**Gottfried Schlaug**

Harvard Medical School | HMS · Department of Neurology

**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