Seoung Hoon Park, Ph.D.

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EDUCATION

Postdoctoral Training in Neurorehabilitation 2019-2022
Shirley Ryan AbilityLab and Northwestern University Chicago, IL, USA
Mentor: Ming Wu

Ph.D., Kinesiology – Motor Neuroscience 2014-2019
University of Florida Gainesville, FL, USA
Dissertation: Low-frequency Oscillations in Force Output - Relevance to Healthy and At-risk-for-stroke Older Adults
Mentor: Evangelos A. Christou

M.S., Kinesiology – Motor Learning and Control 2010-2012
Seoul National University Seoul, South Korea
Thesis: Differential contribution of visual and auditory information to accurately predict the direction and rotational motion of a visual stimulus
Advisor: Seonjin Kim

B.S., Kinesiology 2004-2010
Seoul National University Seoul, South Korea
* 2-year compulsory military service (2005 - 2007)

PROFESSIONAL EXPERIENCE

Presidential Frontier Faculty Assistant Professor on Tenure Track 2022-Date
Department of Health and Human Performance
Department of Communication Sciences and Disorders
Department of Clinical Sciences
University of Houston

Postdoctoral Research Fellow 2019-2022
Legs + Walking Lab, Shirley Ryan AbilityLab Chicago, IL, USA
Department of Physical Medicine and Rehabilitation, Northwestern University

Graduate Assistant 2014-2019
Department of Applied Physiology and Kinesiology, University of Florida Gainesville, FL, USA

Graduate Assistant 2010-2012
Motor Behavior Laboratory, Seoul National University Seoul, South Korea

RESEARCH FOCUS

- Neurophysiological mechanisms responsible for impaired motor control and learning in older persons and individuals with neurological diseases (stroke; spinal cord injury; cerebral palsy)
- Developing neurorehabilitation tools and protocols for improving motor control and function with emphasis on walking and balance in people with neurological diseases
- Behavioral and neural changes in response to rehabilitative interventions in individuals with neurological diseases

RESEARCH PUBLICATIONS

Peer-reviewed Journal Publications:

21. Yan S, **Park SH**, Dee W, Reed R, Rojas A, Rymer WZ & Wu M. Trunk postural reactions to the force perturbation intensity and frequency during sitting astride in children with cerebral palsy. *Experimental Brain Research.* 2023. *(10.1007/s00221-023-06744-0).*

20. **Park SH**, Yan S, Dee W, Reed R, Roth EJ, Rymer WZ, & Wu M. Overground walking with a constraint force on the non-paretic leg during swing improves paretic propulsion and walking speed in people post-stroke. *Journal of Neurophysiology.* 2023. *(10.1152/jn.00008.2023)*.

19. Yan S, **Park SH**, Reed R, Dee W, Rojas A, Rymer WZ & Wu M. Improving trunk postural control facilitates walking in children with cerebral palsy. *American Journal of Physical Medicine and Rehabilitation.* 2023. *(10.1097/PHM.0000000000002206).*

18. **Park SH**, Dee W, Keefer R, Roth EJ, Rymer WZ, & Wu M. Enhanced phasic sensory afferents paired with controlled constraint force improve weight shift toward the paretic side in individuals post-stroke. *Journal of Stroke and Cerebrovascular Diseases.* 2023 *(10.1016/j.jstrokecerebrovasdis.2023.107035)*.

17. **Park SH**, Lin J, Dee W, Keefer R, Rymer WZ, & Wu M. Swing-phase pelvis perturbation improves dynamic lateral balance during walking in individuals with spinal cord injury. *Experimental Brain Research.* 2023 *(10.1007/s00221-022-06507-3).*

16. **Park SH**, Yan S, Dee W, Reed R, Roth EJ, Rymer WZ, & Wu M. Repeated adaptation and de-adaptation to the pelvis resistance force facilitate retention of motor learning stroke survivors. *Journal of Neurophysiology.* 2022 *(doi: 10.1152/jn.00046.2022).*

15. **Park SH**, Hsu C, Dee W, Roth EJ, Rymer WZ, & Wu M. Enhanced error facilitates motor learning in weight shift and increases use of the paretic leg during walking at chronic stage after stroke. *Experimental Brain Research.* 2021 *(doi: 10.1007/s00221-021-06202-9)*.

14. **Park SH**, Hsu C, Lin J, Dee W, Roth EJ, Rymer WZ, & Wu M. Increased motor variability facilitates motor learning in weight shift toward the paretic side during walking in individuals post-stroke. *European Journal of Neuroscience.* 53, 3490-3506, 2021 *(doi: 0.1111/ejn.15212).*

13. **Park SH**, Hsu C, Dee W, Roth EJ, Rymer WZ, & Wu M. Gradual adaptation to pelvis perturbation during walking reinforces motor learning of weight shift toward the paretic side in individuals post-stroke. *Experimental Brain Research.* 239, 1701-1713, 2021 *(doi: 10.1007/s00221-021-06092-x).*

12. **Park SH**, Lin J, Dee W, Hsu C, Roth EJ, Rymer WZ, & Wu M. Targeted Pelvic Constraint Force Induces Enhanced Use of the Paretic Leg During Walking in Persons Post-Stroke. *IEEE Transactions on Neural Systems and Rehabilitation Engineering.* 28(10), 2184-2193, 2020 *(doi: 10.1109/TNSRE.2020.3018397).*

11. Casamento-Moran A, Delmas S, **Park SH**, Yacoubi B, & Christou EA. Reaction to a visual stimulus: Anticipation with steady and dynamic contractions. *Journal of Human Kinetics.* 69(1), 17-27, 2019 *(doi: 10.2478/hukin-2019-0025).*

10. **Park SH**, Wang Z, McKinney W, Khemain P, Lui S, Christou EA, & Mosconi NW. Functional Motor Control Deficits in Aging Fragile X Mental Retardation 1 Premutation Carriers. *Experimental Brain Research.* 237(9), 2269-2278, 2019 *(doi: 10.1007/s00221-019-05566-3)*.

9. **Park SH**, Kim C, Yacoubi B, & Christou EA, Control of oscillatory force tasks: low-frequency oscillations in force and muscle activity. *Human Movement Science.* 64, 89-100, 2019 *(doi: 10.1016/j.humov.2019.01.009).*

8. **Park SH** & Kwon M. The effect of trial-to-trial variability during practice of force control tasks on motor learning. *Journal of Korean Society for the Study of Physical Education.* 23(2), 127-136, 2018 *(doi: 10.15831/JKSSPE.2018.23.2.127).*

7. Delmas S, Casamento-Moran A, **Park SH**, Yacoubi B, & Christou EA. Motor planning perturbation: muscle activation and reaction time. *Journal of Neurophysiology,* 120, 2059-2065, 2018 *(doi: 10.1152/jn.00323.2018)*.

6. Ernster AE, **Park SH**, Yacoubi B, Christou EA, Casamento-Moran, Singer ML, & Humbert IA. Motor transfer from the corticospinal to the corticobulbar pathway. *Physiology & Behavior,* 191, 155-161, 2018 *(doi: 10.1016/j.physbeh.2018.04.016).*

5. **Park SH**, Casamento-Moran A, Singer ML, Ernster AE, Yacoubi B, Humbert IA, & Christou EA. Integration of Visual Feedback and Motor learning: Corticospinal vs. Corticobulbar Pathway. *Human Movement Science,* 58C, 88-96, 2018 *(doi: 10.1016/j.humov.2018.01.002).*

4. **Park SH**, Casamento-Moran A, Yacoubi B, & Christou EA. Voluntary reduction of force variability via modulation of low-frequency oscillations. *Experimental Brain Research,* 235, 2717-2727, 2017 *(doi: 10.1007/s00221-017-5005-5)*.

3. **Park SH**, Kwon M, & Christou EA. Motor output oscillations with magnification of visual feedback in older adults. *Neuroscience Letters,* 647, 8-13, 2017 *(doi: 10.1016/j.neulet.2017.03.011).*

2. **Park SH**, Kwon M, Solis D, Lodha N, & Christou. EA. Motor control differs for increasing and releasing force. *Journal of Neurophysiology,* 115 (6), 2924-2930, 2016 *(doi: 10.1152/jn.00715.2015).*

1. **Park SH**, Kim SJ, Kwon M, & Christou EA. Differential contribution of visual and auditory information to accurately predict the direction and type of stimulus. *Applied Physiology, Nutrition, and Metabolism*, 41 (3), 235-243, 2016 *(doi: 10.1139/apnm-2015-0390)*.

In Review:

1. **Park SH**, Yan S, Dee W, Reed R, Roth EJ, Rymer WZ, & Wu M. Enhanced phasic calf muscle activation with swing resistance enhances propulsion of the paretic leg in people post-stroke. *Journal of Neurophysiology*. (Minor revisions)

In Preparation:

4. **Park SH**, Maeng H, Kim K, Sayenko D. Does transcutaneous spinal cord stimulation improve walking in individuals with spinal cord injury? A meta-analysis.

3. **Park SH**, Yan S, Dee W, Reed R, Rymer WZ, & Wu M. Phase-dependent versus constant sensory stimulation with pelvis assistance force enhances locomotor adaptation and reduces step-to-step variability in people with spinal cord injury.

2. Yan S, Janis K, Gaebler-Spira DJ, **Park SH**, Dee W, Reed R, Rymer WZ, & Wu M*. Effects of lateral perturbation force training on reactive balance in children with cerebral palsy during walking.

1. **Park SH**, Yan S, Dee W, Reed R, Rymer WZ, & Wu M. Intermittent versus continuous adaptation to pelvis assistance during walking improves mediolateral balance in people with spinal cord injury.

RESEARCH FUNDING

Ongoing (external):

Research Grant **Lee (PI)** **8/2024-7/2025**
Neuromeka Co., Ltd. $ 4,500
Revolutionizing a treadmill-based fall prevention training technology
Role: Co-Investigator

Ongoing (internal):

Start-up funds **Park (PI)** **9/2023-12/2025**
University of Houston $ 281,000
Role: Principal Investigator

Completed / Previous Support:

Research Progress Grant – Early Career **Park (PI)** **1/2023-6/2024**
University of Houston, College of Liberal Arts and Social Sciences $ 4,000
Effects of improved lingual motor control on swallowing in dysphagia following stroke
Role: Principal Investigator

NIH-NICHD, R01 HD 083314 **Wu (PI)** **1/2021-6/2022**
National Institutes of Health
Improved dynamic lateral balance of humans with SCI
Role: Postdoc Research Associate

NIH-NINDS, R01 NS 115487 **Wu (PI)** **3/2021-6/2022**
National Institutes of Health
Neuromuscular mechanisms of specific trunk interventions in children with cerebral palsy

Role: Postdoc Research Associate

NIH-NICHD, R01 HD 082216 **Wu (PI)** **8/2019-3/2021**
National Institutes of Health
Constraint induced movement therapy for walking in individuals post stroke
Role: Postdoc Research Associate

NIH-NINDS, R21 NS 096258 **Christou (PI)** **9/2016-8/2019**
National Institutes of Health
Motor control deficits following transient ischemic attack
Role: Graduate Research Associate

Pending:

NIH-NICHD, NCMRR ECR Award (R03) **Park (PI)** **2024-2026**
National Institutes of Health $ 344,120
Influence of lateral postural perturbation paired with transcutaneous spinal stimulation on dynamic balance post-stroke
Role: Principal Investigator

In Review:

DoD, PD Research EIRA **Park (PI)** **2025-2027**
Department of Defense $ 499,916
Transcutaneous Spinal Cord Stimulation for the Treatment of Gait and Posture in Parkinson's Disease
Role: Principal Investigator

In Preparation:

NICHD, EDR Grant (R21) **Park (PI)** **2025-2027**
National Institutes of Health $ 426,000
Influence of transcutaneous spinal stimulation with visual feedback on weight transfer in individuals post-stroke
Role: Principal Investigator

Not Funded Applications:

NINDS/NIMH, ENR Grant (R21) **Thrasher (PI)** **2025-2026**
National Institutes of Health $ 442,498
Transcutaneous Spinal Cord Stimulation for the Treatment of Gait and Posture in Parkinson's Disease
Role: Co-Investigator

Equipment Grant **Parikh (PI)** **2024-2025**
University of Houston, Division of Research $ 36,165
Collaboration to Develop EEG-guided Non-invasive Stimulation-based Therapies for Fall Prevention in Stroke Survivors
Role: Co-Principal Investigator

NIDILRR, Switzer Fellowship **Park (PI)** **2023-2024**
Administration for Community Living $ 70,000
Improve dynamic balance of individuals with hemiplegic stroke
Role: Principal Investigator

NIH-NICHD, R03 HD 113885-01 **Park (PI)** **2023-2025**
National Institutes of Health $ 155,000
Influence of lateral postural perturbation paired with transcutaneous spinal stimulation on dynamic balance post-stroke
Role: Principal Investigator

AHA Postdoctoral Fellowship **Park (PI)** **2022-2024**
American Heart Association $ 140,952
Effect of enhanced motor activity and sensory feedback during walking with constraint force in people post stroke
Role: Principal Investigator

NIDILRR, Switzer Fellowship **Park (PI)** **2021-2022**
Administration for Community Living $ 70,000
Application of constraint force paired with transcutaneous electrical stimulation for walking in individuals post stroke
Role: Principal Investigator

AHA Postdoctoral Fellowship **Park (PI)** **2021-2023**
American Heart Association $ 134,236
Application of constraint force paired with transcutaneous electrical stimulation for walking in individuals post stroke
Role: Principal Investigator

NIDILRR, Switzer Fellowship **Park (PI)** **2020-2021**
Administration for Community Living $ 70,000
Application of constraint force paired with enhanced sensory feedback induces forced use of the paretic leg and improves gait symmetry in individuals post-stroke
Role: Principal Investigator

TEACHING EXPERIENCE

Course Teaching:

- **Motor Learning and Control KIN 4315.** Teach the undergraduate course per semester in the HHP program at the University of Houston. 2023-date.

- **Applied Human Anatomy APK 2100 & 2100C.** Teach three 3-hour undergraduate courses per semester in the APK program at the University of Florida. 2014-2019.

- **Swimming and Weight Training (051.012, 051.014, & 051.018).** Teach the undergraduate courses in the kinesiology program at Seoul National University. 2013-2014.

ACADEMIC COMMITTEES

University of Houston

Member:
Ph.D. committee for Ruiqing Fan (2022-date; mentor: Ashwini Joshi)
Ph.D. committee for Komal Kukkar (2023-date; mentor: Pranav Parikh)

MENTORSHIP

Graduate Students:

- **2022-Date – University of Houston**
  Hyunje Park (2024-date)

- **2019-2022 – Shirley Ryan AbilityLab & Northwestern University**
  Alessandro Gozzi (2021-2022)
  Iram Hameeduddin (2021-2022)
  *Mentored in Ming Wu's lab

- **2014-2019 – University of Florida**
  Yoonjin Choi (2018-2019)
  Delmas Stefan (2017-2019)
  *Mentored in Evangelos Christou's lab

Undergraduate Students:

- **2022-Date – University of Houston**
  Yasmeen Elfeki (2023-date)
  Nhat Nguyen (2023-date)
  Ria Kolluru (2023-date)
  Celeste Contreras (2023-2024)
  Tracy Akinyode (2023-2024)
  Nicholas Macias (2023-2024; 2023 SURF & 2024 PURS)

- **2014-2019 – University of Florida**
  Michelle Weintraub (2019)
  Austin Wilson (2018-2019)
  Alexandra Pepin (2018)
  Shan He (2014-2015)
  *Mentored in Evangelos Christou's lab

INVITED PRESENTATIONS

- Effects of perturbation-based locomotor training on gait in individuals post-stroke. Neuromotor Skill Advancement for Post-baccalaureates (NSAP) Seminar, University of Houston, Houston, USA, 2024.

- Effects of perturbation-based locomotor training on walking and balance in people post-stroke. Institute of Sport Science, Incheon National University, Incheon, South Korea, 2023.

- Perturbation-based locomotor training for individuals post-stroke. Department of Biomedical Engineering, University of Houston, Houston, TX, USA, 2023.

- Perturbation-based locomotor training for individuals post-stroke. International Research Symposium, Taean AI Industry Promotion Agency, South Korea, 2023.

- Applying lateral pelvis resistance versus assistance during walking enhances weight shift and use of the paretic leg in individuals post-stroke. Grand Rounds, Department of Physical Medicine and Rehabilitation, Northwestern University, Chicago, IL, USA, 2021.

- Does constraint-induced forced use of the affected leg during locomotor practice improve walking performance in individuals post-stroke? Korean Society of Sport Biomechanics International Conference, Chuncheon, South Korea, 2020.

- Low-frequency oscillations and control of steady force. Human Movement Science Seminar, Seoul National University, Seoul, South Korea, 2019.

CONFERENCE PRESENTATIONS

National/International:

22. Macias N & **Park SH**. Effects of lateral postural perturbation on dynamic balance in people post-stroke. *Society for Neuroscience*, 2024. Accepted.

21. **Park SH**, Yan S, Dee W, Keefer R, Roth E, Rymer W, & Wu M. Enhanced phasic calf muscle activation with swing resistance enhances propulsion of the paretic leg in people post-stroke. *Society for Neuroscience*, 2023.

20. **Park SH**, Maeng H, & Kim K. Does transcutaneous spinal cord stimulation improve walking in individuals with spinal cord injury? A meta-analysis. *ACSM Annual Meeting*, 2023.

19. **Park SH**, Yan S, Dee W, Keefer R, Rymer W, & Wu M. Intermittent adaptation to pelvis perturbation during walking enhances retention and generalization of improved weight transfer in people with spinal cord injury. *Society for Neuroscience*, 2022.

18. **Park SH**, Yan S, Dee W, Reed R, Roth E, Rymer W, & Wu M. Repeated locomotor adaptation and de-adaptation facilitate retention of motor learning during walking in individuals post-stroke. *Society for Neuroscience*, 2021.

17. Yan S, **Park SH**, Reed R, Dee W, Rojas AM, Rymer WZ, & Wu M. Trunk support improves treadmill walking in children with cerebral palsy. *Society for Neuroscience*, 2021.

16. **Park SH**, Dee W, Reed R, & Wu M. Application of constraint force paired with enhanced sensory feedback induces forced use of the paretic leg and improves gait symmetry in individuals post-stroke. *International Society of Electrophysiology and Kinesiology*, 2020.

15. **Park SH**, Lin J, Dee W, Hsu C, Roth EJ, Rymer WZ & Wu M. Forced use of the affected leg during walking improves gait in individuals with stroke. *NASPSPA*, 2020.

14. **Park SH**, Kwon M, & Christou EA. Magnification of visual feedback alters modulation of motor neuron pool in older adults. *Society for Neuroscience*, 2019.

13. **Park SH**, Wang Z, McKinney W, Christou EA, & Mosconi MW. Functional motor control deficits in fragile x mental retardation 1 gene premutation carriers. *ACSM Annual Meeting*, 2019.

12. McKinney WS, Wang Z, **Park SH**, Christou EA, & Mosconi MW. Precision sensorimotor control in aging FMR1 premutation carriers. *Midwest Fragile X Research Exchange*, 2019.

11. **Park SH**, Kim C, Yacoubi B, & Christou EA. Control of dynamic force tasks: low-frequency oscillations in force and modulation of muscle activity. *Society for Neuroscience*, 2018.

10. Delmas S, Casamento-Moran A, **Park SH**, Yacoubi B, & Christou EA. Motor planning muscle activation patterns and reaction time. *Society for Neuroscience*, 2018.

9. Ernster AE, **Park SH**, Yacoubi B, Christou EA, Casamento-Moran, Singer ML, & Humbert IA. Cross-pathway transfer between the ankle and tongue. *Dysphagia Research Society*, 2018.

8. **Park SH**, Casamento-moran A, Singer ML, Ernster AE, Yacoubi B, Humbert IA, & Christou EA. Motor learning for corticospinal and corticobulbar pathways. *Society for Neuroscience*, 2017.

7. **Park SH**, Kwon M, & Christou EA. Motor output oscillations with magnification of visual feedback in older adults. *Progress in Motor Control,* 2017.

6. Delmas S, Casamento-Moran A, **Park SH**, Yacoubi B, & Christou EA. Motor output variability increases reaction time variability. *Progress in Motor Control,* 2017.

5. **Park SH**, Casamento-moran A, Yacoubi B, & Christou EA. Voluntary reduction of force variability via modulation of low-frequency oscillations. *Society for Neuroscience,* 2016.

4. Casamento-moran A, **Park SH**, Yacoubi B, & Christou EA. Low-frequency oscillations in force slow reaction time. *Society for Neuroscience,* 2016.

3. **Park SH**, Kwon M, Solis D, Lodha N, & Christou EA. Motor control differs for increasing and releasing force. *Society for Neuroscience,* 2015.

2. Kim C, **Park SH**, Paez Cecilia, Moon H, & Christou EA. Low-frequency oscillations in force and muscle activity relate to force variability during sinusoidal tasks. *The 24th Annual Meeting of the Neural Control of Movement*, 2015. (Sole Presenter)

1. Kim HJ, Yang JH, Koo DH, **Park SH**, Jung YJ, Jeong DH, Park SY, & Seo JS. Effect of the Wingate-induced Muscle Fatigue on Coordination of Upper Limb During Reaching Task: Kinematic Analysis. *The 5th Asia-Pacific Conference on Exercise and Sports Science,* 2011.

Local/State:

25. Elfeki Y, Nguyen N, Kolluru R, & **Park SH**. Effects of perturbation paired with spinal stimulation on dynamic balance during walking in individuals post-stroke. Research Day, University of Houston, 2024.

24. Macias N & **Park SH**. Mediolateral perturbation performed during walking on post-stroke participants. Research Day, University of Houston, 2024.

23. **Park SH**, Lin J, Dee W, Hsu C, Roth EJ, Rymer WZ, & Wu M. Forced use of the paretic leg induced by a targeted resistance force applied to the pelvis during walking in individuals post-stroke. *Research Day, Northwestern University,* 2020.

22. **Park SH**, Wang Z, McKinney W, Christou EA, & Mosconi MW. Motor Control Deficits in Aging Fragile X Mental Retardation 1 Premutation Carriers. *Graduate Student Research Day, University of Florida,* 2019.

21. **Park SH**, Wang Z, McKinney W, Christou EA, & Mosconi MW. Functional Motor Control Deficits in Aging Fragile X Mental Retardation 1 Premutation Carriers. *14th Annual Neuromuscular Plasticity Symposium, College of Public Health and Health Professions, University of Florida,* 2019.

20. **Park SH**, Wang Z, McKinney W, Christou EA, & Mosconi MW. Functional Motor Control Deficits in Aging Fragile X Mental Retardation 1 Premutation Carriers. *The D. K. Stanley Lecture Series, College of Health & Human Performance, University of Florida,* 2019.

19. **Park SH**, Kim C, Yacoubi B, & Christou EA. Steadiness of dynamic force tasks: low-frequency oscillations in force and muscle activity. *Graduate Student Research Day, University of Florida,* 2018.

18. **Park SH**, Kim C, Yacoubi B, & Christou EA. Control of dynamic force tasks: low-frequency oscillations in force and modulation of muscle activity. *13th Annual Neuromuscular Plasticity Symposium, College of Public Health and Health Professions, University of Florida,* 2018.

17. **Park SH**, Kim C, Yacoubi B, & Christou EA. Low-frequency oscillations in force and muscle activity during sinusoidal force tasks. *The D. K. Stanley Lecture Series, College of Health & Human Performance, University of Florida,* 2018.

16. **Park SH**, Casamento-moran A, Yacoubi B, & Christou EA. Voluntary reduction of force variability via modulation of oscillations in force from 0-1 Hz. *Graduate Student Research Day, University of Florida,* 2017.

15. Ernster AE, **Park SH**, Yacoubi BK, & Christou EA, Casamento-Moran A, Singer ML, Humbert IA. Test of cross-systems transfer between corticobulbar and corticospinal pathways during goal directed tasks of the tongue and ankle. *College of Public Healthy and Health Professions Research Day, University of Florida,* 2017.

14. **Park SH**, Casamento-moran A, Yacoubi B, & Christou EA. Voluntary reduction of force variability via modulation of oscillations in force from 0-1 Hz. *Annual Diversity Graduate Research Symposium, University of Florida,* 2017.

13. Delmas, S, Casamento-Moran, A, **Park SH**, Yacoubi B, & Christou EA. Anticipation and reaction time. *Undergraduate Research Day, University of Florida,* 2017.

12. **Park SH**, Casamento-moran A, Yacoubi B, & Christou EA. Voluntary reduction of force variability via modulation of oscillations in force from 0-1 Hz. *The D. K. Stanley Lecture Series, College of Health & Human Performance, University of Florida,* 2017.

11. **Park SH**, Casamento-moran A, Yacoubi B, & Christou EA. Voluntary reduction of force variability via modulation of oscillations in force from 0-1 Hz. *12nd Annual Neuromuscular Plasticity Symposium, College of Public Health and Health Professions, University of Florida,* 2017.

10. **Park SH**, Casamento-moran A, Yacoubi B, & Christou EA. Voluntary reduction of force variability via modulation of oscillations in force from 0-1 Hz. *Graduate Student Research Symposium, College of Health & Human Performance, University of Florida,* 2016.

9. **Park SH**, Neha Lodha, & Christou EA. Greater asymmetry in motor control for TIA. *11th Annual Neuromuscular Plasticity Symposium, College of Public Health and Health Professions, University of Florida,* 2016.

8. **Park SH**, Neha Lodha & Christou EA. Greater asymmetry in motor control for TIA. *The D. K. Stanley Lecture Series, College of Health & Human Performance, University of Florida,* 2016.

7. **Park SH**, Kwon MH, Solis D, Lodha N, & Christou EA. Motor control differs for increasing and releasing force. *Graduate Student Research Symposium, College of Health & Human Performance, University of Florida,* 2015.

6. **Park SH**, Kwon MH, Solis D, Lodha N, & Christou EA. Motor control differs for increasing and releasing force. *Graduate Student Research Day*, *University of Florida ,* 2015.

5. Corti M, Casamento-Moran A, **Park SH**, Faris KJ, Piepenbrink B, & Christou EA, Subramony SH, Byrne BJ. Biomarkers in Friedreich's Ataxia: Identifying Appropriate Clinical Trial Endpoints. *CTSI Research Day*, *Clinical and Translational Science Institute, University of Florida,* 2015.

4. **Park SH**, Kim SJ & Christou EA. Different contribution of visual and auditory information to accurately predict the direction and type of stimulus. *The D. K. Stanley Lecture Series, College of Health & Human Performance, University of Florida,* 2015.

3. Kim C, **Park SH**, Paez C, Lodha N & Christou EA. Low-frequency oscillations in force and muscle activity relate to force variability during sinusoidal tasks. *10th Annual Neuromuscular Plasticity Symposium, College of Public Health and Health Professions, University of Florida,* 2015.

2. **Park SH**, Kim SJ, & Christou EA. Differential contribution of visual and auditory information to accurately predict the direction and type of stimulus. *10th Annual Neuromuscular Plasticity Symposium, College of Public Health and Health Professions, University of Florida,* 2015.

1. **Park SH**. Differential Effect of Visual and Auditory Information on Response Accuracy. *Graduate Student Research Symposium, College of Health & Human Performance, University of Florida,* 2014.

PROFESSIONAL AFFILIATIONS

- Society for Neuroscience (SfN)
- Society for the Neural Control of Movement (NCM)
- North American Society for the Psychology of Sport and Physical Activity (NASPSPA)
- American College of Sports Medicine (ACSM)
- Progress in Motor Control (PMC)
- International Society of Electrophysiology and Kinesiology (ISEK)

HONORS AND AWARDS

National/International:

- Graduate Student Writing Award, American Kinesiology Association, USA, 2019.
- Predoctoral Outstanding Research Award, Association of Korean Neuroscientists, USA, 2017.
- The Korean Honor Scholarship, The Embassy of The Republic of Korea, USA, 2017.

University of Houston:

- Summer Undergraduate Research Fellowship. Yasmeen Elfeki, 2024.
- Provost's Undergraduate Research Scholarship. Nicholas Macias, 2024.
- Summer Undergraduate Research Fellowship. Nicholas Macias, 2023.
- Provost's Faculty Travel Fund, 2023.

Northwestern University & Shirley Ryan AbilityLab:

- 1st place Sarah Baskin Outstanding Research Award, 2021.

University of Florida:

- Dr. Stacy E. and Mr. Joseph T. Cutrono Conference Scholarship Award, 2019.
- Graduate School Doctoral Dissertation Award, 2019.
- C.A. Boyd Scholarship Award, 2018.
- Outstanding Academic Achievement, 2018.
- Dr. Christian W. Zauner Scholarship Award, 2017.
- Outstanding Academic Achievement, 2017.
- David & Linda McCaughey Endowed Scholarship Award, 2016.
- Outstanding Academic Achievement, 2016.

- Outstanding International Student Award, 2015.
- Outstanding Academic Achievement, 2015.
- Grinter Fellowship, 2014-2015.

Seoul National University:

- Honor and early graduation from undergraduate, 2010.
- Cum Laude, 2010.

RESEARCH SKILLS

Software and Statistical Techniques:

- MATLAB
- LabVIEW
- Processing – Java programming
- Spike2
- Sony Vegas - video editing software
- SigmaPlot - scientific data graphing and statistical analysis software
- SPSS

Hardware and Data Collection Techniques:

- Surface Electromyography
- High-density Surface Electromyography and Decomposition
- Electroencephalography
- Inertia Measurement Units
- Motion Capture
- Force Plates
- Pressure Sensitive Walkway
- Instrumented Treadmill
- Load Cells
- Position Sensors
- Pressure Sensors
- Accelerometers
- Cable-driven Locomotor Training System
- Neuromuscular Electrical Stimulation
- Transcutaneous Electrical Stimulation
- Driving Simulator
- Eye Movement Tracking
- Lingual Control Measurement

REVIEWER AD HOC

- Transactions on Neural Systems & Rehabilitation Engineering
- Neuroscience
- Neuroscience Letters
- Journal of Motor Behavior
- Frontiers in Physiology
- Physical Therapy
- Journal of Human Kinetics

- Research Quarterly for Exercise and Sport
- Brain Sciences
- Scientific Reports
- Frontiers in Human Neuroscience
- Plus One