Program Schedule:

8:30-9:00  Registration & Continental Breakfast
9:00-10:30 Introduction to Neuroimaging in Speech & Language
10:30-10:45 Break
10:45-12:00 Language, Anomia in Aphasia, & Treatment Implications
12:00-1:00 Lunch
1:00-2:30 Acquired Apraxia of Speech & New Motor-Speech Learning
2:30-2:45 Break
2:45-4:00 Exploration of Neurostimulation to Facilitate Traditional Treatments

Please register online:

http://www.chhs.unh.edu/csd/

(all payment methods accepted)

Registration Fee: $150.00
(lunch and materials included)

Registration Deadline: 5-3-12

If you have questions or would prefer to register via phone, please call 603-862-2110 or 862-0144.
Email: communications.disorders@unh.edu

This course is offered for 0.5 CEUs, at an intermediate level; professional area. Provider approval does not imply endorsement of course content, specific products, or clinical procedures.
Conference Overview:

Ask Not What is Absent, But What Remains:

Following stroke, many individuals experience an array of cognitive, motor, and communication deficits, such as impairment in language functioning (typically referred to as aphasia). While some individuals recover from aphasia with very little residual effect, most are faced with life altering deficits that persist long-term. The traditional textbook view of aphasia focuses on the relationship between damage to localized brain regions and the subsequent loss of function (i.e. “the absence”). While it is important to understand how damage to specific parts of the language network commonly give rise to specific breakdowns in language ability, it is equally paramount that we understand the role of the preserved regions in the brain (i.e. “what remains”). Although damage has occurred, many parts of the brain are still functioning. It is the inherent strengths that remain in this impaired system that may be the key in facilitating neuroplasticity. That is, can we develop treatment approaches that access inherent cognitive functions that can supplement the utility of those functions that have been compromised? Fortunately, the technological advances in neuroimaging tools, such as functional magnetic resonance imaging (fMRI), provide us with an unequivocal means for understanding the working brain (“a functional window”). As professionals who strive to achieve the highest level of treatment efficacy, it is prudent that we consider how the use of such modern advances could guide our treatment approaches and facilitate the highest level of recovery possible.

In this workshop, we will consider two deficits that commonly affect verbal communication in persons with aphasia following stroke: anomia (i.e. impairment in word finding abilities) and acquired apraxia of speech (i.e. impairment in planning the motor movements for speech). We will begin with a review of the current tools in functional neuroimaging and consideration of how these tools have helped us to understand how the brain typically supports spoken communication. Then, we will take a thought-provoking journey through the empirical exploration of how these brain networks are impaired in persons with aphasia as well as how the remaining parts of the system may be utilized for intervention. We will consider treatment implications for these findings by discussing the application of this knowledge directly to treatment methodology and reviewing the preliminary outcomes. We will conclude by discussing possible neurostimulation interventions on the horizon for treating persons with aphasia (e.g. transcranial magnetic stimulation (TMS) and transcranial direct-current stimulation (tDCS)).

Learner Outcomes:

Upon completion of this course, participants will:
1. Be familiar with the basic concepts and tools for structural and functional neuroimaging.
2. Be able to identify patterns of brain activity associated with spoken communication in unimpaired individuals.
3. Be able to describe how these patterns might be interrupted in persons with aphasia and what implications this could have for language processing and recovery.
4. Be able to identify possible cognitive processes that could support recovery in persons with aphasia.
5. Be able to describe treatment implications regarding how these inherent cognitive processes could be utilized during speech-language intervention.
6. Be informed of some cutting edge approaches in neurostimulation interventions that are currently being investigated to determine their usefulness in enhancing behavioral interventions.

About the Presenter:

Dana C. Moser recently joined the University of New Hampshire as an Assistant Professor in the Department of Communication Sciences & Disorders in the College of Health & Human Services. She is an ASHA certified speech-language pathologist who specializes in adult neurogenic communication disorders, with a particular interest in aphasia, an acquired impairment in language functioning commonly associated with stroke. Dr. Moser’s research interests include adult neurogenic communication disorders and translational neuroscience with a specific focus in aphasia treatment and recovery. These interests are motivated by a desire to improve treatment outcomes and quality of life in persons with aphasia and related disorders. Previously, she gained research experience in the Center for Clinical Neurosciences at the University of Texas Health Science Center in Houston and the Aphasia Laboratory at the University of South Carolina. Along with traditional behavioral measures, she also uses noninvasive neuroimaging techniques, including functional magnetic resonance imaging (fMRI) and magnetoencephalography (MEG) to investigate dynamic brain changes in normal and impaired language processing, including how the brain responds to intervention.

Target Audience

This conference is intended not only for professionals and students in speech-language pathology, but also for those in related disciplines who are interested in rehabilitation, neuropsychology, and cognitive neuroscience.