## Geoffrey Ling MD, PhD, Colonel, US Army (ret)

Dr. Geoffrey Ling was the Founding Director of the Biological Technologies Office at the Defense Advanced Research Projects Agency (DARPA), where he developed strategic partnerships (public and private) and investment strategies and conduct mentoring. He served as the Deputy Director and as a Program Manager in the Defense Sciences Office. While a Program Manager, Dr. Ling established and managed the Revolutionizing Prosthetics Program, which created the most advanced prosthetic arm to date. Notably, it was FDA approved and commercialized by Mobius Bionics within 8 years of program start. In addition, this program created and delivered the first brain controlled human prosthetic arm and hand within 5 years and was featured on the TV program "60 Minutes." His DARPA Preventing Violent Explosive Neurologic Trauma (PREVENT) program elucidated the mechanisms by which explosive blast causes brain injury and led to the development of the Blast Gauge by BlackBox Biometrics, a Rochester Institute of Technology spinout company. Within 5 years of the PREVENT program start, the Blast Gauge was fielded and resulted in better medical management of explosive blast traumatic brain injury (TBI) and changes in both training and tactics that reduced TBI associated with blast. In 5 years, Dr. Ling's Battlefield Medicine program, which developed technology to produce needed medicines at the point of care, led to an MIT spin-out company, On Demand Pharmaceuticals, that now 5 years later is valued at \$500M. His Predicting Health and Disease program, which produced tests that could determine who would become ill and when after an exposure to an infectious agent, led to a Duke spinout company, Predigen, that successfully merged with Biomeme.

Dr. Ling also served as an Assistant Director for Medical Innovation in the Science Division of President Obama's White House Office of Science, Technology and Policy (OSTP), and developed public federal policy related to health care innovation for President Obama. He assisted in organizing and launching the President's BRAIN (Brain Research through Advancing Innovative Neurotechnologies) Initiative, a White House led enterprise advancing brain research through innovative neurotechnologies. He also helped launch the White House efforts to combat Antibiotic Resistance Bacteria (ARB) initiative.

Colonel Ling is a retired U.S. Army medical officer who served on active duty for 21 years. He was deployed as an intensive care physician with the 452<sup>nd</sup> CSH (combat support hospital) in OEF-Afghanistan (2003) and 86<sup>th</sup> CSH and 10<sup>th</sup> CSH in OIF-Iraq (2005). Also, COL Ling has had four in-theater missions as a member of the Joint Chiefs of Staff "Gray Team" to assess traumatic brain injury (TBI) care in both combat theaters (2009, 2011). The 10th CSH named him their first "Physician of the Month." Dr. Ling was also a "requested by name" consultant to Congresswoman Gabby Gifford's trauma team following her tragic attack.

Presently, Dr. Ling is a pharmacologist and physician and co-founder and CEO of On Demand Pharmaceuticals. Clinically, he is a professor of neurology, neurosurgery and anesthesiology and critical care medicine at Johns Hopkins University and an attending neuro critical care physician at Johns Hopkins Hospital. He served on Advisory Councils of the NIH-National Institute of Neurological Disorders and Strokes for 10 years and the NIH-National Center for Advanced Translation Science for 4 years. He recently completed a 4-year tenure on the Veterans Administration's National Research Advisory Council, which he chaired.