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 6000 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 six ISHR Sections on a rotating basis. 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.
Rong Tian, MD, Ph.D.

Dr. Rong Tian obtained her MD from West China University of Medical Sciences, and her PhD in Pharmacology from University of Aarhus in Denmark. She completed her postdoc training at Harvard Medical School and stayed on faculty at Harvard, rising through the ranks to associate professor. In 2009, she was recruited to the University of Washington as the founding director of the interdisciplinary Mitochondria and Metabolism Center. Dr. Tian is currently Professor of Anesthesiology & Pain Medicine and Bioengineering, Adjunct Professor of Biochemistry, Pathology and Medicine. She was elected in 2019 the Editor in Chief for Journal of Molecular and Cellular Cardiology.

Dr. Tian is an internationally recognized leader in cardiac metabolism and mitochondrial biology. Her laboratory has made seminal contributions to the field by combining molecular targeting strategies with vigorous in vivo metabolic phenotyping via powerful technology of multi-nuclear NMR spectroscopy, proteomics and metabolomics. Dr. Tian’s groundbreaking work on the shift of glucose and fatty acids metabolism in cardiac remodeling, provocative at the time, has invigorated the field and brought metabolism back to the center stage of the era of system biology and precision medicine. Dr. Tian is also recognized as a world leader in developing mitochondria-targeted therapy for cardiovascular diseases. Her recent work on NAD metabolism, cellular stress response and inflammation has yielded a major stimulus to the translational research as heart failure becomes a predominant diagnosis in our aging and obese population. Under her leadership, University of Washington has conducted the first in human clinical trial of targeting mitochondria NAD in heart failure, which is followed by multiple in-kind trials across the world. Dr. Tian has been continuously funded by the NIH since 1998. She has published 150 peer reviewed papers with a total citation of over 15500.

Dr. Tian has received many honors and awards, including the Distinguished Achievement Award of the American Heart Association Basic Science Council, Research Achievement Award of the International Society for Heart Research, Bernard and Joan Marshall Distinguished Investigator of the British Society for Cardiovascular Research, and Berne Distinguished Lecturer of the American Physiological Society. She delivered the 2021 George E. Brown Memorial Lecture of the American Heart Association (AHA), the most prestigious basic science lecture of the AHA.

In the past 20 years, the Tian lab has successfully mentored over 50 students and fellows. A large fraction of the trainees have received the NIH training grant fellowships, the AHA pre-doctoral or postdoctoral fellowships, and career development awards. Thus far, 18 trainees have gone onto faculty positions in academic research institutes, and the majority of the rest have gone onto postdocs, research-intensive careers in industry or non-profit organizations. Dr. Tian is committed to increasing diversity and inclusivity in the STEM fields, her lab has been a long-term participant of the NIH/NHLBI STAR program that trains aspiring researchers among underrepresented minority medical students. Tian lab aims to provide a stimulating and supportive environment and to produce an inclusive group of next generation cardiometabolic scientists.

Previous Award Winners…

Barbara Casadei, MD, DPhil: 2022
Ronglih Liao, PhD: 2020
Christoph Maack, MD: 2019
Steven Houser, PhD: 2018
Brian O’Rourke, PhD: 2017
Rodolphe Fischmeister, PhD: 2016
Gerald Dorn, MD: 2015
Fabio Di Lisa, MD: 2014
Karin Sipido, MD, PhD: 2013
Metin Avkiran, DSc, PhD: 2012
Charles Murry, MD, PhD: 2011
Richard Moss, PhD: 2010
Elizabeth Murphy, PhD: 2009
David Eisner, PhD: 2008
Eduardo Marbán, MD: 2007
Garrett Gross, PhD: 2006
Masao Endoh, MD, PhD: 2005
R. John Solaro, PhD: 2004
Gerd Heusch, MD, PhD: 2003
Roberto Bolli, MD: 2002