2nd Annual
James S. Hyde, PhD
Memorial Lecture

MCW

Monday, May 19, 2025
10:00 – 11:30 a.m.

Alumni Center
Medical College of Wisconsin

Spectroscopic Probes of Protein Structural Dynamics, Thanks to Jim Hyde!

Guest Lecturer:

David D. Thomas, PhD
Professor & William F. Dietrich Chair
Director, Minnesota Muscle Training Program
University of Minnesota

David D. Thomas, PhD

David D. Thomas, PhD is the William F. Dietrich Chair and professor of biochemistry, molecular biology, and biophysics at the University of Minnesota. He is also the director of the Minnesota Muscle Training Program.

Dr. Thomas received his BS in physics and PhD in biophysics from Stanford University under the mentorship of Harden McConnell, PhD, and completed postdoctoral training at Harvard and Stanford Medical Schools. During his time at Stanford, he began to work closely with Jim Hyde, who was at nearby Varian Associates. Together, they published a seminal paper in 1973 establishing saturation transfer EPR for the study of slow protein motion, and they continued their productive collaboration after both moved to the Midwest. He treasures Jim as a lifelong role model.

Dr. Thomas is a leader in the development and application of site-directed spectroscopic probes for EPR and fluorescence spectroscopies, most recently in the development of novel high-throughput small-molecule drug screens for treatment of muscle disease and cancer. He is co-founder (with his wife, Jenny) and president of Photonic Pharma LLC, which commercializes new molecular therapies for heart failure, based on his decades-long research program focused on understanding and exploiting the fundamental molecular bases of muscle disorders. Also, he is a former All-American wrestler and is still a pretty good clarinet player.

Dr. Thomas has published nearly 400 papers, has been cited over 25,000 times, and has trained 79 MS and PhD students and 38 postdoctoral fellows. He is a fellow of the Biophysical Society and was on the editorial board for the Biophysical Journal for decades.

We are truly honored to have such a long-standing and close collaborator of Jim's give this year's James S. Hyde Memorial Lecture.

Welcome & Introductions

Francesca M. Marassi, PhD
Professor, Chair, and Eminent Scholar, Department of Biophysics,
Medical College of Wisconsin

John R. Raymond, Sr., MD
President and CEO
Medical College of Wisconsin

Candice S. Klug, PhD
James S. Hyde Professor of Biophysics; Vice Chair for Research in Biophysics; Director, National Biomedical EPR Center,
Medical College of Wisconsin

Guest Lecture

David D. Thomas, PhD
Spectroscopic Probes of Protein Structural Dynamics, Thanks to Jim Hyde!

Presented by the Department of Biophysics

James S. Hyde, PhD

James S. Hyde, PhD (1932–2022), was a world-renowned expert in electron paramagnetic resonance (EPR) spectroscopy instrumentation, a pioneer in functional magnetic resonance imaging (fMRI), and a leading authority on brain connectivity.

Dr. Hyde was recruited to the Medical College of Wisconsin (MCW) in 1975 as a professor of radiology after a long and successful career with Varian Associates. He went on to become the founding director of the Biophysics Research Institute (now the Department of Biophysics), professor of biophysics, and the initial holder of the endowed James S. Hyde Professorship in Biophysics.

In 1976, he and Harold M. Swartz, MD, PhD, were principal investigators on the NIH-funded National Biomedical EPR Center grant, which was the nation's first federally funded center focused on EPR instrumentation development; Dr. Hyde became director of the EPR Center in 1980 and remained in that role until his retirement in 2016. In 1992, Dr. Hyde, MD/PhD student Eric Wong, and PhD student Peter Bandettini were the first to publish on fMRI of the sensorimotor system in the human brain. In 1995, Dr. Hyde published the first paper on resting-state functional connectivity MRI, which has been cited more than 7,000 times.

Over his 41-year career at MCW, Dr. Hyde received more than $56 million in direct federal grant support and authored or co-authored more than 400 scientific papers and book chapters. He has been awarded more than 37 patents in imaging and technology and founded a technology development company with Richard Stevens. Dr. Hyde has been honored by MCW with the Distinguished Service Award as well as internationally by numerous prestigious scientific societies. His contributions to the scientific community are both innumerable and invaluable.

This annual memorial lecture honors the remarkable legacy of Dr. James S. Hyde.