



Dr. Pei-Wen Hsieh

Position : Professor

Laboratory : Medicinal Chemistry Laboratory

Degree : Ph.D.

Graduated from : Kaohsiung Medical University

**Phone : +886-3-2118800
ext. 3105**

E-MAIL : pewehs@mail.cgu.edu.tw

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. Repositioning of traditional Chinese medicines.

Publication Lists: (2016-present)

*, corresponding 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.:* 6.508; *R/C=29/229 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.: 4.715; R/C=27/267 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.: 9.518; R/C=1/84 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.: 4.011; R/C=15/69 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.: 4.011; R/C=15/69 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.: 2.776; R/C=24/69 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.: 3.448; R/C= 76/267 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.: 5.657; R/C=43/298 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.*: **4.708**; *R/C=28/267 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.*: **2.442**; *R/C=10/42 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.*: **3.008**; *R/C=101/267 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.*: **7.793**; *R/C=28/298 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.*: **1.764**; *R/C=52/83 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.*: **3.197**; *R/C=33/135 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.*: **4.060**; *R/C*=14/81 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.*: **3.617**; *R/C*=19/61 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**, 32:6783-6795. (SCI) (*I.F.*: **5.391**; *R/C*=8/87 in **Biology**)
87. Bidyadhar Sethy, Chung-Fan Hsieh, Ta-Jen Lin, Po-Yuan Hu, Yu-Li Chen, Chia-Yi Lin, Sung-Nain Tseng, Jim-Tong Horng*, **Pei-Wen Hsieh***. Design, synthesis, and biological evaluation of itaconic acid derivatives as potential anti-influenza agents. *J. Med. Chem.* **2019**, 62:2390-2403. (SCI) (*I.F.*: **6.054**; *R/C*=3/61 in **CHEMISTRY, MEDICINAL**)
88. Nobuo Watanabe, Masako Kidokoro, Yusuke Suzuki, Makiko Tanaka, Shigeaki Inoue, Hideo Tsukamoto, Noriaki Hirayama, **Pei-Wen Hsieh**, Ching-Ping Tseng, Yoshihide Nakagawa, Sadaki Inokuchi. A pull-down and slot blot-based screening system for inhibitor compounds of the podoplanin-CLEC-2 interaction. *PLoS One* **2019**, 14: e0222331. (SCI) (*I.F.*: **2.776**; *R/C*=24/69 in **MULTIDISCIPLINARY SCIENCES**)
89. Ching-Ping Tseng, Yu-Ling Huang, Yao-Wen Chang, Hsiang-Ruei Liao, Yu-Li Chen, **Pei-Wen Hsieh***. Polysaccharide-containing fraction from *Artemisia argyi* inhibits tumor cell-induced platelet aggregation by blocking interaction of podoplanin with C-type lectin-like receptor 2. *J. Food Drug Anal.* **2020**, 28:115-123. (SCI) (*I.F.*: **6.157**; *R/C*=27/143 in **FOOD SCIENCE & TECHNOLOGY**)
90. Chung-Fan Hsieh, Jia-Rong Jheng, Guan-Hua Lin, Yu-Li Chen, Jin-Yuan Ho, Chien-Jou Liu, Kuei-Yang Hsu, Yuan-Siao Chen, Yoke Fun Chan, Hui-Ming Yu, **Pei-Wen Hsieh**, Jyh-Haur Chern, Jim-Tong Horng. Rosmarinic acid exhibits broad anti-enterovirus A71 activity by inhibiting the interaction between the five-fold axis of capsid VP1 and cognate sulfated receptors. *Emerg. Microbes Infectec.* **2020**, 9:1194-

1205. (SCI) (*I.F.: 19.568; 7/136 in Microbiology*)

91. Eman Al-Sayed, Michal Korinek, Ahmed Esmat, Guan-Yu Chen, Yuan-Bin Cheng, **Pei-Wen Hsieh**, Bing-Hung Chen, Tsong-Long Hwang*. Anti-inflammatory, hepatoprotective and antioxidant activity of ellagitannin isolated from *Melaleuca styphelioides*. *Phytochemistry* **2020**, 177:112429. (SCI) (*I.F.: 4.004; 53/238 in PLANT SCIENCES*)
92. Kung-Ju Chen, Yu-Li Chen, Shir-Hwa Ueng, Tsong-Long Hwang, Liang-Mou Kuo*, **Pei-Wen Hsieh***. Neutrophil elastase inhibitor (MPH-966) improves intestinal mucosal damage and gut microbiota in a mouse model of 5-fluorouracil-induced intestinal mucositis. *Biomed. Pharmacother.* **2021**, 134:111152. (SCI) (*I.F.: 7.419; R/C=24/279 in PHARMACOLOGY & PHARMACY*)
93. Michal Korinek, Pei-Shan Hsieh, Yu-Li Chen, **Pei-Wen Hsieh**, Shih-Hsin Chang, Yi-Hsiu Wu, Tsong-Long Hwang*. Randialic acid B and tomentosolic acid block formyl peptide receptor 1 in human neutrophils and attenuate psoriasis-like inflammation in vivo. *Biochem. Pharmacol.* **2021**, 190:114596. (SCI) (*I.F.: 6.100; R/C=46/279 in PHARMACOLOGY & PHARMACY*)
94. Che-Chuan Wang, **Pei-Wen Hsieh**, Jinn-Rung Kou, Su-Jane Wang*. Rosmarinic acid, a bioactive phenolic compound, inhibits glutamate release from rat cerebrocortical synaptosomes through GABAA receptor activation. *Biomolecules* **2021**, 11:1029. (SCI) (*I.F.: 6.064; R/C=75/296 in BIOCHEMISTRY & MOLECULAR BIOLOGY*)
95. Hao-Wei Chu, Bidyadhar Sethy, **Pei-Wen Hsieh**, Jim-Tong Horng*. Identification of potential drug targets of broad-spectrum inhibitors with a Michael acceptor moiety using shotgun proteomics. *Viruses* **2021**, 13:1756. (SCI) (*I.F.: 5.818; 14/37 in VIROLOGY*)
96. Tzu-Yu Lin, Cheng-Wei Lu, **Pei-Wen Hsieh**, Kuan-Ming Chiu, Ming-Yi Lee, Su-Jane Wang*. Natural product isoliquiritigenin activates GABAB receptors to decrease voltage-gate Ca²⁺ channels and glutamate release in rat cerebrocortical nerve terminals. *Biomolecules* **2021**, 11:1537. (SCI) (*I.F.: 6.064; R/C=75/296 in BIOCHEMISTRY & MOLECULAR BIOLOGY*)
97. Anna Chang, Chi-Feng Hung, **Pei-Wen Hsieh**, Horng-Huey Ko and Su-Jane Wang*. Eupafolin suppresses P/Q-Type Ca²⁺ channels to inhibit Ca²⁺/calmodulin-dependent protein kinase II and glutamate release at rat cerebrocortical nerve terminals. *Biomol. Ther.* (Seoul) **2021**, 29:630-636. (SCI) (*I.F.: 4.231; R/C=106/279 in*

PHARMACOLOGY & PHARMACY)

98. Yi-Chieh Hung, Yi-Hsiu Kuo, **Pei-Wen Hsieh**, Ting-Yang Hsieh, Jinn-Rung Kuo, Su-Jane Wang*. Chlorogenic acid decreases glutamate release from rat cortical nerve terminals by P/Q-type Ca²⁺ channel suppression: a possible neuroprotective mechanism. *Int. J. Mol. Sci.* **2021**, 22:11447. (SCI) (*I.F.: 6.208; R/C=69/296 in*

BIOCHEMISTRY & MOLECULAR BIOLOGY)

99. Cheng-Wei Lu, Chen-Jung Lin, **Pei-Wen Hsieh**, Kuan-Ming Chiu, Ming-Yi Lee, Tzu-Yu Lin*, Su-Jane Wang*. An anthranilate derivative inhibits glutamate release and glutamate excitotoxicity in rats. *Int. J. Mol. Sci.* **2022**, 23:2641. (SCI) (*I.F.: 6.208; R/C=69/296 in BIOCHEMISTRY & MOLECULAR BIOLOGY)*

100. Chung-Fan Hsieh, Yu-Li Chen, Guan-Hua Lin, Yoke Fun Chan, **Pei-Wen Hsieh**, and Jim-Tong Horng*. 3,4-Dicaffeoylquinic acid from the medicinal plant *Ilex kaushue* disrupts the interaction between the five-fold axis of enterovirus A-71 and the heparan sulfate receptor. *J. Virol.* **2022**, 96: e0054221. (SCI) (*I.F.: 6.549; 11/37 in VIROLOGY)*

101. Kung-Ju Chen, Yu-Ling Huang, Liang-Mou Kuo, Yi-Ting Chen, Chi-Feng Hung, **Pei-Wen Hsieh***. Protective role of casuarinin from *Melastoma malabathricum* against a mouse model of 5-fluorouracil-induced intestinal mucositis: impact on inflammation and gut microbiota dysbiosis. *Phytomedicine* **2022**, 101:154092. (SCI) (*I.F.: 6.656; R/C=1/30 in INTEGRATIVE & COMPLEMENTARY MEDICINE)*

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。TW I419884。
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。TW I444358。
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。TW I508938。
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。CN104803894。
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。TW I537251。
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。TW 104143726。
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: 0

Research assistants: 1

Ph.D students: 0

Master students: 1

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
Sao Mai Tranová	Charles University/ Czech Republic	2019.07.01-2019.07.31
Petra Sossi	University of Maribor / Slovenia	2019.07.01-2019.07.31
Joanna Szydełko	Medical University of Silesia/ Poland	2019.10.01-2019.10.31

