



Dr. Hsiang-Ruei Liao

<u>Position</u> : Professor	<u>Laboratory</u> : Natural Products Pharmacology
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Research Interests:

1. Inflammation and Neutrophil extracellular trap (NET) formation
2. Signal transduction
3. Platelet biology and vascular disease
4. Anti-thrombosis drug development

Publication Lists: (2011-present)

*, corresponding author

1. Liao HR*, Kao YY, Leu YL, Liu FC, Tseng CP. Larixol inhibits fMLP-induced superoxide anion production and chemotaxis by targeting the $\beta\gamma$ subunit of Gi-protein of fMLP receptor in

- human neutrophils. *Biochem Pharmacol.* 2022, 201:115091. (SCI) (IF: 6.100; R/C=46/279 in PHARMACOLOGY & PHARMACY)
2. [Liao HR*](#), Lin CH, Chen JJ, Liu FC, Tseng CP. The anti-inflammatory effect of ϵ -viniferin by specifically targeting formyl peptide receptor 1 on human neutrophils. *Chem Biol Interact.* 2021, 345:109490. (SCI) (IF: 5.168; R/C=73/279 in PHARMACOLOGY & PHARMACY)
 3. Chu YC, Chang CH, [Liao HR](#), Fu SL, Chen JJ. Anti-Cancer and Anti-Inflammatory Activities of Three New Chromone Derivatives from the Marine-Derived *Penicillium citrinum*. *Mar Drugs.* 2021, 19(8):408. (SCI) (IF: 6.085; R/C=10/63 in CHEMISTRY, MEDICINAL)
 4. Tsai HJ, Cheng JC, Kao ML, Chiu HP, Chiang YH, Chen DP, Rau KM, [Liao HR](#), Tseng CP. Integrin α IIb β 3 outside-in signaling activates human platelets through serine 24 phosphorylation of Disabled-2. *Cell Biosci.* 2021, 11(1):32. (SCI) (IF: 9.606; R/C=31/296 in BIOCHEMISTRY & MOLECULAR BIOLOGY)
 5. Chu YC, Chang CH, [Liao HR](#), Cheng MJ, Wu MD, Fu SL, Chen JJ. Rare Chromone Derivatives from the Marine-Derived *Penicillium citrinum* with Anti-Cancer and Anti-Inflammatory Activities. *Mar Drugs.* 2021, 19(1):25. (SCI) (IF: 6.085; R/C=10/63 in CHEMISTRY, MEDICINAL)
 6. Tseng CP, Huang YL, Chang YW, [Liao HR](#), Chen YL, Hsieh PW. 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(1):115-123. (SCI) (IF: 6.157; R/C=45/279 in PHARMACOLOGY & PHARMACY).
 7. Wang SL, [Liao HR](#), Cheng MJ, Shu CW, Chen CL, Chung MI, Chen JJ. Four New 2-(2-Phenylethyl)-4H-chromen-4-one Derivatives from the Resinous Wood of *Aquilaria sinensis* and Their Inhibitory Activities on Neutrophil Pro-Inflammatory Responses. *Planta Med.* 2018, 84(18):1340-1347. (SCI) (IF: 3.007; R/C=41/63 in CHEMISTRY, MEDICINAL)
 8. [Liao HR](#), Chen IS, Liu FC, Lin SZ, Tseng CP. 2',3-dihydroxy-5-methoxybiphenyl suppresses fMLP-induced superoxide anion production and cathepsin G release by targeting the β -subunit

of G-protein in human neutrophils. *Eur J Pharmacol.* 2018, 829:26-37. (SCI) (IF: 5.195; R/C=71/279 in PHARMACOLOGY & PHARMACY)

9. Chang YW, Tseng CP, Lee CH, Hwang TL, Chen YL, Su MT, Chong KY, Lan YW, Wu CC, Chen KJ, Lu FH, [Liao HR](#), Hsueh C, Hsieh PW. 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(4):L654-L669. (SCI) (IF: 6.011; R/C=12/81 in PHYSIOLOGY)
10. Tsai HJ, Chien KY, [Liao HR](#), Shih MS, Lin YC, Chang YW, Cheng JC, Tseng CP. Functional links between Disabled-2 Ser723 phosphorylation and thrombin signaling in human platelets. *J Thromb Haemost.* 2017, 15(10):2029-2044. (SCI) (IF: 16.036; R/C=3/67 in PERIPHERAL VASCULAR DISEASE)
11. Cheng LY, [Liao HR](#), Chen LC, Wang SW, Kuo YH, Chung MI, Chen JJ. Naphthofuranone derivatives and other constituents from *Pachira aquatica* with inhibitory activity on superoxide anion generation by neutrophils. *Fitoterapia.* 2017, 117:16-21. (SCI) (IF: 3.204; R/C=166/279 in PHARMACOLOGY & PHARMACY)
12. Chen JJ, Tsai TH, [Liao HR](#), Chen LC, Kuo YH, Sung PJ, Chen CL, Wei CS. New Sesquiterpenoids and Anti-Platelet Aggregation Constituents from the Rhizomes of *Curcuma zedoaria*. *Molecules.* 2016, 21(10):1385. (SCI) (IF: 4.927; R/C=114/296 in BIOCHEMISTRY & MOLECULAR BIOLOGY)
13. [Liao HR](#), Chien CR, Chen JJ, Lee TY, Lin SZ, Tseng CP. The anti-inflammatory effect of 2-(4-hydroxy-3-prop-2-enyl-phenyl)-4-prop-2-enyl-phenol by targeting Lyn kinase in human neutrophils. *Chem Biol Interact.* 2015, 236:90-101. (SCI) (IF: 5.168; R/C=73/279 in PHARMACOLOGY & PHARMACY)
14. Chang YW, Hsieh PW, Chang YT, Lu MH, Huang TF, Chong KY, [Liao HR](#), Cheng JC, Tseng CP. Identification of a novel platelet antagonist that binds to CLEC-2 and suppresses podoplanin-induced platelet aggregation and cancer metastasis. *Oncotarget.* 2015,

6(40):42733-48. (SCI) (IF: 5.168; R/C=44/217 in ONCOLOGY)

15. Tseng WL, Chen TH, Huang CC, Huang YH, Yeh CF, Tsai HJ, Lee HY, Kao CY, Lin SW, [Liao HR](#), Cheng JC, Tseng CP. Impaired thrombin generation in Reelin-deficient mice: a potential role of plasma Reelin in hemostasis. *J Thromb Haemost.* 2014, 12(12):2054-64. (SCI) (IF: 16.036; R/C=3/67 in PERIPHERAL VASCULAR DISEASE)
16. Kuo WL, [Liao HR](#), Chen JJ. Biflavans, Flavonoids, and a Dihydrochalcone from the Stem Wood of *Muntingia calabura* and Their Inhibitory Activities on Neutrophil Pro-Inflammatory Responses. *Molecules.* 2014, 19(12):20521-20535. (SCI) (IF: 4.927; R/C=114/296 in BIOCHEMISTRY & MOLECULAR BIOLOGY)
17. Chuang LP, Chen NH, Lin SW, Chang YL, [Liao HR](#), Lin YS, Chao IJ, Lin Y, Pang JH. Increased C-C chemokine receptor 2 gene expression in monocytes of severe obstructive sleep apnea patients and under intermittent hypoxia. *PLoS One.* 2014, 9(11):e113304. (SCI) (IF: 3.752; R/C=29/73 in MULTIDISCIPLINARY SCIENCES)
18. Liu FC, Liou JT, [Liao HR](#), Mao CC, Yang P, Day YJ. The anti-aggregation effects of ondansetron on platelets involve IP3 signaling and MAP kinase pathway, but not 5-HT3-dependent pathway. *Thromb Res.* 2012, 130(3):e84-94. (SCI) (IF: 10.407; R/C=6/67 in PERIPHERAL VASCULAR DISEASE)
19. Liu FC, Day YJ, Liou JT, Yu HP, [Liao HR*](#). Splitomicin inhibits fMLP-induced superoxide anion production in human neutrophils by activate cAMP/PKA signaling inhibition of ERK pathway. *Eur J Pharmacol*, 2012, 688(1-3):68-75. (SCI) (IF: 5.195; R/C=71/279 in PHARMACOLOGY & PHARMACY)
20. [Liao HR*](#), Chen JJ, Chien YH, Lin SZ, Lin S, Tseng CP. 5-Hydroxy-7-methoxyflavone inhibits N-formyl-L-methionyl-L-leucyl- L-phenylalanine-induced superoxide anion production by specific modulate membrane localization of Tec with a PI3K independent mechanism in human neutrophils. *Biochem Pharmacol.* 2012, 84(2):182-91. (SCI) (IF: 6.100; R/C=46/279 in PHARMACOLOGY & PHARMACY)

21. Chang MC, Wang TM, Yeung SY, Jeng PY, Liao CH, Lin TY, Lin CC, Lin BR, Jeng JH. Antiplatelet effect by p-cresol, a uremic and environmental toxicant, is related to inhibition of reactive oxygen species, ERK/p38 signaling and thromboxane A2 production. *Atherosclerosis*. 2011, 219(2):559-65. (SCI) (IF: 6.847; R/C=11/67 in PERIPHERAL VASCULAR DISEASE)
22. Chang-Hui Liao*, Jih-Jung Chen, Jieru Egeria Lin, Chia-Hsin Liu, Ching-Ping Tseng, Yuan-Ji Day. 5-hydroxy-2-(4-hydroxy-3-methoxyphenyl)-3,7-dimethoxy-4H-chromen-4-one (MSF-2) suppresses fMLPmediated respiratory burst in human neutrophils by inhibiting phosphatidylinositol 3-kinase activity. *Journal of cellular physiology*, 2011, 226(6):1519-30. (SCI) (IF: 6.513; R/C=10/81 in PHYSIOLOGY)
23. Liou BJ, Chang HS, Wang GJ, Chiang MY, Liao CH, Lin CH, Chen IS. Secondary metabolites from the leaves of *Neolitsea hiiranensis* and the anti-inflammatory activity of some of them. *Phytochemistry*. 2011, 72(4-5):415-22. (SCI) (IF: 4.004; R/C=161/296 in BIOCHEMISTRY & MOLECULAR BIOLOGY)

Patents:













