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Introduction

Our main research interests are centered on ways to detect and induce in-vivo brain plasticity in patients recovering from a stroke or from a developmental disorder and in healthy subjects undergoing intense, long-term training of skills such as learning to play a musical instrument. We are also studying the neural correlates of musical skills such as absolute pitch and auditory-motor disorders such as an inability to sing in tune (Tonedeafness) or to move to a particular beat (Beatdeafness).

Research

- Enhancing swallowing recovery after a stroke by harnessing its bihemispheric organization, 2018
- Even When Right Is All That's Left: There Are Still More Options for Recovery from Aphasia, 2018
- From intuition to intervention: developing an intonation-based treatment for autism: Developing music-based autism treatments, 2018
- The Effect of Speech Repetition Rate on Neural Activation in Healthy Adults: Implications for Treatment of Aphasia and Other Fluency Disorders, 2018
- Reverse Engineering Tone-Deafness: Disrupting Pitch-Matching by Creating Temporary Dysfunctions in the Auditory-Motor Network, 2018
- Auditory-Motor Mapping Training in a More Verbal Child with Autism, 2017
- The cerebellum's contribution to beat interval discrimination, 2017
- Keeping brains young with making music, 2017
- White Matter Integrity and Treatment-Based Change in Speech Performance in Minimally Verbal Children with Autism Spectrum Disorder, 2017
- Diffusion tensor imaging as a prognostic biomarker for motor recovery and rehabilitation after stroke, 2017
- Melodic Intonation Therapy, 2016
- Auditory-Motor Mapping Training: Comparing the Effects of a Novel Speech Treatment to a Control Treatment for Minimally Verbal Children with Autism, 2016
- Audiovisual Interval Size Estimation Is Associated with Early Musical Training, 2016
- What's the perfect dose for practice to make perfect?, 2016
- Tone deafness in developmental prosopagnosia - is there a common cause?, 2016
- Characteristic Neuroimaging Abnormalities of Korsakoff Syndrome, 2016

- Modulating transcallosal and intrahemispheric brain connectivity with tDCS: Implications for interventions in Aphasia, 2016
- Detection and Predictive Value of Fractional Anisotropy Changes of the Corticospinal Tract in the Acute Phase of a Stroke, 2016

- Erratum: Increased resting state connectivity between ipsilesional motor cortex and contralesional premotor cortex after transcranial direct current stimulation with physical therapy,2016
- Effect of auditory-motor mapping training and speech repetition training on consonant and vowel accuracy in minimally verbal children with autism spectrum disorder, 2016
- Right hemisphere structures predict poststroke speech fluency, 2016
- Increased resting state connectivity between ipsilesional motor cortex and contralesional premotor cortex after transcranial direct current stimulation with physical therapy, 2016
- Brain connectivity reflects human aesthetic responses to music, 2016
- Supplementary Material 2, 2016
- Supplementary Material 1, 2016
- Supplementary Material 3, 2016
- Allergic Dermatitis Caused by Endovascular Coiling of Brain Aneurysm, 2016

Projects

- Identifying Signs of Childhood Apraxia of Speech in Minimally Verbal Children with Autism
- Structural and Functional Adaptations of the Auditory-Motor System: Insights from Expertise & Disorder
- Transcranial Magnetic Stimulation
- Emotional Responses to Music Perception
- Developmental disorders of altered plasticity