Biography

Dr. Morgan is currently a Professor of Human Physiology and a member of the Whitaker Cardiovascular Institute at Boston University. She previously received her PhD from the University of Cincinnati. She became an Assistant Professor of Pharmacology at the Mayo Clinic, an Associate Professor of Physiology and Medicine at Harvard Medical School. She has previously served as Chair of the Health Sciences Department and Dean *ad interim* of Sargent College, Boston University, and Scientific Director and CEO of an independent not-for-profit research institute, the Boston Biomedical Research Institute. Her research group currently works at the intersection of neuroscience and the cardiovascular system, and is interested in developing potential therapeutic prototype molecules to prevent or reverse vascular dementia.

Abstract

“*Molecular Mechanisms of Aortic Stiffness and Consequent Neurovascular Disease With Aging*”

The proximal aorta normally functions as a critical shock absorber to prevent the full force of the heartbeat from reaching the delicate small blood vessels of the brain, kidney, and heart, where it would cause damage and lead to dementia, kidney failure and heart failure. This shock absorber function is impaired with age. Thus aortic stiffness is both an early biomarker of, and a contributor to, adverse aging-related cardiovascular outcomes. We have identified specific cytoskeletal protein-protein interfaces as being involved in aging-induced increased aortic stiffness in a mouse model. Our current efforts to develop targeted potential therapeutic molecules to prevent or reverse the effects of aging on aortic stiffness and its consequent adverse cardiovascular outcomes will be discussed.