

Curriculum Vitae

Name Jarugool (Seemoung) Tretriluxana
Academic Position Associate Professor
Affiliation Faculty of Physical Therapy
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Education

2018 Doctor of Physical Therapy, University of Montana, USA
2008 Doctor of Philosophy (Biokinesiology), University of Southern California (USC), USA
1995 Master of Science (Physiology), Mahidol University, THAILAND
1993 Bachelor of Science (Physiotherapy) with *First Class Honors*
(*Gold medal*), Mahidol University, THAILAND

Supplementary education

2018 Certificate of Executive Development Program (EDP) #17, Mahidol University
2013 Certificate of completion for the intensive course in Transcranial Magnetic Stimulation from the Berenson-Allen Center for Noninvasive Brain Stimulation, Harvard Medical School, USA
2006 Certification of completion for the Transcranial Magnetic Stimulation course from Neuroplasticity and Imaging Laboratory, Division of Biokinesiology and Physical Therapy, USC, USA

Awards

2016 Integrative Innovation Award (Research and Education), Mahidol University, THAILAND
2015 Certificate of a role model being MAHIDOL core value “บุคคลต้นแบบ” ที่มีทัศนคติและพฤติกรรมที่สอดคล้องกับค่านิยมและวัฒนธรรม “มหิดล”, Faculty of Physical Therapy, Mahidol University, THAILAND
2007 Academic Achievement Award, Office of International Services, USC, USA
2007 The Order of the Golden Cane Award, Division of Biokinesiology & Physical Therapy, USC, USA
2004 Jacquelin Perry Scholarship Award (5,000 USD), Division of Biokinesiology & Physical Therapy, USC, USA

Funding

2017-2018 Innovation fund, INNOTECH, Mahidol University, THAILAND
2015-2017 Goal-oriented grant, Faculty of Physical Therapy, Mahidol University, THAILAND
2015-2019 The Royal Golden Jubilee PhD Program grant, Thailand Research Fund, THAILAND
2011-2012 Mahidol University Fund, THAILAND
2010-2013 National Research Council Fund, THAILAND
2009-2011 Thailand Research Fund-Commission of Higher Education Research Grant for New Scholar, THAILAND
2007 California Physical Therapy Fund, USA
1996-1999 Non Government Organization Fund, Physical Therapy Association, THAILAND
1993 Gold Medal Award of Physiotherapy program, Mahidol University, THAILAND

Professional and Social Contribution and International Recognition

October 2019 Invited speaker of panel discussion, “Research and Innovation in Physical Therapy” at the 2nd Health Science International Conferences, Malang, East Java, Indonesia.
September 2019-present Consultant for working committee on tentative standardized criteria of physical therapy infra-structure (คณะกรรมการร่างมาตรฐานวิชาชีพด้านโครงสร้าง สิ่งแวดล้อม อาคารสถานที่) regarding setting up transcranial magnetic stimulator(s).
June 2019 Invited speaker, “Motor Learning for Sport Physical Therapy” at the 9th International Conference on Sports and Exercise Science, Road to Tokyo 2020. THAILAND.
September 2019 AWP-WCPT, Scientific committee, HongKong
June 2017 AWP-WCPT, Scientific committee, THAILAND

October 2017-present	Chair of the International Physical Therapy Research Symposium (IPTRS), hosted by Mahidol University, Chulalongkorn University and Thammasart University
November 2016	Invited speaker at the Nagoya-Yonsai Research Symposium, Nagoya Japan
September 2015	Invited speaker, “Research and Innovation at the Faculty of Physical Therapy, Mahidol University”, Malardalen University, Sweden
May 2015	Invited speaker, “Post-graduate curriculum at the Faculty of Physical Therapy, Mahidol University” at University of Liverpool JohnMoore, UK
August 2013	Invited speaker of a symposium and workshop, “Brain Stimulation from Experimental Study to Clinical Application” at the IBRO-APRC Association School of Neuroscience 2013 & 17 th Thai Neuroscience Society International Conference, Bangkok, THAILAND.
July 2011	Invited speaker of a workshop, “Non-invasive Brain Stimulation: Fundamental Method and Practice” at the 5 th International Convention on Rehabilitation Engineering and Assistive Technology, THAILAND
October 2009-present	External examiner, external expert, external committee, guest lecture Thammasart University, Chulalongkorn University, Khonkan University, Naresuan University, Walailuck University, St. Louis University, Huachiew University THAILAND Invited speaker at the Annual Physical Therapy Conference hosted by the Physical Therapy Association of THAILAND
2009-present	Journal reviewer of Neurorehabilitation & Neural Repair, Topics in Stroke Rehabilitation, Stroke Research and Treatment, Experimental Brain Research, Hong Kong Physiotherapy Journal.

Professional Memberships

2010-present	Member of the Thai Society for Neuroscience, THAILAND.
2005-present	Member of International Society of Motor Control, USA
1996-Present	Member of the Physical Therapy Association of THAILAND
1997-Present	Member of the Physiological Society of THAILAND

Administrative Roles

January 2020-Present	Dean of Faculty of Physical Therapy, Mahidol University
January 2020-Present	Board Committee of Thai Physical Therapy Consortium, THAILAND
January 2020-Present	Board Committee of Thai Physical Therapy Council, THAILAND
January 2020-Present	Education Committee of Thai Physical Therapy Council, THAILAND
January 2021-present	Research Committee of Thai Physical Therapy Council, THAILAND
February 2018-January 2020	Deputy Dean for research and innovation, of Faculty of Physical Therapy, Mahidol University, THAILAND
January 2017-January 2018	Deputy Dean for research, innovation, and plan of Faculty of Physical Therapy, Mahidol University, THAILAND
February 2016 - December 2016	Deputy Dean for research and innovation of Faculty of Physical Therapy, Mahidol University, THAILAND
June 2014-January 2016	Deputy Dean for research affairs and post-graduate studies of Faculty of Physical Therapy, Mahidol University, THAILAND
February 2012-May 2014	Deputy Dean for academic and research affairs of Faculty of Physical Therapy, Mahidol University, THAILAND
November 2008-June 2012	Chair of administrative board of doctoral program in Physical Therapy (international program), Faculty of Physical Therapy and Applied Movement Science, Mahidol University, THAILAND

Research Initiative and Innovation

Assoc. Prof. Dr. Jarugool Tretriluxana, a lead investigator of Motor Control and Neural Plasticity Laboratory, completed series of clinical trials over a decade, continuing from generation to generation. The team have established a body of knowledge on the effects of repetitive Transcranial Magnetic Stimulation and task specific training on the recovery of stroke survivors. We have also begun to include this treatment in our postgraduate programs, ensuring that this new body of knowledge is not isolated to the laboratory. Our group has expanded the innovative treatment into real practice at the Physical Therapy Center and Asian communities very soon. The research is not only helping the stroke patients themselves, but the benefits extend to their care-givers and family, allowing them all to live more normal lives, and to the wider society as well.

Watch at **Tretriluxana J.** Transcranial Magnetic Stimulation: New Intervention to Augment Upper Extremity Training after Stroke. Research Impact by Mahidol World. Published on Feb 27, 2019. <https://www.youtube.com/watch?v=FNVOGqRD2UI&t=33s>.

Research Collaborations and Network

ASEAN Institute for Health Development, Mahidol University, THAILAND

Srinakarinwiroj University, THAILAND
King Mongkut Institute of Technology Ladkrabang, THAILAND
National Taiwan University, Taiwan
National Cheng Kung, Taiwan
The Chinese University of Hong Kong, Hong Kong
Kathmandu University, Nepal
University of Southern California, USA

Publications

1. Aneksan B, Sawatdipan M, Bovonsunthonchai S, **Tretriluxana J**, Vachalathiti R, Auvichayapat P, Anuchai Pheungphrattannatrai A, Piriyaprasarth P, Klomjai W. Five-session dual-transcranial direct current stimulation with task-specific training does not improve gait and lower limb performance over training alone in subacute stroke: a pilot randomized controlled trial. *Neuromodulation*. 2021 Sep 21. DOI: 10.1111/ner.13526.
2. Rungseethanakul S, **Tretriluxana J**, Piriyaprasarth P, Pakaprot N, Jitree K, Tretriluxana S, Danoff JV. Task oriented training activities post stroke will produce measurable alterations in brain plasticity concurrent with skill improvement. *Topics in Stroke Rehabilitation*. 2021; 1-14: DOI: <https://doi.org/10.1080/10749357.2021.1926136>.
3. Adhikari SP, **Tretriluxana J**, Dev R, Eglitis E, Shrestha N, Kerfeld C. FITT-CORRECT: Updated dynamic and evidence-based principle of exercise prescription. *Journal of Novel Physiotherapy Rehabilitation*. 2021; 5: 005-009. DOI: 10.29328/journal.jnpr.1001039.
4. Khobkhun F, Khacharoen S, **Tretriluxana J**, Richards J. The effectiveness of exercise on gait, turning and falls in individuals with Parkinson's disease: A Scoping Review. *International Journal of Pharmaceutical Research*, 2021; 13(2). Published January 31, 2021. DOI: <https://doi.org/10.31838/ijpr/2021.13.02.166>.
5. **Tretriluxana J**, Nanbancha A, Sinsurin K, Limroongreungrat W, Wang HK. Neuromuscular control of the ankle during pre-landing in athletes with chronic ankle instability: Insights from statistical parametric mapping and muscle co-contraction analysis. *Physical Therapy in Sport*, 2021; 47: 46-52.
6. Yan Yan Kwok J, Chan Yue Lai H, **Tretriluxana J**, et al. Symptom burden and unmet support needs of patients with Parkinson's Disease: A cross-sectional study in Asia-pacific regions. *JAMDA*, 2021;22(6):1255-1264 DOI: <https://doi.org/10.1016/j.jamda.2020.09.012>.
7. Thanakamchokchai J, **Tretriluxana J**, Pakaprot N, Pisarnpong A, Fisher BE. Immediate Effects of High-Frequency Repetitive Transcranial Magnetic Stimulation Combined with Task-Specific Training in Individuals with Parkinson's Disease: a Preliminary Study. *ASEAN Journal of Rehabilitation Medicine*, 2020; 30 (3): 114-122.
8. Bovonsunthonchai B, Aung N, Hiengkaew V, **Tretriluxana J**. A randomized controlled trial of motor imagery combined with structured progressive circuit class therapy on gait in stroke survivors. *Scientific Reports* 2020;10 Article number: 6945.
9. Thanakamchokchai J, **Tretriluxana J**, Pakaprot N, Pisarnpong A, Fisher BE. Effects of high-frequency repetitive transcranial magnetic stimulation on reach-to-grasp performance in individuals with Parkinson's disease: a preliminary study. *Experimental Brain Research* 2020. <https://doi.org/10.1007/s00221-020-05843-6>
10. Aung N, Bovonsunthonchai S, Hiengkaew V, **Tretriluxana J**, Rojasavastara R, Pheung-Phrattannatrai A.. Concurrent validity and intratester reliability of the videobased system for measuring gait post stroke. *Physiotherapy Research International* 2020 Jan;25(1):e1803 doi: 10.1002/pri.1803.
11. Runnarong N, **Tretriluxana J**, Waiyasil W, Sittisupong P, Tretriluxana S (2019) Age-related changes in reach-to-grasp movements with partial visual occlusion. *PLoS ONE* 14(8): e0221320.<https://doi.org/10.1371/journal.pone.0221320>.
12. Nanbancha A, **Tretriluxana J**, Limroongreungrat W, Sinsurin K. Decreased Supraspinal Control and Neuromuscular Function Controlling the Ankle Joint among Athletes with Chronic Ankle Instability. *European Journal of Applied Physiology* 2019; 119:2041–2052. DOI: 10.1007/s00421-019-04191-w
13. Wattananon P, Silfies SP, **Tretriluxana J**, Jalayondeja W. Lumbar Multifidus and Erector Spinae Muscle Synergies in Patients with Nonspecific Low Back Pain During Prone Hip Extension: A Cross-sectional Study. *Physical Medicine and Rehabilitation*. 2019; 1-9. DOI: 10.1002/pmrj.12002.
14. Runnarong N, **Tretriluxana J**, Chookhaw K, Chotpinit T, Khongphun R. Comparison of Reach-to-grasp Coordination during Obstacle Avoidance between Older and Younger Adults. *Thai Journal of Physical Therapy* 2019; 41(1): 30-41
15. Runnarong N, **Tretriluxana J**, Seevorarit P, Chatchaipornkul N, Narutook S, Tretriluxana S, Panichareon B. Association between Reach-to-Grasp Coordination and Manual Dexterity in Healthy Adults. *Siriraj Medical Journal* 2019; 71: (Suppl 1): S45-S49.
16. **Tretriluxana J**, Thanakamchokchai J, Jalayondeja J, Pakaprot N and, Tretriluxana S. The Persisted Effects of Low-Frequency Repetitive Transcranial Magnetic Stimulation to Augment Task-specific Induced Hand Recovery following Subacute Stroke:

17. Adhikari SP, **Tretriluxana J**, Chaiyawat P, and Jalayondeja C. Enhanced Upper Extremity Functions with a Single Session of Action-Observation-Execution and Accelerated Skill Acquisition Program in Subacute Stroke. *Stroke Research and Treatment* Volume 2018, Article ID 1490692, 14 pages <https://doi.org/10.1155/2018/1490692>.
18. Moe TT, Jalayondeja C, Pichaiyongwongdee S, **Tretriluxana J**, Hiengchew V. Oxygen Consumption of 30 Task-oriented Exercise for Walking Training in Stroke. *Journal of the Medical Association Thailand* 2018; 101 (9):1255-62.
19. Adhikari SP, **Tretriluxana J**, Chaiyawat. Reliability and Validity of the Nepali Wolf Motor Function Test following Cross-cultural Adaptation. *Kathmandu University Medical Journal* 2016; 53(1): 3-8.
20. Sonthikul C, Bovonsunthonchai S, **Tretriluxana J**, Bunprajan T. Improvement of Symmetrical Gait Index in People with Chronic Stroke. *Naresuan University Journal: Science and Technology* 2016; 24(2): 43-51.
21. Tretriluxana S and **Tretriluxana J**. Differential effects of feedback in the virtual reality environment for arm rehabilitation after stroke, *IEEE*, 2015, DOI:[10.1109/BMECON.2015.7399562](https://doi.org/10.1109/BMECON.2015.7399562),
<http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=7399562&queryText=differential%20effect%20of%20feedback&newsearch=true>
22. **Tretriluxana J**, Kantak S, Tretriluxana S, Wu A, Fisher B., Improvement in Paretic Arm Reach-to-grasp following Low Frequency Repetitive Transcranial Magnetic Stimulation Depends on Object Size: a Pilot Study, *Stroke Research and Treatment* 2015; Article ID 498169,13 pages <http://dx.doi.org/10.1155/2015/498169>
23. **Tretriluxana J**, Taptong J, Chaiyawat P. Dyad Training Protocol on Learning of Bimanual Cup Stacking in Individuals with Stroke: Effects of Observation Duration, *Journal of the Medical Association of Thailand* 2015; 98: S106-S112.
24. Khacharoen S, **Tretriluxana J**, Chaiyawat P, Apichart Pisarnpong, Impaired Reach-To-Grasp Actions during Barrier Avoidance in Individuals with Parkinson, *Journal of the Medical Association of Thailand*, 2015; 98(9):889-895.
25. Thanakamchokchai J, **Tretriluxana J**, Jalayondeja C, and Pakaprot N. Immediate effects of low-frequency repetitive transcranial magnetic stimulation to augment task specific training in subacute stroke, *KKU Research Journal*: 20(1), January-March, 2015; 20(1) : 89-100
26. **Tretriluxana J**, Khacharoen S, Hiengkaew V, Prayoonwiwat N. Learning of the bimanual cup stacking task in individuals with chronic stroke improved with dyad training protocol. *Journal of the Medical Association of Thailand*, 2014; 97: S39-S44.
27. Vongvaivanichakul P, **Tretriluxana J**, Bovonsunthonchai S, Pakaprot N, Laksanakorn W. Reach-to-grasp training in individuals with chronic stroke augmented by low-frequency repetitive transcranial magnetic stimulation. *Journal of the Medical Association of Thailand*, 2014 (97): S45-S49.
28. Runnarong N, **Tretriluxana J**, Hiengkaew V, and Vachalathiti R. Reach-to-grasp coordination in the paretic limbs of individuals with stroke: insight from a barrier paradigm. *Journal of the Medical Association of Thailand*, 2014 (97): S84-S88.
29. Phartkaruna T, Pichaiyongwongdee S, **Tretriluxana J**, and Vachalathiti. Influences of age and light touch on the preparation for protective stepping reactions, *Journal of the Medical Association of Thailand*, 2014 (97): S33-S38.
30. **Tretriluxana J**, Runnarong N, Tretriluxana S, Prayoonwiwat N, Vachalathiti R, Winstein C., Feasibility investigation of the Accelerated Skill Acquisition Program (ASAP): insights into reach-to-grasp coordination of individuals with post-acute stroke. *Topics in Stroke Rehabilitation*, 2013; 20(2):151-160.
31. **Tretriluxana J**, Kantak S, Tretriluxana S, Wu A, Fisher B., Low frequency repetitive transcranial magnetic stimulation to the non-lesioned hemisphere improves paretic arm reach-to-grasp performance after chronic stroke. *Disability and Rehabilitation: Assistive Technology*, 2013; 8(2): 121-124.
32. Bovonsunthonchai S, Hiengkaew V, Vachalathiti R, Vongsirinavarat M, **Tretriluxana J**, Effect of speed on the upper and contralateral lower limb coordination during gait in individuals with stroke. *Kaohsiung Journal of Medical Science*. 2012 Dec; 28(12):667-72.
33. Tan C, **Tretriluxana J**, Pitsch E, Runnarong N, Winstein, CJ., Anticipatory planning of functional reach-to-grasp: a pilot study. *Neurorehabilitation and Neural Repair* 2012, 26: 957-967.
34. **Tretriluxana J**, Gordon J, Fisher BE, and Winstein CJ., Hemisphere specific impairments in reach-to-grasp control after stroke: effects of object size. *Neurorehabilitation and Neural Repair* 2009, 23 (7): 679-691.
35. **Tretriluxana J**, Gordon J, and Winstein CJ., Manual asymmetries in grasp pre-shaping and transport-grasp coordination, *Experimental Brain Research* 2008, 188(2): 305-315.
36. **Seemoung J**, et al., Changes in Sympathetic Tone Associated with Acupressure in Healthy Subjects, *Thai Journal of Physical Therapy*; 19(2), 1997: 112-121.
37. Krishnamra, N., **Seemoung J**, Limlomwongse, L. Acute effect of prolactin on bone ⁴⁵Ca accumulation in rats. *Endocrine J* 1997; 44: 257-264
38. Krishnamra, N., **Seemoung J**. Effects of acute and long term administration of prolactin on bone ⁴⁵Ca uptake, calcium deposit and calcium resorption in weaned, young and mature rats. *Can J Physiol Pharmacol* 1996; 74: 1157-1165.

Textbook and book chapter

1. จารุกูล สีม่วง การควบคุมการเคลื่อนไหว. ใน: วิมลวรรณ ชีวีวัฒน์ (บรรณาธิการ). อัมพาตครึ่งซีก หลักการรักษาทางคลินิกกายภาพบำบัด. โรงเรียนกายภาพบำบัด คณะแพทยศาสตร์ศิริราชพยาบาล มหาวิทยาลัยมหิดล. 2539; 8-12.