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## A Nanotechnology for Neuroimaging in Biomedicine: the BRODERICK PROBE® Biosensor Series of Advanced Materials & Ultra-Small Quantum Sensing Design

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We have previously presented a series of Conferences for the Longdom Group that entail the molecules that encode mental depression, memory, and aging. These molecules of Tau, amyloids and Lewy Bodies are present in varying degrees in Alzheimer, Parkinson, and the epilepsies in the healthy state. The caveat is their switch to an unhealthy state when the proteins unfold. Indeed, we have empirical data wherein the nanoprobe and infrared photocells enable algorithms for walking and hand motor coordination in the diseases of mental depression. Furthermore our studies are performed in subjects who are alive. Our innovative biosensors are patented and trademarked under the name of the BRODERICK PROBE®, named after the author's father. In this presentation, the author shall share just how the electromechanics of these unique carbon and protein nanoprobe work. The uses include the biomechanical, electrochemical, bioengineering and the pharmaceutical industries. Thousands of polymeric combinations, including optical, are poised to make the market more diverse by enabling devices that are handy and not at all bulky or expensive. Their operational stability and temporal and spatial resolution allow studies to be done in any part of the brain and the skin; the inventive art has met the proof of concept stage. Jenny Stanford Publishing Pte. Ltd., Singapore is typesetting her book and the monograph is entitled Neuroimaging Sensing Biochemistry in the Brain. In another scholarly work, she proceeds to a publication with her book, entitled Biomedical Imaging in Neurodegeneration, by Springer Nature, NY, London, Berlin and Shanghai.

### Biography

Dr. Broderick's doctoral degree is from St. John's University and she served as Postdoctoral Fellow at the Albert Einstein College of Medicine & Cornell University Medical Ctr., NY, USA. Patricia served as Senior Scientist at USV Pharmaceutical in Tuckahoe, NY and she founded the Broderick Brain Foundation. Her numerous patents, publications and editorial works are testimony to her legacy of fine achievements.