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Department of Physical Therapy,
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Education:

Ph.D. (Exercise Science) Mahidol University, Thailand (2007 – 2011)

M.S. (Exercise Physiology) Mahidol University, Thailand (2004 – 2006)

B.S. (Physical Therapy) Mahidol University, Thailand (2000 – 2003)

Research of interest:

Cardiopulmonary physical therapy, cardiopulmonary rehabilitation in critically ill and solid organ transplantation patients, exercise in non-communicable diseases (NCD), rehabilitation in post-COVID-19

Research of interest and ongoing research:

1. Rehabilitation in post COVID-19 patients in the community.
2. The combined effect of inspiratory muscle training and early mobilization program on mechanical ventilation weaning in critically ill patients.
3. Rehabilitation in liver transplant patients.
4. Respiratory muscle ultrasound and electromyography

Publications:

1. Rerkasem, A, Nantakool, S, Kulprachakarn, K, Rojawat, C, Ounjaijean, S, Pongtam, S, **Prasannarong, M**, ... Rerkasem, K. The Effect of Standard Compression Adjuvant with a Tailored Exercise Training Program on Health-Related Quality of Life Outcomes in Treating Adults with Venous Leg Ulcer: A Randomized Controlled Trial. *Int J Low Extrem Wounds*. 2026;25(1):65-73. doi: 10.1177/15347346231172566. (IF=1.5)
2. Mekkhayai, N, Leelarungrayub, J, Konghakote, S, Kanthain, R, Wonglangka, K, Junrungsee, S, **Prasannarong, M**. Effects of Short-Term Structural Exercise on Cardiopulmonary Function, Quality of Life, and Oxidative Status in Liver Transplant Recipients: A Case Series. *J Funct Morphol Kinesiol* 2025;10:313. (IF=2.5)
3. Sittichai N, Parasin N, Saokaew S, Kanchanasurakit S, Kayod N, Praikaew K, ... **Prasannarong M**. Effects of physical activity on the severity of illness and mortality in COVID-19 patients: A systematic review and meta-analysis. *Front Physiol* 2022;13. (IF=4.755)
4. Nantakool S, Reanpang T, **Prasannarong M**, Pongtam S, Rerkasem K. Upper limb exercise for arteriovenous fistula maturation in people requiring permanent haemodialysis access. *Cochrane Database Syst Rev* 2022;2022(10). (IF=12.008)
5. Kulprachakarn K, Nantakool S, Rojawat C, Ounjaijean S, Pongtam S, **Prasannarong M**, et al. Effectiveness of combined conventional treatment with a tailored exercise training program on wound healing in patients with venous leg ulcer: A randomized controlled trial. *J Tissue Viability* 2022;31(1):190-196. (IF=3.374)
6. Nantakool S, Srisuwan T, Reanpang T, Rerkasem K, **Prasannarong M**. A randomized controlled trial of the effect of postoperative hand exercise training on arteriovenous fistula maturation in patients with chronic kidney disease. *J Vasc Surg* 2022;75(1):230-237. (IF=4.860)
7. Nantakool S, **Prasannarong M**, Srisuwan T, Reanpang T, Apichartpiyakul P, Rerkasem K. Agreement between physical and ultrasound examination for arteriovenous fistula maturation diagnostics in Thai hemodialysis patients. *J Vasc Access* 2022;23(1):123-127. (IF=2.326)
8. Thammata A, Worraphan S, Chittawatanarat K, Juntaping K, **Prasannarong M**. Impact of inspiratory muscle training and early mobilization program during the

peri-weaning period on body composition in critically ill surgical patients: A pilot randomized controlled trial. *J Assoc Med Sci.* 2021;54(1):57-65.

9. **Prasannarong M**, Worraphan S, Thammata A, Chittawatanarat K, Saokaew S, Kengkla K. Response to the Letter to the Editor. *Arch Phys Med Rehabil* 2021;102(3):557-558.
10. Worraphan S, Thammata A, Chittawatanarat K, Saokaew S, Kengkla K, **Prasannarong M**. Effects of Inspiratory Muscle Training and Early Mobilization on Weaning of Mechanical Ventilation: A Systematic Review and Network Meta-analysis. *Arch Phys Med Rehabil* 2020;101(11):2002-2014.
11. Nantakool S, Rerkasem K, Reanpang T, Worraphan S, **Prasannarong M**. A systematic review with meta-analysis of the effects of arm exercise training programs on arteriovenous fistula maturation among people with chronic kidney disease. *Hemodial Int* 2020;24(4):439-453. (IF=1.812)
12. **Prasannarong M**, Saengsirisuwan V, Surapongchai J, Buniam J, Chukijrungsat N, Rattanavichit Y. Rosmarinic acid improves hypertension and skeletal muscle glucose transport in angiotensin II-treated rats. *BMC Complement Altern Med* 2019;19(1). (IF=2.833)
13. Reanpang T, **Prasannarong M**, Pongtam S, Murray ST, Rerkasem K. Upper limb exercise for people on haemodialysis following arteriovenous fistula surgery. *Cochrane Database Syst Rev* 2019;2019(5). (IF=7.890)
14. Yanola J, Nachaiwieng W, Duangmano S, **Prasannarong M**, Somboon P, Pornprasert S. Current prevalence of intestinal parasitic infections and their impact on hematological and nutritional status among Karen hill tribe children in Omkoi District, Chiang Mai Province, Thailand. *Acta Trop.* 2018;180:1-6. (IF=2.218)
15. Surapongchai J, **Prasannarong M**, Bupha-Intr T, Saengsirisuwan V. Angiotensin II induces differential insulin action in rat skeletal muscle. *J Endocrinol.* 2017;232(3):547-60. (IF=4.706)
16. Pornprasert S, Wanachantararak P, Kantawong F, Chamnanprai S, Kongpan C, Pienthai N, Yanola J, Duangmano S, **Prasannarong M**. Excessive fluoride consumption increases haematological alteration in subjects with iron deficiency, thalassaemia, and glucose-6-phosphate dehydrogenase (G-6-PD) deficiency. *Environ Geochem Health.* 2017;39(4):751-8. (IF=2.616)

17. Leelarungrayub J, Eungpinichpong W, Klaphajone J, **Prasannarong M**, Boontha K. Effects of manual percussion during postural drainage on lung volumes and metabolic status in healthy subjects. *J Bodyw Mov Ther.* 2016;20(2):356-63.
18. **Prasannarong M**, Santos FR, Hooshmand P, Hooshmand P, Giovannini FJ, Henriksen EJ. The lipid peroxidation end-product and oxidant 4-hydroxynonenal induces insulin resistance in rat slow-twitch skeletal muscle. *Arch Physiol Biochem.* 2014;120(1):22-8.
19. Demarco VG, Ford DA, Henriksen EJ, Aroor AR, Johnson MS, Habibi J, Ma L, Yang M, Albert CJ, Lally JW, Ford CA, **Prasannarong M**, Hayden MR, Whaley-Connell AT, Sowers JR. Obesity-Related Alterations in Cardiac Lipid Profile and Nondipping Blood Pressure Pattern during Transition to Diastolic Dysfunction in Male db/db Mice. *Endocrinology.* 2013;154(1):159-71. (IF=4.286)
20. **Prasannarong M**, Santos FR, Henriksen EJ. ANG-(1-7) reduces ANG II-induced insulin resistance by enhancing Akt phosphorylation via a Mas receptor-dependent mechanism in rat skeletal muscle. *Biochem Biophys Res Commun.* 2012 Sep 28;426(3):369-73. (IF=2.406)
21. Henriksen EJ, **Prasannarong M**. The Role of the Renin-Angiotensin System in the Development of Insulin Resistance in Skeletal Muscle. *Mol Cell Endocrinol.* 2012;426(3):369-73. (IF=4.08)
22. **Prasannarong M**, Vichaiwong K, Saengsirisuwan V. Calorie restriction prevents the development of insulin resistance and impaired insulin signaling in skeletal muscle of ovariectomized rats. *Biochim Biophys Acta.* 2012;1822(6):1051-61. (IF=5.476)
23. **Prasannarong M**, Saengsirisuwan V, Piyachaturawat P, Suksamrarn A. Improvements of insulin resistance in ovariectomized rats by a novel phytoestrogen from *Curcuma comosa* Roxb. *BMC Complement Altern Med.* 2012;12(1):28. (IF=2.082)
24. Santos FR, Diamond-Stanic MK, **Prasannarong M**, Henriksen EJ. Contribution of the serine kinase c-Jun N-terminal kinase (JNK) to oxidant-induced insulin resistance in isolated rat skeletal muscle. *Arch Physiol Biochem.* 2012;118(5):231-6.
25. Marchionne EM, Diamond-Stanic MK, **Prasonnarong M**, Henriksen EJ. Chronic renin inhibition with aliskiren improves glucose tolerance, insulin sensitivity, and

- skeletal muscle glucose transport activity in obese Zucker rats. *Am J Physiol Regul Integr Comp Physiol.* 2012;302(1):R137-42. (IF=3.284)
26. Intapad S, Saengsirisuwan V, **Prasannarong M**, Chuncharunee A, Suvitayawat W, Chokchaisiri R, et al. Long-term effect of phytoestrogens from *Curcuma comosa* Roxb. on vascular relaxation in ovariectomized rats. *J Agric Food Chem* 2012;60(3):758-64. (IF=3.46)
 27. Vichaiwong K, Henriksen EJ, Toskulkao C, **Prasannarong M**, Bupha-Intr T, Saengsirisuwan V. Attenuation of oxidant-induced muscle insulin resistance and p38 MAPK by exercise training. *Free Radic Biol Med* 2009;47(5):593-9. (IF=5.606)
 28. Saengsirisuwan V, Pongseeda S, **Prasannarong M**, Vichaiwong K, Toskulkao C. Modulation of insulin resistance in ovariectomized rats by endurance exercise training and estrogen replacement. *Metabolism Clinical and Experimental* 2009;58:38-47. (IF=2.89)

Abstracts and presentations:

1. **Prasannarong M**, Leelarungrayub J, Mekkhayai N, Konghakote S, Kanthain R, Wonglangka K. Effects of rehabilitation program with specific structural exercise on physical strength and quality of life in liver transplant patients: Small-n experimental research design. The 11th International Physical Therapy Research Symposium (IPRTS), Mahidol University, 2025, Nakhon Pathom, Thailand.
2. Praikeaw K, Kayod N, **Prasannarong M**. The effects of physical activity on mortality and severity in COVID-19. AMS academic day, 2022, Chiang Mai, Thailand.
3. Charoenmuang G, Intana A, **Prasannarong M**. A systematic review and meta-analysis of reference values of maximal respiratory pressure in healthy adults. AMS academic day, 2021, Chiang Mai, Thailand.
4. **Prasannarong M**, King-ngam J, Thongduang1 K, Kerdthong D. Heart rate variability and cardiometabolic parameters in hypertensive untrained and exercise-trained old-age women: a case report. AMS-CMU Annual Conference, 2014, Chiang Mai, Thailand.
5. **Prasannarong M**, Piyachaturawat P, Saengsirisuwan V. Calorie restriction prevents the development of insulin resistance and impaired insulin signaling in

skeletal muscle of ovariectomized rats. The 41st Physiological Society of Thailand Annual Meeting, 2012, Bangkok, Thailand.

6. **Prasannarong M**, Santos FR, Henriksen EJ. ANG (1-7) attenuates ANG II-induced insulin resistance in rat skeletal muscle *in vitro*. The Arizona Physiological Society, 2011, Arizona, USA.
7. **Prasannarong M**, Santos FR, Henriksen EJ. ANG (1-7) attenuates ANG II-induced insulin resistance by inducing Akt phosphorylation via a Mas receptor-dependent mechanism in rat skeletal muscle *in vitro*. The Frontiers in Biomedical Research Poster Forum, 2011, Arizona, USA.
8. **Prasannarong M**, Vichaiwong K, Saengsirisuwan V. Weight control diminishes progression of insulin resistance due to estrogen-deprived condition. The 71st Scientific Sessions, American Diabetes Association, 2011, California, USA.
9. **Prasannarong M**, Piyachaturawat P, Saengsirisuwan V. *Curcuma comosa* Roxb. improves insulin-stimulated glucose transport and decreases body weight in ovariectomized rats. 36th Physiological Society of Thailand Annual Meeting, 2007, Ayutthaya, Thailand