



教師姓名：張祝芬 助理教授

專長學科：人體動作與步態分析、神經肌肉骨骼生物力學、運動生物力學、小兒物理治療學、輔具復健工程、骨科物理治療學

辦公室：D706 室

實驗室：復健工程實驗室 (D717)

聯絡電話：03-8565301 分機 2502

電子信箱：cfchang711@mail.tcu.edu.tw

◎學歷

國立台灣大學醫學工程學研究所生醫機械組博士

國立陽明大學醫學工程研究所生物力學組碩士

中國醫藥大學物理治療學系學士

◎經歷

慈濟大學物理治療學系助理教授 2012/08-

陽明大學物理治療暨輔助科技學系專案助理教授 2012/02-2012/07

國防醫學院醫學系復健醫學科兼任助理教授 2012/02-2013/02

臺北市政府衛生局台北市立聯合醫院教學研究部兼任助理研究員 2012/03-2012/07

台灣大學醫學工程學研究所博士後研究員 2011/03-2012/01

台灣大學醫學院附設醫院骨科博士後研究員 2011/03-2011/07

慈惠醫護管理專科學校物理治療科兼任講師 2011/08-2012/01

瀚群骨科醫療中心物理治療部兼任物理治療師 2011/10-2012/01

陽明大學人工關節研發中心碩士級專任助理 2004/08-2005/06

◎授課科目

大一上學期	物理治療學導論
大一下學期	物理治療職涯規劃
大二上學期	肌動學、基礎物理治療學及實習(一)、基礎物理治療問題導向學習
大二下學期	物理治療期刊選讀
大三上學期	物理治療學見習(一)、兒童物理治療學及實習
大三下學期	物理治療學見習(二)、物理治療行政管理學、輔助科技學及實習、動作控制與分析、小兒發展評估
大四上學期	物理治療臨床實習(一-六)、物理治療專題討論
大四下學期	物理治療臨床實習(一-六)、物理治療臨床實習(七)、物理治療專題討論

◎期刊論文

1. Cheng KH, Hsi Edward, Liu CC, Huang CN., Lee YC, Chu CS, Bao BY, Chang CF, Lai WT, Huang SP and Kuo PL. The associations of novel vitamin D3 metabolic gene CYP27A1 polymorphism, adiponectin/leptin ratio and metabolic syndrome in middle-aged Taiwanese males. International Journal of Endocrinology. 2015: 1-10,

doi:10.1155/2015/658151.

2. Shih KS, Chien HL, Lu TW, Chang CF, and Kuo CC. Gait changes in individuals with bilateral hallux valgus reduce first metatarsophalangeal loading but increase knee abductor moments. *Gait & Posture*. 40: 38-42. (2014) (**SCI**)
3. Cheng KH, Huang SP, Huang CN, Lee YC, Chu CS, Chang CF, Lai WT and Liu CC. The impact of estradiol and 1,25(OH)₂D₃ on metabolic syndrome in middle-aged Taiwanese males. *PLOS One*. 8:e60295. (2013) (**SCI**)
4. Chang CF, Wang TM, Wang JH, Huang SC, and Lu TW. Residual gait deviations in adolescents treated during infancy for unilateral developmental dysplasia of the hip using Pemberton's osteotomy. *Gait & Posture*. 35: 561-566. (2012) (**SCI**)
5. Chang C.F, Shih, KS, Wang TM, Huang CH, Huang SC and Lu TW. Correlations between heelstrike impulsive loading and joint kinematics of the lower extremities during normal level walking. *Journal of Mechanics*. 28: 559-566(2012) (**SCI**)
6. Yeh HC, Liu CC, Lee YC, Wu WJ, Li WM, Li CC, Hour TC, Huang CN, Chang CF and Huang SP. Associations of the lower urinary tract symptoms with the lifestyle, prostate volume, and metabolic syndrome in the elderly males. *The Aging Male*. 15:166-172. (2012) (**SCI**)
7. Tsai YF, Bao BY, Liu CC, Huang CN, Yu CC, Wu TT, Huang CY, Pu YS, Chang CF, Huang CH, Wu WJ and Huang SP. Prognostic significance of genetic polymorphisms on prostate-specific antigen recurrence after a radical prostatectomy. *Urological Science*. 23:35-41. (2012)
8. Lee YC, Huang SP, Liu CC, Yang YH, Yeh HC, Li WM, Wu WJ, Wang CJ, Juan YS, Huang CN, Hour TC, Chang CF and Huang CH. The Association of eNOS G894T Polymorphism with Metabolic Syndrome and Erectile Dysfunction. *Journal of Sexual Medicine*. 9(3):837-843 (2012) (**SCI**)
9. Lu TW and Chang CF Biomechanics of human movement and its clinical applications. *Kaohsiung Journal of Medical Sciences*. 28: S13-S25(2012) (**SCI**)
10. Chang CF, Wang TM, Lo WC, Lu TW, Hong SW, Huang CH, Shieh JY and Huang SC. Balance control during level walking in children with spastic diplegic cerebral palsy. *Biomedical Engineering - Applications, Basis and Communications*. 23: 509-517 (2011) (**SCI**)
11. Chang CF, Wang TM, Wang JH, Huang S,C and Lu TW. Adolescents after Pemberton's osteotomy for developmental dysplasia of the hip displayed greater joint loading than healthy controls in affected and unaffected limbs during gait. *Journal of Orthopaedic Research*. 29: 1034-1041 (2011) (**SCI**)
12. Ning YL, Li JD, Lo WC, Huang CH, Chang CF, Hsieh FH and Lu TW. Patterns and consistency of muscle recruitment for a karate jab. *Biomedical Engineering - Applications, Basis and Communications*. 23: 75-82(2011) (**SCI**)
13. Lu TW, Wei IP, Liu YH, Wang TM, Hsu WC, Chang CF and Lin JG. Immediate effects of acupuncture on gait patterns in patient with knee osteoarthritis. *Chinese Medical Journal*. 123(2):165-72(2010) (**SCI**)
14. Hsu WC, Wang TM, Liu MW, Chang CF, Chen HL and Lu TW. Control of body center of mass motion during level walking and obstacle-crossing in older patients with knee osteoarthritis. *Journal of Mechanics*. 26: 229-237 (2010) (**SCI**)
15. Wang TM, Hsu WC, Chang CF, Hu CC and Lu TW. Effects of knee osteoarthritis on body's center of mass motion in older adults during level walking. *Biomedical Engineering -Applications, Basis and Communications*. 22: 205-212 (2010) (**SCI**)
16. Jang TR, Chang CF, Chen SC, Fu YC and Lu TW. Biomechanics and potential injury mechanisms of wrestling, *Biomedical Engineering Applications, Basis, and Communications*. 21:215-222 (**SCI**) (2009)
17. Wang TM, Yen HC, Lu TW, Chen HL, Chang CF, Liu YH and Tsai WC. Bilateral knee osteoarthritis does not affect inter-joint coordination in older adults with gait deviations

- during obstacle-crossing. Journal of Biomechanics. 42:2349-2356(2009) (SCI)
18. Wei IP, Hsu WC, Chien HL, Chang CF, Liu YH, Ho TJ, Wang TM, Lin JG and Lu TW. Leg and joint stiffness in patients with bilateral medial knee osteoarthritis during level walking. Journal of Mechanics. 25:279-287. (2009) (SCI)

◎會議論文(* corresponding author)

1. Wang YH, Lin KH, Lay YJ, Chen HB, and Chang CF. 莫頓氏足板對健康年輕人於站立期的影響. 社團法人臺灣物理治療學會第68次學術論文研討會暨繼續教育研討會, Kaohsiung, Taiwan R.O.C., September 20. (2014)
2. Wu CM, Chen HB, Lin KH, Yang HN, Tai KC, and Chang CF*. Kinetic influence of Morton's extension footplate on walking. 第三次 TREATS 學術研討暨論文發表大會, Taipei, R.O.C., March 29. (2014)
3. Shih KS, Chien HL, Chang CF, and Lu TW. Biomechanical changes of the lower limb joints secondary to hallux valgus during gait. 15th International Conference on Biomedical Engineering, Singapore, December 4-7. (2013)
4. Shih KS, Chang CF, Li JD and Lu TW. Effects of minimally invasive percutaneous distal metatarsal osteotomy on gait performance in patients with hallux valgus. XII International Symposium on 3D Analysis of Human Movement, Bologna, Italy, July 18-20. (2012)
5. Chang CF, Wang TM, Wang JH, Huang SC and Lu TW. Patients after Pemberton's osteotomy for developmental dysplasia of the hip walked with an asymmetrical gait pattern with greater joint loading in affected and unaffected limbs, XXIII Congress of the International Society of Biomechanics, Brussels, Belgium, July 3-7. (2011)
6. Hsu WC, Lu TW and Chang CF. Anticipatory locomotor adjustments of the lower extremities in young adults when walking onto a moving surface, XXIII Congress of the International Society of Biomechanics, Brussels, Belgium, July 3-7. (2011)
7. Chang CF, Li JD, Shih KS and Lu, TW. Changes in dynamic foot Pressure during stair descent in patients after minimally invasive percutaneous distal metatarsal osteotomy for hallux valgus. The First Asia-Pacific Conference on Ankle-Foot Footwear Biomechanics, Taipei, Taiwan, November 12-14. (2010)
8. Lo WC, Hsu WC, Chang CF, Chen ZY and Lu TW. Inter-joint coordination in patients with lumbar spondylosis during obstacle-crossing. 2010 Annual Scientific Meeting of Taiwanese Society of Biomechanics and Sports Biomechanics, Tainan, Taiwan, October 29-30. (2010)
9. Shih KS, Chang CF and Lu TW. The effects of minimally invasive percutaneous distal metatarsal osteotomy on the gait pattern in patients with hallux valgus. The combined academic conference of 16th Asia-Pacific Orthopaedic Association (APOA) and the 59th Annual meeting of Taiwan Orthopaedic Association (TOA), Taipei, Taiwan. November 4-7. (2010)
10. Lu TW, Chang CF and Shih KS. Changes in gait pattern after minimally invasive percutaneous distal metatarsal osteotomy for hallux valgus 7th .Combined Meeting of the Orthopaedic Research Societies, Kyoto, Japan, October 16-20. (2010)
11. Lu TW, Chang CF, Shih KS and Chien YT. Plantar pressure distribution before and after minimally invasive percutaneous distal metatarsal osteotomy for hallux valgus. 7th Combined Meeting of the Orthopaedic Research Societies, Kyoto, Japan, October 16-20. (2010)
12. Lo WC, Lu TW, Chang CF, Hsu WC, Hong SW, Wang TM, Shieh JY and Chen HL. Motion of body's center of mass in children with cerebral palsy during level walking. 7th Combined Meeting of the Orthopaedic Research Societies, Kyoto, Japan, October 16-20. (2010)
13. Shih KS, Chang CF, Chen YP and Lu TW. Gait changes in patients after minimally invasive percutaneous distal metatarsal osteotomy for hallux valgus. Second Congress of

- the international Foot and Ankle Biomechanics community, Seattle, USA, September 16-18. (2010)
14. Lu TW, Chang CF, Shih KS and Chien YT. Improvement in dynamic foot pressure in patients after minimally invasive percutaneous distal metatarsal osteotomy for hallux valgus. Second Congress of the international Foot and Ankle Biomechanics community, Seattle, USA, September 16-18. (2010)
 15. Shih KS, Chang CF and Lu TW. Kinematic and kinetic changes during walking in patients with hallux valgus. Seventh SICOT/SIROT Annual International Conference, Gothenburg, Sweden, August 31 to September 3. (2010)
 16. Chang CF, Shih KS and Lu TW. Gait Changes in Patients with Hallux Valgus. 6th World Congress on Biomechanics, Singapore, August 1 - 6. (2010)
 17. Lo WC, Lu TW, Chang CF, Hsu WC, Hong SW, Wang TM, Shieh JY and Chen HL. Control of of body's center of mass motion during level walking in children with cerebral palsy. 6th World Congress on Biomechanics, Singapore, August 1 - 6. (2010)
 18. Chang CF, Wang TM, Wang JH, Huang SC and Lu TW. Greater hip joint loading rates during gait in patients after Pemberton's osteotomy for developmental dysplasia of the hip. International Symposium on Biomechanics combined with the Annual Scientific Meeting of Taiwanese Society of Biomechanics, Taipei, Taiwan, December 10-11. (2009)
 19. Lo WC, Hsu WC, Chang CF, Hong SW, Wang TM, Shieh JY, Chen HL and Lu TW. Control of body's center of mass motion during level walking in children with cerebral palsy. International Symposium on Biomechanics combined with the Annual Scientific Meeting of Taiwanese Society of Biomechanics, Taipei, Taiwan, December 10-11. (2009)
 20. Shih KS, Chang CF and Lu TW. Gait deviations in patients with hallux valgus. Taiwan Orthopaedic Association Annual Conference, Taipei, Taiwan. October 24-25(2009)
 21. Chang CF, Wang TM, Wang JH, Yen HC, Huang SC, Hsu WC, Lo WC and Lu TW. Hip joint loading during level walking in patients after Pemberton's osteotomy for developmental dislocation of the hip, 2009 Annual Meeting of European Society of Movement Analysis in Adults and Children, London, UK, September 17-19. (2009)
 22. Lu TW, Huang CH, Chen YP, Chang CF and Chien HL. Effects of step length on the biomechanics of lower limbs during elliptical exercise .27th International Society of Biomechanics in Sports Conference, Ireland, August 17-21. (2009)
 23. Chen YP, Chang CF, Chien HL, Chen YC and Lu TW. Step height effects on lower limb biomechanics and body centre of mass motion during elliptical exercise. 27th International Society of Biomechanics in Sports Conference, Ireland, August 17-21. (2009)
 24. Ho TJ, Chen SS, Chang CF and Lu TW . Effects of Tai-Chi Chuan on the control of body's center of mass motion during obstacle-crossing in the elderly .27th International Society of Biomechanics in Sports Conference, Ireland, August 17-21. (2009)
 25. Jang TR, Chen SS, Chang CF, Fu YC and Lu TW. Biomechanics and potential injury mechanisms of wrestling. 27th International Society of Biomechanics in Sports Conference, Ireland, August 17-21. (2009)
 26. Chang CF, Wang TM , Wang JH, Yen HC, Huang SC and Lu TW. Secondary Gait Changes in Patients with Developmental Dislocation of The Hip Treated with Pemberton's Osteotomy. 13th International Conference on Biomedical Engineering, Singapore, December 3-6. (2008)
 27. Yen HC, Wang TM, Lu TW, Chen HL, Chang CF and Liu YH . Bilateral knee osteoarthritis does not affect inter-joint coordination in older adults during obstacle-crossing. 13th International Conference on Biomedical Engineering, Singapore, December 3-6. (2008)
 28. Hu CC, Hsu WC, Wei IP, Chien HL, Chang CF, Liu YH, Ho TJ, Wang TM, Lin JG and Lu TW. Leg stiffness in patients with bilateral medial knee osteoarthritis during level walking. 13th International Conference on Biomedical Engineering, Singapore, December

- 3-6. (2008)
29. Chang CF, Wang TM, Wang JH, Yen HC, Huang SC and Lu TW. Hip joint loading rate in patients with developmental dislocation of the hip treated with Pemberton's osteotomy during level walking. Annual Scientific Meeting of Taiwanese Society of Biomechanics, Taizhong, Taiwan. November 1. (2008)
 30. Shih KS, Chang CF, Chen YP, Hu CC and Lu TW. Dynamic foot pressure in patients with hallux valgus during stair climbing. Annual Scientific Meeting of Taiwanese Society of Biomechanics, Taizhong, Taiwan. November 1. (2008)
 31. Yen HC, Wang TM, Lu TW, Chen HL, Chang CF and Liu YH. The influence of bilateral knee osteoarthritis on inter-joint coordination in older adults during obstacle-crossing. 2008 Annual Scientific Meeting of Taiwanese Society of Biomechanics and Sports Biomechanics, Taichung, Taiwan, November 1. (2008)
 32. Shih KS, Chang CF, Chen YP and Lu TW. Dynamic foot pressure in patients with hallux valgus during stair climbing. Taiwan Orthopaedic Association Annual Conference, Taoyuan, Taiwan. October 25-26 (2008)
 33. Chang CF, Shih KS and Lu TW. Dynamic foot pressure in patients with hallux valgus during stair climbing. First Congress of the international Foot and Ankle Biomechanics community, Bologna, Italy, September 4-6. (2008)
 34. 鄭尚元, 林明慧, 張祝芬, 王聖翰, 呂東武. 網際網路健康資訊管理平台之建立：以足底壓力與足弓類型分析為例. Biomedical Engineering Society 2006 Annual Symposium, Taipei, Taiwan, December 15th-16th. (2006)
 35. Wang CH, Wang TM, Chang CF, Lu TW and Huang SC. The biomechanical analysis and assessment of developmental dysplasia of the hip patient's surgical treatment. Taiwan Orthopaedic Association Annual Conference, Taipei, Taiwan, Oct 25-27. (2003)

◎專書論文

1. Chang CF. Joint mechanics and balance control in patients after Pemberton's osteotomy for unilateral developmental dysplasia of the hip during level walking. Institute of Biomedical Engineering, National Taiwan University, Taiwan, R.O.C., D. Phil. Thesis (2011)
2. 張祝芬. 足弓墊治療扁平足之生物力學效應評估，國立陽明大學醫學工程研究所，碩士論文 (2004)