

Michael P. Kilgard, Ph.D.



Dr. Kilgard trained in biochemistry and genetics at UC Berkeley and in neuroscience at UC San Francisco. He is the Margaret Fonde Jonsson Professor and directs the Texas Biomedical Device Center. Dr. Kilgard has published more than 110 papers in peer-reviewed journals, including *Nature*, *Science*, *Neuron*, and *Stroke*. Dr. Kilgard holds 25 U.S. patents. His work is supported by DARPA, NINDS, NIDCD, Wings for Life Spinal Cord Research Foundation, and the W.W. Caruth, Jr. Foundation Fund at Communities Foundation of Texas. His research is focused on understanding the mechanisms that regulate neural plasticity in order to develop clinical tools to treat neurological and psychiatric conditions using precisely targeted synaptic plasticity. Dr. Kilgard's laboratory uses behavioral training, environmental enrichment, drug therapy, deep brain stimulation and peripheral nerve stimulation methods to enhance neural plasticity. Over the last decade, his lab has developed treatments for spinal cord injury, tinnitus, PTSD, and stroke that employ brief bursts of vagus nerve stimulation paired with sound or movements to direct therapeutic plasticity. These treatments are highly effective in animal models and are now being tested in randomized clinical trials.