



David J. Pinsky, M.D.

*J. Griswold Ruth, M.D., and Margery Hopkins Ruth Professor of Internal Medicine
Professor, Molecular and Integrative Physiology
Chief, Division of Cardiology
Director, U-M Cardiovascular Center*

Understanding Vascular Injury and Protection

Dr. Pinsky was recruited to the University of Michigan from Columbia University in New York in 2003 to head the Division of Cardiovascular Medicine and serve work with colleagues from across multiple disciplines as a Director of one of the leading comprehensive Cardiovascular Centers in the nation. A Midwest native, Pinsky completed undergraduate and medical training in Ohio before moving to New York City, where he trained in internal medicine at Mount Sinai and cardiology at Columbia, where he was subsequently recruited to the faculty. At the University of Michigan, through his own research as well as through his role as Chief of Cardiovascular Medicine at one of the leading cardiology programs in the country, Dr. Pinsky has strategically connected science and medicine. In his own research program, he elucidated novel paradigms by which cells that line all blood vessels protect themselves from stress, preventing dangerous clotting and inflammatory reactions. His work has led to the identification and harnessing of these molecules, which include carbon monoxide, which is made by cells under stress to protect themselves. Pinsky found that miniscule doses of carbon monoxide have the potential to protect organs from the stress of interrupted blood flow, such as may occur in heart attack or stroke. Based on his pioneering work, inhaled carbon monoxide is currently undergoing clinical testing.

In 2008, Dr. Pinsky was selected as an inaugural Scholar of the Taubman Medical Research Institute. His recent work through the Institute focuses on another protective molecule (actually an enzyme) expressed on the surface of blood vessel cells, which can be harnessed to prevent dangerous clotting and inflammation. In this work, he has elucidated a novel mechanism by which white blood cells modulate their own trafficking into tissue which has been deprived of blood flow by enzymatically “dissolving” clouds of a potentially dangerous substance released by dead or dying cells. Overall, his work with the Institute has led to new insights into mechanisms driving abnormal responses of blood vessels to oxygen deprivation or interrupted blood flow, providing clues for potential new treatments (or preventative therapy) for stroke or heart attacks. His work has been published in the most competitive scientific journals of our day, including *Science*, *Nature Medicine*, *Journal of Clinical Investigation*, *Proceedings of the National Academies of Sciences*, and others.

Through his administrative role, Dr. Pinsky has brought together groups of basic scientists and clinical researchers in multiple areas. He is a popular invited speaker, and has led and participated in strategic planning efforts in the area of stroke and vessel diseases for the National Institutes of Health. He currently leads an NIH panel dedicated to the review and advancement of training for patient-oriented researchers, serves on the National Heart Lung Blood Institute's Program Project Grant Parent committee, a joint task force between the US Army and the NIH focused on understanding blood coagulation, and an Institute of Medicine Panel focused on Cardiovascular and select chronic diseases.