

# 臨床免疫研究室

## ➤ 主持人：陳柏任 助理研究員

### ➤ 聯絡方式

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### ➤ 學歷

學 校	系(所)	學 位
國防醫學院	生命科學研究所	博士
長庚大學	醫學生物技術研究所	碩士
中山醫學大學	生命科學系	學士

### ➤ 經歷

服務機關	職 稱	期 間
義大醫院 醫學研究部	助理研究員	2021/07-迄今
義守大學 醫學研究所	兼任助理教授	2024/02-迄今
靜宜大學 化粧品科學系	助理教授	2018/08-2021/07
長庚大學 健康老化中心	博士後研究員	2014/12-2018/07
中央研究院 基因體中心	博士後研究員	2012/05-2014/12

### ➤ 學術專長

1. 分子免疫學
2. 發炎與癌症藥理學
3. 分子細胞生物學
4. 天然藥物開發

### ➤ 研究室簡介

1. 發炎免疫疾病微環境之分子致病機轉探討。
2. 改善發炎免疫疾病之天然藥物與保健品開發。

### ➤ 研究室成員 (含協同研究人員、研究助理)

1. 合作成員：蘇裕傑醫師、陳建翰醫師、吳青芳醫師、紀伯叡醫師、林新杰醫師。
2. 研究人員：陳俊宏博士、關雨心研究技術員、蔡尚杰博士生。
3. 專題生：洪郁棋、洪鈴雅、葉均柔。

➤ 實驗室設備與研究技術

1. 發炎免疫疾病之細胞功能活性評估模式。
2. 發炎免疫疾病之小鼠疾病模式。
3. 抗發炎與抗癌新藥開發平台。
4. 改善體脂肪之天然保健食品開發平台。

➤ 近三年研究計畫

	計畫名稱	計畫主持人	補助單位	執行期間
1	開發台灣白及治療大腸直腸癌：療效評估與機轉研究	陳柏任	國科會	2023/08/01~2024/07/31
2	台灣白及有效成分用於治療急性肝損傷與急性呼吸窘迫症之臨床前研究	陳柏任	國科會	2020/08/01~2023/07/31
3	台灣原生蘭科植物抗發炎活性成分開發與其改善乾癬之治療應用 (I)	陳柏任	成義計畫	2024/01/01~2024/12/31
4	CT01 植物成分對誘導白色脂肪組織褐化之研究	陳柏任	成義計畫	2023/01/01~2023/12/31
5	研究與開發應用於治療大腸直腸癌之天然物	陳柏任	義守大學	2022/05/01~2023/04/30
6	探討嗜中性白血球在腫瘤免疫微環境中作為治療標靶之潛力	陳柏任	義大醫院	2022/01/01~2022/12/31
7	卡達葉形軟珊瑚的抗癌二次代謝成分之探索	陳柏任 (共同主持人)	國科會	2023/08/01~2024/07/31
8	開發臺灣蘭科植物作為改善發炎代謝失調的功能性食品 (2/3)	陳柏任 (共同主持人)	國科會	2023/07/01~2024/06/30
9	開發臺灣蘭科植物作為改善發炎代謝失調的功能性食品 (1/3)	陳柏任 (共同主持人)	國科會	2022/07/01~2023/06/30
10	壓力誘導磷酸蛋白 1 調控卵巢癌免疫微環境之研究	陳柏任 (共同主持人)	國科會	2021/08/01~2022/07/31
11	海洋天然二倍半萜類化合物標靶肝臟星狀細胞用以改善肝臟損傷	陳柏任 (共同主持人)	國科會	2021/08/01~2022/07/31

➤ 近三年研究成果【#共同第一作者(equal contribution); \*通訊作者(Corresponding author)】【含期刊論文、會議論文、專利、專書、著作等】

代表著作 (#equal contribution; \*correspondence)

1. **Chen PJ**, Chen SH, Wu CF, Chen YL, Wang YH, Lin CY, Chen CH, Kao TI, Tsai YF, and Hwang TL. Ribociclib leverages phosphodiesterase 4 inhibition in the treatment of neutrophilic inflammation and acute respiratory distress syndrome. *Journal of Advanced Research*, 2024 acceptance (IF: 10.7; Rank: 10/73 (13.7%), Multidisciplinary Sciences)
2. **Chen PJ**, Tseng HH, Wang YH, Fang SY, Chen SH, Chen CH, Tsai SC, Chang YC, Tsai YF, and

- Hwang TL. Palbociclib blocks neutrophilic PI3K activity to alleviate psoriasiform dermatitis. *British Journal of Pharmacology*, 2023 Aug; 180(16):2172-88 (IF: 7.3; Rank: 25/277 (9.0%), Pharmacology & Pharmacy)
3. Su YC, Lee WC, Wang CC, Yeh SA, Chen WH, and **Chen PJ\***. Targeting PI3K/AKT/mTOR signaling pathway as a radiosensitization in head and neck squamous cell carcinomas. *International Journal of Molecular Sciences*, 2022 Dec; 23(24), 15749. (IF: 5.6; Rank: 66/285 (23.1%), Biochemistry & Molecular Biology)
  4. Wagdy R<sup>#</sup>, **Chen PJ#**, Hamed MM, Darwish S, Chen SH, Abadi AH, Abdel-Halim M, Hwang TL, and Engel M. From EGFR kinase inhibitors to anti-inflammatory drugs: Optimization and biological evaluation of (4-(phenylamino)quinazolinyl)-phenylthiourea derivatives as novel NF-κB inhibitors. *Bioorganic Chemistry*, 2022 Oct; 127, 105977. (IF: 5.1; Rank: 7/52 (13.5%), Chemistry, Organic)
  5. Chang KC, Chang YH, Yen CF, Chen JS, **Chen PJ\***, Lin CY, Griffiths M D, Potenza M N, Pakpour A H. A longitudinal study of the effects of problematic smartphone use on social functioning among people with schizophrenia: Mediating roles for sleep quality and self-stigma. *Journal of Behavioral Addictions*, 2022 Jul; 11(2), 567-576. (IF: 7.8; Rank: 13/144 (9.0%), Psychiatry)
  6. Darwish S<sup>#</sup>, **Chen PJ#**, Hamed MM, Wagdy R, Chen SH, Abadi AH, Abdel-Halim M, Hwang TL, and Engel M. Development of (4-phenylamino)quinazoline alkylthiourea derivatives as novel NF-κB inhibitors. *Pharmaceuticals*, 2022 Jun; 15(7), 778. (IF: 4.6; Rank: 72/277 (26%), Pharmacology & Pharmacy)
  7. Chen YY<sup>#</sup>, Chen LY<sup>#</sup>, **Chen PJ#**, El-Shazly M, Peng BR, Chen YC, Su CH, Su JH, Sung PJ, Yen PZ, Wang LS, Lai KH. Probing Anti-Leukemic Metabolites from Marine-Derived *Streptomyces* sp. LY1209. *Metabolites*, 2022 Apr; 12(4), 320. (IF: 4.1; Rank: 112/285 (39.3%), Biochemistry & Molecular Biology)
  8. Kao TI<sup>#</sup>, **Chen PJ#**, Wang YH, Tseng HH, Chang SH, Wu TS, Yang SH, Lee YT, Hwang TL. Bletinib ameliorates neutrophilic inflammation and lung injury by inhibiting Src family kinase phosphorylation and activity. *British Journal of Pharmacology*, 2021 Oct; 178(20):4069-4084. (IF: 7.3; Rank: 25/277 (9.0%), Pharmacology & Pharmacy)
  9. Lai KH<sup>#</sup>, **Chen PJ#**, Chen CC, Yang SH, El-Shazly M, Chang YC, Wu YH, Wu YH, Wang YH, Hsieh HL, Hwang TL. *Lophatherum gracile* Brongn. attenuates neutrophilic inflammation through inhibition of JNK and calcium. *Journal of Ethnopharmacology*, 2021 Jan; 264:113224. (IF: 5.4; Rank: 4/42 (9.52%), Integrative & Complementary Medicine)

### 參考著作

10. Nguyen NBA, El-Shazly M, **Chen PJ**, Peng BR, Chen LY, Hwang TL, and Lai KH. Unlocking the potential of octocoral-derived secondary metabolites against neutrophilic inflammatory response. *Marine Drugs*, 2023 Aug; 21(8):456 (IF: 5.4; Rank: 51/277 (18.4%), Pharmacology & Pharmacy)
11. Chen SH, **Chen PJ**, Lee CH, Wu YP, Ahorsu DK, Griffiths MD, Lin CY. Perceived stress mediating the association between mindfulness and resilience among registered nurses. *Psychology Research and Behavior Management*, 2023 Aug; 16:3035-3044 (IF: 4.3; Rank: 29/147 (19.7%), Psychology, Multidisciplinary)
12. Huang YQ, Illias AM, **Chen PJ**, Chien SY, Kuo YH, Ko CY, Chang CF, Wen ZH, Hwang TL, Sung PJ.

- 24-Dehydrohippuristanol, a Cytotoxic Spiroketal Steroid from *Isis hippuris*. *Tetrahedron Letters*, 2023 Jun; 123:154540 (IF: 1.8; Rank: 34/52 (65.4%), Chemistry, Organic)
13. Tsai YF, Yang SC, Hsu YH, Chen CY, **Chen PJ**, Syu YT, Lin CH, Hwang TL. Carnosic acid inhibits reactive oxygen species-dependent neutrophil extracellular trap formation and ameliorates acute respiratory distress syndrome. *Life Sciences*, 2023 May; 321:121334 (IF: 6.1; Rank: 35/277 (12.6%), Pharmacology & Pharmacy)
  14. Tseng HJ, Kuo LM, Tsai YC, Hu HC, **Chen PJ**, Chien SY, Sheu JH, and Sung PJ. Sinulariaone A: A novel diterpenoid with a 13-membered carbocyclic skeleton from an octocoral *Sinularia* species. *RSC Advances*, 2023 Mar; 13(15):10408. (IF: 3.9; Rank: 74/178 (41.6%), Chemistry, Multidisciplinary)
  15. Wang LS, **Chen PJ**, Cheng WC, Chang YC, El-Shazly M, Chen LY, Peng BR, Su CH, Yen PT, Hwang TL, and Lai KH. Chemometric-guided chemical marker selection: a case study of the heat-clearing herb *Scrophularia ningpoensis*. *Frontiers in Plant Science*, 2023 Mar; 14, 1153710. (IF: 5.6; Rank: 27/238 (11.3%), Plant Sciences)
  16. Lin HC, Wang CC, Wu CF, Lin YH, Lee WC, **Chen PJ**, Chang YU, Su YC. Hinokitiol inhibits the viability of oral squamous carcinoma cells by inducing apoptosis and autophagy. *Anticancer Research*, 2023 Mar; 43(3):1167-1173 (IF: 2.0; Rank: 210/241 (87.1%), Oncology)
  17. El-Gamil DS, ElHady AK, **Chen PJ**, Hwang TL, Abadi AH, Abdel-Halim M, and Engel M. Discovery of novel 5-methoxybenzothiophene hydrazides as metabolically stable Clk1 inhibitors with high potency and unprecedented Clk1 isoenzyme selectivity. *European Journal of Medicinal Chemistry*, 2023 Feb; 247, 115019. (IF: 6.7; Rank: 7/60 (11.7%), Chemistry, Medicinal)
  18. Nguyen NBA, Chen LY, **Chen PJ**, El-Shazly M, Hwang TL, Su JH, Su CH, Yen PT, Peng BR, and Lai KH. MS/MS Molecular networking unveils the chemical diversity of biscebranoid derivatives, neutrophilic inflammatory mediators from the cultured soft coral *Sarcophyton trocheliophorum*. *International Journal of Molecular Sciences*, 2022 Dec; 23(24): 15464. (IF: 5.6; Rank: 66/285 (23.1%), Biochemistry & Molecular Biology)
  19. Huang YQ, **Chen PJ**, Yang SN, Chien SY, Zheng LG, Wen ZH, Kuo LM, Sung PJ. 17,20-Epoxysteroids from octocoral *Isis hippuris* (Linnaeus, 1758). *Tetrahedron Letters*, 2022 Oct; 108, 154142. (IF: 1.8; Rank: 34/52 (65.4%), Chemistry, Organic)
  20. Lai KH, Chen YL, Lin MF, El-Shazly M, Chang YC, **Chen PJ**, Su CH, Chiu YC, Ilias AM, Chen CC, Chen LY, Hwang TL. *Lonicerae japonicae* flos attenuates neutrophilic inflammation through inhibiting oxidative stress. *Antioxidants*, 2022 Sep; 11(9), 1781. (IF: 7.0; Rank: 6/60 (10%), Chemistry, Medicinal)
  21. Chi PJ, Wu KT, **Chen PJ**, Chen CY, Su YC, Yang CY, and Chen JH. The serial changes of neutrophil-lymphocyte ratio and correlation to weight loss after laparoscopic sleeve gastrectomy. *Frontiers in Surgery*, 2022 Sep; 9, 939857 (IF: 1.8; Rank: 131/212 (61.8%), Surgery)
  22. El-Gamil DS, ElHady AK, **Chen PJ**, Hwang TL, Abadi AH, Abdel-Halim M, and Engel M. Development of novel conformationally restricted selective Clk1/4 inhibitors through creating an intramolecular hydrogen bond involving an imide linker. *European Journal of Medicinal Chemistry*, 2022 Aug; 238, 114411. (IF: 6.7; Rank: 7/60 (11.7%), Chemistry, Medicinal)
  23. Yeh YT, Chen CY, **Chen PJ**, Hsieh YH, Chien SY, Liu CJ, Wen ZH, Hwang TL, Chen NF, Sung PJ. New 8,17-epoxybriaranes from octocoral *Briareum stechei* (Kükenthal, 1908). *Tetrahedron Letters*,

- 2022 Aug; 103, 153997. (IF: 1.8; Rank: 34/52 (65.4%), Chemistry, Organic)
24. Su YC, Wang CC, Weng JH, Yeh SA, **Chen PJ**, Hwang TZ, and Chen HC. 5-Methoxytryptophan sensitizing head and neck squamous carcinoma cell to cisplatin through inhibiting signal transducer and activator of transcription 3 (STAT3). *Frontiers in Oncology*, 2022 Jul; 12, 834941. (IF: 4.7; Rank: 85/241 (35.3%), Oncology)
  25. Tseng HJ, Kuo LM, **Chen PJ**, Chen SH, Liu CJ, Chien SY, Tsai YC, Wu YJ, Su TR, Sung PJ. Chlorofurancembranoids A and B: Novel cembranoids from octocoral *Sinularia* sp. *Tetrahedron*, 2022 Jul; 119, 132851. (IF: 2.1; Rank: 28/52 (53.8%), Chemistry, Organic)
  26. Zeng JS, Wu TY, **Chen PJ**, Chi WC, Chen NF, Wu YC, Fang LS, Chen SH, Kuo LM, Sung PJ. Coniferins C and D, new eunicellin-based diterpenoids from *Cladiella conifera*. *Heterocycles*, 2022 Jun; 104(8), 1461 (IF: 0.6; Rank: 49/52 (94.2%) Q4, Chemistry, Organic)
  27. Zeng JS, Tseng CC, Tsai YC, Chen SH, **Chen PJ**, Chen NF, Wen ZH, Hwang TL, Sung PJ. Coniferins A and B, new eunicellin-based diterpenoids from the octocoral *Cladiella conifera* (Tixier-Durivault, 1943). *Phytochemistry Letters*, 2022 June; 49:88-92. (IF: 1.7; Rank: 143/238 (60.1%), Plant Sciences)
  28. Wu CF, Hung TT, Su YC, **Chen PJ**, Lai KH, Wang CC. Endoplasmic reticulum stress of oral squamous cell carcinoma induces immunosuppression of neutrophils. *Frontiers in Oncology*, 2022 Mar; 12:818192. (IF: 4.7; Rank: 85/241 (35.3%), Oncology)
  29. Tsai YF, Chen CY, Lin IW, Leu YL, Yang SC, Syu YT, **Chen PJ**, Hwang TL. Imperatorin alleviates psoriasiform dermatitis by blocking neutrophil respiratory burst, adhesion, and chemotaxis through selective PDE4 inhibition. *Antioxidants & Redox Signaling*; 2021 Oct; 35(11):885-903. (IF:7.468; Rank: 24/146 (16.4%), Endocrinology & Metabolism)
  30. Kumar S, Wang YH, **Chen PJ**, Chang YC, Kashyap HK, Shen YC, Yu HP, Hwang TL. Design and synthesis of  $\beta$ -carboline and combretastatin derivatives as anti-neutrophilic inflammatory agents. *Bioorganic Chemistry*, 2021 Jun; 111:104846. (IF: 5.307; Rank: 8/56 (14.3%), Chemistry, Organic)
  31. ElHady AK, El-Gamil DS, **Chen PJ**, Hwang TL, Abadi AH, Abdel-Halim M, Engel M. 5-Methoxybenzothiophene-2-carboxamides as inhibitors of Clk1/4: optimization of the selectivity and cellular potency. *Molecules*, 2021 Feb; 26(4):1001. (IF: 4.927; Rank: 65/179 (36.3%), Chemistry, Multidisciplinary)

#### 會議論文

1. Kuo SL, Lin CC, **Chen PJ\***, and Hwang TL. Guizhi Fuling Wan employs antiapoptotic, antioxidant, and immunomodulatory protection against concanavalin A-induced autoimmune hepatitis in mice. The Society for Free Radical Research-Taiwan, Taiwan, 2023 (**Best Poster Award**)
2. Tsai SC, Chen SH, Lam SH, Lee CH, **Chen PJ\***. A selective ferroptosis inducer from *Pholidota* exerts anticancer ability in the treatment of colorectal cancer. The 38<sup>th</sup> International Symposium on Natural Products, The Society of Chinese Natural Medicine, Taiwan, 2023
3. **Chen PJ\***, Chen SH, and Hwang TL. Drug repurposing of ribociclib in the treatment of inflammatory disease. The 19<sup>th</sup> World Congress of Basic and Clinical Pharmacology, Glasgow, UK, 2023
4. **Chen PJ\***, Chen SH, Sie JY, and Hwang TL. The effects of a pure compound from *Bletilla* in the treatment of acute liver injury. The 37<sup>th</sup> Joint Annual Conference of Biomedical Science, Taiwan, 2023
5. Chen SH, Chang YC, **Chen PJ\***. The ROS-dependent effects of *Aaptos*-derived natural components in

- the treatment of colorectal cancer. The 37<sup>th</sup> Joint Annual Conference of Biomedical Science, Taiwan, 2023
6. Huang YT, Lee YC, Chang YC, **Chen PJ\***. Development of anticancer marine products in colorectal cancer. The 37<sup>th</sup> International Symposium on Natural Products, The Society of Chinese Natural Medicine, Taiwan, 2022
  7. Tsai SC, Chen SH, **Chen PJ\***, and Hwang TL. CDK inhibitor serves as a new drug for treatment of neutrophilic psoriasiform dermatitis. The 36<sup>th</sup> Joint Annual Conference of Biomedical Science, Taiwan, 2022 (**Distinguished Poster Prize of Tien Te Lee Biomedical Foundation**)
  8. **Chen PJ\***, Chen SH, Tseng HH, and Hwang TL. CDK inhibitor ameliorates neutrophil-associated psoriasiform dermatitis by inhibiting PI3K activity. 14<sup>th</sup> Asia Pacific Federation of Pharmacologists, Pharmacological Society in Taiwan, Taiwan, 2021
  9. **Chen PJ**, Kao TI, and Hwang TL. Bletinib ameliorates neutrophilic inflammation and lung injury by inhibiting Src family kinase phosphorylation and activity. 14<sup>th</sup> Asia Pacific Federation of Pharmacologists, Pharmacological Society in Taiwan, Taiwan, 2021
  10. **Chen PJ\***, Sie JY, and Hwang TL. Natural phenolic compound alleviates neutrophilic liver injury. The 36<sup>th</sup> International Symposium on Natural Products, The Society of Chinese Natural Medicine, Taiwan, 2021

#### 專利

1. 黃聰龍, **陳柏任**。利博西林用於製備治療罹患磷酸二酯酶 4 介導疾病的患者及抑制磷酸二酯酶 4 的活性的醫藥組合物及用途。中華民國發明第 I769382 號；專利權期間：20220701-20390620。
2. 黃聰龍, **陳柏任**, 曾馨慧。帕博西林用於製備治療罹患疾病的患者及抑制磷脂酰肌醇 3-激酶的活性的醫藥組合物及用途。中華人民共和國發明專利號：ZL 2020 1 0078609. 6；專利權期間：20220624-20420623。
3. Hwang TL, **Chen PJ**. Pharmaceutical composition and use for applying ribociclib in phosphodiesterase 4-mediated disease treatment of patient and inhibition of phosphodiesterase 4 activity. Patent. No.: US 11,351,172 B2, Date of Patent: Jun. 7, 2022.
4. 黃聰龍、**陳柏任**。利博西林用于制备治疗罹患磷酸二酯酶 4 介导疾病的患者的医药组合物及用途。中華人民共和國發明專利號：ZL 2020 1 0078474. 3；專利權期間：20220419-20420418。
5. 黃聰龍、**陳柏任**、曾馨慧。帕博西林用於製備治療罹患疾病的患者的醫藥組合物的用途。中華民國發明第 I737999 號；專利權期間：20210901-20390528。