Dr. Duncan J. Maitland is professor in the Department of Biomedical Engineering at Texas A&M University and TEES assistant agency director for commercialization. His research focuses on novel treatments of cardiovascular disease with a focus on stroke. His research projects include endovascular interventional devices, microactuators, optical therapeutic devices and basic device-body interactions/physics including computational and experimental techniques.

The Biomedical Device Laboratory (biomeddevice.tamu.edu) develops a number of interventional devices including those based on shape memory polymer (SMP). Research and development efforts include device fabrication, characterization, computational modeling, biocompatibility and functional in vivo studies. SMPs are smart materials that have the ability to remain in a secondary geometry and then actuate to a primary geometry when introduced to a stimulus such as heat. Because of this advanced capability, SMPs have attracted increased attention from the scientific community for numerous applications, ranging from aerospace applications to the biomedical industry.