

CURRICULUM VITAE

Assist. Prof. Busaba Chuatrakoon, PhD., P.T.



PERSONAL INFORMATION

Present position: Assistant Professor and Deputy Head of Research and Innovation,
Department of Physical Therapy, Faculty of Associated Medical Sciences,
Chiang Mai University

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ACADEMIC QUALIFICATIONS

2020 Doctor of Philosophy in Biomedical Science (International program),
Chiang Mai University, Thailand.

2011 Master of Sport Science, Chiang Mai University, Thailand.

2004 Bachelor of Science in Physical Therapy, Chiang Mai University,
Thailand.

POSITIONS AND APPOINTMENTS

2024- present Assistant Professor and Deputy Head of Research and Innovation,
Department of Physical Therapy, Faculty of Associated Medical Science,
Chiang Mai University, Thailand.

2021-2024 Lecturer, Department of Physical Therapy, Faculty of Associated Medical
Science, Chiang Mai University, Thailand.

2017-present Physical Therapist, Thaicycling Association, Thailand.

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2005-2021	Physical Therapist and Clinical Instructor, Department of Physical Therapy, Faculty of Associated Medical Science, Chiang Mai University, Thailand.
2009-2017	Physical Therapist, Thai Amateur Weightlifting Association, Thailand.
2004-2005	Physical Therapist, Lanna Hospital, Chiang Mai, Thailand.

AWARDS

- Outstanding researcher award (middle age range) by Faculty of Associated Medical Sciences, Chiang Mai University, Chiang Mai, Thailand, 2022 and 2023.
- Highest impact factor researcher award by Faculty of Associated Medical Sciences, Chiang Mai University, Chiang Mai, Thailand, 2022 and 2023.
- MEDCHIC Health Hackathon 2022 award (bronze) “Partial weight support machine by Boon Chuay team” Suandok Medical Innovation District, Chiang Mai, Thailand, August 2022.
- Oral presentation award (bronze) entitled “Physiological factors associated with fall risk in individuals with Chronic Obstructive Pulmonary Disease (COPD)” at the Hong Kong Polytechnic university: The 11th Pan-Pacific Conference on Rehabilitation (PPCR), November 2018.

RESEARCH INTEREST

- Cardiopulmonary and vascular rehabilitation
- Health innovations
- Sport rehabilitation

MEMBERSHIP

- Thai Physical Therapy Association
- Thailand Physical Therapy Council

PUBLICATIONS (peer-reviewed)

International publications

Chuatrakoon B, Nantakool S, Waisayanand N, Reanpang T, Wanichsuksombat L, Konghakote S, et al. Functional walking capacity as a screening indicator for peripheral arterial

disease in patients with type 2 diabetes mellitus: development of a clinical risk equation. *Diagnostics (Basel)*. 2026;16(12):1750. doi:10.3390/diagnostics16121750. (Q2, IF 3.3)

Nantakool S, **Chuatrakoon B**, Phirom K, Sittichoke C, Konghakote S. Associations of long-term PM2.5 exposure and physical activity levels with metabolic syndrome and health-related quality of life: A cross-sectional study in Chiang Mai, Thailand. *J Clin Med*. 2026;15(6):2241. (Q1, IF 2.9)

Nantakool S, **Chuatrakoon B**, Derraik JGB, Gusso S. Whole-body vibration training on functional capacity, vascular function, and glycemic control in individuals with type 2 diabetes and peripheral arterial disease: protocol for a randomized controlled trial. *Front Endocrinol (Lausanne)*. 2026;17:1734560. doi:10.3389/fendo.2026.1734560. (Q1, IF 4.6)

Dejprom P, Nantakool S, **Chuatrakoon B**. Long-term effects of a structured training program on physical fitness in male football players aged 18-22 years. *J Assoc Med Sci*. 2026;59(2):339-347. doi:10.66285/JAMS.2025.065. (Q3)

Prasertpong P, Nantakool S, **Chuatrakoon B**. Association of aerobic and anaerobic capacities with body composition in basketball players aged 13-16 years in Chiang Mai Province. *J Assoc Med Sci*. 2026;59(2):280-285. doi:10.12982/JAMS.2026.059. (Q3)

Sa-nguanmoo P, **Chuatrakoon B**, Keawtep P, Thummasorn S, Thongsukdee T, Homjan P, et al. Differential effects of physical activity on cognitive and motor performance in obese young adults. *PeerJ*. 2025 Dec 9. doi: 10.7717/peerj.20481. (Q1, IF 2.4)

Chuatrakoon B, Seepang N, Chaiwong D, Nanavichit R, Rerkasem K, Nantakool S. The agreement of the various distance walkway in the 6-minute walk test in healthy adults. *PLoS One*. 2025 Apr 28;20(4):e0321503. doi: 10.1371/journal.pone.0321503. (Q1, IF 2.9)

Phirom K, Nantakool S, **Chuatrakoon B**, Rerkasem K. Role of obesity-related anthropometric indicators on cognitive function in obese older adults: A systematic review and meta-analysis. *Public Health*. 2025;241:60-68. (Q1, IF 3.9)

Kongsawasdi S, **Chuatrakoon B**, Konghakote S, Puangkham T, Wantanajittikul K. Exploring attitudes and satisfaction of rural Thai community health volunteers toward a tele-stroke rehabilitation platform. *Phys Occup Ther Geriatr*. 2025;1-14. (Q3, IF 0.3)

Nantakool S, **Chuatrakoon B**, Sittichoke C, Konghakote S, Rerkasem K, Buranapin S, Kanlayanee S, Pothaya N, Kidarn J. A comparison of walking performance between individuals with and without asymptomatic peripheral artery disease using the six-minute walk test and the incremental shuttle walk test. *Sci Prog*. 2024;107(4):368504241305822. doi: 10.1177/00368504241305822. (Q1, IF 2.6)

Nantakool S, Sa-nguanmoo P, Konghakote S, **Chuatrakoon B**. Effects of Exercise Rehabilitation on Cardiorespiratory Fitness in Long-COVID-19 Survivors: A Meta-Analysis. J Clin Med. 2024;13:3621. doi: org/10.3390/jcm13123621. (Q1, IF 3.9)

Chinchai P, Kongsawasdi S, Sirisatayawong P, Apichai S, **Chuatrakoon B**, Thonglorm N. Community rehabilitation by the trained village health volunteers on activities of daily living and quality of life in stroke survivors. J Assoc Med Sci. 2024;57(2):157-65. (Q4)

Sa-nguanmoo P, **Chuatrakoon B**, Parameyong A, Jaisamer K, Panyakum M, Suriyawong W. Comparing the 6-minute Walk Test Performance and Estimated Maximal Oxygen Consumption Between Physically Active and Inactive Obese Young Adults. PAAH. 2024;8(1):20-8. doi: org/10.5334/paah.310. (Q2, IF 2.6)

Nantakool S, Punturee K, Konghakote S, Sitthichoke C, Phirom K, **Chuatrakoon B**. Immediate Effects of Aerobic Exercise and Whole-Body Vibration on Fat Oxidation, Lipid Mobilization, and Cardiovascular Response in Individuals with Obesity. J Clin Med. 2024;13(1):44. doi: 10.3390/jcm13010044. (Q1, IF 3.9)

Chuatrakoon B, Konghakote S, Sa-Nguanmoo P, Nantakool S. Long-term impact of SARS-CoV-2 infection on cardiorespiratory fitness: a meta-analysis. Front Public Health. 2023 Oct 18;11:1215486. doi: 10.3389/fpubh.2023.1215486. (Q1, IF 5.2)

Sa-nguanmoo P, **Chuatrakoon B**, Pratanaphon S, Thanagosai J, Sriarpon J. Impact of physical activity on pulmonary function and respiratory muscle strength in obese young adults. Trends Sci. 2023. 20(11):6802. doi: 10.48048/tis.2023.6802. (Q3, IF 0.74)

Chuatrakoon B, Nantakool S, Orrapin S, Leung R, Howard DPJ, Rerkasem A, Derrai K, Rerkasem K. Influences of age and gender on operative risks following carotid endarterectomy: a systematic review and meta-analysis. PLoS One. 2023. 18(5). doi: 10.1371/journal.pone.0285540. (Q1, IF 3.752)

Kongsawasdi S, **Chuatrakoon B**, Angkawanish T, Thitaram C, Langkaphin W, Namwongprom K, Prupetkaew P, Wantanajittikul K. Variability of gait characteristics in lameness elephant. J Vet Med Sci. 2023. 85(2):226-231. doi: 10.1292/jvms.22-0357. (Q2, IF 1.776)

Dacha S, **Chuatrakoon B**, Parameyong A, Chalermboon C, Thumpunya N. Physical therapists' opinions on the effect of the COVID-19 pandemic on physical therapy management in government and private hospitals in Thailand: Preliminary results of a survey. Eur Respir J. 2022. 60: 2372. doi: 10.1183/13993003.congress-2022.2372. (Q1, IF 33.795)

Wantanajittikul K, Wiboonsuntharangkoon C, **Chuatrakoon B**, Kongsawasdi S. Application of machine learning to predict trajectory of the center of pressure (COP) path of

postural sway using a triaxial inertial sensor. *Sci World J.* 2022. doi: 10.1155/2022/9483665. (Q2, IF 0.398)

Dacha S, **Chuatrakoon B**, Sornkaew K, Sutthakhun K, Weeranorapanich P. Effects of wearing different facial masks on respiratory symptoms, oxygen saturation, and functional capacity during six-minute walk test (6MWT) in healthy subjects. *Can J Respir Ther.* 2022. 58:85-90. (Q2, IF 0.392)

Chuatrakoon B, Nantakool S, Rerkasem A, Orrapin S, Howard DPJ, Rerkasem K. Routine or selective carotid artery shunting for carotid endarterectomy (and different methods of monitoring in selective shunting). *Cochrane Database Syst Rev.* 2022.6(6). doi: 10.1002/14651858.CD000190.pub4. (Q1, IF 11.874)

Chuatrakoon B, Uthaikhup S, Ngai S.P.C, Liwsrisakun C, Pothirat C, Sungkarat S. The effectiveness of home-based balance and pulmonary rehabilitation program in individuals with chronic obstructive pulmonary disease: a randomized controlled trial. *Eur J Phys Rehabil Med.* 2022. 58(3):478-86. (Q1, IF 5.313)

Nantakool S, **Chuatrakoon B**, Veen MV, Rerkasem A, Rerkasem K. Exercise training as an adjunctive therapy for chronic venous insufficiency patients: evidence from research to practice. *Int J Low Extrem Wounds.* 2021. doi: 10.1177/15347346211060126. (Q3, IF 2.057)

Dacha S, **Chuatrakoon B**, Sornkaew K, Sutthakhun K, Weeranorapanich P. Impact of wearing different facial masks on respiratory symptoms, oxygen saturation, and functional capacity during six-minute walk test (6MWT) in healthy young adults. *Eur Respir J.* 2021. 58: OA1183. (Q1, IF 33.795)

Kongsawasdi S, Wantanajittikul K, Langkaphin W, **Chuatrakoon B**, Namwongprom K, Prupetkaew P, Angkawanish T. Optimal management to improve quality of life for an injured baby elephant: Thailand multidisciplinary care team. *Kafkas Univ Vet Fak Derg.* 2021. 27(5):655-9. (Q3, IF 0.633)

Chuatrakoon B, Ngai SPC, Sungkarat S, Uthaikhup S. Balance impairment and effectiveness of exercise intervention in Chronic Obstructive Pulmonary Disease-a systematic review. *Arch Phys Med Rehab.* 2020. 101(9):1590-602. (Q1, IF 3.290)

Chuatrakoon B, Uthaikhup S, Pichaiya T, Sungkarat S. Relationship between cognition, disease severity and balance performance in individuals with Chronic Obstructive Pulmonary Disease. *J Assoc Med Sci.* 2019. 52(2):131-7. (Q-, IF-)

Kongsawasdi S, Mahasawangkul S, Pongsopawijit P, Boonprasert K, **Chuatrakoon B**, Thonglorm N, Kanta-in R, Tajarernmuang T, Nganvongpanit K. Biomechanical parameters of

Asian elephant (*Elephas maximus*) walking gait. *Kafkas Univ Vet Fak Derg.* 2017. 23(3):357-62. (*Q3, IF 0.452*)

Chittawatanarat K, Pruenglampoo S, Kongsawasdi S, **Chuattrakoon B**, Trakulhoon V, Ungpinitpong W, Patumanond J. The variations of body mass index and body fat in adult Thai people across the age spectrum measured by bioelectrical impedance analysis. *Clin Interv Aging.* 2011. 6:285-94. (*Q2, IF 2.083*)

Nganvongpanit K, Kongsawasdi S, **Chuattrakoon B**, Yano T. Heart rate change during aquatic exercise in small, medium and large healthy dogs. *Thai J Vet Med.* 2011. 41(4):455-61. (*Q4, IF 0.194*)

National publications

Chuattrakoon B, Ratanapinunchai J, Mathiyakom W, Ariyachaikul S. The distance of superior kibler and inferior kibler in normal subjects aged between 15-20 years old. *Thai J Phy Ther.* 2012. (*TCI 1*)

Presentations

Chuattrakoon, B. Oral presentation: The Agreement of the Various Distance Walkway in the 6-Minute Walk Test in Healthy Adults. Presented at CMU Annual Research Summit 2025.

Chuattrakoon, B. Oral presentation: The effectiveness of tele-pulmonary rehabilitation as a preventative intervention for individuals at risk of COPD through AI prediction. Presented at The 13th Pan-Pacific Conference On Rehabilitation (PPCR) 2023.

RESEARCH GRANTS

Principal Investigator:

2025-2026	Fundamental Fund 2025 Project “Development of an innovative screening tool for peripheral artery disease in patients with type 2 diabetes mellitus”
2023-2024	Chiang Mai University Research Grant (Junior Researcher) Project “The agreement of the various distance walk way in the 6-minute walk test”

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2021-2022	Associated Medical Sciences Research Grant Project “Development of home-based pulmonary rehabilitation program for suspected people with Chronic Obstructive Pulmonary Disease (COPD) predicted by Artificial intelligence (AI) system”
2019-2020	Associated Medical Sciences Research Grant Project “The follow-up period of home-based balance training combined with pulmonary rehabilitation program in individuals with chronic obstructive pulmonary disease”
2019-2020	National Research Council of Thailand (NRCT) Project “Assessment and Management of Balance Impairment and Fall Risk in Individuals with Chronic Obstructive Pulmonary Disease (COPD)”
2013-2014	Associated Medical Sciences Research Grant Project “Spatiotemporal gait analysis in elephants”
2007-2008	Associated Medical Sciences Research Grant Project “Comparison of aquatic exercise and ground walking in dogs with joint problems”

Co-investigator:

2025-2027	Fundamental Fund 2025 Project “An innovative screening tool and whole-body vibration exercise program for type 2 diabetes mellitus patients with peripheral artery disease”
2025-2026	Associated Medical Sciences Challenging Fund Project “Innovation in Tele-rehabilitation: Frailty Zero”
2023-2024	Chiang Mai University Research Grant (PM 2.5) Project “PM2.5 Impacts on Health: Occurrence to Sustainable Outcomes for the Northern Thai Population (Project PHOON)”
2023-2024	Chiang Mai University Research Grant (Targeted Research) Project “Evaluation and development of physical therapy service using a mobile body weight support for gait training prototype.”
2022-2023	Chiang Mai University Research Grant (Junior Researcher) Project “Immediate effect of aerobic exercise and whole-body vibration on fat mobilization, fat oxidation, and cardiovascular changes in individuals with obesity”
2021-2022	Associated Medical Sciences Research Grant

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	Project “Functional ability and quality of life of stroke patients who receive services at rehabilitation center, MaeKaa municipality, Sunpatong district, Chiang Mai province”
2020-2021	Associated Medical Sciences Research Grant Project “Development of machine learning for risk of obstructive pulmonary disease evaluation”
2020-2021	Associated Medical Sciences Research Grant Project “Reliability validity and responsiveness of dyspnea assessment instruments in patients with Chronic Obstructive Pulmonary Disease (COPD)”
2019-2020	Associated Medical Sciences Research Grant Project “Kinematic gait analysis in lameness elephants”

SHORT COURSE TRAINING/ CONFERENCE

<i>Course</i>	<i>Organization</i>	<i>Date</i>
MEDCHIC Incubation Program 2023	Faculty of Medicine, Chiang Mai University, Thailand	June, 2024
The 13 th Pan-Pacific Conference On Rehabilitation	The Hong Kong Polytechnic University, Hong Kong	November, 2023
Advanced Cardiac Prevention and Rehabilitation Training Program	The Heart Association of Thailand under the Royal Patronage of H.M. the King, Thailand	August, 2023
New skill: Entrepreneurship of Learners	Chiang Mai University, Thailand	May, 2022
Basic and advanced human research Ethics training course	Faculty of Medicine, Chiang Mai University, Thailand	January, 2022
Diploma of Clinical Epidemiology	Faculty of Medicine, Chiang Mai University, Thailand	September-December, 2021
Systematic Review and Evidence- Synthesis with Stata	Faculty of Medicine, Chiang Mai University,	August, 2021

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Training in Sample Size	Thailand Program for HIV Prevention and Treatment (PHPT), Thailand	January, 2020
Basic Life Support for Instructor (BLS Instructor)	Faculty of Medicine, Chiang Mai University, Thailand	November, 2018
Spirometry Training	Thoracic Society of Thailand under Royal Patronage, Thailand	April, 2017
4 Skills for Academic Purposes	Chiang Mai University, Thailand	April, 2017
Sports Physical Therapy	The Sports Authority of Thailand, Thailand	August, 2015
The 4 th International Conference On Sport and Exercise Science; Well-Being Well Beyond Sport Ans Exercise	The Sports Authority of Thailand, Thailand	March, 2013
Management in Sports Physical Therapy	Saint Louis College & The Sports Authority of Thailand, Thailand	July, 2012
Sports PT management	Nakhonphing Hospital, Thailand	December, 2012
Evaluations and Monitoring in Cardiopulmonary Patients for Physical Therapy	Srinakharinwirot University, Thailand	April, 2010
Physical Therapy in CABG: phase I-III	Rangsit University, Thailand	October-November, 2007

RESEARCH ETHICS, GCP and OTHER RELEVANT TRAINING

- GCP online training (Computer-based). Human Research Ethics Committee of Thammasat University (Medicine). May 21, 2025.
- Human research ethics (online). Naresuan University, Thailand, June 21, 2023.

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- Basic and advanced human research Ethics training course. Chiang Mai University, January 27-28, 2022.
- Human research ethics (online). National Research Council of Thailand, December 8, 2020.
- Human research ethics. Chiang Mai University, July 4-5, 2019.
- Human research ethics. Faculty of Nursing, Chiang Mai University, June 8-9, 2017.
- Good Clinical Practice for Biomedical Research (GCP training), Mahidol university, May 18, 2016.