

UT Southwestern Medical Center

In Memoriam: Dr. Jere Mitchell

July 20, 2021

To the UT Southwestern community:

We are saddened to announce the passing of Jere Mitchell, M.D., former Director of the Harry S. Moss Heart Center and an internationally recognized exercise physiologist whose findings on maximal oxygen uptake overturned conventional medical practice related to bed rest and helped lay the foundations for central command physiology and neural controlled circulation.

His passing is a great loss for the UT Southwestern community and the field of physiology. We offer our condolences to Dr. Mitchell's family.

Dr. Mitchell, a UT Southwestern alumnus and Professor of Internal Medicine and Physiology, conducted research that became the foundation of the landmark Dallas Bed Rest and Training Study. His findings, published in *Circulation* in 1968, revealed that prolonged bed rest dramatically reduced the heart's ability to pump blood effectively. The research, which evolved from initial investigations into oxygen transport during exercise, overturned the common practice at the time of prolonged bed rest after heart attack and instead demonstrated the need to resume activity quickly. The findings, which were soon applied to recovery after surgery and childbirth, also led to head-down tilt bed rest studies and the effect of zero gravity on cardiovascular function, helping to establish the field of space physiology.

While working at the National Heart, Lung, and Blood Institute of the National Institutes of Health (NIH) with Dr. Stanley Sarnoff, he conducted research that overturned traditional thinking on differences between mean left atrial pressure and left ventricular end diastolic pressure, which revealed the transport function of the atrium. For this accomplishment, he received the first Young Investigator Award from the American College of Cardiology (ACC). While a fellow at Oxford University, he conducted research into the role of muscles in stimulating the cardiovascular system that identified what became known as the exercise pressor reflex, which along with research that unveiled central command physiology, laid the foundation for our understanding of neural control of circulation. In conjunction with this research, Dr. Mitchell oversaw one of the longest running NIH program project grants, covering more than four decades.

In addition to the ACC's Young Investigator Award, Dr. Mitchell received the ACC's Distinguished Scientist Award – the only investigator to receive both awards. He also was recognized with the Carl J. Wiggers Award from the American Physiological Society, the Paton Prize from The Physiological Society, the Award of Merit from the American Heart Association, the Honor Award from the American College of Sports, a Career Development Award from the U.S. Public Health Service, the Albert Nelson Marquis

Lifetime Achievement Award from Marquis Who's Who, and as a Distinguished Humanitarian by Marquis Who's Who.

Dr. Mitchell was born on Oct. 17, 1928 in Longview, Texas, and graduated with honors in 1950 from Virginia Military Institute before receiving his medical degree from UT Southwestern in 1954. He was among the first intern class of Dr. Donald Seldin and served his residency and a fellowship at UT Southwestern, along with a fellowship at the Laboratory of Cardiac Energetics of the National Heart, Lung, and Blood Institute in Bethesda, Maryland. He joined the UT Southwestern faculty in 1962 and became the Director of the Pauline and Adolph Weinberger Laboratory for Cardiopulmonary Research in 1966 before becoming Director of the Harry S. Moss Heart Center in 1976. He also helped establish the Human Performance Center, at the time a joint venture between UT Southwestern and the former St. Paul Medical Center; served on the Science Advisory Board of the U.S. Air Force; was named national Vice President of the American Heart Association; served as a Percy Russo lecturer and Professor at the Cumberland College of Health Sciences at The University of Sydney in Australia; and received an honorary Doctor of Philosophy from the University of Copenhagen in Denmark.

A consummate collaborator and educator, Dr. Mitchell had recently donated funds to establish a new distinguished chair approved by the UT System to be known as the Jere H. Mitchell, M.D. Distinguished Chair in Cardiovascular Science. In addition, the S. Roger and Carolyn P. Horchow Chair in Cardiac Research, in Honor of Jere H. Mitchell, M.D., which he held, and the Jere H. Mitchell, M.D. Distinguished Professorship in Clinical Research were created in recognition of his contributions to the field.

Dr. Mitchell's innovative thinking and collaborative approach to academic discovery will carry forward in the foundational research he built and the inspiration he provided to generations.

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