

Szu-Ping Lee, PT, PhD

Associate Professor

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Education

PhD	University of Southern California, Los Angeles, California	2012	Biokinesiology
MS	University of Florida, Gainesville, Florida	2005	Human Performance/ Biomechanics
BS	National Yang-Ming University, Taipei, Taiwan	2001	Physical Therapy

Employment

Jul 2018 – Present	Associate Professor – Department of Physical Therapy, University of Nevada, Las Vegas, Nevada. Director of Clinical Locomotor Neuromechanics Laboratory. Currently teaching the following courses: <ul style="list-style-type: none">▪ Prosthetics & Orthotics Lecture and Laboratory (DPT)▪ Pathobiomechanics (PhD)▪ Physiological Bases of Rehabilitation (PhD)▪ Interdisciplinary Health Science seminar (PhD)
Jan 2013 – Jun 2018	Assistant Professor – Department of Physical Therapy, University of Nevada, Las Vegas, Nevada. Taught the following courses:
Aug 2012 – Dec 2012	Post-Doctoral Fellow – Department of Physical Therapy, University of Nevada, Las Vegas, Nevada. Responsibilities: instruction and research in the Doctor of Physical Therapy program.
2008 – 2012	Graduate Assistant – Division of Biokinesiology and Physical Therapy, University of Southern California, Los Angeles, California. Responsibilities: assist in instruction of the following courses in a Doctor of Physical Therapy program
2005 – 2007	Graduate Assistant – Department of Applied Physiology and Kinesiology, University of Florida, Gainesville, Florida. Responsibilities: assist in instruction of the following courses:
2002 – 2004	Physical Therapist – Department of Rehabilitation, Taiwan Adventist Hospital, Taipei, Taiwan Responsibilities: orthopedic and neurological physical therapy
2002 – 2004	Clinical Educational Instructor – Taiwan Adventist Hospital, Taipei City, Taiwan

Honors, Awards, and Fellowships

- 2022 Faculty Opportunity Research Award, University of Nevada, Las Vegas (Mentor)
- 2021 Alumnus of the Year Award Finalist, National Yang Ming Chiao Tung University, Taiwan
- 2021 Outstanding Alumni Award, Department of Physical Therapy and Assistive Technology, National Yang Ming Chiao Tung University, Taiwan
- 2020 UNLV Community-Based Research Award, University of Nevada, Las Vegas
- 2019 Distinguished Scholar Award, School of Allied Health Sciences, University of Nevada, Las Vegas
- 2018-2023 Research Scientist Development Award (K01), Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institute of Health
- 2018 Faculty Fellow, Institute for Creative Research Assignments: Looking Beyond the Research Paper. UNLV Libraries Faculty Institute
- 2015 Reviewer of the Year Award, *Journal of Orthopaedic and Sports Physical Therapy* (JOSPT)
- 2015 Distinguished Teaching Award, School of Allied Health Sciences, University of Nevada, Las Vegas
- 2015 Fellowship, Training in Grantsmanship for Rehabilitation Research (TIGRR), sponsored by National Center for Medical Rehabilitation Research, Eunice Kennedy Shriver National Institute of Child Health and Human Development.
- 2014 3rd place in Donald W. Reynolds Governor's Cup Business Plan Competition "Dynamend Corporation", faculty advisor.
- 2013 Faculty Opportunity Research Award, University of Nevada, Las Vegas
- 2011 International Society of Biomechanics (ISB) Dissertation Award
- 2010 Most Innovative Award finalist, presented by the USC Stevens Institute for Innovation, Herman-Ostrow School of Dentistry, University of Southern California.
- 2009 Musculoskeletal Biomechanics Biokinesiology and Physical Therapy Research Award 2nd place, University of Southern California
- 2007 Young Investigator Award 3rd place, 21st Congress of the International Society of Biomechanics
- 2005 Norma Leavitt Fellowship, University of Florida, College of Health and Human Performance
- 2004-2007 Taiwan Ministry of Education Advanced Study Scholarship, Ministry of Education, Taiwan

Current Research Themes

- Influence of psychosocial factors and health disparity in individuals with lower limb loss.
- Lower back pain in individuals with lower limb loss
- Locomotor skill learning and rehabilitation in individuals with lower limb loss

Peer Reviewed Publications

• Referred Articles

1. Shih HT, Gregor RJ, and **Lee SP**. Description, Reliability, and Utility of a Novel Ground Reaction Force-Triggered Treadmill Protocol for Simulation of Tripping Falls. *PLOS ONE*, 18(4): e0284384 (1st revision March 5th, 2023; accepted March 29th, 2023).
2. **Lee SP**, Farrokhi S, Kent J, Ciccotelli J, Chien LC, Smith JA. Comparison of Clinical and Biomechanical Characteristics between Individuals with Lower Limb Amputation with and without Lower Back Pain: A Systematic Review and Meta-Analysis *Clinical Biomechanics* (submitted 9/28/2022; 1st revision submitted 11/23/2022, accepted 12/12/2022, available online 12/14/2022).
3. Aoki A, **Lee SP**, Gamada K. Gender Differences in Controlling Knee Wobbling: Implications for ACL Injury Risk. *Gazzetta Medica Italiana - Archivio per le Scienze Mediche* (accepted December 1st, 2022).
4. **Lee SP**, Bonczyk A, Dimapilis MKT, Partridge S, Ruiz S, Chien LC, Sawers A. Direction of Attentional Focus in Prosthetic Training: Current Practice and Potential for Improving Motor Learning in

Individuals with Lower Limb Loss. *PLOS One* 2022 17(7): e0262977.

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0262977>

5. S Clemens, K Kershaw, C McDonald, B Darter, Garcia S, Bursac Z, M Rossi, **Lee SP**. Disparities in Functional Recovery after Dysvascular Lower Limb Amputation are Associated with Employment Status and Self-efficacy. *Disability and Rehabilitation* 2023 45(14): 2280-2287 (accepted June 6th 2022, published online June 18th, 2022). <https://doi.org/10.1080/09638288.2022.2087762>
6. Montes J, Tandy R, Young JC, **Lee SP**, Navalta JW. Is Body Composition or Body Mass Index Associated with the Step Count Accuracy of a Wearable Technology Device? *Topics in Exercise Science and Kinesiology* 2022 3(1): 5.
7. MacDonald GA, Manning JW, Bodell NG, Young JC, Schilling BK, **Lee SP**, Navalta JW. Acute Handgrip Fatigue and Forearm Girth in Recreational Sport Rock Climbers. *International Journal of Exercise Science*, 2022 15(4): 834. <https://digitalcommons.wku.edu/ijes/vol15/iss4/21/>
8. **Lee SP**, Mitchell C, Repayo K, Tillitt M, Weber C, Chien LC, Doerger C. Patient Engagement in Cosmetic Design of Prostheses: Current Practice and Potential Outcome Benefits. *Prosthetics and Orthotics International* 2022 46(4): e335-e340.
9. Shih HT, Ferraro AL, Gorton JN, Horn LD, Kubo MM, MacLeod T, **Lee SP**. Patient Experience and Perceived Benefits of Physical Therapy after Lower Limb Amputation in Middle-Age and Older Adults. *Journal of Allied Health* 2022 51(3): 180-191.
10. Armour-Smith J, Stabbert H, Teng HL, Bagwell J, Wade V, **Lee SP**. Do people with low back pain walk differently? A systematic review and meta-analysis. *Journal of Sport and Health Science* 2022 11(4): 450-465. [https://authors.elsevier.com/sd/article/S2095-2546\(22\)00025-4](https://authors.elsevier.com/sd/article/S2095-2546(22)00025-4).
11. Hsu YT, Turner K, **Lee SP**. Post-acute Physical Therapy for a Patient with Critical Illness Associated with COVID-19: A Case Report. *Physiotherapy Theory & Practice* [doi:10.1080/09593985.2021.1972499](https://doi.org/10.1080/09593985.2021.1972499) 2022 38(13): 3226-3232.
12. Singh H, Hockwald A, Drake N, Avedesian J, **Lee SP**, Wulf G. Maximal force production requires OPTIMAL conditions. *Human Movement Science* 73(2020) 102661.
13. **Lee SP**, Hsu YW, Andrew L, Davis T, Johnson C. Fear of Falling Avoidance Behavior Affects the Inter-relationship between Vision Impairment and Diminished Mobility in Community-dwelling Older Adults. *Physiotherapy Theory and Practice* 2022 38(5): 686-694.
14. Clemens S, Doerger C, **Lee SP**. Current and Emerging Trends in the Management of Fall Risk in People with Lower Limb Amputation. *Current Geriatrics Reports* 2020(9): 134-141.
15. **Lee SP**, Chien LC, Chin T, Fox H, Gutierrez J. Financial Difficulty in Community-Dwelling Persons with Lower Limb Loss is Associated with Reduced Self-Perceived Health and Wellbeing. *Prosthetics & Orthotics International* 2020 44(5): 290-297.
16. Ho KY, Evers M, Kellogg J, Teter K, **Lee SP**, Chang YJ, Bashford G. Patellar Tendon Morphology in Transtibial Amputees Utilizing a Prosthesis with a Patellar-tendon-bearing Feature. *Nature Scientific Reports* 2019, 9(1): 1-7.
17. Montes J, Tandy R, Young JC, **Lee SP**, Navalta JW. Step Count Reliability and Validity of Five Wearable Technology Devices While Walking and Jogging in Both a Free Motion Setting and on a Treadmill. *International Journal of Exercise Science*. 2020 13(7): 410-426.
18. **Lee, SP**, Dinglasan V, Duong A, Totten R, Armour Smith, J. Individuals with Recurrent Low Back Pain Exhibit Significant Changes in Paraspinal Muscle Strength after Intramuscular Fine Wire Electrode Insertion. *PM&R* 2020 12(8): 775-782.
19. Montes J, Tandy R, Young JC, **Lee SP**, Navalta JW. A Comparison of Multiple Wearable Technology Devices Heart Rate and Step Count Measurements during Free Motion and Treadmill Based Measurements. *International Journal of Kinesiology and Sports Science* 2019 7(2): 30-39.
20. **Lee SP**, Gillis C, Ibarra J, Oldroyd D, Zane R. Heel-Raised Foot Posture and Weightlifting Shoes Do Not Affect Trunk and Lower Extremity Biomechanics during a Barbell Back Squat in Recreational Weight Lifters. *Journal of Strength and Conditioning Research* 2019 33(3): 606-614.

21. Lee HH, Lee SC, Salado L, White J, Estrada J, Muthukumar V, **Lee SP**, Mohapatra S. Proof-of-Concept Testing of a Real-Time mHealth Measure to Estimate Postural Control During Walking: A Potential Application for Mild Traumatic Brain Injuries. *Asian/Pacific Island Nursing Journal* (special issue on technology and health) 2018 3(4): 177.
22. **Lee SP**, Shih HT, Gray C, Poggemiller M, Tracy I, Teng HL. Four Weeks of Training with Simple Postural Instructions Changes Trunk Posture and Foot Strike Pattern in Recreational Runners. *Physical Therapy in Sport* 2019 35: 89-96.
23. Armour Smith J, Hawkins A, Grant-Beuttler M, Grant-Beuttler R, **Lee SP**. Risk Factors Associated with Low Back Pain in Golfers: A Systematic Review and Meta-analysis. *Sports Health* 2018 10(6):538-546, <https://doi.org/10.1177/1941738118795425>.
24. **Lee SP**, Kimber M, Houk K, Armour Smith, J. Insertion and Presence of Fine-Wire Intramuscular Electrodes in the Lumbar Paraspinal Muscles Do Not Affect Muscle Performance and Activation during High-Exertion Spinal Extension Contractions. *PM&R* 2018 10(11): 1192-1197.
25. **Lee SP**, Hsu YT, Bair B, Toberman M, Chien LC. Gender and Posture are Significant Risk Factors to Musculoskeletal Symptoms during Touchscreen Tablet Computer Use. *Journal of Physical Therapy Science* 2018 30(6): 855-861.
26. Vo DS, Silvernail JF, Tandy R, **Lee SP**, Dufek JS. Effects of Slope on Backward Locomotion: a Kinematic and Electromyographic Analysis of Backward Walking. *EC Orthopaedics* 2018 9(2): 34-41.
27. **Lee SP**, Bailey J, Armour Smith J, Barton S, Brown D, Joyce T. Adaptations of Lumbar Biomechanics after Four Weeks of Running Training with Minimalist Footwear and Technique Guidance: Implications for Running-related Lower Back Pain. *Physical Therapy in Sport* 2018 (29): 101-107.
28. Turner C, Crow S, Crowther T, Keating B, Saupan T, Pyfer J, Vialpando K, **Lee SP (corresponding author)**. Preventing Non-Contact ACL Injuries in Female Athletes: What Can We Learn from Dancers? *Physical Therapy in Sport* 2018 (31): 1-8.
29. Hickman R, Popescu L, Manzanares R, Morris B, **Lee SP**, Dufek JS. Use of Active Video Gaming in Children with Neuromotor Dysfunction: A Systematic Review. *Developmental Medicine & Child Neurology* 2017 59(9): 903-911.
30. LaComb CO, Tandy RD, **Lee SP**, Young JC, Navalta JW. Oral versus Nasal Breathing during Moderate to High Intensity Submaximal Aerobic Exercise. *International Journal of Kinesiology & Sports Science* 2017 5(1).
31. Ho KY, Epstein R, Garcia R, Riley N, **Lee SP**, Turner C. Effects of Patellofemoral Taping on Patellofemoral Joint Alignment and Contact Area. *Journal of Orthopaedic and Sports Physical Therapy* 2016 47(2): 115-123.
32. Ho KY, Standerfer A, Ngo S, Daun K, **Lee SP**. Effects of Fast Walking on Tibiofemoral Bone Water Content in Middle-Aged Adults. *Clinical Biomechanics*, 2016(37): 65-69.
33. **Lee SP**, Dufek JS, Hickman R, Schuerman S. Influence of Procedural Factors on the Reliability and Performance of the Timed Up and Go Test in Older Adults. *International Journal of Gerontology*, 2016 10(1):37-42
34. Sutton-Traina K, Armour Smith J, Jarvis D, **Lee SP**, Kulig K. Exploring Active and Passive Contributors to Turnout in Dancers and Non-dancers. *Journal of Medical Problems in Performing Artists* 2015 Jun; 30(2): 78-83.
35. Hickman R, Dufek JS, **Lee SP**, Blahovec A, Kuiken A, Riggins H, McClellan J. Feasibility of Using a Large Amplitude Movement Therapy to Improve Ambulatory Function in Children with Cerebral Palsy. *Physiotherapy Theory and Practice*, 2015 31(6): 382-389.
36. Kulig K, **Lee SP (corresponding author)**, Reischl S, Noceti-Dewit L. Effect of Tibialis Posterior Tendon Dysfunction on Unipedal Standing Balance Task. *Foot and Ankle International*. 2015 Jan; 36(1): 83-89.
37. **Lee SP**, Chow JW, Tillman MD. Persons with Reconstructed ACL Exhibit Altered Knee Mechanics during High-Speed Maneuvers. *International journal of Sports Medicine*. 2014 Jun; 35(6): 528-33.

38. **Lee SP** & Powers CM. Individuals with Diminished Hip Abductor Muscle Strength Exhibit Altered Ankle Biomechanics & Neuromuscular Activation during Unipedal Balance Tasks. *Gait & Posture*; 2014; 39(3): 933-938.
39. **Lee SP** & Powers CM. Fatigue of the Hip Abductor Results in Increased Medial-Lateral Center of Pressure Excursion & Neuromuscular Adaptation of Peroneus Longus during a Unipedal Landing Task. *Clinical Biomechanics*; 2013; 28: 524-529.
40. **Lee SP** & Powers CM. Description of a Weight Bearing Method to Assess Hip Abductor & External Rotator Muscle Performance. *Journal of Orthopaedic and Sports Physical Therapy*; 2013; 43(6): 392-397.
41. **Lee SP**, Souza RB, Powers CM. The Influence of Hip Abductor Muscle Performance on Dynamic Postural Stability in Females with Patellofemoral Pain. *Gait & Posture*; 2012; 36(3): 425-429.

Complete List of Published Work in Google Scholar Page:

<https://scholar.google.com/citations?hl=en&user=dhySprsAAAAJ>

NCBI My Bibliography:

<https://www.ncbi.nlm.nih.gov/myncbi/szu-ping.lee.1/bibliography/public/>

- **Refereed Articles in Review**

1. Clemens SM, Kershaw KN, Bursac Z, **Lee SP**. Association of Race, Ethnicity, and Gender to Disparities in Functional Recovery and Social Health Following Major Lower Limb Amputation: a Cross-Sectional Pilot Study. *Archives of Physical Medicine and Rehabilitation* (1st revision July 2023).
2. **Lee SP**, Wu FL, Landers M, Hu LW. A Moderated-Mediation Model Analysis for the Inter-relationship between Age-related Sensorimotor Impairments and Risk Factors for Falls in Older Adults. *Physical Therapy & Rehabilitation Journal* (submitted July 8th, 2023).
3. **Lee SP**, Shih Y, Shih HT, Sessoms P, Gregor RJ. Postural perturbation and fall recovery research in individuals with lower limb amputation: a scoping review of biomechanical methodology *Gait & Posture* (Submitted July 25th, 2022).
4. **Lee SP**, Chien LC, HT Shih, Ho S, Clemens S. Returning to Work After Diabetes and Vascular Disease-Related Amputation – A Novel Analysis of Relative Contributions of Biopsychosocial Factors Disability and Rehabilitation (submitted January 26th, 2023).
5. **Lee SP**, Maluotoga M, Thind R, Lindsay L, Bhatta T, Miller CA. Utilization and Perception of Peer-Support After Lower Limb Loss in the United States: Potential Benefits on Mobility Outcomes (Submitted to *Archives of Physical Medicine and Rehabilitation*, December 20th, 2022).
6. Ciccotelli J & **Lee SP**. Feasibility and Reliability of Maximal Reach Tests in Individuals with Unilateral Transfemoral Amputation.

- **Refereed Articles in Preparation**

1. Shih HT, Shih Y, **Lee SP**. Comparison of Tripping and Fall Recovery Responses of the Prosthetic versus Non-Prosthetic Leg in Individuals with Unilateral Transtibial Amputation.
2. Shih HT, Shih Y, **Lee SP**. Acute Effects of a Weight-Shifting Balance Intervention on Fall Recovery in Community-Dwelling Adults with Unilateral Transtibial Amputation.
3. **Lee SP**, Sawers A, Gregor RJ, Winstein C. Re-thinking post-amputation rehabilitation in the 21st Century - Integrating Prosthetic technology, Behavior, and Motor Learning Sciences (tentative title).
4. Ciccotelli J & **Lee SP**. Comparison of Spinal Extensor Muscle Performance between Individuals with

5.

Peer Reviewed Scientific and Professional Presentations

1. Mamauag M, Lee Y, Armagnac RC, Letkiewicz AM, Wu FL, **Lee SP**. Effects of Diabetes and Attentional Focus on Performance and Learning of a Novel Balance Task. Proceedings of the American Physical Therapy Association Combined Sections Meeting, Boston Massachusetts, USA, 2024 (submitted July 17th, 2023)
2. Cruz-Medina CP, Schmidlein MC, Lee SP, Lesleigh Sisson, MacLeod TD. Spatial accessibility to prosthetic services among adult diabetes patients undergoing non-traumatic lower extremity amputations. Proceedings of the American Physical Therapy Association Combined Sections Meeting, Boston Massachusetts, USA, 2024 (submitted July 17th, 2023)
3. Clemens S, Kershaw K, **Lee SP**. Know racial-ethnic disparities in lower limb amputation rates in the U.S. persist into functional recovery after amputation. Proceedings of the World Congress of International Society of Prosthetics and Orthotics, Guadalajara, Mexico, 2023.
4. Habashi K, Iida T, Yee B, **Lee SP**. Fear of Falling and Its Relation to Balance Task Performance in Individuals with Chronic Diabetes. Proceedings of the American Diabetes Association's 83rd Scientific Sessions, San Diego, California, USA, 2023
5. Clemens S, **Lee SP**, MacLeod T, Verbsky M, Gailey R, Stark RK, Carnahan K, Crunkhorn A, Love S. Developing of Clinical Practice Guidelines (CPG) for Outcome Measures for Amputation Rehabilitation. Proceedings of the American Physical Therapy Association Combined Sections Meeting, San Diego, California, USA, 2023.
6. Shih HT, Shih Y, **Lee SP**. Do Prosthetic and Non-Prosthetic Limbs React Differently to Simulated Tripping Falls in Individuals with Unilateral Transtibial Amputation? Proceedings of the World Congress of International Society of Prosthetics and Orthotics, Guadalajara, Mexico, 2023.
7. Maluotoga M, Thind R, Lindsay L, Bhatta T, Miller C, **Lee SP**. Utilization and Perception of Peer-Support after Lower Limb Loss: Potential Benefits on Mobility Outcomes Proceedings of the American Physical Therapy Association Combined Sections Meeting, San Diego, California, USA, 2023.
8. **Lee SP**, Bonczyk A, Dimapilis MKT, Partridge S, Ruiz S, Chien LC, Sawers A. Direction of Attentional Focus in Prosthetic Training: Current Practice and Potential for Improving Motor Learning in Individuals with Lower Limb Loss. Proceedings of the 2022 North American Society for the Psychology of Sport and Physical Activity Annual Conference, Kona, Hawaii, USA, 2022.
9. Hu LW (胡玲瑋), Wu FL (吳福連), Landers M, **Lee SP** (李思平). Influence of Degenerative Eye Diseases on Fear of Falling Avoidance Behavior in Community Dwelling Older Adults in Taiwan (退化性眼疾對於社區老年人害怕跌倒行為之影響). Proceedings of the 20th Taiwanese Long-Term Care Conference. Taipei City, Taiwan, 2022 (第二十屆台灣長期照護學術研討會).
10. Clemens S, Kershaw K, Ho S, Shih HT, Nagode N, **Lee SP**. A Pilot Study Identifying Racial Disparities in Prosthetic Mobility in People with Lower Limb Amputation. Proceedings of the American Physical Therapy Association Combined Sections Meeting, San Antonio, Texas, USA, 2022.
11. Brener DM, Law MT, **Lee SP**, Kershaw K, Rossi MD, Gattorno F, and Clemens SM. Preliminary Data Suggests Sex-Based Disparities in Prosthetic Mobility after Dysvascular Lower Limb Amputation. Proceedings of the American Physical Therapy Association Combined Sections Meeting, San Antonio, Texas, USA, 2022.
12. Ho S, Clemens S, **Lee SP**. Returning to Work After Lower Limb Amputation: A Preliminary Model Analysis of Older Adults with Dysvascular Amputation. Proceedings of the American Academy of Orthotists & Prosthetists Annual Meeting, Atlanta, Georgia, USA, 2022.
13. Garcia V, Gentry N, Peterson JL, Shigemoto KY, Ciccotelli J, **Lee SP**. Reliability of Ultrasound Imaging

- of Multifidus Muscles in Those with a Unilateral Transfemoral Amputation. Proceedings of the American Physical Therapy Association Combined Sections Meeting, San Antonio, Texas, USA, 2022.
14. Shih Y, Elquist M, Garcia J, Owens B, Perez DE, **Lee SP**. Walking with Poles Improves Step Length during Simulated Prosthetic Gait. Proceedings of the American Physical Therapy Association Combined Sections Meeting, San Antonio, Texas, USA, 2022.
 15. Shih HT., Anderson J., Fabian C., Hadley S., Ng D., **Lee SP**. A Novel Ground-reaction-force-triggered Tripping Protocol Elicits Reliable Responses in Young Adults. Proceedings of the American Physical Therapy Association Combined Sections Meeting, Virtual Meeting, USA, 2021.
 16. Shih HT, Yi ST, Shih Y, **Lee SP**. Description and Validation of a Ground Reaction Force Triggered Treadmill Protocol for Simulation of Tripping Falls. Proceedings of the American Society of Biomechanics Annual Meeting, Atlanta, Georgia, USA, 2020 (virtual conference).
 17. Kubo M, Horn L, Gorton J, Ferraro A, Shih HT, Macleod T, **Lee SP**. Physical Therapy After Amputation in Community Dwelling Adults: A Quantitative and Qualitative Interview Study. Proceedings of the American Physical Therapy Association Combined Sections Meeting, Denver, Colorado, USA, 2020.
 18. **Lee SP**, Shih HT, Amaya G, Gante R, Meinzer Z, Sadrossadat A. Physical Therapy after Lower Extremity Amputation: Predictors and Outcome Implications. Proceedings of the World Congress of International Society of Prosthetics and Orthotics, Kobe, Japan, 2019.
 19. Shih HT, **Lee SP**. Socioeconomic Status Affects Motor Activity Endurance and Fear of Falling Avoidance Behaviour in People with Lower Limb Loss. Proceedings of the Combined International Society of Biomechanics World Congress and American Society of Biomechanics Annual Meeting, Calgary, Canada, 2019.
 20. Ciccotelli J, Damele M, Gross R, Robina R, **Lee SP**. Lumbopelvic Muscle Performance and Cross-sectional Area in Individuals with Unilateral Above-the-Knee Amputation: Implications for Low Back Pain. Proceedings of the American Physical Therapy Association Combined Sections Meeting, Washington D.C., USA, 2019.
 21. Ho KY, **Lee SP**, Evers M, Kellogg J, Teter K, Chang E, Bashford G. Patellar Tendon Morphology in Trans-Tibial Amputees Utilizing a Prosthesis with a Patellar-Tendon-Bearing Feature. Proceedings of the American Physical Therapy Association Combined Sections Meeting, Washington D.C., USA, 2019.
 22. Shih HT & **Lee SP**. Effect of Age and Body Mass Index on Mobility in Middle to Older Age Adults With and Without Lower Limb Amputation. Proceedings of Annual Meeting of American Society of Biomechanics, Rochester, Minnesota, USA, 2018.
 23. Lee SC, Lee HH, Muthukumar V, **Lee SP**, Salado L, Estrada J, Danna-dos-Santos A. Estimation of Body Balance in Individuals with Traumatic Brain Injury using Force Plate and Mobile Health Instruments. Proceedings of IEEE International Conference on Biomedical and Health Informatics, Las Vegas, USA, 2018.
 24. **Lee SP**, Dinglasan V, Duong A, Totten R, Armour-Smith J. Individuals with Recurrent Low Back Pain Exhibit Reduced Paraspinal Muscle Strength after Intramuscular Fine-wire EMG Electrode Insertion to Lumbar Multifidus. (platform presentation) Proceedings of the American Physical Therapy Association Combined Sections Meeting, New Orleans, USA, 2018.
 25. **Lee SP**, Chin TM, Fox HJ, Gutierrez J. Access to Physical Therapy and Socioeconomic Status on Fear of Falling and Mobility Outcomes in Individuals with Lower Limb Loss. Proceedings of the American Physical Therapy Association Combined Sections Meeting, New Orleans, USA, 2018.
 26. DiMascio J, Hicks R, Kimber M, Snyder K, Armour-Smith J, **Lee SP**. Insertion and Presence of Intramuscular Fine Wire Electrodes in the Lumbar Paraspinal Muscles Do Not Affect Muscle Performance and Activation during High Exertion Spinal Extension Exercises. Proceedings of the American Physical Therapy Association Combined Sections Meeting, San Antonio, Texas, USA, 2017.

27. Gray C, Poggemiller M, Tracy I, Teng HL, **Lee SP**. Can Simple Postural Instructions Modify Running Forms in Recreational Runners? Proceedings of the American Physical Therapy Association Combined Sections Meeting, San Antonio, Texas, USA, 2017.
28. Andrew L, Johnson C, Tortomasi T, **Lee SP**. The Impact of Visual Impairments on Mobility Performance in Community Dwelling Older Adults. Proceedings of the American Physical Therapy Association Combined Sections Meeting, San Antonio, Texas, USA, 2017.
29. Turner C, **Lee SP**, Crow S, Keating B, Saupan T, Pyfer J, Vialpando K. The Effects of Instruction on Landing Strategies in College-Aged Dancers and Non-Dancers. Proceedings of the American Physical Therapy Association Combined Sections Meeting, Anaheim, California, USA, 2016 (platform presentation).
30. Standerfer A, Ngo S, Daun K, **Lee SP**, Ho KY. Locomotion-induced shock loading and tibiofemoral joint bone stress injury. Proceedings of the American Physical Therapy Association Combined Sections Meeting, Anaheim, California, USA, 2016 (platform presentation).
31. Epstein R, Garcia R, Riley N, **Lee SP**, Turner C, Ho KY. The effects of patellofemoral taping on patellofemoral joint alignment and contact area. Proceedings of the American Physical Therapy Association Combined Sections Meeting, Anaheim, California, USA, 2016 (platform presentation).
32. Sestini L, Wilde R, Jeng CC, **Lee SP**, Schuerman S. Physical Mobility in Older Adults: Influences of Body Composition, Polypharmacy, and Comorbidity. Proceedings of the American Physical Therapy Association Combined Sections Meeting, Anaheim, California, USA, 2016.
33. **Lee SP**, Barton S, Brown D, Joyce T, Bailey J. Four Weeks of Minimalist Style Running Training Led to Reduced Lumbar Paraspinal Muscle Activation during Shod Running. Proceedings of the American Physical Therapy Association Combined Sections Meeting, Anaheim, California, USA, 2016.
34. **Lee SP**, Bair B, Gama M, Toberman M, Hsu YT. Prevalence and Risk Factors for Neck and Shoulder Musculoskeletal Complains in Users of Tablet Computers. Proceedings of the American Physical Therapy Association Combined Sections Meeting, Anaheim, California, USA, 2016.
35. **Lee SP**, Neumann, E. Optimizing Functions for Individuals with Lower Extremity Amputation: Clinicians' Perspective on Prosthetic Care and Education. Proceedings of the International Society of Prosthetics and Orthotics (invited presentation), Lyon, France, 2015.
36. **Lee SP**, Hickman R, Dufek J, Schuerman S. Influence of Procedural Factors on the Performance of Timed Up and Go Test in Community-Dwelling Older Adults. Proceedings of the American Physical Therapy Association Combined Sections Meeting, Indianapolis, Indiana, 2015.
37. Harry J, Hickman R, **Lee SP**, Morris B, Dufek JS. Effects of dual-tasking on spatio-temporal gait parameters in children with cerebral palsy. Proceedings of the 33rd Annual Meeting of the American College of Sports Medicine Southwest Chapter. Costa Mesa, California, 2014.
38. **Lee SP**, Noceti-Dewit L, Reischl S, Kulig K. Individuals with Posterior Tibial Tendon Dysfunction Exhibit Diminished Ability in Maintaining Postural Stability during a Unipedal Balance Task Proceedings of the America Physical Therapy Association Combined Sections Meeting, Las Vegas, Nevada, USA, 2014 (platform presentation).
39. **Lee SP**, Contreras D, Denton D, Young J. Application of a Criterion-Based Timed Up-and-Go Test: a Reliability and Validity Study Proceedings of the 2013 Annual Meeting of The Gerontological Society of America, New Orleans, Louisiana, USA, 2013.
40. **Lee SP** & Powers CM. Individuals with Diminished Hip Abductor Muscle Strength Exhibit Higher Moments & Neuromuscular Activation at the Ankle during Unipedal Balance Tasks. Proceedings of the 2012 Annual Meeting of American Society of Biomechanics, Gainesville, Florida, USA, 2012.
41. Dorman JC, **Lee SP**, Munce TA, Thompson PA. Does a Dehydrating Bout of Intermittent Exercise Affect Peak Loading Rate during Landing in Adolescent Boys? Proceedings of the American College of Sports Medicine Annual Meeting, San Francisco, California, USA, 2012.
42. **Lee SP** & Powers CM. Construct Validity and Reliability of a Novel Method to Assess Hip Abductor

- Muscle Performance. Proceedings of the American Physical Therapy Association Combined Sections Meeting, Chicago, Illinois, USA, 2012.
43. Lee SP & Powers CM. Association between Functional Hip Abductor Strength and Hip Joint Kinematics and Kinetics During a Dynamic Uni-pedal Drop Landing Task. Proceedings of the 2011 Annual Meeting of American Society of Biomechanics, Long Beach, California, USA, 2011.
 44. Lee SP & Powers CM. Prediction of Frontal Plane Hip & Ankle Kinematics during Uni-pedal Stance Using a Dual-Segment, Center of Pressure-Based Postural Model. Proceedings of the 2011 Annual Meeting of American Society of Biomechanics, Long Beach, California, USA, 2011.
 45. Sutton KR, Armour Smith, J, Jarvis DN, Oki KC, Lee SP, Kulig K. The Relationship between Long Bone Morphology, Dance History and Turnout: an Exploratory Study. Proceedings of the Annual Meeting of International Association for Dance Medicine and Science, Washington, DC, October 2011.
 46. Dorman JC, Lee SP, Calsbeek DJ, Esposito LM, Munce TA, Thompson PA, Powers CM and Bergeron MF F. Postural Stability in Adolescent Boys During Repeated Bouts of Intermittent Exercise in the Heat. Proceedings of 2011 Annual Meeting of American College of Sports Medicine, Denver, Colorado, USA 2011.
 47. Leung K, Lee SP, Popovich JM Jr., Reischl SF, Kulig K. A Comprehensive Foot, Ankle, and Hip Intervention for Patients with Posterior Tibial Tendon Dysfunction: A Case Series. Proceedings of the American Physical Therapy Association Combined Sections Meeting, New Orleans, Louisiana, USA, 2011.
 48. Powers CM, Pollard CD, Lee SP, Cesar G., Sigward SM. The Influence of Sex and Maturation on Knee Valgus Moments during Cutting: Implications for ACL Injury. Proceedings of the 2010 Annual Meeting of American Society of Biomechanics, Providence, Rhode Island, USA, 2010.
 49. Sigward SM, Pollard C, Cheng WC, Lee SP, Powers CM. The Influence of Gender & Maturation on Landing Strategies: Implications for ACL Injury. Proceedings of the 2009 Annual Meeting of American Society of Biomechanics, State College, Pennsylvania, USA, 2009.
 50. Lee SP & Powers CM. Does Diminished Hip Muscle Strength Influence Medial-lateral Dynamic Stability in Females with Patellofemoral Pain? Proceedings of the 2009 American Physical Therapy Association Combined Sections Meeting, Las Vegas, Nevada, USA, 2009 (platform presentation).
 51. Lee SP, Chow JW, Tillman MD. The Effect of Leg Dominance on Knee Joint Kinetics during Cutting. Proceedings of the 2008 North America Congress on Biomechanics, Ann Arbor, Michigan, USA, 2008.
 52. Lee SP, Chow JW, Tillman MD, Bonhomme CA. Knee Kinetics during Cutting Maneuvers and ACL Laxity in Individuals with Unilateral ACL-reconstructed Knee. (Abstract) Medicine and Science in Sports & Exercise, 39(5), 2007.
 53. Lee SP, Chow JW, Tillman MD, Bonhomme CA. The Effects of Different Cutting Conditions, Leg Dominance and Measured Anterior Cruciate Ligament Laxity on Knee Joint Kinetics. Proceedings of the 21st Congress of the International Society of Biomechanics, Taipei, Taiwan, 2007.
 54. Chow JW, Lee SP, Tillman MD. Transverse Plane Moments and Ranges of Motion of the Lower Extremity during Walking and Turning in Unilateral Total Knee Replacement Individuals. Proceedings of the 21st Congress of the International Society of Biomechanics, Taipei, Taiwan, 2007.

Invited Presentations

- Aesthetics and Function in O&P Design – Patient Engagement in Cosmetic Designing of Prosthesis: Current Practice and Potential Outcome Benefits. Organized Session, Annual Meeting & Scientific Symposium of the American Academy for Orthotists and Prosthetists. Nashville, TN, USA, March 4th, 2023.
- Beyond Physical: Benefits of Psychosocial Considerations in Treating Patients with Amputation. Department of Physical Therapy, Asia University, Taichung, Taiwan (January 4th, 2023)

- Beyond Physical: Benefits of Psychosocial Considerations in Treating Patients with Amputation. School and Graduate Institute of Physical Therapy, National Taiwan University, Taipei, Taiwan (December 27th, 2022)
- UNLV Tenure-Track Faculty Mentoring Group: Research Panel Discussion. September 16th, 2022.
- Rehabilitation after Limb Amputation: Current Evidence and Clinical Applications (with Scott Love). American Physical Therapy Association West Virginia Annual Conference. Wheeling, WV, USA, September 24-25, 2022.
- Rehabilitation after Lower limb Amputation - Impact of Psychosocial Factors on Patient Outcome (with Toran Macleod, Sheila Clemens, Chris Doerger, and Andrew Sawers). Educational session. American Physical Therapy Association Combined Sections Meeting, San Diego, USA, February 23rd 2023.
- Physical Therapy Assessment and Interventions for Patients After COVID-19. Taiwan Physical Therapy Association, Department of Physical Therapy, Asia University, August 29th, 2021.
- Applications of Transfer Technology and Motor Learning Concepts in Home Healthcare in Taiwan. APEC Skills Development Capacity Building Alliance (ASD-CBA) Workshop, Asia-Pacific Economic Cooperation and Ministry of Labor, Taiwan. April 28th, 2021.
- Research Funding Symposium Part 2: Perspectives from Funded Junior PT Researchers. Educational session. American Physical Therapy Association Combined Sections Meeting, Denver, Colorado, USA, February 13th, 2020.
- Implications of Motor Relearning and Outcome Assessment on Rehabilitation after Amputation – Factors Affecting Physical Capacity after Lower Limb Loss (with Jennifer Lucarevic, Sheila Clemens, Chris Doerger, and Carolee Winstein). Educational session. American Physical Therapy Association Combined Sections Meeting, Washington D.C., USA, January 24th, 2019.
- Evidence-based Physical Therapy – Why Is It Important to You? Department of Physical Therapy and Assistive Technology, National Yang-Ming University, Taipei, Taiwan (Dec 21, 2017)
- The Art and Science of Physical Therapy – An Ongoing Evolution. Department of Physical Therapy and Assistive Technology, National Yang-Ming University, Taipei, Taiwan (Dec 20, 2017)
- Evidence-based Physical Therapy – Why Is It Important to You? School and Graduate Institute of Physical Therapy, National Taiwan University, Taipei, Taiwan (Dec 20, 2017)
- Guest lecturer, United States Bone and Joint Initiative, NFP (USBJI). Topic: “Osteoarthritis and Osteoporosis” (04/17/2013)
- Guest lecturer, City of Las Vegas, Department of Leisure Services, Centennial Hills Active Adult Center. Topic: “Functional Mobility in Older Adults” (09/11/2013)
- Lecturer, Nevada Physical Therapy Association Southern District Meeting. Lecture title: “Influence of Trunk Posture on Running Injuries: An Update of Current Evidence” (4/18/2017)

Intellectual Property

- **Lee, SP.**, Dufek, J.S. and Hickman, R.A. Method and Apparatus for Performing Timed Up-And-Go Test. United States Patent No. 10,335,058 (issued July 02, 2019, expiration Oct, 31, 2035)
- **Lee, SP.**, Dufek, J.S., Hickman, R.A., Morris, B. Clinical Mobility Assessment Application (Invention Disclosure); Submitted, Jul 2017.

Funded/In Review Grant Activity

External

- Kent J, **Lee SP**, Fatone S., Hooyman A. Uneven surface training: a rehabilitation regimen to improve locomotor function and confidence in lower limb prosthesis user. 2023 Orthotics and Prosthetics Outcomes Research Program (OPORP) – Congressionally Directed Medical Research, Department of Defense (\$400,000; submitted July 11th, 2023)
- Kent J, **Lee SP**, Hooyman A. An uneven terrain surface for locomotor training in lower limb prosthesis

users: a feasibility study. National Institutes of Health (R03; \$306,582; submitted March 24th, 2023)

- Kent J, Dufek D, **Lee SP**, Muthukumar V, Trabia M. Major Research Instrumentation Program: Acquisition of a Three-Dimensional Instrumented Harness to Facilitate Safe, Precise, and Unrestricted Analysis of Human Movement. National Science Foundation Major Research Instrumentation Initiative \$391,450 (submitted February 2023).
- Macleod T, Verbsky M, **Lee SP**, Clemens S, Gailey R, Love S, Stark RK, Crunkhorn A, Kristin C. Outcome Measures in Lower Extremity Amputation (Clinical Practice Guideline development). American Physical Therapy Association \$13,000 (funded December 12th, 2022)
- **Lee SP**, Chang YJ, Clemens S, Shih Y, Yoshida Y. Examining Socioeconomic Disparities in Functional Outcomes of People with Lower Limb Amputation – A Multi-State Collaborative Study. MW CTR-IN Multi-Site Pilot Project Grant (NOI submitted October 15th, 2022; full application submitted March 22nd, 2023).
- Macleod T, Schimidtlein M, **Lee SP**. Prosthetic Service Deserts Across the United States for Individuals with Amputation. Encompass Health Rehabilitation Research Grant \$7,000 (submitted July 25th, 2022; funded September 14th, 2022).
- **Lee SP (PI)**, Aguila E, Chien LC, Snyder J, Lee H. (W81XWH2210216) Enhancing Motor Function in Individuals with Lower Limb Amputation through Peer-Based Balance and Fall Recovery Skill Training. 2021 Orthotics and Prosthetics Outcomes Research Program (OPORP) – Congressionally Directed Medical Research, Department of Defense \$349,773 (submitted July 29th, 2021, recommended for funding December 16th, 2021; 2022-2024).
- **Lee SP (PI)**, Clemens SM, Doerger C. Socioeconomical Disparities on Post-amputation Outcomes in Individuals with Lower Limb Amputation. American Orthotics and Prosthetics Association, Clinical O&P Research Support (Bid Number: EBP-043021) \$15,972 (funded, September 10th, 2021; 2021-2023).
- Shih HT, **Lee SP (mentor)**. Balance Recovery Response in Individuals with Lower Limb Loss and the Potential Benefits of a Weight Shifting Balance Training. International Society of Biomechanics Matching Dissertation Grant \$5,000 (completed, 2021).
- Hu LW, Landers M, **Lee SP (Co-PI)**. Fear of Falling Avoidance Behavior in Taiwanese Older Adults. Far Eastern Memorial Hospital, Taiwan. \$129,550 NTD (funded, March 2020).
- Clemens SM, **Lee SP (site PI)**, Kershaw K. Examining racial/ethnic disparities in functional outcomes of people with dysvascular lower limb amputation and the effect of socioenvironmental factors. Florida International University – Research Center at Minority Institutions, National Institute on Minority Health and Health Disparity, National Institute of Health (U54MD012393), \$49,943.38 (completed, February 2020; 2020-2021).
- **Lee SP (PI)**. Motor Learning in Individuals with and at Risk of Lower Limb Loss: Implications for Amputee Rehabilitation. Research Scientist Development Award (1K01HD091449), Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institute of Health, \$654,536 (funded, August 2018-July 2023).
- **Lee SP (PI)**, Hsu YT, Chien LC. Mobility and Patient-Perceived Outcomes of Rehabilitation after Lower Extremity Amputation Surgery. Encompass Health Rehabilitation Research Grant, Encompass Health Corp., \$5,795 (completed, September 2018-July 2022)
- **Lee SP**, Dufek JS, Neumann ES. Prosthetic Assessments of Gait and Mobility in Individuals with Lower Limb Loss. Mountain West Clinical and Translational Research Infrastructure Network (CTR-IN), \$13,505, 2016 (completed).
- **Lee SP**, Contreras D, Denton D. Examination of Test Condition Variables on the Test-Retest Reliability of the Timed Up-and -Go Test in Geriatric Population. Undergraduate Research Opportunity Program, Nevada NIH IDeA Network of Biomedical Research Excellence (Nevada INBRE), \$11,000, 2013 (completed).
- **Lee SP**. The Influence of Hip Muscle Performance on Postural Stability & Ankle Biomechanics:

Implications for Ankle Injury. Dissertation Award, International Society of Biomechanics, \$5,000, 2011-2012 (completed).

Internal

- Lee SP, Kent J. Enhancing Motor Function in Individuals with Lower Limb Amputation. UNLV Top Tier Doctoral Graduate Research Assistantship (TTDGRA), UNLV Graduate College, \$60,000, 2023-2026 (awarded January 9th, 2023).
- Kent J, **Lee SP** (mentor). Improving Mobility in Lower Limb Prosthesis Users: an Uneven Terrain Paradigm. Faculty Opportunity Award, University of Nevada, Las Vegas, \$19,969, 2022.
- MacDonald J, Myers K, Yu P, **Lee SP** (mentor). Eliciting a Post-Activation Potentiation Response to Acutely Increase Bat Velocity in Collegiate Baseball Players. UNLV Department of Physical Therapy Student Research Opportunity Grant and UNLV Graduate & Professional Student Association, \$7,350, 2021-2023.
- Maluotoga M, Thind R, **Lee SP** (mentor). Patient Experience and Perception of Peer-Support After Limb Loss: Implications for Post-Amputation Rehabilitation. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$500, 2021-2023.
- Bonczyk A, Dimapilis MK, Partridge S, Ruiz S, **Lee SP** (mentor). Attentional Focus During Prosthetic Gait Training: An Observational Study of Clinical Prosthetic Practice in Post-Amputation Rehabilitation. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$1,405.20, 2020-2022.
- Lee H, Lee S, **Lee SP** (Co-I), Bernick C. Premature Cognitive Aging after Multiple Mild Traumatic Brain Injuries Linked to Sensorimotor Performances and Peripheral Epigenetics. Graduate Faculty Top Tier Doctoral Graduate Research Assistantship (TTDGRA) Grant Program, UNLV Graduate College, \$60,000, 2020-2023.
- Shih HT, Anderson J, Fabian CA, Hadley S, Ng CW, **Lee SP** (mentor). Effect of Weight-Shift Training on Fall Recovery Response in People With and Without Lower Limb Loss. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$4590; UNLV Graduate and Professional Student Association, \$342.87, 2019-2021.
- Mitchell C, Repayo K, Tillitt M, Weber C, **Lee SP**. Customized Prosthetic Socket: Does it Provide Autonomy Support and Enhance Outcomes in People with Limb Loss? UNLV Department of Physical Therapy Student Research Opportunity Grant, \$2020.8, 2019-2021.
- Ho KY, Lee D, **Lee SP** (Co-I). Knee Pain, Tendon Degeneration, and Limb-Socket Dynamics in Trans-Tibial Amputees. UNLV Faculty Opportunity Award – Collaborative Interdisciplinary Research Award, UNLV Provost's Office, \$19,999 (funded, July 2018-June 2019).
- **Lee SP**, Amaya G, Gante R, Meinzer Z, Sadrossadat A. Mobility Outcomes and Patient Perception of Outpatient Physical Therapy in Individuals with Lower Extremity Amputation: a Retrospective Study. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$1,820, 2017-2019.
- **Lee SP**, Ciccotelli J, Damele M, Gooder J, Gross R, Robina R. Lumbopelvic Muscle Performance and Cross-sectional Area in Individuals with Unilateral Transfemoral Amputation: Implications for Lower Back Pain. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$1,370, 2017-2019.
- Ho KY, **Lee SP**, Evers M, Kellogg J, McQueary K. Patellar Tendon Morphology in Transtibial Amputees Utilizing a Patellar-Tendon-Bearing Prosthesis. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$580, 2017-2019.
- **Lee SP**, Chin T, Fox H, Gutierrez J. Mobility Functions in Individuals with Lower Limb Loss. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$1,505, 2016-2018.
- **Lee SP**, Puentedura E, Dinglasan V, Duong A, Totten R. Influence of Intramuscular Electromyographic Electrode Insertion on Lower Back Muscle Performance and Activation in Individuals with Chronic Low Back Pain. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$1,631.5, 2016-2018.

- Ho KH, **Lee SP** (Co-I), McClaren J, Sudweeks S. Acute Effects of Walking on the Deformation of Femoral Articular Cartilage of the Knee, UNLV Department of Physical Therapy Student Research Opportunity Grant, \$2,125, 2015-2017.
- **Lee SP**, Schuerman S, Andrew L, Johnson C, Tortomasi T. The Impact of Visual Impairments on Mobility in Older Adults. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$935, 2015-2017.
- **Lee SP**, Wulf G, Teng HL, Gray C, Poggemiller M, Tracy I. Effects of internal vs. external attentional focus instructions on running form re-education. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$2,600, 2015-2017.
- **Lee SP**, Puentedura E, Dimascio J, Hicks R, Kimber M, Snyder K. Effects of Intramuscular EMG Insertion to Deep Paraspinal Muscles on Lumbar Muscular Strength and Endurance Performance. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$1,452, 2015-2017.
- Hickman R, **Lee SP** (Co-I), Morris B, Dufek K, Popescu, Manzanares R. Use of Active Video Gaming in Children with Neurologically-based Movement Dysfunction. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$1,100, 2015-2017.
- **Lee SP**, Wulf G, Teng HL, Billington E, Devries S, Scoggin K. Effects of internal vs. external attentional focus instructions on running form re-education. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$2,000, 2014-2016.
- **Lee SP**, Gillis C, Ibarra J, Oldroyd D, Zane R. The effects of a raised heel posture on lower extremity biomechanics & muscle activation during a barbell back squat. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$4,006, 2014-2016.
- **Lee SP**, Jeng CC, Sestini L, Wilde R, Establishing a functional mobility performance database for older adults in Southern Nevada. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$2,403, 2014-2016.
- Ho KY, **Lee SP** (Co-I), Turner CL, Madsen SJ, The effects of patellofemoral taping on patellofemoral joint alignment and contact area. Faculty Opportunity Award, University of Nevada, Las Vegas, \$20,098, 2014-2016.
- Ho KY, **Lee SP** (Co-I), Ma B, Schuerman S., Daun K., Ngo S., Standerfer A. The effects of locomotion-induced shock loading on tibiofemoral bone stress injury, UNLV Department of Physical Therapy Student Research Opportunity Grant, \$4,200, 2014-2016.
- Dufek J, Hickman R, **Lee SP**, Morris B. Large Amplitude Movements (LAMs) for Children with Cerebral Palsy: Dose Response and Clinical Effectiveness. Doctoral Graduate Research Assistantship, University of Nevada, Las Vegas, \$25,000, 2014-2016.
- **Lee SP**, Dufek J, Mercer J. Influence of Foot Strike Pattern on Lower Back Muscle Activation during Running: Clinical Implications for Preventing Lower Back Pain in Runners. Faculty Opportunity Award, University of Nevada, Las Vegas, \$24,268, 2013-2015.
- **Lee SP**, Joyce T, Brown D, Barton S. Influence of Foot Strike Pattern on Lower Back Muscle Activation during Running: Clinical Implications for Preventing Lower Back Pain in Runners. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$3,210, 2013-2015.
- **Lee SP**, Hsu Y, Bair B, Gama M, Matteucci M. Musculoskeletal Symptoms of Neck and Shoulder in Users of Touch-screen Devices: A Survey Study. UNLV Department of Physical Therapy Student Research Opportunity Grant, \$2,500, 2013-2015.
- Turner C., **Lee SP** (Co-PI), Keating B., Pyfer J., Vialpando K. The Effects of Training on Landing Strategies in Female College-Aged Dancers: A Pilot Study, UNLV Department of Physical Therapy Student Research Opportunity Grant, \$1,124, 2013-2015
- Hickman, R., Dufek, J.S. and **Lee SP** (Co-I). UNLV Kids Research Outreach to Community Clinicians (UNLV KidsROCC). School of Allied Health Sciences, University of Nevada, Las Vegas, \$2,554, 2012-2013.

Previous Significant Grant Submissions

External

- Kent J, **Lee SP**, Chien LC. An uneven terrain surface for locomotor training: a preliminary study for future application to lower limb prosthesis users. National Institutes of Health (R03; \$289,311; submitted March 30th, 2022, scored, not funded)
- Kent J, Dufek D, **Lee SP**, Muthukumar V, Trabia M. Acquisition of a Three-Dimensional Instrumented Harness for Safe, Precise, and Unrestricted Analysis of Human Movement. National Science Foundation Major Research Instrumentation Initiative \$391,450 (pre-proposal submitted October 18th, 2021; full application submitted January 2022, not funded).
- **Lee SP (PI)**, Aguila E, Chien LC, Snyder J, Lee H. Enhancing Motor Function in Individuals with Lower Limb Amputation through Peer-Based Balance and Fall Recovery Skill Training. 2020 Orthotics and Prosthetics Outcomes Research Program (OPORP) – Congressionally Directed Medical Research, Department of Defense. \$348,489 (scored in “excellent” category, re-submitted and funded in 2021).
- Lee H, **Lee SP** (Co-I). Predicting Persistent Impairments Following Mild Traumatic Brain Injury using the Longitudinal and Integrative Biobehavioral Assessment. Center of Biomedical Research Excellence, Nevada Institute of Personalized Medicine, \$75,000 (2019, not funded).
- Hsu YW and **Lee SP** (Co-I). Acculturation, Perceived Obesogenic Environment, and Obesity-related Behaviors among Adult Immigrants in Nevada: A Moderated Mediation Approach” Mountain West Clinical Translational Research Infrastructure Network (2019, not funded)
- Ho KY, **Lee SP** (Co-PI), Dufek J. Knee Pain and Patellar Tendon Degeneration in Trans-Tibial Amputees. Department of Defense Orthotics and Prosthetics Outcomes Research Award, Department of the Army, \$495,332 (pre-application submitted and invited, Oct 2017; full application submitted Jan 2018; not funded).
- Ho KY, **Lee SP** (Co-I) Influence of Patellofemoral Joint Loading on Patella Water Content in Female NCAA Basketball Players. Bone Stress Injury Call for Proposal, NBA & GE Healthcare Orthopedics and Sports Medicine Collaboration, \$298,609, not funded, 2017.
- **Lee SP**, Silvernail J, Aguila E, Dufek J, Neumann E, Shan, G. Clinical Utility of Augmented Feedback Technologies for Improving Gait Symmetry and Mobility in Individuals with Unilateral Lower Limb Loss. Department of Defense Orthotics and Prosthetics Outcomes Research Award, Department of the Army, \$298,096 (not funded), 2016.
- Dufek JS, Neumann ES, **Lee SP**, Silvernail JA. Use of Direct Prosthetic Measurement to Improve and Enhance Physical Function. Orthotics and Prosthetics Outcomes Research Award, Department of Defense, \$499,778 (not funded), 2015.
- Ho KY, **Lee SP**. Locomotion-Induced Shock Loading and Tibiofemoral Joint Bone Stress Injury. Arthritis Foundation, \$573,350 (not funded), 2015
- Dufek, JS, Neumann ES, **Lee SP**, Silvernail JA. Optimizing Functional Outcomes for Individuals with Amputation: Direct Prosthetic Measurement in Comparison to Inverse Dynamics Analyses of Limb Loading. Orthotics and Prosthetics Outcomes Research Award, Department of Defense, \$499,778 (not funded), 2014.

Membership in Scientific/Professional Organizations

- American Academy of Orthotists and Prosthetists (2022-present)
- North American Society for the Psychology of Sport and Physical Activity (2022-present)
- American Physical Therapy Association (2008-present)
- American Society of Biomechanics (2006-present)
- International Society of Biomechanics (2007-present)

Consultative and Advisory Positions

- Core member, Guideline Development Group, Academy of Amputation and Limb Difference Physical Therapy (currently embedded in the Academy of Acute Care Physical Therapy), American Physical Therapy Association (2020-present)
- Chair, Research Committee, Academy of Amputation and Limb Difference Physical Therapy, American Physical Therapy Association (2021-present)
- Reviewer, *Journal of Orthopedic and Sports Physical Therapy* (2013-present)
- Reviewer, *Journal of Applied Physiology* (2014-present)
- Reviewer, *Foot & Ankle Research* (2014-present)
- Reviewer, *Physical Therapy in Sport* (2014-present)
- Reviewer, *Clinical Biomechanics* (2015-present)
- Reviewer, *Prosthetics & Orthotics International* (2015-present)
- Senior reviewer, *Physical Therapy* (2015-present)
- Reviewer, *Sports Biomechanics* (2016-present)
- Reviewer, *Journal of Applied Biomechanics* (2016-present)
- Reviewer, *Physiotherapy Theory and Practice* (2016-present)
- Reviewer, *Archives of Physical Medicine and Rehabilitation* (2017-present)
- Reviewer, *Gait & Posture* (2018-present)
- Reviewer, *Plos One* (2018-present)
- Scientific Reviewer, US Army Medical Research & Development Commend, Military Health System Research review panel (MHSR; 2022)
- Scientific Reviewer, US Army Medical Research & Development Commend, Medical Research on the Military Operational Medicine (MOM) review panel; Congressionally Directed Medical Research Programs – Medical Research and Development Commend CDMRP-MRDC (2021)
- Scientific Reviewer, Restoring Warfighters with Neuromusculoskeletal Injuries Research Award (RESTORE) review panel; Congressionally Directed Medical Research Programs - Defense Medical Research and Development Program CDMRP-DMRDP (2020)

Services to the University/School/Department on Committees/Councils/Commissions

- Department of Physical Therapy
 - Chair, Research Committee (01/01/2013- current)
 - Member, Ad-hoc Faculty Search Committee (02/01/2017- 06/01/2021)
 - Chair, Bylaws Committee (01/01/2018- 08/31/2019)
 - Member, Academic Review Committee (08/01/2013- 12/31/2017)
 - Member, Bylaws Committee (08/01/2013- 2016)
 - Member, PhD program Committee (08/01/2013- 08/31/2019)
 - Member, Admissions Committee (01/01/2013- 05/31/2013)
 - Member, Website Committee (01/01/2013- 05/31/2013)
 - Member, Faculty Search Committee (01/01/2013- 07/31/2013)
- School of Integrated Health Sciences
 - Member, Strategic Planning and Organizing Committee – People (2022-current)
 - Chair, Faculty Review Committee (05/01/2020-07/31/2021)
 - Representative for UNLV Graduate College Progression, Retention, Completion Graduate Council Committee (02/09/2021-current)
 - Member, IHS PhD program Executive Committee (05/01/2020-current)
 - Member, Diversity, Equity, and Inclusion Committee (09/14/2020-current)
 - Member, Faculty Review Committee (09/01/2019-05/01/2020)
 - Member, Undergraduate/Graduate Curriculum Committee (09/01/2015-8/31/2019)

- Member, Academic Standards Committee (09/01/2013-09/01/2015)
- Member, Research Boot Camp organizing committee (03/01/2013)
- School of Nursing
 - Member, Search Committee (06/01/2019-08/31/2019)
 - Grant Reviewer (01/01/2019-04/30/2019)
- University of Nevada, Las Vegas
 - Strategic diversity point of contact (School of Integrated Health Sciences), President's Diversity Initiative (03/06/2015-2017)
 - Faculty senator (08/31/2017-09/01/2019)
 - Senior faculty senator (09/01/2019-08/31/2020)
 - Member, 2021 Community Engagement Award Application Review Committee, UNLV Office of Community Engagement (02/12/2021-03/15/2021)
 - Member, Top Tier Postdoctoral Affairs Advisory Board (08/01/2021-current)

Continuing Education Attended

- Conferences
 - American Physical Therapy Association Combined Sections Meeting
 - Chicago, Illinois, 2012
 - San Diego, California, 2013
 - Las Vegas, Nevada, 2014
 - Indianapolis, Indiana, 2015
 - Anaheim, California, 2016
 - San Antonio, Texas, 2017
 - New Orleans, Louisiana, 2018
 - Washington DC, 2019
 - Denver, Colorado, 2020
 - Virtual conference, 2021
 - San Antonio, 2022
 - American Society of Biomechanics Annual Meeting
 - Gainesville (University of Florida), Florida, 2012
 - Omaha (University of Nebraska), Nebraska, 2013
 - Boston, Massachusetts, 2014 (World Congress of Biomechanics)
 - Boulder (University of Colorado), Colorado, 2017
 - Rochester (Mayo Clinic), Minnesota, 2018
 - Calgary, Alberta, Canada, 2019 (Combined ISB/ASB meeting)
 - Gerontological Society of America Annual Scientific Meeting
 - New Orleans, Louisiana, 2013
 - International Society of Prosthetics and Orthotics World Congress
 - Lyon, France, 2015
 - Kobe, Japan, 2019
 - Virtual conference, 2021
 - Guadalajara, Mexico, 2023
 - American Orthotic Prosthetic Association's National Assembly
 - Las Vegas, Nevada, 2014
 - American Academy of Orthotists & Prosthetists Annual Meeting
 - Atlanta, Georgia, 2022
 - Nashville, Tennessee, 2023
- Workshop

- APTA Clinical Practice Guideline Development Workshop. July 13-14th, 2022
- Fatigued and Taxed: the strain and expectations facing Asian American and Pacific Islander Medical Professionals. May 25th, 2021.
- Webinar: “Latest News in Limb Loss Medical Research” Joe Bonner, NICHD, NIH (hosted by Amputee Coalition). June 29, 2020.
- Training in Grantsmanship for Rehabilitation Research (TIGRR)
 - Charleston, South Carolina, January 13-17, 2015
- UNLV Faculty Institute – Creative Research Assignments: Looking Beyond the Research Paper
 - UNLV Lied Library, January 8-9, 2018
- International Society of Prosthetics and Orthotics World Congress
 - Kobe, Japan, Oct 5-8, 2019
 - Advanced Instructional Courses attended
 - The collaboration of Prosthetic Design, Fitting, and Training to Maximize Athletic Performance (Robert Gailey)
 - Promoting Life-like Movement Strategies (Robert Gailey)
 - Mobile Technologies, Evidence-based Healthcare and Your Clinical Practice: Demonstrating the Value of Prosthetic Care (Robert Gailey)
 - Structured Training for Adult Users of Hand Prosthesis – Introduction to SIRS-Adult for Patients with any Type of Prosthetic Hand (Liselotte Hermansson)
 - Symposiums attended
 - Stepping Forward: Focusing on Research with the Older Prosthesis User (Matthew Major)
 - Enhancing Patient Specific Outcomes by Improving Amputation Level Decision Making in Patients with Peripheral Artery Disease and/or Diabetes (Joseph Czerniecki)
 - Workshop
 - Gain Mobility after Amputation: New Approaches in Prosthetic Lower Limb Rehabilitation (Ottobock)

Current Teaching Responsibilities in the UNLV Doctor of Physical Therapy program

- Spring:
 - DPT 750 (2 credits) Prosthetics and Orthotics
 - DPT 750L (1 credit) Prosthetics and Orthotics Laboratory

Current Teaching Responsibilities in the UNLV Interdisciplinary Health Science PhD program

- PTS 712 (3 credits) Physiological Bases of Rehabilitation
- HSC 710 (1 credit) Interdisciplinary Health Science Seminar

Graduate & Undergraduate Students Supervised

- **Post-doctoral Scholars**
 - Fu-Lien Wu (current)
 - Yo Shih (2019-2021)
- **PhD Students, Committee Chair**
 - Jay Ciccotelli (2023) Interdisciplinary Health Science – Rehabilitation Science
 - Hui-Ting Shih (2022) Interdisciplinary Health Science – Rehabilitation Science
 - Lauren Dickey (current) Interdisciplinary Health Science – Rehabilitation Science
- **PhD Students, Committee Member**
 - Lucas Gallup (current) Engineering – Mechanical Engineering (co-chairs: O’Toole and Trabia)

- Justin Brink (current; part-time) Engineering – Mechanical Engineering (Chair: Trabia)
- Jeff Montes Kinesiology (2019) – Exercise Physiology (Chair: Navalta)
- Lee-Kuan Chua Kinesiology (2019) – Motor Control and Learning (Chair: Wulf)
- Mathew Sunil Varre (2022) Interdisciplinary Health Science (co-Chairs: Dufek and Trabia)
- Michelle Samuel (2022) Interdisciplinary Health Science (Chair: Young)
- Harjiv Singh (2022) Interdisciplinary Health Science (Chair: Wulf)
- **UNLV Medical School Students, Research Mentor**
 - Thomas Iida (2022-current)
 - Kian Habashi (2022-current)
 - Sabrina Ho (2020-current)
 - Brianna Yee (2019-2022)
- **Doctor of Physical Therapy Students, Professional Career and Academic Advisor**
 - Class of 2014: Molly Newman, Beren Shah, Jordan Sinclair, Elizabeth Willison
 - Class of 2015: Kevin Carr, Shaylyn Kennedy, Erin Oelklaus
 - Class of 2016: Abbay Dow, Ethan Konshuk, Kenshin Scoggin, Erwin Ventura
 - Class of 2017: James Dimascio, Aliitasi Kelemete, Matthew Poggemiller, Ian Tracy
 - Class of 2018: Brooke Conway, Heather Fox, Arnold Huang, Alejandro Preciado
 - Class of 2019: Melissa Damele, Kylie Henry, Zachary Meinzer, Zachary Shaver
 - Class of 2020: Joshua Cooper, Jordon Jacklin, Caitlin Moreland, Rebecca Templeton, Rachel Wood
 - Class of 2021: Laura Nguyen, Tyler Parvin, Ryan Pauly, Vu Pham, Michelle Lee Regis
 - Class of 2022: Robert Lum, Austin Madriaga, Andrew Martinez, Kara Meske
 - Class of 2023: John MacDonald, Mo Maluotoga, Katrina Myers, Linh Nguyen
 - Class of 2024: Trevor Diez, Yinny Lee, Sherlene Lim, and Gianni Terrana
 - Class of 2025: Daniela Casillas, Danna Shaw
- **Doctor of Physical Therapy Students, Research Mentor**
 - Class of 2014: Erin Harrison Jarrett, Beren Shah, Alanna Stockford (co-mentor).
 - Class of 2015: Betina Bair, Mariana Gama, Marissa Matteucci; Stephanie Barton, David Brown, Talia Joyce; Brittany Keating, Jason Pyfer, Kimberly Vialpando (co-mentor).
 - Class of 2016: Elizabeth Billington, Scott Devries, Kenshin Scoggin; Kevin Jeng, Linna Sestini, Rachel Wilde; Javier Ibarra, Derek Oldroyd, Ryan Zane; Kasha Farley, Paul Goodrich, Daniel Johnson (co-mentor); Sarah Crow, Tom Crowther, Trenton Saupan (co-mentor); Ryan Epstein, Ron Garcia, Nicole Riley (co-mentor); Karen Daun, Suzenna Ngo, Alexa Standerfer (co-mentor).
 - Class of 2017: James DiMascio, Rebeka Hicks, Kelsey Snyder, Matthew Kimber; Lauren Andrew, Christian Johnson, Talia Tortomasi; Casey Gray, Matthew Poggemiller, Ian Tracy; Robert Manzanares, Lisa Popsecu (co-mentor).
 - Class of 2018 : Anthony Duong, Vincent Dinglasan, Russell Totten; Heather Fox, Tyler Chin, Juan Gutierrez; Arnold Huang, Ali Ross, Kelsey Taelour, Geneva Winters (co-mentor).
 - Class of 2019 : Greg Amaya, Rosman Gante, Zachary Meinzer, Abbas Sadrossadat; Melissa Damele, Justin Gooder, Rachel Gross, Ron Robina; Michelle Evers, Jessica Kellogg, Kelly McQueary (co-mentor).
 - Class of 2020: Michaela Kubo, Jennifer Gorton, Lindsey Horn, Amanda Ferraro; Samantha Leonard, Elizabeth Trujillo, Stephen Hill (co-mentor).
 - Class of 2021: Cailin Mitchell, Kenneth Repayo, Matthew Tillitt, Collin Weber; Cheuk Wing “Denise” Ng, Samuel Hadley, James Anderson, Catrina Anne Fabian (co-mentor).
 - Class of 2022: Alexander Bonczyk, Maria Katrina Dimapilis, Sarah Patridge, Samantha Ruiz.
 - Class of 2023: Moriah Maluotoga, Roopkiran Thind (Amputee Peer-Support Survey); John MacDonald, Katrina Myers, Phillip Yu (Baseball Swing).

- Class of 2024: Mieko Mamauag, Yinny Lee, Rebeca Armagnac, Alicia Letkiewicz (Motor Learning in People with Diabetes).
- Class of 2025: Harrison Hess, Ryan Orton, Cassandra Davis, Lucy Kim (CPG development), Danna Shaw, JJ Chuang, Jewel Granados, Zoe Castle (Peer-based learning)
- **Graduate Assistant Advisor**
 - 2013: Tyler Peck
 - 2013-2014: James Bokinskie
 - 2014-2015: Ron Garcia
 - 2015-2016: Christian Johnson
 - 2016-current: Hui-Ting Shih
- **Master's Degree Student, Committee Member**
 - Erik Hanson (2013) Kinesiology - Athletic Training
 - Josh Bailey (2014) Kinesiology – Biomechanics
 - Erik Oskarson (2014) Kinesiology – Exercise Physiology
 - Chase Lacombe (2015) Kinesiology – Exercise Physiology
 - Jeff Montes (2015) Kinesiology – Exercise Physiology
 - Austin Coupe (2015) Kinesiology – Biomechanics
 - Kyle Meffered (2015) Kinesiology – Biomechanics
 - Song Vo (2016) Kinesiology – Biomechanics
 - Andrea Woita (2017) Kinesiology - Nutrition Science
 - Grace MacDonald (2018) Kinesiology – Exercise Physiology
 - Kyle Larimer (2018) Kinesiology – Athletic Training (professional paper)
 - Enea Rrokja (2018) Health Physics
 - Mahmoud Yaqoub (2018) Health Physics
 - Ryan Sharp (2018) Health Physics
 - Jon-Paolo D'Este (2018) Kinesiology – Athletic Training (professional paper)
 - Cierra Ugale (2019) Kinesiology – Exercise Physiology
 - Arthur Hockwald (2019) Kinesiology – Motor Control/Learning
 - Collin Guillotte (2020) Kinesiology (professional paper “Far Forward Blood and Donor Performance”)
 - Jacquelyn Sertic (2020) Kinesiology – Motor Control/Learning
 - Ethan Snyder (2021) Mechanical Engineering
 - Hailey Pabst (2021) Kinesiology – Motor Control/Learning
 - Maijah Williams (2023) Kinesiology – Athletic Training (professional paper)
 - Gabriela Guzman Ramirez (current) Kinesiology
 - Christopher Zatezalo (current) Kinesiology
 - Sara Bowker (2021) Kinesiology
- **Undergraduate and Exchange Student Advisor**
 - 2013 Diana Contreras and Delani Denton; Examination of Test Condition Variables on the Test-Retest Reliability of the Timed Up-and -Go Test in Geriatric Population.
 - 2014 Gregory Wingert, Daniel Dinev, and Vladislav Zhitny; Business plan: Dynamend Corporation; 3rd place in the undergraduate level of the 2014 Donald W. Reynolds Governor's Cup Business Plan Competition.
 - 2015 Kyle Kastrop; Academic Exchange Program, College of Engineering, University of Cincinnati
 - 2015 Leonardo Coneglian; Brazil Scientific Mobility Program
 - 2016 Hikari Nagata; International Exchange Program, Department of Rehabilitation, Hiroshima International University

- 2017 Akino Aoki; International Exchange Program, Department of Rehabilitation, Hiroshima International University
- 2020 Taylor Harris (UNLV Kinesiology); Patient Experience and Perception of Peer-Support After Limb Loss: Implications for Post-Amputation Rehabilitation
- 2021 Brianuna Davis (UNLV Kinesiology, McNair Scholar); Visual Attention During Observational Learning of Motor Skills: Implications in Rehabilitation After Amputation
- 2022 Danna Shaw; Visual Attention During Observational Learning of Motor Skills: Implications in Rehabilitation After Amputation.
- 2022 Medina Mcallister (UNLV Kinesiology, McNair Scholar)