

Funded Grants

Catapult Grant (2020-2022)
Yuming Lei, Jeffrey Gagne, David L. Wright.
Corticospinal Function in Breast Cancer Survivors.
 Role: **PI**

T3 Grant (2020-2022)
Yuming Lei, James Grau, Ping Xiang.
Mechanisms for Motor Learning Deficits after Human Spinal Cord Injury.
 Role: **PI**

Human Subjects Pilot Project with CEHD (2020-2022)
 Hange Park, **Yuming Lei**.
Proprioceptive augmentation using proximity feedback via transcutaneous electrical stimulation, for rehab of elbow joint movement after proprioceptive loss.
 Role: **Co-PI**

Submitted Grants

National Institute of Health (NIH)-R21
Yuming Lei.
Somatosensory-Motor Integration Mechanism in Older Adults.
 Role: **PI**

National Institute of Health (NIH)-R21
Yuming Lei.
The Role of the Somatosensory Cortex in Recovery of Hand Dexterity after Spinal Cord Injury.
 Role: **PI**

Breast Cancer Alliance Young Investigator Grant
Yuming Lei.
Robot-Assisted Assessment and Rehabilitation of Motor, Sensory, and Cognitive Function in Breast Cancer Survivors
 Role: **PI**

Paralyzed Veterans of America
 Shancheng Bao, **Yuming Lei**.
Cross-Education of Strength and Skill in Humans with Spinal Cord Injury.
 Role: **Mentor**

Publications

Bao S, Morgan AM, **Lei Y**, Wang J (2020) Lack of interlimb transfer following visuomotor adaptation in a person with congenital mirror movements. *Neuropsychologia* 136:107265.

Lei Y, Perez MA (2020) Cerebellar Contribution to Sensorimotor Adaptation Deficits in Humans with Spinal Cord Injury. *Scientific Report* (under revision).

Christiansen L; Chen B; **Lei Y**; Urbin MA; Richardson MS; Ourdega M; Sandhu M; Rymer WZ; Trumbower RD; Mitchell GS, Perez MA (2020) Acute Intermittent Hypoxia Boosts Spinal Plasticity in Humans with Tetraplegia. *Experimental Neurology* (under revision).

Bao S, Wang J, Wright DL, **Lei Y** (2020) The Effect of Unlearning Visuomotor Adaptation with One Limb on Subsequent Performance with the Other Limb. *Journal of Neurophysiology* (under revision).

Publications under Preparation

Bao S, Wang Y, **Lei Y**. The Behavior of Motor Units in Bimanual Force Control

Lei Y, Bao S. Modulation of the Primary Somatosensory Cortex Excitability via Combining iTBS and tDCS.

Bao S, **Lei Y**. Criticality in Human Motor and Sensory cortical Excitability.

Wang Y, **Lei Y**. Modulation of Motor Units Activity via Non-invasive Brain Stimulation over the Primary Somatosensory Cortex.

Lei Y, Bao S. Brain Mapping Using Figure-of-Eight Branding Iron Coil.

Invited Talk and Presentations

Lei Y (2020) CTAL Seminar: Non-Invasive Brain Stimulation for Motor Learning and Rehabilitation. Texas A&M University, College Station, TX

Lei Y (2019) Human Sensorimotor Control, Neuroplasticity, and Neurological Recovery. Texas A&M Spinal Cord Initiative: Texas A&M University, College Station, TX

Lei Y (2019) Sensorimotor Control in Humans with Spinal Cord Injury. Texas A&M Psychology Department, Texas A&M University, College Station, TX

Lei Y, Chen B, Perez MA (2019) Robotic Characterization of Movement Asymmetry in Humans with Spinal Cord Injury. Society for Neuroscience. Chicago, IL.

Teaching

KINE 426: Exercise Biomechanics (3 sections) 2020 Fall.
 KINE 685: Directed studies in Kinesiology, 2020 Fall.
 KINE 426: Exercise Biomechanics (2 sections) 2020 Spring.
 KINE 681: Seminar in Kinesiology, 2020 Spring.
 KINE 491: Research Topics in Kinesiology, 2020 Spring.
 KINE 685: Directed studies in Kinesiology, 2020 Spring.
 KINE 426: Exercise Biomechanics (2 sections) 2019 Fall.

Reach for the STaR

Met with Jeffrey (mentor) Multiple Times.

Identified Common Areas of Interests.

Will Look for Opportunities for Collaboration.