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RESEARCH INTERESTS

- To develop cancer therapeutics targeting the remodeling of intracellular Ca^{2+} homeostasis and cytoskeletal dynamics of cancer cells.
- To explore neuroprotective agents to ameliorate the chemotherapy-induced neurotoxic effects.
- To discover skin barrier protectants targeting the antioxidant defense and cellular senescence.

ACADEMIC EMPLOYMENT

2022/08-present	**Associate Professor** Graduate Institute of Natural Products, College of Pharmacy, Kaohsiung Medical University, Kaohsiung, Taiwan
2015/02-2022/07	**Assistant Professor** Graduate Institute of Natural Products, College of Pharmacy, Kaohsiung Medical University, Kaohsiung, Taiwan
2014/08-2015/01	**Independent Research Fellow (awarded by MOST, Taiwan)** Department of Pharmacology, College of Medicine, National Cheng Kung University, Tainan, Taiwan
2013/08-2015/01	**Project Assistant Professor** Institute of Basic Medical Sciences, College of Medicine, National Cheng Kung University, Tainan, Taiwan
2010/09-2013/07	**Postdoctoral Research Fellow** Department of Pharmacology, College of Medicine, National Cheng Kung University, Tainan, Taiwan

EDUCATION AND TRAINING

2004/09-2010/07	**Ph.D. in Basic Medical Sciences** National Cheng Kung University, Tainan, Taiwan
2008/11-2009/10	**Visiting Scientist** Department of Physiology, Anatomy, and Genetics, University of Oxford, Oxford, UK
1999/09-2003/06	**B.S. in Pharmacy** Kaohsiung Medical University, Kaohsiung, Taiwan

QUALIFICATIONS

2003	Professional Pharmacist License National Professional and Technical Examination for Pharmacists, Taiwan
2003	Certificate of Chinese Herbal Medicine Kaohsiung Medical University, Kaohsiung, Taiwan

ADMINISTRATIVE EXPERIENCES

2021/08-2025/07	**Section Director of International Affairs** College of Pharmacy Kaohsiung Medical University, Kaohsiung, Taiwan
2019/08-2021/08	**Director of Academic Collaboration,** Office of Global Affairs Kaohsiung Medical University, Kaohsiung, Taiwan

HONORS & AWARDS

2021; 2019; 2015	**Outstanding Research Award**, Kaohsiung Medical University, Kaohsiung, Taiwan (高雄醫學大學研究績優教師—優秀論文獎)
2025; 2022; 2021	**Award of Patent Approval**, Kaohsiung Medical University, Kaohsiung, Taiwan (高雄醫學大學專利獲證優良獎)
2020	**Award of Technology Transfer**, Kaohsiung Medical University, Kaohsiung, Taiwan (高雄醫學大學技術轉移優良獎：108 學年度)
2025	**NSTC-funded research awards** for universities and colleges **(高雄醫學大學-國家科學及技術委員會補助大專校院研究獎勵)**
2025; 2024; 2023; 2022; 2021; 2020	**Flexible Salary Program** for Recruiting and Retaining Exceptional Talents for Tertiary Educational Institutions **(高雄醫學大學-教育部延攬及留住特殊優秀人才彈性薪資暨獎勵補助)**

2023; 2021; 2020; 2018	**Outstanding Teaching Award**, Kaohsiung Medical University, Kaohsiung, Taiwan (高雄醫學大學教學優良教師：111、109、108、106 學年度)
2025; 2024; 2022; 2019	**Outstanding Teaching Award**, College of Pharmacy, Kaohsiung Medical University, Kaohsiung, Taiwan (高雄醫學大學藥學院教學優良教師：113、112、110、107 學年度)
2019; 2017	**Outstanding Student Mentoring Award**, Kaohsiung Medical University, Kaohsiung, Taiwan (高雄醫學大學績優導師：107、105 學年度)
2014	**Independent Research Fellowship** awarded by the Ministry of Science and Technology, Taiwan (科技部延攬研究學者-助理研究員) MOST 103-2811-B-006 -025 -
2013	**Outstanding Research Paper Award**, Laser Medicine Education, and Research Foundation, Taiwan (2013 年雷射醫學文教基金會優秀論文獎)
2013; 2012	**Travel Grant** for International Conference by the National Science Council, Taiwan (國科會補助國內專家學者出席國際學術會議) NTD 69,500 (2013); NTD 51,000 (2012)
2010	**Award of Outstanding Thesis**, Tien-Te Lee Biomedical Foundation, Taiwan (第 6 屆永信李天德醫藥科技獎—傑出論文獎)
2007	**Graduate Students Study Abroad Scholarship** by the National Science Council, Taiwan (國科會千里馬計畫補助博士生赴國外研究) NTD 600,000

RESEARCH GRANTS & FUNDING

- *NSTC grants, as Principal Investigator (2014-2025)*: **NTD 13,450,000**
- *Non-*NSTC *grants, as Principal Investigator (2014-2025)*: **NTD 4,815,000**

2025	National Science and Technology Council	Coordinated activation of AhR and Nrf2 signalings against particulate matter (PM)-induced epidermal barrier dysfunction: From molecular mechanisms to natural protectant development [以多環芳香烴受體 AhR 及抗氧化防禦 Nrf2 路徑之雙重活化策略對抗懸浮微粒誘導之皮膚屏障損傷：從分子機轉到天然保護劑開發] NSTC 114-2320-B-037 -014 -	NTD 1500,000 **(Principal Investigator)** 1 year from 2024
2026	Kaohsiung Medical University	NKUST-KMU Joint Research Project: Product optimization and functional extension study of cancer nutritional supplements developed from sesame by-products [高科大高醫大研發暨產學合作補助計畫：以芝麻副產物開發癌症營養補給品之產品優化與功能延伸研究]	NTD 400,000 **(Principal Investigator)** 1 year from 2026

2022	Ministry of Science and Technology	Application of an integrated platform of cell imaging technologies and mouse models to develop novel anticancer natural therapeutics targeting cancer-specific calcium signaling network [以細胞影像平台結合動物模式開發癌細胞專一性鈣離子訊息網絡標靶之新穎天然抗癌藥物] MOST 111-2320-B-037-014 -MY3	NTD 5,160,000 **(Principal Investigator)** 3 years from 2022
2025	Kaohsiung Medical University	NKUST-KMU Joint Research Project: Development of novel oral nutritional supplements from sesame by-products to alleviate neuropathy in chemotherapy patients [高科大高醫大研發暨產學合作補助計畫：以芝麻副產物開發緩解化療病人神經病變之新穎口服營養補給品]	NTD 250,000 **(Principal Investigator)** 1 year from 2025
2025	Kaohsiung Medical University	NSYSU-KMU Joint Research Project: Evaluation of Neuroprotective Activity of Zoanthid Alkaloid [蒐葵生物鹼之神經保護活性評估]	NTD 175,000 **(Principal Investigator)** 1 year from 2024
2024	Kaohsiung Medical University	NSYSU-KMU Joint Research Project: Evaluation of Neuroprotective Activity of Zoanthid Alkaloid [蒐葵生物鹼之神經保護活性評估]	NTD 230,000 **(Principal Investigator)** 1 year from 2024
2019	Ministry of Science and Technology	Application of an integrated platform of high-content imaging system and mouse models to identify neuroprotective natural products against chemotherapy-induced neuropathy [以高通量影像系統結合動物模式平台開發緩解化學治療引發神經病變之新穎天然藥物] MOST 108-2320-B-037-012-MY3	NTD 3,250,000 **(Principal Investigator)** 3 years from 2019
2021	Kaohsiung Medical University	NKUST-KMU Joint Research Project: Developing Taiwan common seaweed as raw materials of natural marine cosmetics and functional evaluation of skin repairing [高科大高醫大研發暨產學合作補助計畫：以台灣常見海藻作為海洋天然美粧品原料開發與改善皮膚修護功效]	NTD 200,000 **(Principal Investigator)** 1 year from 2021
2020	TTH Biotech Corporation	Industry-academia collaboration project [產學合作計畫-諾麗果萃取物對於皮膚損傷之活性評估]	NTD 350,000 **(Principal Investigator)** 10 months from 2020

2020	Ministry of Science and Technology	The Bio-image Core [生醫光學影像核心平台] MOST 109-2740-B-006 -002 -	NTD 16,500,000 (Co-Principal Investigator) 1 year from 2020
2019	Kaohsiung Medical University	[探討內質網鈣離子感應蛋白於癌細胞功能的重要性] KMU-M108010	NTD 180,000 **(Principal Investigator)** 1 year from 2019
2019	Ministry of Science and Technology	The Bio-image Core [生醫光學影像核心平台] MOST 108-2319-B-006 -001 -	NTD 17,000,000 (Co-Principal Investigator) 1 year from 2019
2018	Ministry of Science and Technology	The Bio-image Core [生醫光學影像核心平台] MOST 107-2319-B-006 -001 -	NTD 14,073,000 (Co-Principal Investigator) 1 year from 2018
2018	Kaohsiung Medical University	[探討細胞移動過程中細胞骨架及內質網鈣離子感應蛋白的相互調控] KMU-M107011	NTD 180,000 **(Principal Investigator)** 1 year from 2018
2018	Ministry of Education	Academic Strategic Alliance: Taiwan and Oxford University: To develop novel therapeutics by targeting ion transport in cancer cells [我國與英國牛津大學合作發展學術策略聯盟-開發新穎抗癌藥物：以癌細胞獨特離子運輸機制為標的]	NTD 2,000,000 **(Principal Investigator)** 1 year from 2018
2017	Kaohsiung Medical University	[利用高內涵細胞影像技術以開發具神經保護之天然藥物] KMU-Q106009	NTD 450,000 **(Principal Investigator)** 1 year from 2017
2017	得陞生技醫藥股份有限公司	Industry-academia collaboration project [產學合作計畫-牛樟芝萃取物之成分分離與結構鑑定]	NTD 1,210,842 (Co-Principal Investigator) 1 year from 2017
2017	Ministry of Science and Technology	To upgrade the Bio-image Core [精進生醫光學影像核心平台] MOST 106-2319-B-006 -001 -	NTD 18,100,000 (Co-Principal Investigator) 1 year from 2017

2014	Ministry of Science and Technology	The impact of ER calcium sensors on cell migration and tumor invasiveness [內質網鈣離子感應蛋白對於細胞遷移及腫瘤侵襲的重要性] MOST 103-2321-B-006-018-MY3	NTD 3,540,000 **(Principal Investigator)** 3 years from 2014
2014	Kaohsiung Medical University	[解析癌細胞鈣離子訊息網絡之調控機制及細胞遷移功能探討] KMU-Q105008	NTD 400,000 **(Principal Investigator)** 1 year from 2017
2014	Ministry of Science and Technology	To set up an image-based high content screening platform to develop novel neuroprotective agents for chemotherapy [建立高通量顯微影像技術以開發新穎的神經保護劑]	NTD 10,710,000 (Co-Principal Investigator) 3 years from 2014

PUBLICATIONS

(shaded = since 2021)

- *Google Scholar* (retrieved 2026/01/11): Cited = 2,607; h-index = 23; i10-index = 33.
- *Web of Science* (retrieved 2025/12/30): Cited = 1,861; h-index = 23; Cited per article = 35.73.

1. Lin CH, Wu JY, Gu A, Wu HC, **Chen YF***, Ko HH*. (2026) Flavonoid-rich *Phyla nodiflora* fraction promotes Keap1 degradation and Nrf2/HO-1 activation to attenuate particulate matter–induced oxidative stress in human keratinocytes. *Journal of Ethnopharmacology.* 360:121168. (SCI) **[Skin Barrier Protection]** (*equal contribution as the corresponding author)
2. Chang YC, Lin WH, Ko HH, Lo YC, Chang SH, Lin HC, **Chen YF***. (2026) Formononetin protects against oxaliplatin-induced peripheral neurotoxicity via Nrf2/HO-1 antioxidant pathway without impairing anticancer efficacy. *NeuroToxicology.* 112:103368. (SCI) **[Neuroprotection]**
3. Li CW, Wu HF, Yen HJ, Liao LD, Mao WC, Chang HS, **Chen YF**, Lin CH, Li CT*, Lin HC* (2026) STAT3 signaling mediates agomelatine restoration of prefrontal cortex synaptic plasticity in chronic social defeat stress mice. *Molecular Neurobiology.* 63:320. (SCI) **[Neuroprotection]**
4. Lin CH#, Ko HH#, Wu JY, Chang HS, Yen CH, Chiu CC, **Chen YF***. (2025) Dual activation of AhR and Nrf2 pathways by the natural stilbenoid tapinarof protects against particulate matter-induced skin barrier dysfunction. *Toxicology and Applied Pharmacology.* 505:117559. (SCI) **[Skin Barrier Protection]**
5. Gu A, Chen PJ, **Chen YF**, Wu HC*, Lee TH*. (2025). Coastal halophyte plant *Atriplex maximowicziana* with previously undescribed terpenoids and anti-colorectal cancer chlorophyll stereoisomers utilizing a molecular networking approach. *RSC Advances*. 15:45573-45588. (SCI) **[Pharmaceutical Sciences]**
6. Chen YC, **Chen YF**, Yu HY, Lin CH#, Liu WY#, Chang HS, Wu YT*, Ko HH*. (2025). Optimizing cinnamophilin delivery via SNEDDS for enhanced anti-melanogenic activity: A comprehensive evaluation of skin safety, permeability, and tyrosinase inhibition. *International Journal of Pharmaceutics.* 685:126260. (SCI) **[Skin Barrier Protection]**

7. Liu WY, Cheng YY, **Chen YF**, Wu YT*. (2025) Development of β-carotene-loaded casein nanoparticles with enhanced stability, permeability, and antioxidant activity that mitigates dexamethasone-induced muscle atrophy. *Journal of Drug Delivery Science and Technology.* 107:106865. (SCI) **[Neuroprotection]**
8. Chen SR, Chang YC, Chen Y, **Chen YF**, Lin YC, Chiu CC, Cheng YB*. (2025) Discovery of Zoanthamine Alkaloids from *Zoanthus vietnamensis* with Antioxidant and Neuroprotective Activities. *Journal of Organic Chemistry.* 90(14):5019-5035. (SCI) **[Neuroprotection]**
9. Gu A, Lin FL, Lu CK, Yeh TW, **Chen YF**, Wu HC*, Lee TH*. (2025) New acorane-sesequiterpenes and anti-retinoblastoma constituents from the marine algicolous fungus *Trichoderma harzianum* NTU2180 guided by molecular networking strategy. *Botanical Studies*. 66(1):2. (SCI) **[Pharmaceutical Sciences]**
10. Jadhao M, Hsu SK, Deshmukh D, Liu PF, Weng SF, **Chen YF**, Li CY, Wang CY, Tsai EM, Wang LF*, Chiu CC*. (2025) Prolonged DEHP exposure enhances the stemness and metastatic potential of TNBC cells in an MSI2-dependent manner. *International Journal of Biological Sciences.* 21(4):1705-1729. (SCI) **[Pharmaceutical Sciences]**
11. Chang YC, Lo YC, Chang HS, Lin HC, Chiu CC, **Chen YF***. (2023) An efficient cellular image-based platform for high-content screening of neuroprotective agents against chemotherapy-induced neuropathy. *NeuroToxicology.* 96:118-128. (SCI) **[Neuroprotection]**
12. **Chen YF**, Wu HC, Chang JM, Ko HH, Lin CH, Chang HS*. (2023) Chemical investigations and cytotoxic effects of metabolites from *Antrodia camphorata* against human hepatocellular carcinoma cells. *Natural Product Research.* 37(4):560-570. (SCI) **[Pharmaceutical Sciences]**
13. Chen SR, **Chen YF**, Lin JJ, Ke TY, Lin YS, Cheng YB*. (2023) 2,6-Disubstituted Piperidine Alkaloids with Neuroprotective Activity from *Hippobroma longiflora*. *Planta Medica.* 289(3):308-315. (SCI) **[Neuroprotection]**
14. Chu MC, Mao WC, Wu HF, Chang YC, Lu TI, Lee CW, Chung YJ, Hsieh TH, Chang HS, **Chen YF**, Lin CH, Tang CW*, Lin HC*. (2023) Transient plasticity response is regulated by histone deacetylase inhibitor in oxygen–glucose deprivation condition. *Pharmacological Reports.* 75(5):1200-1210. (SCI) **[Neuroprotection]**
15. Lee CW, Chu MC, Wu HF, Chung YJ, Hsieh TH, Chang CY, Lin YC, Lu TY, Chang CH, Chi H, Chang HS, **Chen YF**, Li CT, Lin HC*. (2023) Different synaptic mechanisms of intermittent and continuous theta-burst stimulations in a severe foot-shock induced and treatment-resistant depression in a rat model. *Experimental Neurology.* 362:114338. (SCI) **[Neuroprotection]**
16. **Chen YF** & Shen MR*. (2022) The important role of ion transport system in cervical cancer. *International Journal of Molecular Sciences*. 23(1): 333. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
17. Yang SS, **Chen YF**, Ko HH, Wu HC, Hsieh SY, Wu MD, Cheng MJ, Chang HS*. (2022) Undescribed alkyne-geranylcyclohexenetriols from the endophyte *Diaporthe caulivora* 09F0132 and their anti-melanogenic activity. *Phytochemistry*. 202:113312. (SCI) **[Skin Barrier Protection]**
18. Hsieh YS, **Chen YF**, Cheng YY, Liu WY, Wu YT*. (2022) Self-emulsifying phospholipid preconcentrates for the enhanced photoprotection of luteolin. *Pharmaceutics.* 14(9):1896. (SCI) **[Skin Barrier Protection]**

19. Ho TH, Hong SY, Yang CH, **Chen YF**, Lin HY, Wang TL*. (2022) Preparation of green emission and red emission ligand-free upconverting nanoparticles for investigation of the generation of reactive oxygen species applied to photodynamic therapy. *Journal of Alloys and Compounds*. 893:162323. (SCI) **[Pharmaceutical Sciences]**
20. Ho TH, Yang CH, Jiang ZE, Lin HY, **Chen YF**, Wang TL*. (2022) NIR-Triggered Generation of Reactive Oxygen Species and Photodynamic Therapy Based on Mesoporous Silica-Coated LiYF4 Upconverting Nanoparticles. *International Journal of Molecular Sciences*. 6;23(15):8757. (SCI) **[Pharmaceutical Sciences]**
21. Chen YC, Su SH, Huang JC, Chao CY, Sung PJ, **Chen YF**, Ko HH*, Kuo YH*. (2022) Tyrosinase Inhibitors Derived from Chemical Constituents of *Dianella ensifolia*. *Plants (Basel)*. 11(16):2142. (SCI) **[Skin Barrier Protection]**
22. Chen SR, Wang SW, Lin YC, Yu CL, Yen JY, **Chen YF***, Cheng YB*. (2021) Additional alkaloids from *Zoanthus vietnamensis* with neuroprotective and anti-angiogenic effects. *Bioorganic Chemistry.* 109:104700. (*equal contribution as the corresponding author) (SCI) **[Neuroprotection]**
23. Ko HH, Chang YT, Kuo YH, Lin CH, **Chen YF***. (2021) *Oenothera laciniata* Hill extracts exhibits antioxidant effects and attenuates melanogenesis in B16-F10 Cells via downregulating CREB/MITF/Tyrosinase and upregulating p-ERK and p-JNK. *Plants (Basel).* 10(4):727. (SCI) **[Skin Barrier Protection]**
24. Huang YT, Hsu YT, **Chen YF**, Shen MR* (2021) Super-resolution microscopy reveals that stromal interaction molecule 1 trafficking depends on microtubule dynamics. *Frontiers in Physiology*. 12:762387. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
25. Wu HC, **Chen YF**, Cheng MJ, Wu MD, Chen YL, Chang HS*. (2021) Different types of components obtained from *Monascus purpureus* with neuroprotective and anti-inflammatory potentials. *Food & Function.* 12(18):8694-8703. **[Neuroprotection]**
26. Wu HC, **Chen YF**, Cheng MJ, Wu MD, Chen YL, Chang HS*. (2021) Investigations into chemical components from *Monascus purpureus* with photoprotective and anti-melanogenic activities. *Journal of Fungi.* 7(8):619. (SCI) **[Skin Barrier Protection]**
27. Jadhao M, Tsai EM, Yang HC, **Chen YF**, Liang SS, Wang TN, Teng YN, Huang HW, Wang LF*, Chiu CC*. (2021) The long-term DEHP exposure confers multidrug resistance of triple-negative breast cancer cells through ABC transporters and intracellular ROS. *Antioxidants.* 10(6):949. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
28. Chen YS, Chang HS, Hsiao HH, **Chen YF**, Kuo YP, Yen FL, Yen CH*. (2021) Identification of *Beilschmiedia tsangii* root extract as a liver cancer cell–normal keratinocyte dual-selective NRF2 regulator. *Antioxidants.* 10(4):544. (SCI) **[Skin Barrier Protection]**
29. Hsu HF, Chen KM*, Belcastro F, **Chen YF**. (2021) Polypharmacy and pattern of medication use in community-dwelling older adults: a systematic review. *Journal of Clinical Nursing.* 30(7-8):918-928. (SCI) **[Pharmaceutical Sciences]**
30. Hsu SK, Li CY, Lin IL, Syue WJ, **Chen YF**, Cheng KC, Teng YN, Lin YH, Yen CH, Chiu CC*. (2021) Inflammation-related pyroptosis, a novel programmed cell death pathway, and its crosstalk with immune therapy in cancer treatment. *Theranostics* 11(18):8813-8835. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**

31. **Chen YF**, Wu SN, Gao JM, Liao ZY, Tseng YT, Fülöp F, Chang FR, Lo YC*. (2020) The antioxidant, anti-inflammatory, and neuroprotective properties of the synthetic chalcone derivative AN07. *Molecules.* 25(12):2907. (SCI) **[Neuroprotection]**
32. Hsu SK, Chang WT, Lin IL, **Chen YF**, Padalwar NB, Cheng KC, Teng YN, Wang CH, Chiu CC*. (2020) The role of necroptosis in ROS-mediated cancer therapies and its promising applications. *Cancers.* 12(8):2185. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
33. **Chen YF**, Chen LH, Shen MR*. (2019) The distinct role of STIM1 and STIM2 in the regulation of store-operated Ca^{2+} entry and cellular function. *Journal of Cellular Physiology.* 234(6):8727-8739. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
34. **Chen YF**, Lin PC, Yeh YM, Chen LH, Shen MR*. (2019) Store-operated Ca^{2+} entry in tumor progression: from molecular mechanisms to clinical implications. *Cancers.* 11(7):899. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
35. Lin YC, Ko YC, Hung SC, Lin YT, Lee JH, Tsai JY, Kung PH, Tsai MC, **Chen YF**, Wu CC*. (2019) Selective inhibition of PAR4 (protease-activated receptor 4)-mediated platelet activation by a synthetic nonanticoagulant heparin analog. *Arteriosclerosis, Thrombosis, and Vascular Biology.* 39(4):694-703. (SCI) **[Pharmaceutical sciences]**
36. Chiang WF, Cheng TM, Chang CC, Pan SH, Changou CA, Chang TH, Lee KH, Wu SY, **Chen YF**, Chuang KH, Shieh DB, Chen YL, Tu CC, Tsui WL, Wu MH*. (2018) Carcinoembryonic antigen-related cell adhesion molecule 6 (CEACAM6) promotes EGF receptor signaling of oral squamous cell carcinoma metastasis via the complex N-glycosylation. *Oncogene.* 37(1):116-127. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
37. Chen YW, Lai CS, **Chen YF**, Chiu WT, Chen HC, Shen MR*. (2017) STIM1-dependent Ca^{2+} signaling regulates podosome formation to facilitate cancer cell invasion. *Scientific Reports.* 7(1):11523. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
38. Chen YF, Chen LH, Yeh YM, Wu PY, **Chen YF**, Chang LY, Chang JY, Shen MR*. (2017) Minoxidil is a potential neuroprotective drug for paclitaxel-induced peripheral neuropathy. *Scientific Reports* 7:45366. (SCI) **[Neuroprotection]**
39. **Chen YF**, Hsu KF, Shen MR*. (2016) The store-operated Ca^{2+} entry-mediated signaling is important for cancer spread. *Biochimica et Biophysica Acta-Molecular Cell Research.* 1863(6 Pt B):1427-1435. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
40. Chen YW, **Chen YF**, Chen YT, Chiu WT, Shen MR*. (2016) The STIM1-Orai1 pathway of store-operated Ca^{2+} entry controls the checkpoint in cell cycle G1/S transition. *Scientific Reports.* 6:22142. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
41. Chen LH, Sun YT, **Chen YF**, Lee MY, Chang LY, Chang JY, Shen MR*. (2015) Integrating image-based high-content screening with mouse models identifies 5-hydroxydecanoate as a neuroprotective drug for paclitaxel-induced neuropathy. *Molecular Cancer Therapeutics.* 14(10):2206-2214. (SCI) **[Neuroprotection]**
42. Chen YT[#], **Chen YF**[#], Chiu WT, Liu KY, Liu YL, Chang JY, Chang HS, Shen MR*. (2013) Microtubule-associated histone deacetylase 6 supports the calcium store sensor STIM1 in mediating malignant cell behaviors. *Cancer Research.* 73(14):4500-4509. ([#]**equal contribution as the 1st author**) (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**

43. **Chen YF**, Chen YT, Chiu WT, Shen MR*. (2013) Remodeling of calcium signaling in tumor progression. *Journal of Biomedical Science.* 17;20:23. **(invited review article)** (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
44. Chen YT, **Chen YF**, Chiu WT, Wang YK, Chang HC, Shen MR*. (2013) The ER Ca^{2+} sensor STIM1 regulates actomyosin contractility of migratory cells. *Journal of Cell Science.* 126 (Pt 5):1260-1267. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
45. **Chen YF**[#], Chiu WT[#], Chen YT, Lin PY, Huang HJ, Chou CY, Chang HS, Tang MJ, Shen MR*. (2011) Calcium store sensor STIM1-dependent signaling plays an important role in cervical cancer growth, migration and angiogenesis. *Proceedings of the National Academy of Sciences USA.* 108(37):15225-15230. ([#]**equal contribution as the 1st author**) (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
46. **Chen YF**, Chou CY, Ellory JC, Shen MR*. (2010) The emerging role of KCl cotransport in tumor biology. *American Journal of Translational Research.* 2(4):345-355. **(invited review article)** (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
47. **Chen YF**, Chou CY, Wilkins RJ, Ellory JC, Mount DB, Shen MR*. (2009) Motor protein-dependent membrane trafficking of KCl cotransporter-4 is important for cancer cell invasion. *Cancer Research.* 69(22):8585-8593. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
48. Hsu YM, **Chen YF**, Chou CY, Tang MJ, Chen JH, Wilkins RJ, Ellory JC, Shen MR*. (2007) KCl cotransporter-3 down-regulates E-cadherin/beta-catenin complex to promote epithelial-mesenchymal transition. *Cancer Research.* 67(22):11064-11073. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
49. Hsu KF, Huang SC, Shiau AL, Cheng YM, Shen MR, **Chen YF**, Lin CY, Lee BH, Chou CY*. (2007) Increased expression level of squamous cell carcinoma antigen 2 and 1 ratio is associated with poor prognosis in early-stage uterine cervical cancer. *International Journal of Gynecological Cancer.* 17(1):174-181. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
50. Hsu YM, Chou CY, Chen HH, Lee WY, **Chen YF**, Lin PW, Alper SL, Ellory JC, Shen MR*. (2007) IGF-1 upregulates electroneutral K-Cl cotransporter KCC3 and KCC4 which are differentially required for breast cancer cell proliferation and invasiveness. *Journal of Cellular Physiology.* 210(3):626-636. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**
51. Shen MR, Hsu YM, Hsu KF, **Chen YF**, Tang MJ, Chou CY*. (2006) Insulin-like growth factor 1 is a potent stimulator of cervical cancer cell invasiveness and proliferation that is modulated by alphavbeta3 integrin signaling. *Carcinogenesis.* 27(5):962-971. (SCI) **[Tumor biology; Calcium signaling; Signaling transduction]**

PATENTS

GRANTED PATENTS:

1. Ko HH, Chang HS, **Chen YF**, Yang SS, Lin PY, Lin SF, Li CM, Hsieh SY, Cheng MJ, Wu MD. (2022) Use of *Diaporthe caulivora* extract for anti-UV damage and reducing pigmentation. Taiwan Patent No. I755170. (Granted: February 11, 2022)

   [大豆間座殼菌(*Diaporthe caulivora*)萃取物用於抗紫外線傷害及減少色素沉澱的用途]

2. Ko HH, Chang HS, **Chen YF**, Yang SS, Lin PY, Lin SF, Li CM, Hsieh SY, Cheng MJ, Wu MD. (2023) Use of *Diaporthe caulivora* extract for anti-UV damage and reducing pigmentation. China Patent No. 5906956. (Granted: April 25, 2023)

   [大豆间座壳菌提取物用于抗紫外线伤害及减少色素沉着的用途]

3. Ko HH, Chang HS, **Chen YF**, Yang SS, Lin PY, Lin SF, Li CM, Hsieh SY, Cheng MJ, Wu MD. (2023) Use of *Diaporthe caulivora* extract for anti-UV damage and reducing pigmentation. China Patent No. 7843062. (Granted: April 01, 2025)

   [大豆间座壳菌提取物用于抗紫外线伤害及减少色素沉着的用途]

Patent Applications:

4. Ko HH, Chen YF, Wu JY, Lin CH, Li CW, Hsu BC. (Filed October 17, 2023) Green extract of *Oenothera laciniata* for preventing or treating oxidative skin damage induced by air pollution particulate matter. Taiwan Patent Application No. 112139557. (Under Review)

   [鴨舌癀綠色萃取物預防或治療空汙懸浮微粒誘導的皮膚氧化性損傷]

COMMUNICATION & PRESENTATION

5. **Invited Talk**, Exploring neuroprotective natural products with cellular image-based platforms. PharSciTech Special Seminar, Chulalongkorn University, Bangkok, Thailand, August 2024.
6. **Invited Talk**, Cellular imaging analysis platforms for exploring anticancer or neuroprotective natural products. Chiang Mai University, Chiang Mai, Thailand, January 2024.
7. **Invited Talk,** Cellular imaging analysis platforms for exploring anticancer or neuroprotective natural products. The 36th Symposium on Natural Products & Symposium on Traditional Chinese Medicine and Pharmacy. Kaohsiung, Taiwan, October 2021.
8. **Invited Talk (online)**, Remodeling of Ca^{2+} signaling in tumor progression. PharSciTech Special Seminar, Chulalongkorn University, Bangkok, Thailand, February 2021.
9. **Invited talk**, The nanoscale dynamics of ER Ca^{2+} sensors in the regulation of Ca^{2+} homeostasis. Academic Forum of Academic Strategic Alliance: Taiwan and Oxford University, Tainan, Taiwan, September 2018.
10. **Invited talk**, Decoding Ca^{2+} Signalings for Cancer Progression. The 37th World Congress of the International Union of Physiological Sciences (IUPS meeting), Birmingham, UK, July 2013.
11. **Invited talk**, Remodeling of Ca^{2+} signaling in cancer cell migration. Taiwan-Russia Joint Symposium: Methods of Mechanics for Physiology and Cell Biology, Taiwan, November 2013.
12. **Session Chair**, International Conference on Precision Nanomedicine in Theranostics & the 2025 Annual Meeting of Taiwan Nanomedicine Society (TNS2025), Taichung, Taiwan, July 2025.
13. **Session Moderator**, Academic Forum of Academic Strategic Alliance: Taiwan and Oxford University, Oxford, UK, December 2018.
14. **Poster,** Investigation into the anti-melanogenic activity and underlying mechanism of natural products from Zingiberaceae plant. The 40th Symposium on Natural Products, Taichung, Taiwan, October 2025.
15. **Poster,** Unraveling the Anticancer Potential of Artemisinin and Derivatives: Insights into Calcium Homeostasis Modulation in Colon Cancer Cells. The 7th International Conference and Exhibition on Pharmaceutical Sciences and Technology (PST2024), Chiang Mai, Thailand, May 2024.
16. **Poster,** Particulate matter-induced skin barrier dysfunction is restored by the dual activation of AhR signalings and Nrf2 pathways. The 39th Symposium on Natural Products, Taoyuan, Taiwan, October 2024.
17. **Poster,** Formononetin demonstrated antioxidant effect against chemotherapy-induced neurotoxicity via Nrf2/HO-1 pathway. The 39th Symposium on Natural Products, Taoyuan, Taiwan, October 2024.
18. **Poster,** Investigation into the Anticancer Activity and Underlying Mechanisms of Natural Products from Syzygium and Lithocarpus Plants in Colorectal Cancer Cells. The 39th Symposium on Natural Products, Taoyuan, Taiwan, October 2024.
19. **Poster,** Dual AhR/Nrf2 activation ameliorates particulate matter-induced skin barrier dysfunction. 2024 International Symposium on Aryl Hydrocarbon Receptor (AHR), Taipei, Taiwan, September 2024.
20. **Poster,** The set-up of image-based high-throughput screening platform for modeling chemotherapy-induced peripheral neuropathy in well-differentiated DRG neurons. The 38th Symposium on Natural Products, New Taipei City, Taiwan, October 2023.

21. **Poster,** Particulate matter-induced skin barrier dysfunction is restored by the dual activation of AhR signalings and Nrf2 pathways. The 38th Symposium on Natural Products, New Taipei City, Taiwan, October 2023.
22. **Poster,** An efficient cellular image-based platform for high-throughput screening of neuroprotective agents against chemotherapy-induced neurotoxicity. The 19th World Congress of Basic & Clinical Pharmacology 2023 (WCP2023), Glasgow, Scotland, UK, July 2023.
23. **Poster,** Particulate matter-induced skin barrier dysfunction is restored by a dual activator of AhR and Nrf2 pathways. The 19th World Congress of Basic & Clinical Pharmacology 2023 (WCP2023), Glasgow, Scotland, UK, July 2023.
24. **Poster,** A cellular image-based high-throughput screening platform for the investigation of paclitaxel-induced peripheral neuropathy. The 37th Symposium on Natural Products, Kaohsiung, Taiwan, October 2022.
25. **Poster,** Development of natural skin protective agents against particulate matter-induced E-cadherin delocalization. The 37th Symposium on Natural Products, Kaohsiung, Taiwan, October 2022.
26. **Poster,** *Phyla nodiflora* extracts protect human keratinocytes from particulate matter-induced oxidative stress through the Nrf2/HO-1 pathway. The 37th Symposium on Natural Products, Kaohsiung, Taiwan, October 2022.
27. **Poster,** To establish the in vitro model of chemotherapy-induced peripheral neurotoxicity in dorsal root ganglion (DRG) cell line: cell viability loss & oxidative damages. The 37th Symposium on Natural Products, Kaohsiung, Taiwan, October 2022.
28. **Poster,** Paclitaxel-induced peripheral neuropathy in a dish: a neuronal cell-based high-content image platform. The 14th Meeting of the Asia Pacific Federation of Pharmacologists (APFP). Taipei, Taiwan, November 2021.
29. **Poster,** Establishment of an image-based analysis platform of particulate matter (PM)-induced skin cell dysfunction. The 14th Meeting of the Asia Pacific Federation of Pharmacologists (APFP). Taipei, Taiwan, November 2021.
30. **Poster,** *Diaporthe cynaroides*, an endophytic fungi from formosan plants, attenuates UVB-induced photodamage in human keratinocytes. The 69th International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA), Bonn, Germany (Virtual conference), September 2021.
31. **Poster,** Development of a neuronal cell-based high-content image screening platform of paclitaxel-induced peripheral neuropathy. The 69th International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA), Bonn, Germany (Virtual conference), September 2021.
32. **Poster,** Anti-malignant potentials of flavokawain B inclusion complex in melanoma. The 35th Symposium of Natural Products, Taipei, Taiwan, September 2020.
33. **Poster,** Secondary metabolites and their bioactivities from the root of *Cryptocarya concinna*. The 66th Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA), Shanghai, China, August 2018.
34. **Poster,** Investigation into cellular mechanisms underlying the anti-cancer effects of artemisinin and its derivatives. Kaohsiung International Instruments & Chemtech Expo. Kaohsiung, Taiwan, May 2018.
35. **Poster**, The differential impact of STIM1 and STIM2 on Ca^{2+} homeostasis and tumor invasiveness. Gordon Research Conference- Calcium Signalling, Lucca, Italy, June 2017.

36. **Poster**, Chemical constituents and cytotoxic activities from the root of *Cryptocarya concinna*. The 65th Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA), Basel, Switzerland, September 2017.
37. **Poster**, Chemical constituents and cytotoxic activities of the root of *Cryptocarya concinna*. Annual Meeting of the pharmaceutical Society of Taiwan, Taipei, Taiwan, December 2016.
38. **Poster**, To target microtubule-associated histone deacetylase 6 as a strategy to inhibit store-operated calcium entry-mediated malignant cell behaviors. EMBO | EMBL Symposia-Microtubules: From Atoms to Complex Systems, EMBL Heidelberg, Germany, May 2016.
39. **Poster**, Differential roles of ER calcium sensor STIM proteins in SOCE activation and specific cellular functions. Gordon Research Conference- Calcium Signalling, Newry, ME, USA, June 2015.
40. **Poster**, The calcium store sensor STIM1 is an important regulator for cancer cell migration. Beatson International Cancer Conference: Powering the Cancer Machine, Glasgow, UK, July 2014.
41. **Poster**, Microtubule-associated histone deacetylase 6 is a potential target to interfere with calcium store sensor STIM1-mediated cancer malignant behaviors. Gordon Research Conference- Calcium Signalling, Lucca, Italy, June 2013.
42. **Poster**, Endoplasmic reticulum Ca^{2+} sensor STIM1 (stromal interaction molecule 1) functions as a dynamic signal transducer for cancer cell mechanics. EMBO Conference - the Physiology of ER, Girona, Spain, October 2012.
43. **Poster**, Histone deacetylase 6 is necessary for the trafficking of ER Ca^{2+} sensor STIM1 that regulates actomyosin contractility of migratory cells. Beatson International Cancer Conference: Membrane Dynamics in Cancer, Glasgow, UK, July 2012.
44. **Poster**, Calcium store sensor STIM1-dependent signaling plays an important role in cervical cancer growth, migration and angiogenesis. National Cancer Research Institute (NCRI) Cancer Conference, Liverpool, UK, November 2011.
45. **Poster**, KCl cotransport is important for actin reorganization and focal adhesion dynamics during cancer cell migration. The 50th Annual Meeting of the American Society for Cell Biology, Philadelphia, PA, USA, December 2010.
46. **Poster**, Genetic dissection of potassium chloride cotransporter (KCC) functions in epithelial development and carcinogenesis in *Drosophila*. Physiological Society Annual Meeting, Dublin, Ireland, July 2009.
47. **Poster**, Membrane Trafficking of K-Cl Cotransporter KCC4 Is Important for Ovarian Cancer Cell Invasiveness. The 46th Annual Meeting of the American Society for Cell Biology, San Diego, CA, USA, December 2006.

TEACHING

- ***Course Organizer*** & ***Lecturer***, **Molecular and Cellular Biology [分子細胞生物學]**, School of Pharmacy (Bachelor, Grade 2/3), Kaohsiung Medical University, Kaohsiung, Taiwan, 2024/02-present.
- ***Course Organizer*** & ***Lecturer***, **Special Topics on (Advanced) Target-based Research of Natural Products [(高級)天然藥物標靶研發特論]**, Graduate Institute of Natural Products (Master, Grade 1), Kaohsiung Medical University, Kaohsiung, Taiwan, 2016/02-present.
- ***Course Organizer*** & ***Co-Organizer***, **Seminar on Natural Products [天然藥物專題討論]**, Graduate Institute of Natural Products (Master & Ph.D.), Kaohsiung Medical University, Kaohsiung, Taiwan, 2016/09-present.
- ***Course Co-Organizer*** & ***Lecturer***, **Advanced Topics on Biotechnology and Botanical New Drug Research [高階生物技術與天然藥物研發特論]**, Graduate Institute of Natural Products (Ph.D., Grade 1), Kaohsiung Medical University, Kaohsiung, Taiwan, 2020/02-present.
- ***Course Organizer*** & ***Lecturer***, **Professional English [專業英文]**, Department of Fragrance and Cosmetic Science (Bachelor, Grade 4), Kaohsiung Medical University, Kaohsiung, Taiwan, 2017/02-2023/02.
- ***Lecturer***, **Pharmacology [藥理學]**, School of Pharmacy (Bachelor Grade 2/3), Kaohsiung Medical University, Kaohsiung, Taiwan, 2016/02-2020/06.
- ***Lecturer***, **Molecular and Cellular Biology [分子細胞生物學]**, Department of Fragrance and Cosmetic Science (Bachelor, Grade 3), Kaohsiung Medical University, Kaohsiung, Taiwan, 2015/09-present.
- ***Lecturer***, **Searching for Pharmacy Literature [藥學文獻檢索]**, School of Pharmacy (Bachelor Grade 2), Kaohsiung Medical University, Kaohsiung, Taiwan, 2015/09-present.
- ***Lecturer***, **Physiology (B) [生理學 (B)]**, Department of Medical Laboratory Science and Biotechnology (International Bachelor Program, Grade 1/2), Kaohsiung Medical University, Kaohsiung, Taiwan, 2015/09-2017/06.
- ***Lecturer***, **Physiology (B) [生理學 (B)]**, Department of Medical Imaging and Radiological Sciences (Bachelor, Grade 2), Kaohsiung Medical University, Kaohsiung, Taiwan, 2017/09-2020/02.
- ***Lecturer***, **Physiology (A) [生理學 (A)]**, School of Pharmacy (Bachelor Grade 1/2), Kaohsiung Medical University, Kaohsiung, Taiwan, 2015/09-2017/06.
- ***Lecturer***, **Host Response and Infection [Block-宿主免疫與感染]**, School of Post-Baccalaureate Medicine (MD, Grade 1), Kaohsiung Medical University, Kaohsiung, Taiwan, 2016/09-2017/02.
- ***Lecturer***, **Host Response and Infection [Block-宿主免疫與感染]**, School of Medicine (MD, Grade 3), Kaohsiung Medical University, Kaohsiung, Taiwan, 2016/09-2017/02.
- ***Lecturer***, **Special Topics on Solid Dosage Form [固體劑型學特論]**, School of Pharmacy (Master Grade 1), Kaohsiung Medical University, Kaohsiung, Taiwan, 2021/02-present.
- ***Lecturer***, **Special Topics in Pharmacology [藥理學特論]**, Graduate Institute of Medicine, (Master, Grade 1), Kaohsiung Medical University, Kaohsiung, Taiwan, 2021/09-present.
- ***Lecturer***, **Special Topics in Herbal Pharmacology [中草藥藥理]**, Graduate Institute of Medicine, (Master, Grade 1), Kaohsiung Medical University, Kaohsiung, Taiwan, 2020/02-present.

- ***Lecturer***, **Academic Writing [學術英文]**, School of Pharmacy, Master Program in Clinical Pharmacy (Grade 1), Kaohsiung Medical University, Kaohsiung, Taiwan, 2019/09-present.
- ***Lecturer***, **Scientific Writing [科學論文寫作]**, School of Pharmacy, Master Program in Clinical Pharmacy (Grade 1), Kaohsiung Medical University, Kaohsiung, Taiwan, 2019/02-present.
- ***Lecturer***, **Special Topics on Development of Natural Products [天然藥物研發特論]**, Graduate Institute of Natural Products (Master, Grade 1), Kaohsiung Medical University, Kaohsiung, Taiwan, 2015/02-present.
- ***Tutor***, **Clinical Pharmacy and Skills (Objective Structured Clinical Examination) [臨床技能]**, School of Pharmacy (Bachelor Grade 4), Kaohsiung Medical University, Kaohsiung, Taiwan, 2016/09-present.
- ***Tutor***, **Drug Information [藥品資訊分析]**, School of Pharmacy (Bachelor Grade 4), Kaohsiung Medical University, Kaohsiung, Taiwan, 2017/09-2023/02.
- ***Tutor***, **Service Learning [服務學習]**, School of Pharmacy (Bachelor Grade 1), Kaohsiung Medical University, Kaohsiung, Taiwan, 2020 & 2025.