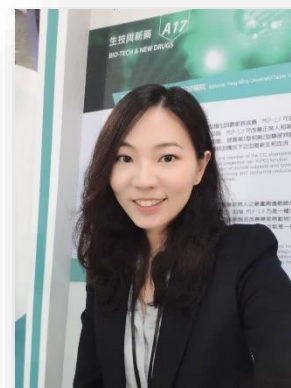


張婷婷 副教授

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➤ **Educational Attainment**

◇ 2015 Ph.D., Institute of Pharmacology, National Yang-Ming University, Taipei, Taiwan

➤ **Professional services**

◇ 2022- present Associate Professor, Department and Institute of Pharmacology, National Yang Ming Chiao Tung University, Taipei, Taiwan

◇ 2020-2022 Assistant Professor, Department and Institute of Pharmacology, National Yang Ming Chiao Tung University, Taipei, Taiwan

◇ 2015-2020 Post-doctoral Research, Institute of Pharmacology, National Yang-Ming University, Taipei, Taiwan

➤ **Research Interests**

◇ Vascular Medicine and Molecular Biology

◇ Diabetes Mellitus

◇ Kidney Disease

◇ Experimental Animal Model Design

◇ New Drug Development

➤ **Society Membership**

◇ Taiwan Society of Lipid and Atherosclerosis

◇ Taiwan Society of Atherosclerosis and Vascular Diseases

◇ The Pharmacological Society in Taiwan

◇ The European Atherosclerosis Society

➤ **International Conference Participations**

1. **Ting-Ting Chang** (2022). The potential beneficial effects of hydralazine via xanthine oxidase inhibition. European Society of Medicine, ESMED General Assembly, Virtual Congress. *(Invited speaker)*
2. 90th European Atherosclerosis Society Congress 2022, Virtual Congress. *(CME/CPD Certificate for 22 credits)*
3. Yen-Wen Wu, Jaw-Wen Chen, **Ting-Ting Chang*** (2021). Fatty-acid-binding protein 3 as a novel inducer of adhesion molecules in atherosclerosis. The American Heart Association's Scientific Sessions, Virtual Congress. *(Poster presentation)*
4. **Ting-Ting Chang**, Jaw-Wen Chen, Yen-Wen Wu (2021). Heart-type fatty acid binding protein impairs angiogenesis via the ERK/STAT1/VEGF signaling pathway. The American Heart Association's Scientific Sessions, Virtual Congress. *(Poster presentation)*
5. **Ting-Ting Chang**, Jaw-Wen Chen (2020). Inhibition of C-C chemokine motif ligand 4 reduces inflammatory cytokines and stabilizes atheroma plaques in atherosclerosis. 88th European Atherosclerosis Society Congress, Virtual Congress. *(Oral & E-Poster presentation; Young Investigator Fellowship Award)*
6. **Ting-Ting Chang**, Yi-An Chen, Jaw-Wen Chen (2020). Ginkgo biloba extract protects diabetic nephropathy via nuclear factor erythroid 2-related factor 2 mediated heme oxygenase-1 activation. Asia Pacific CardioMetabolic Syndrome Congress, Seoul, Korea. *(Poster presentation)*
7. **Ting-Ting Chang**, Liang-Yu Lin, Jaw-Wen Chen (2019). Inhibition on macrophage inflammatory protein-1 β retards the progression of hyperglycemia in experimental diabetes. European Association for the Study of Diabetes, Barcelona, Spain. *(Poster presentation)*
8. **Ting-Ting Chang**, Jaw-Wen Chen (2017). Emerging role of chemokine cc motif ligand 4 related mechanisms in diabetes mellitus and cardiovascular disease: Friends or foes? International congress of cardiology, Singapore. *(Invited speaker)*
9. **Ting-Ting Chang**, Jaw-Wen Chen (2014). Hydralazine improves ischemia-induced neovasculogenesis and endothelial progenitor cell number in chronic renal insufficient animals. International vascular biology meeting, Kyoto, Japan. *(Poster presentation)*
10. **Ting-Ting Chang**, Jaw-Wen Chen (2014). Aliskiren augments the beneficial effects of low dose tumor necrosis factor-alpha on human endothelial progenitor cells. International vascular biology meeting, Kyoto, Japan. *(Poster presentation)*

11. **Ting-Ting Chang**, Tao-Cheng Wu, Po-Hsun Huang, Jia-Shiong Chen, Liang-Yu Lin, Shing-Jong Lin, Jaw-Wen Chen (2012). Direct renin inhibition by aliskiren improves endothelial progenitor cell function and enhances ischemia-induced neovasculogenesis in diabetic animals via vascular endothelial growth factor and stromal cell-derived factor-1 related mechanisms. European Society of Cardiology, Munich, Germany. (*Oral presentation*)

➤ **Publications**

1. **Chang TT***, Chiang CH, Chen C, Lin SC, Lee HJ, and Chen JW. Antioxidation and Nrf2-mediated heme oxygenase-1 activation contribute to renal protective effects of hydralazine in diabetic nephropathy. *Biomedicine & Pharmacotherapy*. 2022;151: 113139. (*IF 7.419*)
2. **Chang TT** and Chen JW. Direct CCL4 inhibition modulates gut microbiota, reduces circulating trimethylamine N-oxide, and improves glucose and lipid metabolism in high-fat-diet-induced diabetes mellitus. *Journal of Inflammation Research*. 2021;14:6237-6250. (*IF 4.631*)
3. **Chang TT**, Liao LY and Chen JW. Inhibition on CXCL5 reduces aortic matrix metalloproteinase 9 expression and protects against acute aortic dissection. *Vascular Pharmacology*. 2021;12:106926. (*IF 5.738*)
4. **Chang TT**, Lin LY and Chen JW. A novel resolution of diabetes: C-C chemokine motif ligand 4 is a common target in different types of diabetes by protecting pancreatic islet cell and modulating inflammation. *Frontiers in Immunology*. 2021;12:650626. (*IF 8.786*)
5. YW Wu, **Chang TT**, Chang CC and Chen JW. Fatty-acid-binding protein 4 as a novel contributor to mononuclear cell activation and endothelial cell dysfunction in atherosclerosis. *International journal of molecular sciences*. 2020;21(23):9245. (*IF 6.208*)
6. **Chang TT**, Chen YA, Li SY and Chen JW. Nrf-2 mediated heme oxygenase-1 activation contributes to the anti-inflammatory and renal protective effects of Ginkgo biloba extract in diabetic nephropathy. *Journal of Ethnopharmacology*. 2020;266:113474. (*IF 5.195*)
7. **Chang TT**, Yang HY, Chen C and Chen JW. CCL4 inhibition in atherosclerosis: effects on plaque stability, endothelial cell adhesiveness, and macrophages activation. *International journal of molecular sciences*. 2020;21:6567. (*IF 6.208*)
8. **Chang TT** and Chen JW. The role of chemokines and chemokine receptors in diabetic nephropathy. *International journal of molecular sciences*. 2020;21:3172. (*IF 6.208*)
9. **Chang TT** and Chen JW. Hydralazine improves ischemia-induced neovasculogenesis via xanthine-oxidase inhibition in chronic renal insufficiency. *Pharmacological research*. 2020;151:104509. (*IF 10.334*)

10. **Chang TT**, Lin LY and Chen JW. Inhibition of macrophage inflammatory protein-1beta improves endothelial progenitor cell function and ischemia-induced angiogenesis in diabetes. *Angiogenesis*. 2019;22:53-65. **(IF 10.658)**
11. **Chang TT** and Chen JW. Emerging role of chemokine CC motif ligand 4 related mechanisms in diabetes mellitus and cardiovascular disease: friends or foes? *Cardiovascular diabetology*. 2016;15:117. **(IF 8.949)**
12. **Chang TT**, Wu TC, Huang PH, Chen JS, Lin LY, Lin SJ and Chen JW. Aliskiren directly improves endothelial progenitor cell function from Type II diabetic patients. *European Journal of Clinical Investigation*. 2016;46:544-54. **(IF 5.722)**
13. **Chang TT**, Wu TC, Huang PH, Lin CP, Chen JS, Lin LY, Lin SJ and Chen JW. Direct renin inhibition with aliskiren improves ischemia-induced neovasculogenesis in diabetic animals via the SDF-1 related mechanism. *PLoS One*. 2015;10:e0136627. **(IF 3.752)**
14. Lin LY, Huang CC, Chen JS, Wu TC, Leu HB, Huang PH, **Chang TT**, Lin SJ and Chen JW. Effects of pitavastatin versus atorvastatin on the peripheral endothelial progenitor cells and vascular endothelial growth factor in high-risk patients: a pilot prospective, double-blind, randomized study. *Cardiovascular diabetology*. 2014;13:111. **(IF 8.949)**

➤ **Awards**

- ◇ 110 年度第二學期，醫學系醫三牙二 PBL 優良教師。
- ◇ 110 年度第一學期，醫學系醫三牙二 PBL 優良教師。
- ◇ 110 年度，財團法人沈力揚教授醫學教育獎學紀念基金會－研究與進修獎。
- ◇ 109 年度，台灣藥理學會－杜聰明年輕學者獎。
- ◇ 2020 年，國家生技醫療產業策進會－第 17 屆國家新創獎：學研新創獎（生技製藥與精準醫療類）。
- ◇ 2020 年，歐洲動脈硬化學會(European Atherosclerosis Society Congress)：青年研究員獎 (Young Investigator Fellowship Award).
- ◇ 109 年度第二學期，醫學系醫三牙二 PBL 傑出教師。
- ◇ 109 年度第一學期，醫學系醫三牙二 PBL 傑出教師。
- ◇ 108 年度，科技部－博士後研究人員學術研究獎。
- ◇ 107 年度，台灣動脈硬化暨血管病醫學會－醫學論文獎。
- ◇ 104 年度，國立陽明大學－優秀論文發表獎。
- ◇ 2014 年，東洋生技教育基金獎學金。

➤ **Patents**

1. 巨噬細胞發炎蛋白-1 β (MIP-1 β)抑制劑用於促進血管新生以改善組織缺血及糖尿病血管病變的用途。中華民國專利。
2. 巨噬細胞發炎蛋白-1 β (MIP-1 β)抑制劑用以保護胰臟及防止血糖升高的用途。中華民國專利。
3. CXCL5 中和抗體用於製備預防或治療周邊動脈阻塞疾病的藥物的用途。中華民國專利。