The goal of this lecture is to provide an overview of the Center for the Study of Aphasia Recovery (C-STAR), a recently established research program funded by the National Institutes on Deafness and Other Communication Disorders (NIDCD). Approximately a quarter of all chronic stroke survivors present with aphasia, a language disorder caused by damage to the speech and language areas of the brain. The prevalence of chronic aphasia in the United States is estimated to be one million. Aphasia can vary in severity from very profound impairment that renders patients mute and without the ability to understand others’ speech, to milder forms where patients have great difficulty retrieving specific words. In the chronic stage of stroke, aphasia has been identified as the strongest predictor of poor quality of life. Aphasia not only influences the ability to communicate with family and friends, but also drastically decreases education and employment opportunities.

Although some degree of spontaneous recovery from aphasia is typical in the first weeks and months following stroke, many patients are left with devastating communication problems. Once aphasia has become a chronic condition, the only road to recovery is through aphasia therapy. Several meta-analysis studies suggest that aphasia therapy is effective. In spite of decades of research, very little is known about which patients benefit the most from treatment and what kind of treatment should be administered to patients with different impairment profiles. The overarching goal of C-STAR is to improve aphasia treatment effectiveness as well as identify patient factors that can be used to improve diagnosis of language impairment, guide aphasia treatment, and predict prognosis. Specifically, the focus of our center is to examine the extent to which factors such as behavioral aphasia treatment, electrical brain stimulation, and residual brain function influence aphasia recovery.