



Dr. Pei-Wen Hsieh

Position : Professor	Laboratory : Medicinal Chemistry Laboratory
Degree : Ph.D.	Graduated from : Kaohsiung Medical University
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Research Interests:

1. Drug Discovery, e.g. Serine Proteases Inhibitors, Anti-viral, and Anti-cancer drugs.
2. Synthesis and Bioactive Evaluation of Bioactive Natural Products Derivatives.
3. Chemical & Bioactive Constituents of TCMs.

Publication Lists: (2014-present)

*, corresponding author

61. Li-Mei Wei, Yang Chang Wu, Chin-Chau Chen, **Pei-Wen Hsieh**, Wen-Bin Pan. Tupichinin B-D, three new spirostanol saponins from *Tupisra chinensis* rhizomes. *Nat. Prod. Res.* **2014**, 28:74-80. (SCI) (*I.F.*: 1.928; *R/C*=41/57 in **CHEMISTRY, MEDICINAL**)
62. Kuo-Sheng Liu, **Pei-Wen Hsieh**, Saleh A. Al-Suwayeh, Shu-Hao Chang, Jhi-Joung Wang, Jia-You Fang. Impact of ester promoieties on transdermal delivery of ketorolac. *J. Pharm. Sci.* **2014**, 103:974-986. (SCI) (*I.F.*: 2.575; *R/C*=127/261 in **PHARMACOLOGY & PHARMACY**)

63. **Pei-Wen Hsieh**, Chih-Jen Wen, Huang-Pin Yu, Ibrahim A. Aljuffali, Ya-Huei Huang, Jia-You Fang. Nanostructured lipid carriers containing a high percentage of a pluronic copolymer increase the biodistribution of novel PDE4 inhibitors for the treatment of traumatic hemorrhage. *J. Biomed. Nanotechnol.* **2014**, 10:1520-1535. (SCI) (**I.F.: 5.068; R/C=7/33 in MATERIALS SCIENCE, BIOMATERIALS**)
64. **Pei-Wen Hsieh**, Ibrahim A. Aljuffali, Chia-Lang Fang, Shu-Hao Chang, Jia-You Fang. Hydroquinone-salicylic acid conjugates as novel anti-melasma actives show superior skin targeting compared to the parent drugs. *J. Dermatol. Sci.* **2014**, 76:120-131. (SCI) (**I.F.: 3.675; R/C=9/63 in DERMATOLOGY**)
65. Tsong-Long Hwang, Wen-Hui Wang, Ting-Yi Wang, Huang-Ping Yu, **Pei-Wen Hsieh***. Synthesis and pharmacological characterization of 2-aminobenzaldehyde oxime analogs as dual inhibitors of neutrophil elastase and proteinase 3. *Bioorg. Med. Chem.* **2015**, 23:1123-1134. (SCI) (**I.F.: 2.881; R/C=19/57 in CHEMISTRY, ORGANIC**)
66. I-Hua Chen, Hsin-Chu Shih, **Pei-Wen Hsieh**, Fang-Rong Chang, Yang-Chang Wu, Chin-Chung Wu. HPW-RX40 restores anoikis sensitivity of human breast cancer cells by inhibiting integrin/FAK signaling. *Toxicol. Appl. Pharm.* **2015**, 289:330-340. (SCI) (**I.F.: 3.616; R/C=19/94 in TOXICOLOGY**)
67. Chien-Kei Wei, Fang-Rong Chang, **Pei-Wen Hsieh**, Chin-Chung Wu. Inhibition of the interactions between metastatic human breast cancer cells and platelets by β -nitrostyrene derivatives. *Life Sci.* **2015**, 143:147-155. (SCI) (**I.F.: 3.234; R/C= 78/261 in PHARMACOLOGY & PHARMACY**)
68. Yao-Wen Chang, **Pei-Wen Hsieh**, Yu-Tsui Chang, Meng-Hung Lu, Tur-Fu Huang, Kowit-Yu Chong, Hsiang-Ruei Liao, Ju-Chien Cheng, and Ching-Ping Tseng. Identification of a novel platelet antagonist that binds to CLEC-2 and suppresses podoplanin-induced platelet aggregation and cancer metastasis. *Oncotarget* **2015**, 6:42733-42748. (**Equal contribution as first author**)
69. Amos C. Hung, Chun-Hao Tsai, Ming-Feng Hou, Wen-Lin Chang, Chie-Hong Wang, Yi-Chen Lee, Alice Ko, Stephen Chu-Sung Hu, Fang-Rong Chang, **Pei-Wen Hsieh***, Shyng-Shiou F. Yuan*. The synthetic β -nitrostyrene derivative CYT-rx20 induces breast cancer cell death and autophagy via ROS-mediated MEK/ERK pathway. *Cancer Lett.* **2016**, 371:251-261. (SCI) (**I.F.: 6.491; R/C=28/222 in ONCOLOGY**)
70. Jin-Yuan Ho, Jyh-Haur Chern, Chung-Fan Hsieh, Szu-Ting Liu, Chien-Jou Liu, Ya-Sian Wang, Ta-Wei Kuo, Sheng-Ju Hsu, Ten-Kuang Yeh, Shin-Ru Shih, **Pei-Wen Hsieh**, Chen-Hsun Chiu, Jim-Tong Horng. In vitro and in vivo studies of a potent

capsid-binding inhibitor of enterovirus 71. *J. Antimicrob. Chemother.* **2016**, 71:1922-1932. (SCI) (*I.F.:* **4.255**; *R/C=33/261 in PHARMACOLOGY & PHARMACY*)

71. Chien-Chong Hong, Chih-Chung Lin, Chian-Lang Hong, Zi-Xiang Lin, Meng-Hua Chung, Pei-Wen Hsieh. Analyzer with On-Chip molecularly-imprinted biosensors for electrical detection of propofol in plasma samples. *Biosens. Bioelectron.* **2016**, 86:623-629. (SCI) (*I.F.:* **8.173**; *R/C=2/79 in CHEMISTRY, ANALYTICAL*)

72. Yu-Li Chen, Tsong-Long Hwang, Huang-Ping Yu, Jia-You Fang, Kowit Yu Chong, Yao-Wen Chang, Chun-Yu Chen, Hsuan-Wu Yang, Wen-Yi Chang, Pei-Wen Hsieh*. *Ilex kaushue* and its bioactive component 3,5-dicaffeoylquinic acid protected mice from lipopolysaccharide-induced acute lung injury. *Sci. Rep.* **2016**, 6:34243. (SCI) (*I.F.:* **4.122**; *R/C=12/64 in MULTIDISCIPLINARY SCIENCES*)

73. Chung-Fan Hsieh, Yu-Li Chen, Chwan-Fwu Lin, Jin-Yuan Ho, Chun-Hsun Huang, Cheng-Hsun Chiu, Pei-Wen Hsieh, Jim-Tong Horng. An extract from *Taxodium distichum* targets hemagglutinin- and neuraminidase-related activities of influenza virus in vitro. *Sci. Rep.* **2016**, 6:36015. (SCI) (*I.F.:* **4.122**; *R/C=12/64 in MULTIDISCIPLINARY SCIENCES*)

74. Wen-Chin Chiu, Yi-Chen Lee, Yu-Han Su, Yen-Yun Wang, Chun-Hao Tsai, Yi-An Hou, Chie-Hong Wang, Ying-Fong Huang, Chih-Jen Huang, Shah-Hwa Chou, Pei-Wen Hsieh, Shyng-Shiou F. Yuan. The synthetic β -nitrostyrene derivative CYT-Rx20 inhibits esophageal tumor growth and metastasis via PI3K/AKT and STAT3 pathways. *PLoS One* **2016**, 11:e0166453. (SCI) (*I.F.:* **2.766**; *R/C=15/64 in MULTIDISCIPLINARY SCIENCES*)

75. Chun-Hao Tsai, Pei-Wen Hsieh, Yi-Chen Lee, Chie-Hong Wang, Wen-Chin Chiu, Chun-Wun Lu, Yen-Yun Wang, Stephen Chu-Sung Hu, Tain-Lu Cheng, Shyng-Shiou F. Yuan*. 3'-Hydroxy-4'-methoxy- β -methyl- β -nitrostyrene inhibits tumor growth through ROS generation and GSH depletion in lung cancer cells. *Life Sci.* **2017**, 172:19-26. (SCI) (*I.F.:* **3.234**; *R/C= 78/261 in PHARMACOLOGY & PHARMACY*)

76. Shun-Chin Yang, Shih-Hsin Chang, Pei-Wen Hsieh, Yin-Ting Huang, Chiu-Ming Ho, Yung-Fong Tsai, Tsong-Long Hwang. Dipeptide HCH6-1 inhibits neutrophil activation and protects against acute lung injury by blocking FPR1. *Free Rad. Bio. Med.* **2017**, 106:254-269. (SCI). (*I.F.:* **6.020**; *R/C=39/292 in BIOCHEMISTRY & MOLECULAR BIOLOGY*)

77. Chun-Hao Tsai, Amos C. Hung, Yuan-Yin Chen, Ya-Wen Chiu, Pei-Wen Hsieh, Yi-Chen Lee, Yu-Han Su, Po-Chih Chang, Stephen Chu-Sung Hu, Shyng-Shiou F.

Yuan*. 3'-Hydroxy-4'-methoxy- β -methyl- β -nitrostyrene inhibits tumor-igenesis in colorectal cancer cells through ROS-mediated DNA damage and mitochondrial dysfunction. *Oncotarget* **2017**, 8:18106-18117.

78. Pei-Wen Hsieh, Chi-Feng Hung, Chih-Hung Lin, Chang-Wei Huang, Jia-You Fang. Anti-melasma codrug of retinoic acid assists cutaneous absorption with attenuated skin irritation. *Eur. J. Pharm. Biopharm.* **2017**, 114:154-163. (SCI) (*I.F.*: 4.491; *R/C*=28/261 **in PHARMACOLOGY & PHARMACY**)

79. Yen-Yun Wang, Yuk-Kwan Chen, Ya-Ling Hsu, Wen-Chin Chiu, Chun-Hao Tsai, Stephen Chu-Sung Hu, Pei-Wen Hsieh, Shyng-Shiou F. Yuan*. Synthetic β -nitrostyrene derivative CYT-Rx20 as inhibitor of oral cancer cell proliferation and tumor growth through glutathione suppression and reactive oxygen species induction. *Head & Neck* **2017**, 39:1055-1064. (SCI) (*I.F.*: 2.471; *R/C*=9/42 **in OTORHINOLARYNGOLOGY**)

80. Yen-Yun Wang, Yuk-Kwan Chen, Stephen Chu-Sung Hu, Ya-Ling Hsu, Chun-Hao Tsai, Tsung-Chen Chi, Wan-Ling Huang, Pei-Wen Hsieh, Shyng-Shiou F. Yuan. CYT-Rx20 inhibits ovarian cancer cells in vitro and in vivo through oxidative stress-induced DNA damage and cell apoptosis. *Cancer Chemother. Pharmacol.* **2017**, 79:1129-1140. (SCI) (*I.F.*: 2.808; *R/C*=107/261 **in PHARMACOLOGY & PHARMACY**)

81. Po-Hsiung Kung, Pei-Wen Hsieh, Ying-Ting Lin, Jia-Hua Lee, I-Hua Chen, Chin-Chung Wu. HPW-RX40 Prevents Human Platelet Activation by Attenuating Cell Surface Protein Disulfide Isomerases. *Redox Biol.* **2017**, 13:266-277. (SCI) (*I.F.*: 7.126; *R/C*=31/292 **in BIOCHEMISTRY & MOLECULAR BIOLOGY**)

82. Yen-Yun Wang, Pei-Wen Hsieh, Yuk-Kwan Chen, Stephen Chu-Sung Hu, Ya-Ling Hsu, Chun-Hao Tsai, Shyng-Shiou F Yuan. CYT-Rx20 inhibits cervical cancer cell growth and migration through oxidative stress-induced DNA damage, cell apoptosis, and epithelial-to-mesenchymal transition inhibition. *Int. J. Gynecol. Cancer* **2017**, 27:1306-1317. (SCI) (*I.F.*: 2.192; *R/C*=35/82 **in OBSTETRICS & GYNECOLOGY**)

83. Yu-Li Chen, Tsong-Long Hwang, Jia-You Fang, Yu-Hsuan Lan, **Kowit Yu Chong**, Pei-Wen Hsieh*. Polysaccharides from *Kochia scoparia* fruits protect mice from lipopolysaccharide-mediated acute lung injury by inhibiting neutrophil elastase. *J. Funct. Foods.* **2017**, 38:582-590. (SCI) (*I.F.*: 3.470; *R/C*=16/133 **in FOOD SCIENCE & TECHNOLOGY**)

84. Yao-Wen Chang, Ching-Ping Tseng, Chih-Hsun Lee, Tsong-Long Hwang, Yu-Li Chen,

Mei-Tzu Su, Kowit-Yu Chong, Ying-Wei Lan, Chin-Chung Wu, Kung-Ju Chen, Fen-Hua Lu, Hsiang-Ruei Liao, Chuen Hsueh, **Pei-Wen Hsieh***. β -Nitrostyrene derivatives attenuate LPS-mediated acute lung injury via the inhibition of neutrophil-platelet interactions and NET release. *Am. J. Physiol. Lung Cell Mol. Physiol.* **2018**, 314:L654-L669. (SCI) (*I.F.: 4.092; R/C=11/83 in PHYSIOLOGY*)

85. Bidyadhar Sethy, Chung-Fan Hsieh, Chieh Yeh, Jim-Tong Horng, **Pei-Wen Hsieh***. Design, synthesis and structure-activity relationships of a new class of anti-human enterovirus D68 and A71 agents. *Future Med. Chem.* **2018**, 10:1333-1347. (SCI) (*I.F.: 3.969; R/C=9/59 in CHEMISTRY, MEDICINAL*)

86. Zih-Chan Lin, **Pei-Wen Hsieh**, Tsong-Long Hwang, Chi-Yuan Chen, Calvin T. Sung, Jia-You Fang. Topical application of anthranilate derivatives ameliorates psoriatic inflammation in a mouse model by inhibiting keratinocyte-derived chemokine expression and neutrophil infiltration. *FASEB J.* **2018**, in press. (SCI) (*I.F.: 5.595; R/C=8/85 in Biology*)

Patents:

1. Tsong-Long Hwang, **Pei-Wen Hsieh**, Huang-Ping Yu。苯并雜氧嗪酮衍生物，其製備方法以及包含有此等衍生物的藥學組成物。中華民國專利 I419884 號。
2. Ching-Ping Tseng, **Pei-Wen Hsieh**, Yao-Wen Chang, 一種含有 5-nitrobenzoate 之衍生物，透過抑制腫瘤細胞誘發血小板凝集反應作為癌症轉移治療方式。中華民國專利 I444358 號。
3. **Pei-Wen Hsieh**, Tsong-Long Hwang, Wen-Hui Wang, Ting-Yi Wang, Oxime-based compound, pharmaceutical composition containing the same and method for preparing the same. US 9,073,833.
4. **Pei-Wen Hsieh**, Tsong-Long Hwang, Wen-Hui Wang, Ting-Yi Wang, 2-胺基苯甲醛衍生物及其製備方法與用途。中華民國專利 I508938 號。
5. **Pei-Wen Hsieh**, Tsong-Long Hwang, Wen-Hui Wang, Ting-Yi Wang, Oxime-based compound, pharmaceutical composition containing the same and method for preparing the same. JP 5890512。
6. **Pei-Wen Hsieh**, Tsong-Long Hwang, Wen-Hui Wang, Ting-Yi Wang, 2-胺基苯甲醛衍生物及其製備方法與用途。中華人民共和國專利 CN104803894 號。
7. Tsong-Long Hwang, **Pei-Wen Hsieh**, Yin-Ting Huang, Chih-Hao Hung, FPR1 拮抗

劑的衍生物及其用途。中華民國專利 I537251 號。

8. Tsong-Long Hwang, **Pei-Wen Hsieh**, Yin-Ting Huang, Chih-Hao Hung. FPR1 antagonist derivatives and use thereof. US 9,593,114.
9. 葉宏一、鍾鏡湖、王士維、謝珮文，橙黃醯胺雙肽衍生物用於治療或預防血管新生相關疾病。中華民國專利申請號 104143726 號（領證中）。
10. Ching-Ping Tseng, **Pei-Wen Hsieh**, Yao-Wen Chang. Composition of 5-nitrobenzoate derivatives as anti-metastatic agent that inhibits tumor cell-induced platelet aggregation. US 9,604,910.
11. Ching-Ping Tseng, **Pei-Wen Hsieh**, Yao-Wen Chang. A composition of 5-nitrobenzoate derivatives as anti-metastatic agent that inhibits tumor cell-induced platelet aggregation. US 20170172949.
12. **Pei-Wen Hsieh**, Ching-Ping Tseng, Yun-Zhan Tsai, Yu-Ling Hung, Yao-Wen Chang. Compounds, compositions and methods for treating tumors. US 20170183294.
13. 葉宏一、鍾鏡湖、王士維、**Pei-Wen Hsieh**. Aurantiamide dipeptide derivatives for treatment or prevention of angiogenesis-related diseases. USA application no. 14/981178.
14. Ching-Ping Tseng, **Pei-Wen Hsieh**, Yao-Wen Chang. Composition of 5-nitrobenzoate derivatives as anti-metastatic agent that inhibits tumor cell-induced platelet aggregation. US 9,956,191.
15. **Pei-Wen Hsieh**, Ching-Ping Tseng, Yun-Zhan Tsai, Yu-Ling Hung, Yao-Wen Chang. Compounds, compositions and methods for treating tumors. US 20170183294.

Group Members:

Postdoctoral researchers: 1

Research assistants: 2

Ph.D students: 2

Master students: 3

International Exchange Students:

Name	School/Nationality	Exchange Period
Magdalena Al-Ameri	Jagiellonian University/ Poland	2017.08.01-2017.08.31

Emil Klink-Breinchild	Aalborg University/ Denmark	2018.07.01-2018.07.31
Polina Lemeshko	Siberian State Medical University/ Russian Federation	2018.08.01-2018.08.31

