

## Curriculum Vitae:



**Name:** Dr.Orawan Prasartwuth

**Gender:** Female

**Academic Position:** Associate Professor

**Qualification:** PhD (Biomedical Sciences), The University of Sydney, Australia  
MPhty (Research), The University of Queensland, Brisbane, Australia  
BSc (Physical Therapy), Chiang Mai University, Thailand

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### **Education:**

2001 – 2006 Doctor of Philosophy in Biomedical Science, The University of Sydney, Australia  
1994 – 1997 Master of Physiotherapy by research, The University of Queensland, Brisbane, Australia  
1984 – 1988 Bachelor of Sciences in Physical Therapy, Chiang Mai University, Chiang Mai, Thailand

### **Working Experience:**

1989-now Lecturer  
2011-now Head of Department

**Research of Interest:** Fatigue: Central or neural (supraspinal and spinal) and muscular contributions  
Eccentric exercise: force deficit, delayed onset muscle soreness (DOMS)  
Repeated bout (protective effect), tendon adaptation (stiffness)

### **Area of Interest:**

Electromyographic (EMG) activity  
Single motor unit recording  
Magnetic stimulation (Motor cortex stimulation)  
Voluntary activation (Motor nerve stimulation)  
Eccentric exercise  
Hip protector in elderly  
Running

## **Research Grants:**

### ***Principle Investigator:***

- 2012-2013                    Associated Medical Sciences Research Fund  
Collaborating research with Prof Ian Cameron and Dr Wei Yu, University of Sydney,  
Australia  
Budget Grant 45,000 THB
- 2009-2011                    Thailand Research Fund and Ministry of University Affairs Grant  
Collaborating research with Prof Kemal Turker, School of Medicine, KOC University,  
Turkey  
Budget Grant 480,000 THB
- 2009-2010                    Associated Medical Sciences Faculty Research Grant  
Collaborating research with Assist Prof Suchart Gotan, Department of Radiologic  
Technology, Chiang Mai University Thailand.  
Budget Grant 57,200 THB
- 2008-2009                    Sport Authority of Thailand Grant.  
Budget Grant 300,000 THB
- 2006-2008                    Thailand Research Fund and Ministry of University Affairs Grant  
Collaborating research with Prof Kemal Turker, Ege University, Turkey  
Budget Grant 480,000 THB
- 2007-2008                    Biomedical Engineering Program Grant, Faculty of Engineering, Chiang Mai University.  
Budget Grant 100,000 THB
- 2006-2007                    Biomedical Engineering Program Grant, Faculty of Engineering, Chiang Mai University  
Budget Grant 100,000 THB
- 1998-1999                    Supporting New Researcher Fund, Chiang Mai University  
Budget Grant 25,000 THB

### ***Co-investigator:***

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## **Awards:**

- Scholarship from the Ministry of University Affairs of Thailand, 2008-2011 (Applied by teacher for PhD student)
- Scholarship from the Ministry of University Affairs of Thailand, 2002 -2005
- Scholarship from Chiang Mai University, 2001 - 2002
- Scholarship from the Australian Agency for International Development (AusAid), 1994 – 1997.
- Best Oral Presentation Awards at International Scientific Congress: 1st Asian Indoor Games; October 17-19, 2005; Bangkok, Thailand
- Best Oral Presentation Awards by student in early stages of degree at Research Student; Conference 2003, School of Biomedical Sciences, The University of Sydney. June 11, 2003; Australia

## **Professional Membership:**

The Physical Therapy Association of Thailand

## Latest Publications:

### Peer-Reviewed Journal:

1. สุภาพร วรรณมณี และ อรวรรณ ประศาสน์วุฒิ (2562) ผลของการออกกำลังกายเสริมความมั่นคงของข้อไหล่ต่อช่วงการเคลื่อนไหวในผู้ป่วยถุงหุ้มข้อไหล่ยึดติด วารสารกายภาพบำบัด 41 (3): 112-128. **TCI**
2. **Orawan Prasartwuth**, Roongtip Suteebut, Jitapa Chawawisuttikool, Utku S Yavuz and Kemal S Turker (2019) Using first bout effect to study the mechanisms underlying eccentric exercise induced force loss. **Journal of Bodywork and Movement Therapies** 23(1): 48-53. **Q2, IF 1.120** <https://doi.org/10.1016/j.jbmt.2017.11.008>
3. Monchuleeporn Viriyawattanukul, Patima Silsupadol, Wei Shin Yu, and **Orawan Prasartwuth** (2558) Effectiveness of Hornsby Healthy Hip Pants on Hip Fracture Prevention from Falls in the Elders Living in Institution. วารสารเทคนิคการแพทย์และกายภาพบำบัด คณะเทคนิคการแพทย์ มหาวิทยาลัยขอนแก่น 27 (3) : 287-297. **TCI**
4. Sutima Thibordee, **Orawan Prasartwuth** (2014) Effectiveness of roundhouse kick in elite Taekwondo athletes. **Journal of Electromyography and Kinesiology**. 24:353-358. **Q2, IF 1.740**
5. Sutima Thibordee, **Orawan Prasartwuth** (2014) Factors influencing the impact force of the Taekwondo Roundhouse Kick. **Chiang Mai University Journal of Natural Sciences**. 13(1):51-56. **TCI**
6. Erdal Binboga, **Orawan Prasartwuth**, Murat Pehlivan, and Kemal Türker (2011) Responses of human soleus motor units to low threshold stimulation of the tibial nerve. **Experimental Brain Research**. 213:73-86. **Q3, IF 2.395**
7. Roongtip Suteebut, Suchart Kothan, **Orawan Prasartwuth** (2011) Effect of eccentric muscle training on achilles tendon adaptation of healthy persons. **Thai Journal of Physical Therapy**. 33(1):17-31. **TCI**
8. **Prasartwuth O**, Binboga E, Turker KS (2008). A study of synaptic connection between low threshold afferent fibres in common peroneal nerve and motoneurons in human tibialis anterior, **Experimental Brain Research**. 191 (4), 465-472. **Q3, IF 2.395**
9. Allen TJ, Butler JE, Gandevia SC, **Prasartwuth O** and Taylor JL (2006). Muscle damage and exercise: does the brain contribute to muscle weakness? **Physiology News**. 64, 21-22.
10. **Prasartwuth O**, Allen TJ, Butler JE, Gandevia SC, Taylor JL (2006). Length-dependent changes in voluntary activation, maximal voluntary torque and twitch responses after eccentric damage in humans, **Journal of Physiology**. 571: 243-252. **Q1, IF 4.547**

11. **Prasartwuth O**, Taylor JL, Gandevia SC (2005). Maximal force, voluntary activation and muscle soreness after eccentric damage to human elbow flexor muscles, **Journal of Physiology**. 567: 337-348. **Q1, IF 4.547**

**Conferences Presentation:**

- Oct, 2010 The Annual meeting of the Thailand Research Fund (TRF) 10<sup>th</sup>, Petchaburi, Thailand  
Sep, 2010 Ministry of University Affairs (MUA), Chonburi, Thailand  
Sep, 2010 Sports Authority Thailand (SAT), Bangkok, Thailand  
Oct, 2008 The Annual meeting of the Thailand Research Fund (TRF) 8<sup>th</sup>, Petchaburi, Thailand  
Dec, 2007 Educational research Exchange Joint Symposium, Chiangmai, Thailand  
Oct, 2007 The Annual meeting of the Thailand Research Fund (TRF) 7<sup>th</sup>, Chonburi, Thailand  
Oct, 2005 1<sup>st</sup> Asian indoor games scientific congress, Bangkok, Thailand  
Oct, 2004 Neuroscience conference, San Diego, United States  
Oct, 2004 From Cell to Society 4: Fourth College of Health Sciences Research Conference, The University of Sydney, Australia  
Feb, 2003 The 24th Annual Meeting of the Australian Neuroscience Society, Melbourne, Australia  
Nov, 2002 Fourth Australasian Biomechanics Conference, La Trobe University, Melbourne, Australia  
Sep, 2002 From Cell to Society 3: The Medical Foundation and The College of Health Sciences, The University of Sydney, Australia

**บทความใน proceeding conferences:**

1. สุภาพร วรรณมณี และ อรวรรณ ประศาสน์วุฒิ (2562) ประสิทธิภาพของการออกกำลังกายเสริมความมั่นคงของข้อไหล่ในผู้ป่วยถุงหุ้มข้อไหล่ยึดติด ในการประชุมวิชาการระดับชาติ ประจำปี 2560 (ครั้งที่ 1) ของสำนักวิชาการวิทยาศาสตร์สุขภาพ มหาวิทยาลัยแม่ฟ้าหลวง 7-8 ธันวาคม 2560 ([รางวัลการนำเสนอผลงานวิจัยดีเด่น](#))
2. Viriyawattanukul M, Silsupadol P, Yu WS and **Prasartwuth O** (2014) Does wearing hip protectors increase awareness of falls and lead to decreased falls?. 9<sup>th</sup> Pan-Pacific conference on Rehabilitation cum 21<sup>st</sup> Annual Congress of Gerontology, Hong Kong, 29-30 November (Abstract Number: A1044), Page 31.
3. **Prasartwuth O**, Suteebut R, Chawawisuttikool S, Mankhetkorn S, Nosaka, K (2010) Adaptations in Repeated Bout Effect of Three Sub-maximal Eccentric Damaging Exercise. Annual Academic Meeting, Faculty of Associated Medical Sciences, Chiang Mai University. 30 November - 3 December, Page 343.
4. **Prasartwuth O**, Suteebut R, Chawawisuttikool S, Mankhetkorn S, Nosaka, K (2010) Effect of Three Submaximal Loads of First Eccentric Exercise Bout on Neural and Muscular Adaptations in Repeated Bout Effect. The Annual meeting of the Thailand Research Fund (TRF) 10<sup>th</sup>, Petchaburi, Thailand, 14-16 October, Page 232.
5. Sutima Thibordee and **Orawan Prasartwuth** (2010) Low versus high impact force during roundhouse kick in black-belt Thai Taekwondo players: Electromyography and kinematic analysis. The Annual meeting of Commission of Higher Education (CHE) 3<sup>rd</sup>, Chonburi, Thailand, 9-11 September, Page 192

6. สุตติมา ธิปดี และ **อรวรรณ ประศาสน์วุฒิ** (2553) การเปรียบเทียบการตะมโนท่าร่วมด้วยแรงในระดับสูงและระดับต่ำ ใน นักกีฬาเทควันโด: การวิเคราะห์คลื่นสัญญาณไฟฟ้าของกล้ามเนื้อและจลนศาสตร์ การประชุมการนำเสนอผลงานวิจัยด้าน วิทยาศาสตร์การกีฬา วันที่ 2-4 กันยายน 2553 หน้า 48-49.
7. รุ่งทิพย์ สุทธิบุตร, สุชาติ โกทนต์, **อรวรรณ ประศาสน์วุฒิ** (2553) ผลการฝึกกล้ามเนื้อแบบยืดยาวออกต่อการปรับตัวของเอ็น กล้ามเนื้อร้อยหวายของคนสุขภาพดี การประชุมการนำเสนอผลงานวิจัยด้านวิทยาศาสตร์การกีฬา วันที่ 2-4 กันยายน 2553 หน้า 50-51. (**รางวัลการนำเสนอผลงานวิจัยดีเด่น**)
8. Binboga E, Yavuz SU, **Prasartwuth O**, Sendemir-Urkmez SA, Turker KS (2008). The effect of sensory inputs on the motoneuron activity in human soleus muscle. Mersin University Health Sciences Journal, Special Issue (S-21), Page 21.
9. **Prasartwuth O**, Binboga E, Turker KS (2008). ). A novel study to estimate synaptic connection between low threshold fibres in nerves and human motoneurons. The Annual meeting of the Thailand Research Fund (TRF) 8th, Petchaburi, Thailand, 16-18 October, Page 79.
10. Binboga E, Yavuz SU, **Prasartwuth O**, Sendemir-Urkmez SA, Turker KS (2008). Investigation of human soleus motoneuron synaptic potentials triggered by muscle spindle Ia afferents, Neuroanatomy 7; Suppl 1 Page 7-8.
11. **Prasartwuth O** and Neam-in Hudsaleark (2007). Invention Sample and Hold Amplifier (SHA) for evaluating the activation failure of nervous system. Educational Research Exchange Joint Symposium, Chiang Mai University, Thailand, 13-14 December, Page 15.
12. **Prasartwuth O** and Turker KS (2007). A novel study to estimate synaptic connection between low threshold fibres in nerves and human motoneurons. The Annual meeting of the Thailand Research Fund (TRF) 7th, Chonburi, Thailand, 11-13 October, Page 341.
13. **Prasartwuth O**, Taylor JL, Gandevia SC (2005). Changes in maximal voluntary torque, voluntary activation and twitch properties after eccentric exercise. The Challenging Role of Sports Science for Better Sports Performance. Asia Hotel, Bangkok, Thailand, 17-19 October, Page 48. (**Best oral presentation Award**)
14. **Prasartwuth O**, Taylor JL, Gandevia SC (2004). Voluntary torque-angle and the resting twitch-angle relationship following eccentric exercise. Fourth College of Health Sciences Research Conference 2004 "From Cell to Society 4", The College of Health Sciences, The University of Sydney, Fairmont Resort, Leura, Australia, 27 - 28 October, Page 4-4.
15. **Prasartwuth O**, Taylor JL, Gandevia SC (2004). Time course of changes in maximal torque, voluntary activation and twitch properties during delayed onset muscle soreness, Neuroscience 2004, San Diego, United States, 23 - 27 October, Page 354.
16. **Prasartwuth O**, Taylor JL, Gandevia SC (2003). Voluntary activation after eccentric exercise. , Proceedings of the Australian Neuroscience Society 24th Annual Meeting, vol 15. ANS, Melbourne, Australia, 30 January - 3 February, Page 179.
17. **Prasartwuth O**, Cathers I, Gwin T, Balnave R (2002). Motor unit activation in concentric and eccentric muscle contractions after fatiguing exercise. , Proceedings of the Fourth Australasian Biomechanics Conference ABC4. La Trobe University, Melbourne, Australia, 28 - 30 November, Page 95.
18. **Prasartwuth O**, Cathers I, Gwin T, Balnave R (2002). Comparison of motor unit activation in concentric and eccentric muscle contractions in biceps brachii after fatiguing exercise, Third Research Conference 2002 "From Cell to Society 3" The Medical Foundation and The College of Health Sciences, The University of Sydney, Fairmont Resort, Leura, Australia, 18 - 19 September, Page 20-5.