

組織工程與臨床醫學研究室

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➤ 學歷

學 校	系(所)	學 位
國立成功大學	基礎醫學研究所	博士
國立中山大學	生物科學系	碩士
國立中山大學	生物科學系	學士

➤ 經歷

服務機關	職 稱	期 間
義大癌治療醫院醫學研究部	副研究員	2021~迄今
義守大學醫學院護理系	助理教授(部定)	2020~迄今
義大癌治療醫院醫學研究部	助研究員	2018~2021
高雄醫學大學幹細胞中心	助研究員	2016~2017
高雄醫學大學幹細胞中心	博士後研究員	2014-2016
高雄長庚醫院	研究醫技員	2012-2014
美國明尼蘇達大學藥理所	訪問研究員	2012
高雄醫學大學臨床藥學所	博士後研究員	2010-2012

➤ 學術專長

藥理學、再生醫學、腫瘤醫學、電生理學

➤ 研究室簡介

1. 粒線體移植在動物疾病模式潛在治療效果之評估。
2. 胃癌與乳癌生物標誌與細胞粒線體活性在腫瘤惡性度的角色之研究。
3. 細胞外囊泡、外泌體與腫瘤微環境的調控
4. 小分子化合物於再生醫學與癌症治療之開發與研究。

➤ 研究室成員

1. 研究助理：黃千綺、林姿瑩
2. 博士班研究生：蔡忻誼

➤ 研究計畫

	計畫名稱	計畫主持人	補助單位	執行期間
1	粒線體治療於傷口癒合與皮膚異體移植之潛在應用	林明璋	科技部	2021/08~2024/07
2	乙醯轉移酶(MEC-17)藉促進葡萄糖調節蛋白 78 (GRP78) 乙醯化修飾之分泌路徑調控胃癌腫瘤微環境	林明璋	義守大學	2021/5~2022/4
3	探討粒線體移植在糖尿病鼠動靜脈瘻管之血管保護作用	林明璋	義大醫院	2019/04~2020/03
4	開發以粒線體移植作為神經病變疼痛之新治療模式	林明璋	台義計畫	2019/07~2020/06
5	粒線體移植治療周邊神經損傷誘發神經痛的療效與機轉探討	林明璋	台義計畫	2020/07~2021/06
6	粒線體移植增進脊髓損傷後大鼠功能進步之潛在治療效果研究	林明璋	成義計畫	2018/01~2018/12
7	Cx43 抑制劑增進脊髓損傷後大鼠功能進步之潛在治療效果研究	林明璋	成義計畫	2019/01~2019/12
8	黃酮類天然物 Isoliquiritigenin 於類風溼性關節炎治療的研究	林明璋	義大醫學生獎學金計畫	2019/07~2019/08
9	Cripto-1 調控乳癌幹細胞化之機制探討	林明璋	義大醫學生獎學金計畫	2020/01~2021/01
10	微生態及粒線體移植改變胃癌細胞惡性度	林明璋	高雄醫學大學	2019/12~2020/12
11	微生態、粒線體移植及 <i>Helicobacter pylori</i> 致病株改變胃癌細胞惡性度--探討胃癌細胞與周邊細胞間之粒線體供需平衡機制	林明璋 (共同主持人)	科技部	2020/08-2023/07
12	可溶性及膜結合性 P-selectin 在複合性器官損傷併出血性休克動物模型中的作用機轉探討	林明璋 (共同主持人)	科技部	2018/08~2019/07
13	應用具有調節去乙醯酶 Sirtuin 活性之天然化合物以提高神經醯胺抑制肺癌細胞及機制	林明璋 (共同主持人)	科技部	2017/08~2018/07
14	探討手術周期間過長空腹造成之全身性肌肉蛋白異化及胰島素拮抗作用	林明璋 (共同主持人)	科技部	2020/08-2022/07
15	臺新智慧財產與技術創新海外科研中心維運計畫	林明璋 (共同主持人)	科技部	2021/09-2024/08
16	亞洲營養資訊日：評估重大腸胃道手術後患者之住院營養不良及腸道營養和靜脈營養的常規使用	林明璋 (共同主持人)	Fresenius Kabi Deutschland GmbH	2018/10~2020/06
17	探討蒲公英萃取物經由 GRP78 和 CD47 調控乳癌生長的能力	林明璋 (共同主持人)	義大醫院	2020/01~2020/12
18	蒲公英萃取物木犀草素下游調控基因	林明璋	義大癌治療醫	2021/03-2022/02

	TMEM59L, FCGBP 和 VPRESB3 在乳癌中所扮演的角色	(共同主持人)	院	
19	白藜蘆醇類似物 4'-Bromo-resveratrol 透過調控粒線體功能抑制胃癌幹細胞化之研究	林明璋 (共同主持人)	義大癌治療醫院	2020/03-2021/02
20	苦木素類化合物 Brusatol 透過調 Nrf2 抑制胃癌幹細胞化與侵襲之機制研究	林明璋 (共同主持人)	義大癌治療醫院	2021/03-2022/02

➤ 研究成果

專利: Method for treating Osteoarthritis (美國專利: Lin MW, Tsai HY, Jou IM, Wu CH)

期刊論文:

1. Tsurusawa N, Iha K, Sato A, Tsai HY, Sonoda H, Watabe S, Yoshimura T, Wu DC, Lin MW*, Ito E*. Ultrasensitive detection of GRP78 in exosomes and observation of migration and proliferation of cancer cells by application of GRP78-containing exosomes. *CANCERS*. 2022; 14:3887. (*通訊作者)
2. Lee CH, Tsai HY, Chen CL, Chen JL, Lu CC, Fang YP, Wu DC, Huang YB, Lin MW*. Isoliquiritigenin inhibits gastric cancer stemness, modulates tumor microenvironment, and suppresses tumor growth through glucose-regulated protein 78 downregulation. *BIOMEDICINES*. 2022;10(6):1350. (*通訊作者)
3. Lin MW, Fang SY, Hsu JC, Huang CY, Lee PH, Huang CC, Chen HF, Lam CF, Lee JS. Mitochondrial transplantation attenuates neural damage and improves locomotor function after traumatic spinal cord injury in rats. *FRONTIERS IN NEUROSCIENCE*. 2022;16:800883. (第一作者)
4. Tai YS, Ma YS, Chen CL, Tsai HY, Tsai CC, Wu MC, Chen CY, Lin MW*. Resveratrol analog 4-bromo-resveratrol inhibits gastric cancer stemness through the SIRT3-c-Jun N-terminal kinase signaling pathway. *CURRENT ISSUE IN MOLECULAR BIOLOGY* 2022;44, 63–72. (*通訊作者)
5. Iha K, Tsurusawa N, Tsai HY, Lin MW, Sonoda H, Watabe S, Yoshimura T, Ito E. Ultrasensitive ELISA detection of proteins in separated lumen and membrane fractions of cancer cell exosomes. *ANALYTICAL BIOCHEMISTRY*. 2022; 654:114831.
6. Hsu CH, Roan JN, Fang SY, Chiu MH, Cheng TT, Huang CC, Lin MW, Lam CF. Transplantation of viable mitochondria improves right ventricular performance and pulmonary artery remodeling in rats with pulmonary arterial hypertension. *THE JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY*. 2022;163(5):e361-e373.
7. Pang YL, Fang SY, Cheng TT, Huang CC, Lin MW, Lam CF, Chen KB. Viable Allogeneic Mitochondria Transplantation Improves Gas Exchange and Alveolar-Capillary Permeability in Rats with Endotoxin-Induced Acute Lung Injuries. *INTERNATIONAL JOURNAL OF MEDICAL SCIENCES*. 2022;19(6):1036-1046.
8. Tsai KJ, Tsai HY, Tsai CC, Chen TY, Hsieh TH, Chen CL, Mbuyisa L, Huang YB, Lin MW*. Luteolin inhibits breast cancer stemness and enhances chemosensitivity through the Nrf2-mediated pathway *MOLECULES* 2021;26(21):6452. (*通訊作者)
9. Lin MW*, Chen CI, Cheng TT, Huang CC, Tsai JW, Feng GM, Hwang TZ, Lam. CF*. Prolonged preoperative fasting induces postoperative insulin resistance by ER-stress mediated Glut4 down-regulation in skeletal muscles. *INTERNATIONAL JOURNAL OF MEDICAL SCIENCES*. 2021;18(5):1189-1197. (第一/*通訊作者)

10. Fang SY, Chen JL, Chiu MH, Huang CC, Lin MW, Lam CF*. Distinct phenotypic expressions of macrophages in neonatal lungs. *Experimental and Therapeutic Medicine*. EXPERIMENTAL AND THERAPEUTIC MEDICINE 2021;21: 369.
11. Huang CY, Yang JL, Chen JJ, Tai SB, Yeh YH, Liu PF, Lin MW, Chung CL, Chen CL. Fluoroquinolones suppress TGF- β and PMA-Induced MMP-9 production in cancer cells: implications in repurposing quinolone antibiotics for cancer treatment. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2021;22(21):11602.
12. Fang SY, Roan JN, Lee JS, Chiu MH, Lin MW, Liu CC, Lam CF. Transplantation of viable mitochondria attenuates neurologic injury after spinal cord ischemia. *THE JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY*. 2021 May;161(5):e337-e347.
13. Lin MW, Chen YH, Yang HB, Lin CC, Hung SY. Galantamine inhibits A β 1-42-induced neurotoxicity by enhancing α 7nAChR expression as a cargo carrier for LC3 binding and A β 1-42 engulfment during autophagic degradation. *NEUROTHERAPEUTICS* 2020;17(2):676-689. (第一作者)
14. Tsai CC, Chen TY, Tsai KJ, Lin MW, Hsu CY, Wu DC, Tsai EM, Hsieh TH*. NF- κ B/miR-18a-3p and miR-4286/BZRAP1 axis may mediate carcinogenesis in Helicobacter pylori-Associated gastric cancer. *BIOMEDICINE & PHARMACOTHERAPY* 2020;132:110869.
15. Hsu CH, Roan JN, Fang SY, Chiu MH, Cheng TT, Huang CC, Lin MW, Lam CF*. Transplantation of viable mitochondria improves right ventricular performance and pulmonary artery remodeling in rats with pulmonary arterial hypertension. *THE JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY* 2020:S0022-5223(20)32372-2.
16. Lin MW, Lin CC, Chen YH, Yang HB, Hung SY. Celastrol inhibits dopaminergic neuronal death of Parkinson's disease through activating mitophagy. *ANTIOXIDANTS* 2019; 9(1), 37. (第一作者)
17. Chiou HC, Lin MW, Hsiao PJ, Chen CL, Chiao S, Lin TY, Chen YC, Wu DC, Lin MH. Dulaglutide modulates the development of tissue-infiltrating Th1/Th17 cells and the pathogenicity of encephalitogenic Th1 cells in the central nervous system. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES* 2019; 20(7): 1584. (SCI)
18. Tai YS, Yang SC, Hsieh YC, Huang YB, Wu PC, Tsai MJ, Tsai YH, Lin MW*. A novel model for studying voltage-gated ion channel gene expression during reversible ischemic stroke. *INTERNATIONAL JOURNAL OF MEDICAL SCIENCES* 2019; 16(1):60-67. (*通訊作者)
19. Wu PC, Hsu WL, Chen CL, Lam CF, Huang YB, Huang CC, Lin MH, Lin MW*. Morphine induces fibroblast activation through up-regulation of connexin 43 expression: implication of fibrosis in wound healing. *INTERNATIONAL JOURNAL OF MEDICAL SCIENCES* 2018;15(9):875-882. (*通訊作者)
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21. Lin MW, Huang YB, Chen CL, Wu PC, Chou CY, Wu PC, Hung SY. A formulation study of 5-aminolevulinic encapsulated in DPPC liposomes in melanoma treatment. *INTERNATIONAL JOURNAL OF MEDICAL SCIENCES* 2016;13(7):483-9. (第一作者)
22. Wu CY, Hsu WL, Wang CH, Liang JL, Tsai MH, Yen CJ, Li HW, Chiu SJ, Chang CH, Huang YB, Lin MW*, Yoshioka T*. A novel strategy for TNF-alpha production by 2-APB induced downregulated

- SOCE and upregulated HSP70 in *O. tsutsugamushi*-infected human macrophages. PLOS ONE. 2016 Jul 29;11(7):e0159299. (*通訊作者)
23. Tsai MJ*, Lin MW*, Huang YB, Kuo YM, Tsai YH. The Influence of Acute Hyperglycemia in an Animal Model of Lacunar Stroke That Is Induced by Artificial Particle Embolization. INTERNATIONAL JOURNAL OF MEDICAL SCIENCES 2016 Apr 27;13(5):347-56. (*共同第一作者)
 24. Chen CL, Chen CY, Chen YP, Huang YB, Lin MW, Wu DC, Huang HT, Liu MY, Chang HW, Kao YC, Yang PH. Betulinic acid enhances TGF- β signaling by altering TGF- β receptors partitioning between lipid-raft/caveolae and non-caveolae membrane microdomains in mink lung epithelial cells. JOURNAL OF BIOMEDICAL SCIENCE. 2016 Feb 27;23:30.
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37. Wu SN, Lin MW, Wang YJ. Stimulatory actions of di-8-butyl-amino-naphthyl-ethylene-pyridinium-propyl-sulfonate (di-8-ANEPPS), voltage-sensitive dye, on the BK_{Ca} channel in pituitary tumor (GH₃) cells. PFLUGERS ARCHIV-EUROPEAN JOURNAL OF PHYSIOLOGY. 2008;455:687-99.
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55. Jan CR, Chen LW, Lin MW. Ca²⁺ mobilization evoked by chloroform in Madin-Darby canine kidney cells. JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTS. 2000;292:995-1001.