



鄭琮霖 教授

Professor Tsung-Lin Cheng, Ph.D.

現職：

高雄醫學大學 醫學系/生理學科 主任/教授

通訊地址：807 高雄市十全一路 100 號

E-mail：junglecc@gmail.com

學歷：

成功大學 基礎醫學研究所 博士

成功大學 生理學研究所 碩士

高雄醫學大學 生物系 學士

經歷：

高雄醫學大學 醫學系/生理學科 副教授

高雄醫學大學 醫學系/生理學科 助理教授

國立成功大學 生物化學暨分子生物學研究所 專案助理教授

國立成功大學 心血管疾病研究中心 博士研究員

服務：

1. 高雄醫學大學 教學卓越計畫 子計畫參與人
2. 高雄醫學大學 醫學系 行政教師
3. 高雄醫學大學 醫學系招生試務委員會 委員
4. 高雄醫學大學 醫學系課程委員會 委員
5. 高雄醫學大學 生物醫學暨環境生物學系教師評審委員會 委員

重要獲獎：

1. 2020 年 高雄醫學大學 校級績優導師
2. 2020 年 科技部 高校特殊人才招聘補助
3. 2018 年 高雄醫學大學 專利獲證獎
4. 2017 年 高雄醫學大學 醫學院優秀論文獎
5. 2015 年 科技部 高校特殊人才招聘補助

## 期刊論文

1. Hong YK, Lin YC, Cheng TL, Lai CH, Chang YH, Huang YL, Hung CY, Wu CH, Hung KS, Ku YC, Ho YT, Tang MJ, Lin SW, Shi GY, McGrath JA, Wu HL, Hsu CK. TEM1/endosialin/CD248 promotes pathologic scarring and TGF- $\beta$  activity through its receptor stability in dermal fibroblasts. *J Biomed Sci*. 2024 Jan 23;31(1):12.
2. Sulistyowati E, Huang SE, Cheng TL, Chao YY, Li CY, Chang CW, Lin MX, Lin MC, Yeh JL. Vasculoprotective Potential of Baicalein in Angiotensin II-Infused Abdominal Aortic Aneurysms through Inhibiting Inflammation and Oxidative Stress. *Int J Mol Sci*. 2023 Nov 6;24(21):16004.
3. Chen TJ, Hung HS, Cheng TL, Wang DC. Histone deacetylase inhibitor attenuates the effects of 27-hydroxycholesterol on the rat brain. *Neurosci Lett*. 2024 Jan 1;818:137533.
4. Kang L, Yang AL, Lai CH, Chen TJ, Lin SY, Wang YH, Wang CZ, Conway EM, Wu HL, Ho ML, Chang JK, Chen CH, Cheng TL. Chondrocyte Thrombomodulin Protects against Osteoarthritis. *Int J Mol Sci*. 2023 May 30;24(11):9522.
5. Chou HC, Lin SY, Chou LY, Ho ML, Chuang SC, Cheng TL, Kang L, Lin YS, Wang YH, Wei CW, Chen CH, Wang CZ. Ablation of Discoidin Domain Receptor 1 Provokes an Osteopenic Phenotype by Regulating Osteoblast/Osteocyte Autophagy and Apoptosis. *Biomedicines*. 2022 Sep 2;10(9):2173.
6. Liu HY, Chang CF, Lu CC, Wu SC, Huang B, Cheng TL, Lin SY, Ho CJ, Lee MJ, Yang CD, Wang YC, Li JY, Liu PC, Wei CW, Kang L, Chen CH. The Role of Mitochondrial Metabolism, AMPK-SIRT Mediated Pathway, LncRNA and MicroRNA in Osteoarthritis. *Biomedicines*. 2022 Jun 22;10(7):1477.
7. Chen PS, Feng WH, Tsai TH, Hong YK, Lee AS, Chang KC, Chung HC, Liu YW, Hsieh CC, Fang YH, Yang PJ, Luo CY, Liu PY, Cheng TL, Li YH. Tumor endothelial marker 1 is upregulated in heart after cardiac injury and participates in cardiac remodeling. *Sci Rep*. 2022 Jun 22;12(1):10532.
8. Su CH, Chen YC, Yang YH, Wang CY, Ko PW, Huang PJ, Liaw CC, Liao WL, Cheng TL, Lee DY, Lo LC, Hsieh CL. Effect of the traditional Chinese herb *Helminthostachys zeylanica* on postsurgical recovery in patients with ankle fracture: A double-blinded randomized controlled clinical trial. *J Ethnopharmacol*. 2022 Sep 15;295:115435.
9. Cheng TL, Chen CH, Wu MH, Lai CH, Lee KH, Lin SH, Shiao AL, Wu CL, Kang L. Upregulation of Fibrinogen-Like 1 Expression Contributes to Reducing the Progression of Preeclampsia. *Front Cell Dev Biol*. 2021 Dec 8;9:757643.

10. Lin YH, Chou LY, Chou HC, Chen CH, Kang L, Cheng TL, Wang CZ. The Essential Role of Stathmin in Myoblast C2C12 for Vertical Vibration-Induced Myotube Formation. *Biomolecules*. 2021 Oct 26;11(11):1583.
11. Wu WJ, Wang SH, Wu CC, Su YA, Chiang CY, Lai CH, Wang TH, Cheng TL, Kuo JY, Hsu TC, Lin TH, Lee YJ. IL-4 and IL-13 Promote Proliferation of Mammary Epithelial Cells through STAT6 and IRS-1. *Int J Mol Sci*. 2021 Nov 5;22(21):12008.
12. Chung-Hwan Chen#, Tsung-Lin Cheng#, Chi-Fen Chang, Hsuan-Ti Huang, Sung-Yen Lin, Meng-Hsing Wu, Lin Kang\* (2021, Aug). Raloxifene Ameliorates Glucosamine-Induced Insulin Resistance in Ovariectomized Rats. *Biomedicines*, 9(9), 1114. 本人為第一作者.
13. Yen-Zung Wu, Hsuan-Ti Huang, Tsung-Lin Cheng, Yen-Mou Lu, Sung-Yen Lin, Cheng-Jung Ho, Tien-Ching Lee, Chia-Hao Hsu, Peng-Ju Huang, Han Hsiang Huang, Jhong-You Li, Yu-De Su, Shih-Chieh Chen, Lin Kang\*, Chung-Hwan Chen\*. Application of microRNA in Human Osteoporosis and Fragility Fracture: A Systemic Review of Literatures. *International Journal of Molecular Sciences*. (Int J Mol Sci. 2021 May 15;22(10):5232.
14. Tsung-Lin Cheng, Yu-Syuan Lin, Yi-Kai Hong, Chih-Yuan Ma, Hung-Wen Tsai, Guey-Yueh Shi, Hua-Lin Wu\*, Chao-Han Lai\*. Role of tumor endothelial marker 1 (Endosialin/CD248) lectin-like domain in lipopolysaccharide-induced macrophage activation and sepsis in mice. *Transl Res*. 2021 Jun;232:150-162.
15. Chung-Da Yang, Shu-Chun Chuang, Tsung-Lin Cheng, Mon-Juan Lee, Hui-Ting Chen, Sung-Yen Lin, Hsuan-Ti Huang, Cheng-Jung Ho, Yi-Shan Lin, Lin Kang, Mei-Ling Ho\*, Je-Ken Chang\*, Chung-Hwan Chen\* An intermediate concentration of calcium with antioxidant supplement in the culture medium enhances the proliferation and decreases the aging of bone marrow mesenchymal stem cells. *Int J Mol Sci*. 2021 Feb 20;22(4):2095.
16. Huang HT, Cheng TL, Yang CD, Chang CF, Ho CJ, Chuang SC, Li JY, Huang SH, Lin YS, Shen HY, Yu TH, Kang L, Lin SY, Chen CH. Intra-Articular Injection of (-)-Epigallocatechin 3-Gallate (EGCG) Ameliorates Cartilage Degeneration in Guinea Pigs with Spontaneous Osteoarthritis. *Antioxidants (Basel)*. 2021 Jan 26;10(2):178.
17. Chen PS, Hsu HP, Phan NN, Yen MC, Chen FW, Liu YW, Lin FP, Feng SY, Cheng TL, Yeh PH, Omar HA, Sun Z, Jiang JZ, Chan YS, Lai MD, Wang CY, Hung JH. CCDC167 as a potential therapeutic target and regulator of cell cycle-related

- networks in breast cancer. *Aging (Albany NY)*. 2021 Jan 10;13(3):4157-4181.
18. Chang LY, Lai CH, Kuo CH, Chang BI, Wu HL, Cheng TL. Recombinant thrombomodulin lectin-like domain attenuates *Porphyromonas gingivalis* lipopolysaccharide-induced osteoclastogenesis and periodontal bone resorption. *J Periodontol*. 2021 Nov;92(11):1622-1634
  19. Hsuan-Ti Huang, Tsung-Lin Cheng, Cheng-Jung Ho, Han Hsiang Huang, Cheng- Chang Lu, Shu-Chun Chuang, Jhong-You Li, Tien-Ching Lee, Shih-Tse Chen, Yi-Shan Lin, Chih-Yao Lee, Lin Kang\*, Sung-Yen Lin\* and Chung-Hwan Chen\* Intra-Articular Injection of (-)-Epigallocatechin 3-Gallate to Attenuate Articular Cartilage Degeneration by Enhancing Autophagy in a Post-Traumatic Osteoarthritis Rat Model. *Antioxidants (Basel)*. 2020 Dec 23;10(1):8.
  20. Huang HT, Cheng TL, Lin SY, Ho CJ, Chyu JY, Yang RS, Chen CH, Shen CL. Osteoprotective Roles of Green Tea Catechins. *Antioxidants (Basel)*. 2020 Nov 16;9(11):1136.
  21. Chou LY, Chen CH, Chuang SC, Cheng TL, Lin YH, Chou HC, Fu YC, Wang YH, Wang CZ. Discoidin Domain Receptor 1 Regulates Runx2 during Osteogenesis of Osteoblasts and Promotes Bone Ossification via Phosphorylation of p38. *Int J Mol Sci*. 2020 Sep 29;21(19):7210
  22. Chou HC, Chen CH, Chou LY, Cheng TL, Kang L, Chuang SC, Lin YS, Ho ML, Wang YH, Lin SY, Wang CZ. Discoidin Domain Receptors 1 Inhibition Alleviates Osteoarthritis via Enhancing Autophagy. *Int J Mol Sci*. 2020 Sep 23;21(19):6991.
  23. Lin YH, Kang L, Feng WH, Cheng TL, Tsai WC, Huang HT, Lee HC, Chen CH. Effects of Lipids and Lipoproteins on Mesenchymal Stem Cells Used in Cardiac Tissue Regeneration. *Int J Mol Sci*. 2020 Jul 5;21(13):4770.
  24. Chen CH, Lai CH, Hong YK, Lu JM, Lin SY, Lee TC, Chang LY, Ho ML, Conway EM, Wu HL, Cheng TL. Thrombomodulin Functional Domains Support Osteoblast Differentiation and Bone Healing in Diabetes in Mice. *J Bone Miner Res*. 2020 Sep;35(9):1812-1823.
  25. Lin SY, Kan JY, Lu CC, Huang HH, Cheng TL, Huang HT, Ho CJ, Lee TC, Chuang SC, Lin YS, Kang L, Chen CH. Green Tea Catechin (-)-Epigallocatechin-3-Gallate (EGCG) Facilitates Fracture Healing. *Biomolecules*. 2020 Apr 16;10(4):620.
  26. Lai CH, Chang JY, Wang KC, Lee FT, Wu HL, Cheng TL. Pharmacological Inhibition of Cathepsin S Suppresses Abdominal Aortic Aneurysm in Mice. *Eur J Vasc Endovasc Surg*. 2020 Jun;59(6):990-999.

27. Hong YK, Lee YC, Cheng TL, Lai CH, Hsu CK, Kuo CH, Hsu YY, Li JT, Chang BI, Ma CY, Lin SW, Wang KC, Shi GY, Wu HL. Tumor Endothelial Marker 1 (TEM1/Endosialin/CD248) Enhances Wound Healing by Interacting with Platelet-Derived Growth Factor Receptors. *J Invest Dermatol*. 2019 Oct;139(10):2204-2214.e7.
28. Lin SY, Kang L, Chen JC, Wang CZ, Huang HH, Lee MJ, Cheng TL, Chang CF, Lin YS, Chen CH. (-)-Epigallocatechin-3-gallate (EGCG) enhances healing of femoral bone defect. *Phytomedicine*. 2019 Mar 1;55:165-171.
29. Lin SY, Kang L, Wang CZ, Huang HH, Cheng TL, Huang HT, Lee MJ, Lin YS, Ho ML, Wang GJ, Chen CH. (-)-Epigallocatechin-3-Gallate (EGCG) Enhances Osteogenic Differentiation of Human Bone Marrow Mesenchymal Stem Cells. *Molecules*. 2018 Dec 6;23(12):3221.
30. Cheng TL, Chen PK, Huang WK, Kuo CH, Cho CF, Wang KC, Shi GY, Wu HL, Lai CH. Plasminogen/thrombomodulin signaling enhances VEGF expression to promote cutaneous wound healing. *J Mol Med (Berl)*. 2018 Dec;96(12):1333-1344.
31. Chen CH, Lin YH, Chen CH, Wang YH, Yeh ML, Cheng TL, Wang CZ. Transforming growth factor beta 1 mediates the low-frequency vertical vibration enhanced production of tenomodulin and type I collagen in rat Achilles tendon. *PLoS One*. 2018 Oct 11;13(10):e0205258.
32. Lai CH, Wang KC, Kuo CH, Lee FT, Cheng TL, Chang BI, Yang YJ, Shi GY, Wu HL. Recombinant adeno-associated virus vector carrying the thrombomodulin lectin-like domain for the treatment of abdominal aortic aneurysm. *Atherosclerosis*. 2017 Jul;262:62-70.
33. Chen CH, Huang TH, Cheng TL, Chang CF, Wang CZ, Wu MH, Kang L. Exercise training ameliorates glucosamine-induced insulin resistance in ovariectomized rats. *Menopause*. 2017 Jun;24(6):617-623.
34. Hsu YY, Shi GY, Wang KC, Ma CY, Cheng TL, Wu HL. Thrombomodulin promotes focal adhesion kinase activation and contributes to angiogenesis by binding to fibronectin. *Oncotarget*. 2016 Oct 18;7(42):68122-68139.
35. Cheng TL, Lai CH, Shieh SJ, Jou YB, Yeh JL, Yang AL, Wang YH, Wang CZ, Chen CH, Shi GY, Ho ML, Wu HL. Myeloid thrombomodulin lectin-like domain inhibits osteoclastogenesis and inflammatory bone loss. *Sci Rep*. 2016 Jun 17;6:28340.
36. Cheng TL, Lin YY, Su CT, Hu CC, Yang AL. Improvement of Acetylcholine-Induced Vasodilation by Acute Exercise in Ovariectomized Hypertensive Rats.

- Chin J Physiol. 2016 Jun 30;59(3):165-72.
37. Lai CH, Wang KC, Lee FT, Tsai HW, Ma CY, Cheng TL, Chang BI, Yang YJ, Shi GY, Wu HL. Toll-Like Receptor 4 Is Essential in the Development of Abdominal Aortic Aneurysm. *PLoS One*. 2016 Jan 7;11(1):e0146565.
  38. Hsu SY, Liou JW, Cheng TL, Peng SY, Lin CC, Chu YY, Luo WC, Huang ZK, Jiang SJ. beta-Naphthoflavone protects from peritonitis by reducing TNF-alpha-induced endothelial cell activation. *Pharmacol Res*. 2015 Dec;102:192-9.
  39. Lo LC, Cheng TL, Chen YJ, Natsagdorj S, Chiang JY. TCM tongue diagnosis index of early-stage breast cancer. *Complement Ther Med*. 2015 Oct;23(5):705-13.
  40. Wang KC, Li YH, Shi GY, Tsai HW, Luo CY, Cheng MH, Ma CY, Hsu YY, Cheng TL, Chang BI, Lai CH, Wu HL. Membrane-Bound Thrombomodulin Regulates Macrophage Inflammation in Abdominal Aortic Aneurysm. *Arterioscler Thromb Vasc Biol*. 2015 Nov;35(11):2412-22.
  41. Lin YY, Lee SD, Su CT, Cheng TL, Yang AL. Long-term treadmill training ameliorates endothelium-dependent vasorelaxation mediated by insulin and insulin-like growth factor-1 in hypertension. *J Appl Physiol (1985)*. 2015 Sep 15;119(6):663-9.
  42. Lo LC, Chen YF, Chiang JY, Cheng TL, Damdinsuren N. Education of Chinese medicine tongue diagnosis by automatic tongue diagnosis system. *Chin J Integr Med*. 2015 May 12.
  43. Cheng TL, Lai CH, Chen PK, Cho CF, Hsu YY, Wang KC, Lin WL, Chang BI, Liu SK, Wu YT, Hsu CK, Shi GY, Wu HL. Thrombomodulin promotes diabetic wound healing by regulating toll-like receptor 4 expression. *J Invest Dermatol*. 2015 Jun;135(6):1668-1675.
  44. Cheng TL, Chen PS, Li RH, Yuan SS, Su IJ, Hung JH. Induction of apurinic endonuclease 1 overexpression by endoplasmic reticulum stress in hepatoma cells. *Int J Mol Sci*. 2014 Jul 14;15(7):12442-57.
  45. Chen HM, Liou SF, Hsu JH, Chen TJ, Cheng TL, Chiu CC, Yeh JL. Baicalein inhibits HMGB1 release and MMP-2/-9 expression in lipopolysaccharide-induced cardiac hypertrophy. *Am J Chin Med*. 2014;42(4):785-97.
  46. Cheng TL, Lai CH, Jiang SJ, Hung JH, Liu SK, Chang BI, Shi GY, Wu HL. RHBDL2 is a critical membrane protease for anoikis resistance in human malignant epithelial cells. *ScientificWorldJournal*. 2014;2014:902987.

## 研討會論文

1. Ya-Shuan Chou、Shu-Chun Chuang、Tsung-Lin Cheng、Sung-Yen Lin、Chung-Hwan Chen、Mei-Ling Ho、Je-Ken Chang\* (2024, Feb). G Protein Couple Estrogen Receptor-1 (gper-1) Regulates The Proliferation And Hypertrophy Of Chondrocytes During Mouse Endochondral Ossification. Annual meeting of orthopaedic research society (ORS).
2. Yi-Kai Hong, Yao-Chou Lee, Chao-Han Lai, Chao-Kai Hsu, Shu-Wha Lin, Guey-Yueh Shi, Tsung-Lin Cheng\*, Hua-Lin Wu\* (2018, Oct). Tumor Endothelial Marker 1 (TEM1/endosialin/CD248) Enhances Wound Healing by Interacting with Platelet-Derived Growth Factor Receptor. International Conference on Mechanobiology for Regeneration & 1st NCKU-CUHK Joint Forum on Cell Therapy and Tissue Engineering. 本人為通訊作者.
3. Hua-Lin Wu, Tsung-Lin Cheng, Cheng-Hsiang Kuo, Po-Ku Chen, and Guey-Yueh Shi (2018, Jun). Plasminogen binding to its receptor thrombomodulin topromote vascular endothelial growth factor secretion and cutaneous wound ealing. The 10th Congress of the Asian-Pacific Society on Thrombosis and emostasis.
4. Yi-Kai Hong, Yao-Chou Lee, Chao-Kai Hsu, Chao-Han Lai, Cheng-Hsiang Kuo, i-Ing Chang, Shu-Wha Lin, Guey-Yueh Shi, Tsung-Lin Cheng\*, Hua-Lin Wu\* (2017, Nov). The role of tumor endothelial marker 1 in wound healing process. 2017 International Conference on Environmental Medicine and the 14<sup>th</sup> Symposium of the Frontiers of Biomedical Sciences (2017- ICEM-SFBMS). 本人為通訊作者.