



D. Geoffrey Vince, PhD, is the Virginia Lois Kennedy Chair of the Department of Biomedical Engineering at Cleveland Clinic's Lerner Research Institute. Originally from northern England, Dr. Vince earned his undergraduate degree in medical sciences and chemistry at DeMontford University in Leicester, England, and began his research career at the University of Liverpool, where he earned his PhD in Biomedical Engineering. He completed his postdoctoral fellowship in the United States at Cleveland Clinic's Department

of Biomedical Engineering, where he and colleagues invented what became Virtual Histology™. To further develop that invention, Dr. Vince spent 6 years at Volcano Corporation (since February 2015, owned by Philips), a leader in the medical device industry, where he became Vice President of Clinical and Advanced Research & Development. He returned to Cleveland Clinic in his current role as Department Chair in 2011. Dr. Vince's areas of research interest include vascular imaging, image and signal processing and atherosclerotic plaque characteristics, which are pertinent to heart disease and stroke. His team is developing mathematical algorithms based on quantitative ultrasound and acoustic radiation force impulse imaging that can more precisely analyze ultrasound images of carotid arteries. The new system creates a spectrum by which different colors indicate where and how bad the plaque build-up is; this information from scattered ultrasound points is obtained but not considered during the creation of standard ultrasound images. The team's goal is to provide a tool that will predict which patients are imminently at increased risk of having a stroke and will aid the physician in determining the best treatment approach. Dr. Vince's experience on the international corporate scene encompasses not only an understanding of the global interplay of research and clinical innovation but also aspects of corporate and federal funding and venture capital.