ”**

2017 Honored Speaker

New Orleans, Louisiana

Tetsuji Miura, M.D., Ph.D.



Tetsuji Miura received his MD degree at Sapporo Medical University in 1980. He did his internship at the U.S. Naval Regional Medical Center, Yokosuka, Japan and his residency and cardiology fellowship back in Sapporo. From 1984 to 1986, he did post-doctoral research in

the Department of Physiology at the University of South Alabama with James Downey. He has been a faculty member at Sapporo Medical University since 1986 and was promoted to Professor and Chair of the Department of Cardiovascular, Renal and Metabolic Medicine in 2010. He has also been Vice-President for Education and Research of Sapporo Medical University Hospital since 2016.

His main interest is in the physiology of myocardial ischemia/reperfusion injury and heart failure, and since being promoted to the Department Chair, he has also led clinical research projects exploring novel diagnostic methodologies and therapies for cardiorenal syndrome. Five major topics of basic cardiovascular science to which he has contributed are 1) characterization of determinants of myocardial in-

farct size after ischemia/reperfusion and relationships between the determinants; 2) mechanisms of ischemic preconditioning (IPC) in the heart, particularly roles of PKC- ϵ and roles of the gap junction in IPC; 3) roles of glycogen synthase kinase-3 β (GSK-3 β) in regulation of the mitochondrial permeability transition pore in cardiomyocytes and regulatory mechanisms of GSK-3 β ; 4) mechanism by which co-morbidities (i.e., post-infarct cardiac remodeling, diabetes mellitus and chronic kidney disease) impair myocardial tolerance to ischemia/reperfusion injury; and 5) mechanisms of “diabetic cardiomyopathy.” His research has been supported by grants from the Ministry of Education, Culture, Sports, Science and Technology of Japan and grants from the Japan Society for Promotion of Science.

Tetsuji Miura has published over 200 peer-reviewed papers regarding basic and clinical issues of cardiovascular medicine and has given over 100 invited lectures at domestic and international meetings. He is a member of multiple scholarly societies including ISHR, AHA, ACC and ESC as a Fellow and has served as an editorial board member for *Journal of Molecular and Cellular Cardiology*, *Cardiovascular Research*, *American Journal of Physiology-Heart and Circulatory Physiology*, *Basic Research in Cardiology* and other journals.

Previous Award Winners...

2016: Edward Lakatta, M.D.

2015: Kinya Otsu, M.D., Ph.D.

2014: Joan Heller Brown, Ph.D.

2013: Michael Marber, MB.BS, PhD, FRCP

2012: Daria Mochly-Rosen, Ph.D.

2011: Thomas M Force, M.D.

2010: Junichi Sadoshima, M.D., Ph.D.

2009: Donald M. Bers, Ph.D.

2008: Howard Rockman, M.D.

2007: Joanne S. Ingwall, Ph.D.

2006: Evangelia Kranias, Ph.D.

2005: Edward D. Frohlich, M.D.

2004: David Kass, M.D.

2003: Piero Anversa, M.D.

This award is funded by generous contributions from Bristol Myers Squibb, Hoffman-LaRoche, AstraZeneca, Scios and the Michael and Keri Whalen Foundation.