

KEITH REIMER, M.D.

1946-2002

Keith Arnold Reimer, M.D., Ph.D., Professor of Pathology at Duke University Medical School, internationally recognized cardiovascular scientist, pathologist, and teacher, died on March 15, 2002 of metastatic renal cell carcinoma at the age of 56. Keith began his career in experimental pathology studying ischemic injury of the kidney, however he quickly shifted his focus to myocardial ischemic injury, the field in which he went on to make his major scientific contributions. After completing the MD/PhD program at Northwestern University in Chicago, Keith joined the faculty at Duke University in 1975 as Assistant Professor of Pathology. Early in his career, working in collaboration with Dr. Robert B. Jennings, he published landmark studies describing and characterizing the "wavefront phenomenon" of myocardial ischemic cell death. These studies, published in two papers (*Circulation* 56: 786-794, 1977; and *Laboratory Investigation* 40: 633-644, 1979), have been cited more than 1000 times. During the early 1980s, Keith developed methods to measure baseline predictors of infarct size, such as area at risk and collateral flow, that have become the standard for generating reliable and reproducible data to test cardioprotective interventions. The effort to discover cardioprotective interventions led to one of Keith's most notable achievements – the description of one of the strongest and most reproducible interventions for reducing infarct size: ischemic preconditioning. Numerous investigators and laboratories have worked to better understand this remarkably effective intervention, and the ever-expanding number of studies on ischemic preconditioning, in a wide variety of tissues, have consistently confirmed the original observation that brief periods of ischemia and reperfusion are not detrimental, but are actually markedly protective. The original article describing the phenomenon of ischemic preconditioning, "Preconditioning with ischemia: a delay of lethal cell injury in ischemic myocardium" (*Circulation* 74: 1124-1136, 1986) has been cited more than 3700 times (the most cited paper in *Circulation*).

Keith was an active member of the ISHR since 1976, and was elected a Councilor of the American Section in 1979, serving until 1985. He was a finalist for the Richard Bing Young Investigator Award of the ISHR in 1980. Keith served as Secretary of the American Section from 1985-1994, and as a member of the Council of the International Society from 1989-1995. In 1997, he became President-Elect of the American Section and was the sitting President of the American Section, as well as a member of the International ISHR Council, when he died.

About the Award...

Each year, the International Council selects a speaker to deliver the Keith Reimer 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. Reimer and to recognize his contributions to cardiovascular research. The topic of the lecture must be in the field of ischemia, coronary hemodynamics, cardiac metabolism, or contractile mechanisms. The speaker receives a plaque and \$1,000 honorarium in addition to travel expenses.

*This award is funded by a generous contribution from
Chugai-Pharmaceutical Co.*



ISHR

International Society for Heart Research

President

M Hori, *Japan*

President Elect

M Avkiran, *UK*

Past President

R Bolli, *USA*

Secretary General

R Moss, *USA*

Treasurer

E Murphy, *USA*

Journal Editor

D Eisner, *UK*

Bulletin Editors

L Anderson Lobaugh, *USA*

TJC Ruijgrok, *The Netherlands*

Council 2010-2013

D Bers, *USA*

K Clarke, *UK*

L Delbridge, *Australia*

T Eschenhagen, *Germany*

P Ferdinandy, *Hungary*

K Fukuda, *Japan*

S Houser, *USA*

R-T Hui, *China*

T Izumi, *Japan*

L Kirshenbaum, *Canada*

I Komuro, *Japan*

E Kranias, *USA*

M Kurabayashi, *Japan*

C Patterson, *USA*

B Pieske, *Germany*

D Saint, *Australia*

R Schulz, *Germany*

M Sussman, *USA*

KK Talwar, *India*

M Vila-Petroff, *Argentina*

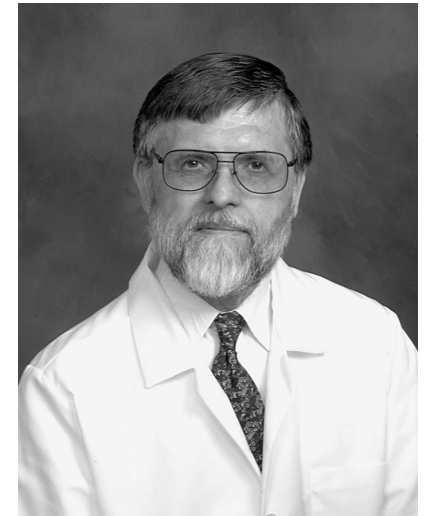
R-P Xiao, *China*



ISHR

International Society for Heart Research

THE KEITH REIMER DISTINGUISHED LECTURE 2013



Keith Reimer, M.D. 1946-2002



Honored Speaker

Dr. Karin Sipido

“Synchrony of sarcoplasmic reticulum calcium release, T-tubule organization and calcium microdomains”

KARIN SIPIDO, M.D., PH.D.



Karin Sipido, MD, PhD, is Professor of Medicine and Head of Experimental Cardiology at the KU Leuven, the University of Leuven, Belgium. She received her MD degree and trained in Internal Medicine and Cardiology at the University of Antwerp, Belgium. Between 1988 and 1990 she

trained in the USA, and was a Research Fellow in Baltimore, first in the lab of Gil Wier at the University of Maryland, then with Eduardo Marban at Johns Hopkins University. In 1991 Dr. Sipido moved to the Laboratory of Physiology at KU Leuven where she obtained a PhD in Physiology with Edward Carmeliet, and stayed as a Postdoctoral Fellow till 1995. In 1996 she started her own lab in the Division of Cardiology as Assistant Professor, becoming Full Professor in 2002. In addition she has worked as a clinical consultant in Cardiology in Leuven (1994-1998), as Consultant in Maastricht, NL (1996-1998) and as Visiting Professor in Utrecht (2004-2006).

Dr. Sipido has been a member and subsequently chair of the Research Council of the KU Leuven (2006-2009). She was Research Coordinator of the group of Biomedical Sciences (2009-2012). She takes an active interest in research at European and international level. In the European Society of Cardiology she has been a Board member (2004-2006), co-founder and chair of the Council on Basic Cardiovas-

cular Sciences (2006-2008), and is currently a member of the EU affairs committee. From this position she has represented ESC as founding member of the Alliance for Biomedical Research in Europe, a consortium across all biomedical disciplines to advance research at European level. She is a Fellow of the American Heart Association and was member of the AHA Basic Science Council (2009-2011). She was elected Fellow of the ISHR in 2010 and became member of the Academia Europaea in 2012. Dr. Sipido is member of the editorial board of several journals in the cardiovascular domain including *Circulation Research* and the *Journal of Molecular and Cellular Cardiology*. She was one of the Reviewing Editor on the Board of the *Journal of Physiology* (2001-2007) and was Associate Editor of the *European Heart Journal* (2003-2008). Since January 2013 she is Editor-in-Chief of *Cardiovascular Research*.

Dr. Sipido's main field of interest is cardiac cellular electrophysiology and calcium homeostasis, and the changes with cardiac hypertrophy and heart failure. Her overall aim is to link clinical findings to cellular mechanisms. She is particularly interested in the role of altered $[Ca^{2+}]_i$ regulation in arrhythmogenesis and the potential for targeting the Na/Ca exchanger as therapy. From her first work with Gil Wier she has been interested in quantifying calcium fluxes, first of the global release flux from the sarcoplasmic reticulum, subsequently focussing on local calcium microdomains. This work includes the modulation of calcium and chloride channels, of the Na/Ca exchanger and more recently, the use of these currents to quantify microdomain calcium in the dyadic cleft. This work was linked to the generation of

2013 HONORED SPEAKER SAN DIEGO, CA, USA

afterdepolarizations, in particular in cardiac hypertrophy, work that was performed in close collaboration with Marc Vos and Paul Volders. Work on ischemic heart disease started about 10 years ago and has stimulated further work on T-tubule reorganization and alterations in calcium microdomains around ryanodine receptors.

Previous Award Winners...

Metin Avkiran

(Belgrade, Serbia: 2012)

Charles Murry

(Philadelphia, Pennsylvania: 2011)

Richard Moss

(Kyoto, Japan: 2010)

Elizabeth Murphy

(Sapporo, Japan: 2009)

David Eisner

(Athens, Greece: 2008)

Eduardo Marbán

(Bologna, Italy: 2007)

Garrett Gross, PhD

(Toronto, Canada: 2006)

Masao Endoh, MD, PhD

(Osaka, Japan: 2005)

R. John Solaro, PhD

(Brisbane, Australia: 2004)

Gerd Heusch, MD, PhD

(Strasbourg, France: 2003)

Roberto Bolli, MD

(Madison, Wisconsin: 2002)