Peter Harris, M.D., Ph.D.
1923 - 2002

Peter Harris was an influential international statesman in cardiology. A science scholar at King's College, London, UK, Harris trained in medicine at Kings College Hosp., qualifying in 1946. During house appointments at King's and the Brompton Hosp., he obtained his MD in 1951, winning the university gold medal and a PhD in 1955. He was appointed lecturer, in 1957, and reader in medicine, in 1962, at Birmingham University. In 1966, he was appointed the first Simon Marks' Professor of Cardiology at the Cardiothoracic Institute and Director of the Institute of Cardiology, in the Univ. of London.

His career, which was dedicated to exploring the cardiovascular system and the origins of heart disease, can be viewed as three chapters. During the 1950's and early 1960's, he was in the mainstream of research, and used established methods of haemodynamic measurements to explore cardiac output and pulmonary blood flow and the metabolism of the heart muscle. [During]…the second stage of his career …his research into the heart muscle turned to experiments at the cellular and molecular level. In 1970, Harris organized a meeting of …an international study group for research in cardiac metabolism, which resulted in the publication of one of the most influential works on cardiology: *Calcium and the Heart.* The third element to Harris's career involved his fascination with the evolution of the cardiovascular and related systems. In a series of essays in 1983, he traced the way that the origins of clinical heart failure might lie in ancient reflexes. His study of the right ventricle of the heart and the blood flow to the lungs of yaks showed they had adapted genetically to high altitude by eliminating the vasoconstrictor response due to reduction of oxygen.

Away from the laboratory, he was a talented musician and artist, and he showed a leaning toward satirical writing.

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About the Award…

Created in 1986, this very distinguished Award of international importance is the highlight of ISHR World Congresses and Section meetings. It is conferred in recognition of a lifetime of distinguished scientific achievements in the field of cardiovascular research.

International Society for Heart Research

ISHR

The Peter Harris Distinguished Scientist Award 2023

Peter Harris, M.D., Ph.D.
1923-2002

Award Winner

Daniel P. Kelly, M.D.

"Deciphering the Metabolic Origins of Heart Failure: Towards Novel Therapeutic Targets "

2023 Award Winner

Daniel P. Kelly, M.D. Madison, WI

Dr. Daniel Kelly obtained his medical degree from the University of Illinois College of Medicine in Chicago in 1982 followed by an internship and residency in Internal Medicine at Barnes Hospital in St. Louis. Thereafter, he did a Postdoctoral Research Fellowship in the Department of Biological Chemistry followed by Clinical Cardiology Fellowship training at Washington University School of Medicine (WUSM). Dr. Kelly joined the WUSM faculty in 1989 and rapidly moved up the ranks to Professor of Medicine, Pediatrics, and Molecular Biology & Pharmacology. While at WUSM, Dr. Kelly held the Tobias and Hortense Lewin Professorship and served as Chief of the Cardiovascular Division. His clinical activities involved the care of young adults with congenital heart disease working closely with St. Louis Children's Hospital. He launched the Center for Cardiovascular Research at Washington University in 1996. In 2008, Dr. Kelly assumed the role of founding Scientific Director for Sanford Burnham Prebys Medical Discovery Institute (SBP) located in Orlando, Florida. During his tenure at SBP, he recruited over 25 faculty and built a vibrant early-stage research institute from the ground up. In 2017, he moved to the University of Pennsylvania where he was named Director of the Penn Cardiovascular Institute (CVI). In 2022, Dr. Kelly assumed the role of founding Director of the Children's Hospital of Philadelphia (CHOP) CVI in partnership with the Penn CVI. He is currently the Willard and Rhoda Ware Professor of Diabetes and Metabolic Diseases at the University of Pennsylvania Perelman School of Medicine and the Rachel Ash Presidential Professor at CHOP.

Dr. Kelly's research interests stem from an early fascination with rare inborn errors in mitochondrial metabolism in children which cause sudden death and heart failure. As a young researcher at Washington University, Dr. Kelly defined the genetic basis for a common inborn error in mitochondrial fatty acid oxidation, work that led to the development of practical screening tests for newborns. Thereafter, he became interested in how similar derangements in cardiac energy metabolism contribute to heart failure and sudden death in common acquired forms of mitochondrial diseases caused by hypertension, ischemic injury, and diabetes. His work defined the transcriptional regulatory axis involved in the control of cardiac fuel and energy metabolism through pioneering fundamental work on nuclear receptors including the PPARs, estrogen-related receptors (ERRs), and their transcriptional coactivator PGC-1. The Kelly laboratory has identified molecular "switches" in this regulatory pathway that potentially define distinct forms of heart failure, an important step towards identifying therapeutic targets for phenotype-specific treatment of heart failure. More recently Dr. Kelly has employed proteomic and metabolomic approaches to probe the metabolic origins of heart failure. This approach led to the discovery that the failing heart has increased reliance on ketone bodies as a fuel. The fundamental studies in the Kelly laboratory have identified several candidate therapeutic approaches to rebalance mitochondrial metabolism in heart failure including ketone supplementation and targeting the transcriptional repressor RIP140. Ketone-based therapies are now being assessed in first in human heart failure trials. Dr. Kelly has mentored over 70 trainees, many of whom have gone on to establish independent laboratories in academia.

Dr. Kelly has made significant contributions to biomedical research beyond his discoveries. He served as an Associate Editor for The Journal of Clinical Investigation and is currently an Associate Editor for Journal of the American College of Cardiology-Basic to Translational Science. He serves, or has served, on the Editorial Boards of Genes & Development, Nuclear Receptor Signaling, Circulation, and Circulation Research. He has held leadership advisory roles for the American Heart Association (AHA), the National Heart, Lung, and Blood Institute, Pfizer, and Amgen. He is a member of the American Society for Clinical Investigation (Council, 2002-05) and the Association of American Physicians (President, 2022-2023). He is a recipient of the American Heart Association (AHA) Distinguished Achievement Award and Basic Research Prize.