

Zhou Hua

@ Macau University of Science and Technology



Position : Professor / Dean

Faculty : State Key Laboratory of Quality
Research in Chinese medicine, Faculty
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Biosketch

Dr. Zhou Hua obtained his PhD in Integration of Chinese and Western Medicine at Guangzhou University of Chinese Medicine in 2001. He is currently appointed as full professor at the State Key Laboratory of Quality Research in Chinese Medicine and the Dean of Faculty of Chinese Medicine of Macau University of Science and Technology. His major research areas are cardiovascular and immunological pharmacology and drug research and development of Chinese medicines. He is the member of Medical Committee of Macao SAR Government, the member of Health Professionals Council of the Macao SAR Government, the coordinator of the Accreditation Committee of Pharmacist in Chinese Medicine, Health Professionals Council of the Macao SAR Government, the Vice Chairman and Secretary General of Subcommittee of Immunology in Chinese Medicine of Chinese Society of Immunology, the Vice Secretary General and Vice President of Specialty Committee of Immunology of Traditional Chinese Medicine of WFCMS, the Associate Editor of Phytomedicine, the Honorary Editor of Pharmacological Research, and the Working Group Experts and Secretary of the Working Group 1 of ISO/TC249. He obtained research grants from the Joint Research Fund for Overseas Chinese, Hong Kong and Macao Young Scholars of NSFC, the Ministry of Science and Technology of China, and the Science and Technology Development Fund of Macao SAR. He has published over 160 SCI articles and 50 Chinese articles with a total citation of nearly 4500 and a H-index of 38 (Google Scholar), and 14 books, been granted over 30 international or China patents, and been awarded over 10 prizes as a major participant, including the Second Prize of National Science & Technology Progress Award of China, the First Prize of the Nature and Science Category of Ministry of Education Higher Education Outstanding Scientific Research Output Awards, and the First Prize of the Nature and Science Category of the Macao Science and Technology Award.

Teaching and Research Areas

Teaching subjects: Herbal Pharmacology, Research and Development of New Pharmaceuticals from Chinese Medicine, Methodology in Pharmacology of Chinese Medicines, Methodology of Pharmacological Experiment, Research of Compound Chinese Medicines and Development of New Pharmaceuticals, Practicum, Honours Project

Research Areas : Cardiovascular and immunological pharmacology and drug research and development of Chinese medicines, molecular pharmacognosy, quality research of Chinese medicine, pharmacokinetics, R&D of innovative drugs

Academic Qualifications

- 1998 - 2001 PhD / Integration of Chinese and Western Medicine (Immunopharmacology) / Guangzhou University of Traditional Chinese Medicine
- 1993 - 1996 MPhil / Integration of Chinese and Western Medicine (Pharmacy in Chinese medicine) / Guangzhou University of Traditional Chinese Medicine
- 1989 - 1993 BSC / Pharmacy in Chinese Medicine / Guangzhou College of Traditional Chinese Medicine

Teaching Experiences

- 2020.7 - Present Dean / Macau University of Science and Technology
- 2016.7 - Present Professor / Macau University of Science and Technology
- 2015.7 - 2020.6 Associate Dean / Faculty of Chinese Medicine / Macau University of Science and Technology
- 2013.7 - 2015.6 Assistant Dean / Faculty of Chinese Medicine / Macau University of Science and Technology
- 2012.7 - 2013.6 Program Director / Faculty of Chinese Medicine / Macau University of Science and Technology
- 2011.9 - 2016.6 Associate Professor / Macau University of Science and Technology
- 2011.9 - Present Director of Laboratory for Bioassay and Molecular Pharmacology of Chinese Medicines / State Key Laboratory for Quality Research in Chinese Medicines (Macau University of Science and Technology)
- 2006.1 - 2011.9 Assistant Professor / Teaching Division; Research Fellow / Shum Yiu Foon Shum Bik Chuen Memorial Centre for Cancer and Inflammation Research / School of Chinese Medicine / Hong Kong Baptist University

2003.4 - 2005.12 Project Coordinator & Scientific Officer / Dean's Office and Research and Development Division / School of Chinese Medicine / Hong Kong Baptist University

2002.11 - 2003.3 Scientific Officer / Research and Development Division / School of Chinese Medicine / Hong Kong Baptist University

2001.8 - 2002.10 Postdoctoral Training / Cardiac Physiology Laboratory / Division of Circulatory Physiology / Heart Failure Center; Department of Medicine / College of Physicians and Surgeons / Columbia University

1996.7 - 1998.8 Teaching and Research Assistant / Division of Pharmaceutical Sciences / Department of Chinese Medicines / Guangzhou University of Traditional Chinese Medicine

Representative Publications

Journal Articles: (*, corresponding author(s); †, contribution equally/sharing first authorship)

- (1) Liu M-N, Pu Y-T, Gu J, He Q-D, Liu Y, Zeng Y-W, Li J-C, Long X-R, Yang S-J*, Wu Q-B*, **Zhou H***. Evaluation of Zhilong Huoxue Tongyu Capsule in the Treatment of Acute Cerebral Infarction: A Systematic Review and Meta-analysis of Randomized Controlled Trials. *Phytomedicine*. 2021 Apr 9;153566.
[SCI impact factor 2020: 5.340, ranked 3rd in 29 journals (10.34%) of category INTEGRATIVE & COMPLEMENTARY MEDICINE]
- (2) Gao W-J, Liu J-X, Liu M-N, Yao Y-D, Liu Z-Q, Liu L, He H-H, **Zhou H***. Macrophage 3D migration: A potential therapeutic target for inflammation and deleterious progression in diseases. *Pharmacological Research*. 2021 May 1;167:105563.
[SCI impact factor 2020: 7.658, ranked 15th in 275 journals (5.45%) of category PHARMACOLOGY & PHARMACY]
- (3) Xie Y, Mai C-T, Zheng D-C, He Y-F, Feng S-L, Li Y-Z, Liu C-X, **Zhou H***, Liu L*. Wutou decoction ameliorates experimental rheumatoid arthritis via regulating NF-kB and Nrf2: Integrating efficacy-oriented compatibility of traditional Chinese medicine. *Phytomedicine*. 2021 May 1;85:153522.
[SCI impact factor 2020: 5.340, ranked 3rd in 29 journals (10.34%) of category INTEGRATIVE & COMPLEMENTARY MEDICINE]
- (4) Bai S-S, Wen W-H, Hou X-N, Wu J-X, Yi L, Zhi Y-K, Tan X-Q, Li Y-H, Liu L, Wang P-X, **Zhou H***, Dong Y*. Inhibitory effect of sinomenine on lung cancer cells via negative regulation of $\alpha 7$ nicotinic acetylcholine receptor. *Journal of Leukocyte Biology*. 2021 Apr 1;109(4):843–52.
[SCI impact factor 2020: 4.962, ranked 25th in 76 journals (32.8%) of category HEMATOLOGY]
- (5) Liu M-N, Luo G, Gao W-J, Yang S-J*, **Zhou H***. miR-29 family: A potential therapeutic target for cardiovascular disease. *Pharmacological Research*. 2021 Apr 1;166:105510.

- [SCI impact factor 2020: 7.658, ranked 15th in 275 journals (5.45%) of category PHARMACOLOGY & PHARMACY]
- (6) Cheng C-S, Lao C-C, Cheng Q-Q, Zhang Z-L, Lu J-G, Liu J-X, **Zhou H***. Identification of blood-red color formation in edible bird's nests provides a new strategy for safety control. Food Chemistry. 2021 Mar 3;129454.
[SCI impact factor 2020: 7.514, ranked 7th in 144 journals (4.86%) of category FOOD SCIENCE & TECHNOLOGY]
- (7) Xu X-T, Shi Y-H, Sang Z*, **Zhou H***. Features and development trends in international standardization of Chinese materia medica in ISO/TC 249. Pharmacological Research. 2021 Feb 23;105519.
[SCI impact factor 2020: 7.658, ranked 15th in 275 journals (5.45%) of category PHARMACOLOGY & PHARMACY]
- (8) Gao W-J, Liu J-X, Xie Y, Luo P, Liu Z-Q, Liu L*, **Zhou H***. Suppression of macrophage migration by down-regulating Src/FAK/P130Cas activation contributed to the anti-inflammatory activity of sinomenine. Pharmacological Research. 2021 Feb 20;105513.
[SCI impact factor 2020: 7.658, ranked 15th in 275 journals (5.45%) of category PHARMACOLOGY & PHARMACY]
- (9) Wang W-Y[†], **Zhou H[†]**, Wang Y-F, Sang B-S*, Liu L*. Current Policies and Measures on the Development of Traditional Chinese Medicine in China. Pharmacological Research. 2021 Jan 1;105187.
[SCI impact factor 2020: 7.658, ranked 15th in 275 journals (5.45%) of category PHARMACOLOGY & PHARMACY]
- (10) He F, Xiao C-X, Wang C-J, Liang J, Cheng Q-Q, Zhang L, Zhou B-J*, **Zhou H***. Discovery of Quality Markers in Hugan Qingzhi Formula by Integrating a Lipid-Lowering Bioassay with UHPLC-QQQ-MS/MS. Evidence-Based Complementary and Alternative Medicine. 2020 Nov 12;2020:Article ID 1594350.
[SCI impact factor 2020: 2.629, ranked 12th in 29 journals (41.38%) of category INTEGRATIVE & COMPLEMENTARY MEDICINE]
- (11) Leung E-L-H, Pan H-D, Huang Y-F, Fan X-X, Wang W-Y, He F, Cai J, **Zhou H***, Liu L*. The scientific foundation of Chinese herbal medicine against COVID-19. Engineering. 2020 Oct 1;6(10):1099–107.
[SCI impact factor 2020: 7.553, ranked 4th in 91 journals (4.39%) of category MULTIDISCIPLINARY ENGINEERING]
- (12) Shi Y-H[†], Huang Y-F[†], Wang W-Y, Yang L*, **Zhou H***, Sang Zhen*. Analysis on the current quality standards of Chinese materia Medica used in COVID-19 prevention and treatment. Pharmacological Research. 2020 Oct 1;160:105074.
[SCI impact factor 2020: 7.658, ranked 15th in 275 journals (5.45%) of category PHARMACOLOGY & PHARMACY]

- (13) Huang Y-F[†], He F[†], Xie Y[†], Liu L*, **Zhou H***. ISO/TC 249 platform promotes the development of international standardization and trade for the Chinese medicines industry. *Pharmacological Research*. 2020 Oct 1;160:105066.
[SCI impact factor 2020: 7.658, ranked 15th in 275 journals (5.45%) of category PHARMACOLOGY & PHARMACY]
- (14) Li Y, Guo J-R, Zhang H-X, Lam CWK, Luo W, **Zhou H***, Zhang W*. Protective Effect of Thymidine on DNA Damage Induced by Hydrogen Peroxide in Human Hepatocellular Cancer Cells. *ACS Omega*. 2020 Sep 1;5(34):21796–804.
[SCI impact factor 2020: 3.512, ranked 78th in 179 journals (43.58%) of category MULTIDISCIPLINARY CHEMISTRY]
- (15) Huang Y-F, He F, Wang C-J, Xie Y, Zhang Y-Y, Sang Z, Qiu P, Luo P, Xiao S-Y, Li J, Wu F-C, Liu L*, **Zhou H***. Discovery of chemical markers for improving the quality and safety control of *Sinomenium acutum* stem by the simultaneous determination of multiple alkaloids using UHPLC-QQQ-MS/MS. *Scientific Reports*. 2020 Aug 25; 10(1):14182(1-12)
[SCI impact factor 2020: 4.379, ranked 17th in 73 journals (23.29%) of category MULTIDISCIPLINARY SCIENCES]
- (16) Wang W-Y, Xie Y, **Zhou H***, Liu L*. Contribution of traditional Chinese medicine to the treatment of COVID-19. *Phytomedicine*. 2020 Jul 7;153279.
[SCI impact factor 2020: 5.340, ranked 3rd in 29 journals (10.34%) of category INTEGRATIVE & COMPLEMENTARY MEDICINE]
- (17) Zuo Y-H, Liu Y-B, Cheng C-S, Yang Y-P, Xie Y, Luo P, Wang W*, **Zhou H***. Isovaleroylbinankadsurin A ameliorates cardiac ischemia/reperfusion injury through activating GR dependent RISK signaling. *Pharmacological Research*. 2020 May 16;104897.
[SCI impact factor 2020: 7.658, ranked 15th in 275 journals (5.45%) of category PHARMACOLOGY & PHARMACY]
- (18) Huang Y-F, Bai C, He F, Xie Y, **Zhou H***. Review on the potential action mechanisms of Chinese medicines in treating Coronavirus Disease 2019 (COVID-19). *Pharmacological Research*. 2020 May 21;104939.
[SCI impact factor 2020: 7.658, ranked 15th in 275 journals (5.45%) of category PHARMACOLOGY & PHARMACY]
- (19) Wu W-R, Cheng C-S, Cheng Q-Q, Lao C-C, Cui H, Tang Z-Y, Ouyang Y, Liu L, **Zhou H***. Novel SNP markers on ginsenosides biosynthesis functional gene for authentication of ginseng herbs and commercial products. *Chinese Journal of Natural Medicines*. 2020 Oct 1;18(10):770-778
[SCI impact factor 2020: 3.000, ranked 11th in 29 journals (37.93%) of category INTEGRATIVE & COMPLEMENTARY MEDICINE]
- (20) Lio C-K, Luo J-F, Shen X-Y, Dai Y, Machado J, Xie Y, Yao Y-D, Yu Y, Liu J-X, Yao X-S, Luo P*, **Zhou H***. Nardosinane N suppresses LPS-induced macrophage activation by modulating the Nrf2 pathway and mPGES-1. *Biochemical Pharmacology*. 2020 Mar;173:113639.

[SCI impact factor 2020: 5.858, ranked 38th in 275 journals (13.81%) of category PHARMACOLOGY&PHARMACY]

- (21) Wang W-Y[†], **Zhou H[†]**, Liu L*. The Role of Chinese Herbal Medicine in the Management of Adverse Drug Reactions of Leflunomide in Treating Rheumatoid Arthritis. *Phytomedicine*. 2020 Mar;68:153136.

[SCI impact factor 2020: 5.340, ranked 3rd in 29 journals (10.34%) of category INTEGRATIVE & COMPLEMENTARY MEDICINE]

- (22) Wang C-J, He F, Huang Y-F, Ma H-L, Wang Y-P, Cheng C-S, Cheng J-L, Lao C-C, Chen D-A, Zhang Z-F, Sang Z, Luo P, Xiao S-Y, Xie Y, **Zhou H***. Discovery of chemical markers for identifying species, growth mode and production area of Astragali Radix by using ultra-high-performance liquid chromatography coupled to triple quadrupole mass spectrometry. *Phytomedicine*. 2020 Feb 1;67:153155.

[SCI impact factor 2020: 5.340, ranked 3rd in 29 journals (10.34%) of category INTEGRATIVE & COMPLEMENTARY MEDICINE]

- (23) Li C, Hou S-Z, **Zhou H***. Mechanism Prediction of Monotropein for the Treatment of Colorectal Cancer by Network Pharmacology Analysis. *Digital Chinese Medicine*. 2020 Mar 1;3(1):1–10.

- (24) Wang H-G, Luo F-K, Lei X, Yao Y-D, Liao G-C, Liu Z-Q, Jiang Z-H, **Zhou H***, Wu P*. 3, 4-seco-Labdane diterpenoids from the leaves of *Callicarpa nudiflora* with anti-inflammatory effects. *Chinese Journal of Natural Medicines*. 2019 Sep 1;17(9):707–12.

[SCI impact factor 2019: 2.014, ranked 15th in 28 journals (53.6%) of category INTEGRATIVE & COMPLEMENTARY MEDICINE]

- (25) Yao Y-D, Shen X-Y, Machado J, Luo J-F, Dai Y, Lio C-K, Yu Y, Xie Y, Luo P, Liu J-X, Yao X-S, Liu Z-Q*, **Zhou H***. Nardochinoid B Inhibited the Activation of RAW264.7 Macrophages Stimulated by Lipopolysaccharide through Activating the Nrf2/HO-1 Pathway. *Molecules*. 2019 Jul 6;24(13):2482.

[SCI impact factor 2019: 3.267, ranked 70th in 177 journals (39.5%) of category MULTIDISCIPLINARY CHEMISTRY]

- (26) Peng C, Shi Q-P, Liu J-Y, Lv Y-J, Li J, Yi L, Bai S-S, Liu L, Wang P-X, **Zhou H***, Huang K-E, Dong Y*. Alpha7 nAChR Expression Is Correlated with Arthritis Development and Inhibited by Sinomenine in Adjuvant-Induced Arthritic Rats. *Evidence-Based Complementary and Alternative Medicine*. 2019 May 2;Article ID 3759304 (1-11).

[SCI impact factor 2019: 1.813, ranked 16th in 28 journals (57.1%) of category INTEGRATIVE & COMPLEMENTARY MEDICINE]

- (27) Zhu R-L, Zhi Y-K, Yi L, Luo J-F, Li J, Bai S-S, Liu L, Wang P-X, **Zhou H***, Dong Y*. Sinomenine regulates CD14/TLR4, JAK2/STAT3 pathway and calcium signal via $\alpha 7$ nAChR to inhibit inflammation in LPS-stimulated macrophages. *Immunopharmacology and Immunotoxicology*. 2019 Jan 2;41(1):172-177

[SCI impact factor 2019: 2.352, ranked 59th in 92 journals (64.1%) of category TOXICOLOGY]

- (28) Li C, Zhang W-Y, Yu Y, Cheng C-S, Han J-Y, Yao X-S*, **Zhou H***. Discovery of the mechanisms and major bioactive compounds responsible for the protective effects of Gualou Xiebai Decoction on coronary heart disease by network pharmacology analysis. *Phytomedicine*. 2019 Mar 15;56:261–8.
[SCI impact factor 2019: 4.268, ranked 2nd in 28 journals (7.1%) of category INTEGRATIVE & COMPLEMENTARY MEDICINE]
- (29) Zhang W-Y, Yu Y, Yan L-L, Li C, Han J-Y, Qin Z-F, Dai Y, Yao Z-H, **Zhou H***, Yao X-S*. Discovery of cardio-protective constituents of Gualou Xiebai Decoction, a classical traditional Chinese medicinal formula. *Phytomedicine*. 2019 Feb 15;54:318–27.
[SCI impact factor 2019: 4.268, ranked 2nd in 28 journals (7.1%) of category INTEGRATIVE & COMPLEMENTARY MEDICINE]
- (30) Cheng,Q.Q. †, Cheng,C.S. †, Ouyang,Y., Lao,C.C., Cui,H., Xian,Y., Jiang,Z.H., Li,W.J., **Zhou,H.*** Discovery of differential sequences for improving breeding and yield of cultivated *Ophiocordyceps sinensis* through ITS sequencing and phylogenetic analysis. *Chinese Journal of Natural Medicines*. 2018 Oct 22;16(10): 0749-55.
[SCI impact factor 2018: 1.773, ranked 13th in 27 journals (48.1%) of category INTEGRATIVE & COMPLEMENTARY MEDICINE]
- (31) Xiao C-X, He F, Yang M-T, Xia F, Tang W-J, Zhou B-J*, **Zhou H***. Ultra-high performance liquid chromatography/triple quadrupole mass spectrometry study of the stabilities and transformations of four alisol in *Alismatis Rhizoma* and proprietary traditional Chinese medicine prescriptions. *Pharmacognosy Magazine*. 2018 Oct 1;14(58):597.
[SCI impact factor 2018: 1.260, ranked 52nd in 61 journals (85.2%) of category MEDICINAL CHEMISTRY]
- (32) Luo J-F, Shen X-Y, Lio CK, Dai Y, Cheng C-S, Liu J-X, Yao Y-D, Yu Y, Xie Y, Luo P, Yao X-S, Liu Z-Q*, **Zhou,H.*** Activation of Nrf2/HO-1 Pathway by Nardochinoid C Inhibits Inflammation and Oxidative Stress in Lipopolysaccharide-Stimulated Macrophages. *Front Pharmacol*. 2018 Aug 29;9: 911(1-19).
[SCI impact factor 2018: 3.845, ranked 59th in 267 journals (22.1%) of category PHARMACOLOGY&PHARMACY]
- (33) Zuo,Y.H., Han,Q.B., Dong,G.T., Yue,R.Q., Ren,X.C., Liu,J.X., Liu,L., Luo,P.*, **Zhou,H.*** Panax ginseng Polysaccharide Protected H9c2 Cardiomyocyte From Hypoxia/Reoxygenation Injury Through Regulating Mitochondrial Metabolism and RISK Pathway. *Frontiers in Physiology*. 2018 Jun 15;9: 699 (1-16).
[SCI impact factor 2018: 3.201, ranked 25th in 81 journals (28.9%) of category PHYSIOLOGY]
- (34) Huang B-M, Zha Q-L, Chen T-B, Xiao S-Y, Xie Y, Luo P, Wang Y-P, Liu L, **Zhou H*** Discovery of markers for discriminating the age of cultivated ginseng by using UHPLC-QTOF/MS coupled with OPLS-DA. *Phytomedicine*. 2018 June 1;45:8-17
[SCI impact factor 2018: 4.180, ranked 1st in 27 journals (3.7%) of category INTEGRATIVE & COMPLEMENTARY MEDICINE]

- (35) Chen T-B, Zuo Y-H, Dong G-T, Liu L, **Zhou H***. An integrated strategy for rapid discovery and identification of quality markers in Guanxin Kangtai preparation using UHPLC-TOF/MS and multivariate statistical analysis. *Phytomedicine*. 2018 May 15;44:239–46.
[SCI impact factor 2018: 4.180, ranked 1st in 27 journals (3.7%) of category INTEGRATIVE & COMPLEMENTARY MEDICINE]
- (36) Yi,L., Lyn,Y.J., Peng,C., Bai,S.S., Zhu,R.L., Liu,L., Wang,P.X., **Zhou,H.***, Dong,Y.* Sinomenine inhibits fibroblast-like synoviocyte proliferation by regulating alpha 7nAChR expression via ERK/Egr-1 pathway. *International Immunopharmacology*. 2018 Mar;56:65–70.
[SCI impact factor 2018: 3.361, ranked 81st in 267 journals (30.3%) of category PHARMACOLOGY & PHARMACY]
- (37) Ren,X.C., Chen,L., Xie,J., Zhang,Z.F., Dong,G.T., Liang,J., Liu,L., **Zhou,H.***, Luo,P.* (2017) Resveratrol Ameliorates Mitochondrial Elongation via Drp1/Parkin/PINK1 Signaling in Senescent-like Cardiomyocytes. *Oxidative Medicine and Cellular Longevity*. 2017 October 22;4175353(1-22)
[SCI impact factor 2017: 4.936, ranked 62nd in 190 journals (27.4%) of category CELL BIOLOGY]
- (38) **Zhou,H.†**, Liu,J.X.†, Luo,J.F., Cheng,C.S., Leung,E.L.H., Li,Y., Su,X.H., Liu,Z.Q., Chen,T.B., Duan,F.G., Dong,Y., Zuo,Y.H., Li,C., Lio,C.K., Li,T., Luo,P., Xie,Y., Yao,X.J., Wang,P.X., Liu,L. (2017) Suppressing mPGES-1 expression by sinomenine ameliorates inflammation and arthritis. *Biochemical Pharmacology*. 2017 October 15; 142: 133-144. DOI: 10.1016/j.bcp.2017.07.010
[SCI impact factor 2017: 4.235, ranked 36th in 261 journals (13.8%) of category PHARMACOLOGY&PHARMACY]
- (39) He,F. †, Wang,C.J. †, Xie,Y., Cheng,C.S., Liu,Z.Q., Liu,L. *, **Zhou,H.*** (2017) Simultaneous quantification of nine aconitum alkaloids in Aconiti Lateralis Radix Praeparata and related products using UHPLC–QQQ–MS/MS. *Scientific Reports*. 2017 Oct 12;7(1): 13023(1–12).
[SCI impact factor 2017: 4.122, ranked 12th in 64 journals (18.8%) of category MULTIDISCIPLINARY SCIENCES]
- (40) Huang,B.M., Chen,T.B., Xiao,S.Y., Zha,Q.L., Luo,P., Wang,Y.P., Cui,X.M., Liu,L., **Zhou,H.*** (2017) A new approach for authentication of four ginseng herbs and their related products based on the simultaneous quantification of 19 ginseng saponins by UHPLC-TOF/MS coupled with OPLS-DA. *RSC Advances*. 2017 September 19;7:46839-51
[SCI impact factor 2017: 2.936, ranked 71st in 170 journals (41.8%) of category MULTIDISCIPLINARY CHEMISTRY]
- (41) Cheng,C.S., Wang,C.J., Liang,J., Lao,C.C., **Zhou,H.***, Zhang,Z.F.* (2017) A new approach for identification of medicinal almonds by fourier transform infrared spectroscopy and systematic clustering of characteristic peaks. *Chinese Journal of Natural Medicines*. 2017 Sep;15(9):703–9.
[SCI impact factor 2017: 1.991, ranked 11th in 27 journals (40.7%) of category INTEGRATIVE & COMPLEMENTARY MEDICINE]
- (42) Huang,B.M., Xiao,S.Y., Chen,T.B., Xie,Y., Luo,P., Liu,L., **Zhou,H.*** (2017) Purity assessment of

- ginsenoside Rg1 using quantitative ¹H nuclear magnetic resonance. *Journal of Pharmaceutical and Biomedical Analysis*. 2017 Mar 6; 139: 193-204. DOI: 10.1016/j.jpba.2017.02.055
[SCI impact factor 2017: 2.831, ranked 22nd in 79 journals (27.8%) of category ANALYTICAL CHEMISTRY]
- (43) Wu,P., Gao,H., Liu,J.X., Liu,L., **Zhou,H.***, Liu,Z.Q.* (2017) Triterpenoid saponins with anti-inflammatory activities from *Ilex pubescens* roots. *Phytochemistry*. 2017;134:122-32.
[SCI impact factor 2017: 3.186, ranked 34th in 222 journals (15.3%) of category PLANT SCIENCES]
- (44) Wu,J., Xie,Y., Xiang,Z., Wang,C.J., **Zhou,H.***, Liu,L.* (2016) Simultaneous Determination of Multiple Components in Guanjiakang in Rat Plasma via the UPLC–MS/MS Method and Its Application in Pharmacokinetic Study. *Molecules*. 2016 Dec 16;21(12):1732.
[SCI impact factor 2016: 2.861, ranked 17th in 59 journals (28. 8%) of category ORGANIC CHEMISTRY]
- (45) Xiao,L., Yi,T., Lam,C.W.K.*, **Zhou,H.*** (2016) A new mechanism for increasing the oral bioavailability of scutellarin with Cremophor EL: activation of MRP3 with concurrent inhibition of MRP2 and BCRP. *European Journal of Pharmaceutical Sciences*. 2016 Oct 10;93:456-67.
[SCI impact factor 2016: 3.756, ranked 54th in 256 journals (21.1%) of category PHARMACOLOGY & PHARMACY]
- (46) Cheng,C.S., Wu,W.R., Huang,B.M., Liu,L., Luo,P., **Zhou,H.*** (2016) SNPs of dammarenediol synthase gene were associated with the accumulation of ginsenosides in DAMAYA ginseng, a cultivar of *Panax ginseng* C. A. Mey. *Phytochemistry Letters*. 2016 Sep;17:194–200.
[SCI impact factor 2016: 1.418, ranked 100th in 211 journals (47.4%) of category PLANT SCIENCES]
- (47) Liu,J.X., Tang,J.S., Zuo,Y.H., Yu,Y., Luo,P., Yao,X.S., Dong,Y., Wang,P.X., Liu,L.* , **Zhou,H.*** (2016) Stauroside B inhibits macrophage activation by inhibiting NF-κB and ERK MAPK signaling. *Pharmacological Research*. 2016 June 22;111:303-15
[SCI impact factor 2016: 4.480, ranked 31st in 256 journals (12.1%) of category PHARMACOLOGY & PHARMACY]
- (48) Xiao,L., Yi,T., Liu,Y., **Zhou,H.*** (2016) The in vitro lipolysis of lipid-based drug delivery systems: a newly identified relationship between drug release and liquid crystalline phase. *BioMed Research International*. 2016 May 16; 2016:e2364317.
[SCI impact factor 2016: 2.476, ranked 65th in 158 journals (41.1%) of category BIOTECHNOLOGY & APPLIED MICROBIOLOGY]
- (49) Cheng,C.S., Yuan,Q.X., **Zhou,H.***, Huang,L.Q.* (2016) Nondestructive estimation of growth year in ginseng cultivars using the means of mathematical modeling on the basis of allometry. *Microscopy Research and Technique*. 2016 Feb 01;79(2):98-105
[SCI impact factor 2016: 1.147, ranked 13th in 21 journals (61.9%) of category ANATOMY & MORPHOLOGY]
- (50) Dong,G.T., Chen,T.B., Ren,X.C., Zhang,Z.F., Huang,W.X., Liu,L., Luo,P.*, **Zhou,H.*** (2016) Rg1 prevents myocardial hypoxia/reoxygenation injury by regulating mitochondrial dynamics

- imbalance via modulation of glutamate dehydrogenase and mitofusin 2. *Mitochondrion*. 2016;26:7-18
[SCI impact factor 2016: 3.704, ranked 51st in 166 journals (30.7%) of category GENETICS & HEREDITY]
- (51) Wang,C.J, Xie,Y, Xiang,Z., **Zhou,H.***, Liu,L.*. (2015) Simultaneous determination of thirteen major active compounds in Guanjiakang preparation by UHPLC-QQQ-MS/MS. *Journal of Pharmaceutical and Biomedical Analysis*. 2015 Nov 7. 118:315–321
[SCI impact factor 2015: 3.169, ranked 14th in 75 journals (18.67%) of category ANALYTICAL CHEMISTRY]
- (52) Luo,P., Dong,G.T., Liu,L., **Zhou,H.*** (2015) The long-term consumption of ginseng extract reduces the susceptibility of intermediate-aged hearts to acute ischemia reperfusion injury. *PLOS ONE*. 2015 Dec 9. 10(12):e0144733
[SCI impact factor 2015: 3.057, ranked 11th in 63 journals (17.46%) of category MULTIDISCIPLINARY SCIENCES]
- (53) Li,T, Wong, V.K.W., Jiang, Z.H., Liu, Y., Wang, T.Y., Yao,X.J., Su, X.H., Yan, F.G., Liu, J., Leung, E.L.H., Yi, X.Q., Wong, Y.F., **Zhou,H.***, Liu,L.*. (2015) Mutation of cysteine 46 in IKK-beta increases inflammatory responses. *Oncotarget*. 2015 Sep 10. 6(31):31805-31819
[SCI impact factor 2015: 5.008, ranked 36th in 213 journals (16.90%) of category ONCOLOGY]
- (54) Yi, L., Luo, J.F., Xie, B.B., Liu, J.X., Liu, L., Wang, P.X., **Zhou, H.***, Dong, Y.* (2015) Alpha7 nicotinic acetylcholine receptor is a novel mediator of sinomenine anti-inflammation effect in macrophages stimulated by lipopolysaccharide. *Shock*. 2015 Aug 44(2):188-195
[SCI impact factor 2015: 3.048, ranked 33th in 199 journals (16.58%) of category SURGERY]
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[SCI impact factor 2013: 2.175, ranked 6th in 22 journals (27.3%) of category INTEGRATIVE & COMPLEMENTARY MEDICINE]

- (58) Wang,J.R., **Zhou,H.**, Yi,X.Q., Jiang,Z.H., Liu,L. (2012) Total ginsenosides of radix ginseng modulates tricarboxylic acid cycle protein expression to enhance cardiac energy metabolism in ischemic rat heart tissues. *Molecules*. 2012 Oct 29;17(11):12746-12757.
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- (61) **Zhou,H.***, Hou,S.Z., Luo,P., Zeng,B., Wang,J.R., Wong,Y.F., Jiang,Z.H., Liu,L.* (2011) Ginseng protects rodent hearts from acute myocardial ischemia reperfusion injury through GR/ER-activated RISK pathway in an endothelial NOS-dependent mechanism. *Journal of Ethnopharmacology*. 2011 May 17;135(2):287-98.
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- (63) Wong,V.K.W., Cheung,S.S.F., Li,T., Jiang, Z.H., Wang, J.R., **Zhou,H.***, Liu,L.* (2010) Asian ginseng extract inhibits in vitro and in vivo growth of mouse Lewis lung carcinoma via modulation of ERK-p53 and NF-κB signaling. *Journal of Cellular Biochemistry*. 2010 Nov 1;111(4):899-910.
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- (65) Li,T., Wong,K.W.V., Yi,X.Q., Wong,Y.F., **Zhou,H.*** & Liu,L.* (2010) Matrine induces T cell anergy in human Jurkat cells. *Biological & Pharmaceutical Bulletin*. 2010 Jan 33(1):40-46
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- (70) **Zhou,H.**[†], Wong,Y.F.[†], Wang,J.R., Xie,Y., Xu,H.X., Liu,L. (2008) Anti-inflammatory and analgesic effects and molecular mechanisms of JCICM-6, a purified extract derived from an anti-arthritic Chinese herbal formula. *Phytomedicine*. 15(6-7):416-26.
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中藥臨床藥學總論. (2021) 副主編. 台灣中藥臨床學會/萬里機構/文化公所
- (2) Research and guidance in clinical application of Zhengqing Fengtongning. (2013) Member of Editorial Committee. Public Health Publishing House
正清風痛寧研究與臨床應用指南. (2013) 編委. 人民衛生出版社
- (3) Safe and Proper Application of Chinese Medicine in Clinic. (2009) Vice Editor-in-Chief. Wan Li Book Co Ltd.
中醫臨床安全與合理用藥. (2009) 副主編. 萬里機構

- (4) Encyclopedia on Medicinal Plants (Volume 4). (2009) Member of Editorial Committee. World Publishing Corporation
- (5) Encyclopedia on Medicinal Plants (Volume 3). (2009) Member of Editorial Committee. World Publishing Corporation
- (6) Encyclopedia on Medicinal Plants (Volume 2). (2009) Member of Editorial Committee. World Publishing Corporation
- (7) Encyclopedia on Medicinal Plants (Volume 1). (2009) Member of Editorial Committee. World Publishing Corporation
- (8) Chinese-English and English-Chinese Dictionary of Name of Chemical Compounds of Chinese Herbal Medicine. (2006) Member of Editorial Committee. Chinese TCM Publishing House
漢英-英漢中草藥化學成分詞彙. (2006) 編委. 中國中醫藥出版社
- (9) Research Methodology and Practices in Chinese Medicine. A teaching book for Master of Chinese medicine programme of the School of Chinese Medicine (2004) Member of editor board. Hong Kong Baptist University
中醫藥科研方法與實踐. (2004) 編委. 香港浸會大學
- (10) Synonym dictionary of Chinese herbal drug. (2004) Vice editor-in-chief. Public Health Publishing House
中草藥異名辭典. (2004) 副主編. 人民衛生出版社
- (11) Research on preventing and curing of hepatitis. (1999) Member of editor board. Chinese TCM Publishing House
肝炎的中草藥治療. (1999) 編委. 中國中醫藥出版社
- (12) Commonly used Chinese herbal drug. (1997) Member of translation board. Chinese TCM Publishing House
常用中草藥. (1997) 翻譯編委. 中國中醫藥出版社
- (13) Research on the strategy of development biological medicine by cooperating between inland and Hong Kong. (1997) Member of editor board. Guangdong Science and Technology Publishing House
內地香港生物醫藥領域合作發展戰略研究. (1997) 編委. 廣東省科學技術出版社

Patents

- (1) Xu,Y.H., Guo,H.L., **Zhou,H.**, Zhu,Q. Method of treating endotoxemia. Australia Innovative Patent Application No. 2018102089; Filed on 18 Dec. 2018; Granted on 16 Jan. 2019.
- (2) **Zhou,H.**, Zuo,Y.H., Wang,W., Xie,Y. Method of inhibiting or treating cardiovascular disorder. Australia Innovative Patent Application No. 2019101081; Filed on 19 Sept. 2019; Granted on 16 Oct 2019.
- (3) Xie,Y., Liu,L., **Zhou,H.** Method of increasing the bioavailability of silybin. US Non-Provisional Patent No. US 10,265,298 B2; Filed on 22 August 2017, Application No. 15/682,564; Granted on 23 April 2019

- (4) **Zhou,H.**, Han,Q.B., Zuo,Y.H., Liu,L., Yue,R.Q., Carbonhydrate composition extracted from Panax ginseng and its use in the treatment of ischemic conditions. US Non-Provisional Patent No. US 10,220,064 B2; Filed on 8 November, 2016, Application No. 15/345,842; Granted on 5 March 2019
- (5) 劉中秋，吳鵬，**周華**，高慧，朱麗君，盧琳琳，王瑩，戚笑笑，王立萍. 一種環外雙鍵烏蘇烷型三萜皂苷類化合物及其制備方法和應用. 中國發明專利號: 201510953771.7; 申請日期: 2015-12-17; 授權日期: 2018-12-18.
- (6) 劉中秋，吳鵬，**周華**，高慧，朱麗君，盧琳琳，王瑩，戚笑笑，王立萍. 一種齊墩果烷型三萜皂苷類化合物及其制備方法和應用. 中國發明專利號: 201510953703.0; 申請日期: 2015-12-17; 授權日期: 2018-11-16.
- (7) 劉中秋，吳鵬，**周華**，高慧，朱麗君，盧琳琳，王瑩，戚笑笑，王立萍. 一種烏蘇烷型三萜皂苷類化合物及其制備方法和應用. 中國發明專利號: 201510953613.1; 申請日期: 2015-12-17; 授權日期: 2018-11-16.
- (8) **Zhou,H.** Luo,J.F., Dai,Y., Liu,L., Yao,X.S. Methods of treating diseases related to inflammation and oxidative stress. Australia Innovative Patent Application No. 2018100801; Filed on 16 June 2018; Granted on 4 July 2018.
- (9) **周華**，程春松，劉良. 中成藥或含中藥材保健品的 DNA 的提取方法. 中國發明專利號: ZL 201510415609.X; 申請日期: 2015-7-15; 授權日期: 2018-1-12.
Zhou, H., Cheng,C.S., Liu,L. Method of DNA extraction from Chinese patent medicine and health-care products containing Chinese herbal medicines. China Patent No. ZL201510415609.X; Filed on 15 July 2015; Granted on 12 January 2018.
- (10) **Zhou,H.** Liu,J.X., Luo,J.F., Cheng,C.S., Leung,E.L.H., Liu,L Method of selectively inhibiting mpeg-1. Australia Innovative Patent Application No. 2017101212; Filed on 6 Sep 2017; Granted on 20 Sept 2017
- (11) Xie,Y., Liu,L., **Zhou,H.** Method of increasing the bioavailability of silybin. Australia Innovative Patent Application No. 2017101224; Filed on 22 Aug 2017; Granted on 6 Sept 2017
- (12) Xie,Y., Liu,L., **Zhou,H.**, Yuan,Z.W., Zheng,Y.F., Feng,S.L., Zeng,X.H., Wang,H., Flavonolignans for treatment of autoimmune inflammatory diseases. Australia Innovative Patent Application No. 2017100396; Filed on 7 April 2017; Granted on 4 May 2017
- (13) **Zhou,H.**, Han,Q.B., Zuo,Y.H., Liu,L., Yue,R.Q., Carbonhydrate composition extracted from Panax ginseng and its use in the treatment of ischemic conditions. Australian Innovation Patent Application No. 2016101958; Filed on 8 Nov. 2016; Granted on 8 Dec 2016
- (14) Wang, J.R, Luo, P., **Zhou,H.** Chan, W.I., Liu,L., Jiang, Z.H. Novel ginsenoside derivative compounds and the use thereof in protection against ischemia/reperfusion injury. US Non-Provisional Patent No. US 9,273,088 B2; Filed on 13 Nov. 2012, Application No. 14/055,883; Granted on 1 March 2016
- (15) Liu,L., **Zhou,H.** Disinfectant making air fresh and preparation method and use thereof. Applied on 20 Feb. 2009. Korea Patent No. 10-1622305; Granted on 22 February 2016
- (16) **Zhou,H.** Liu,J.X., Liu,L., Tang,J.S. Uses of steroid compounds in the treatment of inflammatory diseases (使用甾體化合物治療炎症性疾病). Australia Innovative Patent Application No. 2015101724; Filed on 27 Nov 2015; Granted on 17 Dec 2015

- (17) Liu,L., **Zhou,H.** An Air Freshening Product (一種空氣清新消毒劑). Applied on 14 December 2007. Hong Kong Patent No. HK1192416; Granted on 18 December 2015
- (18) Liu,L., **Zhou,H.** An Air Freshening Product (一種空氣清新消毒劑). Filed on 14 Dec. 2007. China Patent Application No. 200710162111.2; Published on 17 Jun. 2009. China Patent Publication No. CN101455850; Granted on 22 July 2015, Patent No. ZL201310283575.4
- (19) Liu,L., Bai, L.P., Dong, H., Wong, K.W.V., Jiang, Z.H., **Zhou, H.** Ginsenoside with anti-cancer activity and the preparation method thereof. Filed on 13 Nov. 2012. US Provisional Patent Application No. 61/725,997; Filed on 30 Sep. 2013. US Non-Provisional Patent Application No. 14/040,738; Granted on 9 June 2015, Patent No. US 9,051,348 B2
- (20) Cheng,C.S., **Zhou,H.**, Huang,L.Q. Age authentication for longer-lived vascular herbal plants. Australia Innovative Patent Application No. 2015100813; Granted on 17 June 2015
- (21) **Zhou,H.**, Wu, W.R., Liu,L., Cheng,C.S. Method for molecular authentication of Panax ginseng and Panax quinquefolius using SNP markers in dammarediol synthase (DS) gene. Australia Innovative Patent Application No. 2015100441; Granted on 7 April 2015
- (22) Liu,L., **Zhou,H.** Disinfectant making air fresh and preparation method and use thereof. Applied on 20 Feb. 2009. European Patent Application No. 09840202.7. European Patent No. EP2,399,597 B1; Granted on 25 March 2015
- (23) **Zhou,H.**, Liu,L., Wu, W.R., Huang, B.M., Cheng,C.S. Application of SNP in dammarediol synthase gene of Panax ginseng. Australia Innovative Patent Application No. 2015100028; Granted on 29 January 2015
- (24) Liu,L., **Zhou,H.** An Air Freshening Product (一種空氣清新消毒劑). Applied on 31 Mar. 2014. Macau Patent No. J/001372; Granted on 11 June 2014
- (25) Luo, P., **Zhou,H.**, Dong, G.T. Method of identifying and screening drug candidate for preventing and/or treating ischemic myocardial disease. Australia Innovative Patent Application No. 2013101632; Granted on 13 December 2013
- (26) Wang, J.R, Luo, P., **Zhou,H.** Chan, W.I., Liu,L., Jiang, Z.H. Novel ginsenoside derivative compounds and the use thereof in protection against ischemia/reperfusion injury. Australia Patent Application No. 2013101420; Granted on 28 October 2013
- (27) Liu,L., **Zhou,H.** An Air Freshening Product (一種空氣清新消毒劑). Filed on 14 Dec. 2007. China Patent Application No. 200710162111.2; Published on 17 Jun. 2009. China Patent Publication No. CN101455850; Granted on 12 February 2014, Patent No. ZL200710612111.2
- (28) Liu,L., **Zhou,H.** Disinfectant making air fresh and preparation method and use thereof. Filed on 19 Aug. 2011. US Patent Application No. 13/202,454; Published on 12 Aug. 2011. US Patent Publication No. US-2011-0300243-A1; Granted on 8 October 2013, Patent No. US 8,551,541
- (29) Liu,L., Bai,L.P., Dong,H., Wong,K.W., Jiang,Z.H., **Zhou,H.** A novel ginsenoside with anti-cancer activity and the preparation method thereof. Australia Patent Application No. 2013101321; Granted on 3 October 2013.
- (30) Liu,L., Li, T., Wong, K.W., Jiang, Z.H., **Zhou,H.** Novel binding site of IKK-beta. Australia Patent Application No. 2013101130; Granted on 22 August 2013
- (31) Liu,L., Wang J.R., **Zhou,H.**, Jiang, Z.H. New Saponins Derived from Ilex Pubescens and Method of Purifying the same. Filed on 17 Nov. 2006. US Non-provisional Patent, US Serial No. 11/560849.

Published on 22 May 2008. US Patent Publication No. US2008 0119420 A1; Granted on 9 June 2009, Patent No. US 7,544,668 B2

- (32) Liu,L., Zhou,H., Wong, Y.F., Herbal Formulations for Arthritis (關節炎用草藥製劑). Filed on 9 Sept. 2005. China Patent Application No. 200510099220.5; Published on 31 May 2006. China Patent Publication No. CN1778383A; Granted on 3 June 2009, Patent No. ZL 200510099220.5
- (33) Liu,L., Zhou,H., Wong, Y.F., Herbal Formulations for Arthritis (關節炎用草藥製劑). Filed on 9 Sept.2006. Hong Kong Patent Registration No. 06110692.4; Published on 10 Nov. 2006. Hong Kong Patent Publication No. HK1088562

Research Grants/Projects as Principal Investigator

- 2021 - 2024 Study on the Preparation, Standard, and Industrial Translation of Gualou Xiebai Banxia Decoction and Maimendong Decoction. Science & Technology Development Fund (FDCT) of Macao SAR (0001/2020/AKP, MOP9,000,000, 7 Aug. 2021 ~ 7 Aug. 2024)
- 2020 - 2021 Development of Air and Surface Disinfection Product for 2019-nCoV from Chinese Medicines. Science & Technology Development Fund (FDCT) of Macao SAR (0053/2020/A, MOP411,000, 2020.4.18 ~ 2021.4.17)
- 2020 - 2022 Research on the quality consistency evaluation and development of ISO standards for traditional Chinese medicines with multiple sources: Rheum root and rhizome and Coptis rhizome. Science & Technology Development Fund (FDCT) and Guangdong Science and Technology Department (GDST) Joint Research Funding (0027/2017/AMJ, MOP1,183,000, 2020.1.5 ~ 2022.1.4)
- 2020 - 2023 Mechanistic study on the methylation at mPGES-1 gene promoter regulated by sinomenine and its application in discovering new anti-inflammatory Chinese medicines, Joint Research Fund for Overseas Chinese, Hong Kong and Macao Young Scholars of National Science Foundation of China (81929003, RMB1,800,000, 2020.01 ~ 2023.12)
- 2018 - 2021 Q-marker Identification of Aconitum carmichaelii Debx. by Using the Technologies of PK-PD and Chemical Quality Analysis, Science & Technology Development Fund (FDCT) and Ministry of Science and Technology China (MOST) Joint Research Funding (0027/2017/AMJ, MOP1,021,900, 2018.10.4 ~ 2021.10.3)
- 2018 - 2020 Development of origin identification technology for Geo-herb through investigating the polymorphism of resistance genes, Science & Technology Development Fund of Macao SAR (062/2017/A2, MOP2,303,400, 2018.1.1 ~ 2020.12.31)
- 2017 - 2018 Research on the anti-inflammatory and immunological pharmacology of Chinese medicine, Joint Research Fund for Overseas Chinese, Hong Kong and Macao Young Scholars of National Science Foundation of China (81628016, MOP180,000, 2017.01.01 ~ 2018.12.31)
- 2015 - 2017 Chemical profiling combined with bioactivity correlation for establishing novel quality control method of new proprietary Chinese medicine Guangxinkangtai, Science &

- Technology Development Fund of Macao SAR (037/2014/A1, MOP2,090,000, 2015.3~2018.2)
- 2012 - 2015 Development of novel method for quality assessment of ginseng with correlation analysis between single nucleotide polymorphism and bioactivities, Science & Technology Development Fund (FDCT) of Macao SAR (071/2011/A3, MOP1,864,000, 2012.7~2015.1)
- 2012 – 2012 Method development for detecting single nucleotide polymorphism from dammarenediol synthase gene of ginseng, Macao Foundation of Macao SAR (0206, MOP78,320, 2012.1~2012.12)

Academic and Professional Membership

- Vice Chairman / Secretary General Subcommittee of Immunology in Chinese Medicine, Chinese Society of Immunology (2021 - 2025)
- Member Guangdong Association of Traditional Chinese Medicine (2021.1 - 2025.1)
- Coordinator Accreditation Committee of Pharmacist in Chinese Medicine, Health Professionals Council of the Macao SAR Government (2021.6.2 - 2024.3.31)
- Member Health Professionals Council of the Macao SAR Government (2021.6.2 - 2024.3.31)
- Consultant Institute of Liver Diseases, South China District Chinese Medicine Liver Disease Diagnosis and Treatment Center of the State Administration of Traditional Chinese Medicine (2021.1-2025.12)
- Expert Chinese Medicine Technical Committee of Macau Quality Brand International Certification League (2021-2023)
- Deputy Director Rheumatism and Immunological Drug Research Committee of China Association of Chinese Materia Medica (2020.9.27-2024.9.26)
- Associate Editor Phytomedicine (2020.6 -)
- Member The Council, National Technical Standard Innovation Base of Ginseng Industry (2020.5.27 - 2025.5.27)
- Member Expert Committee, National Technical Standard Innovation Base of Ginseng Industry (2020.5.27 - 2025.5.27)
- Executive Member Council, Macau Association for Promotion of Science and Technology (2020 – 2023)
- Honorary Editor Pharmacological Research (2019.11 –)
- Vice Secretary General, Vice President The Second Council of Specialty Committee of Immunology of Traditional Chinese Medicine of World Federation of Chinese

	Medicine Societies (2018.11 - 2023.11)
Member	Editorial Board, Phytomedicine (2018.09 -)
Vice President	The Specialty Committee of Traditional Chinese Medicine Pharmacognosy of World Federation of Chinese Medicine Societies (2018.8 - 2021.7)
Member	Alliance of Medical Doctors in Rheumatology and Immunology around Guangdong-Hong Kong-Macao Greater Bay Area (2018 – 2021)
Member	Macau Product Quality Certification Committee (2018.1.19 -)
Member	Medical Committee of Macao SAR Government (2017.8.8 -)
Vice-Secretary	Subcommittee of Immunology in Chinese Medicine, Chinese Society of Immunology (2018 – 2021)
Secretary	Macau International Collaboration Alliance for Rheumatology Research (2016.12 – 2020.11)
Member	The First Specialty Committee of Lingnan Chinese Materia Medica Resource, Guangdong Pharmaceutical Association (2016.11 – 2019.11)
Member:	The First Council of China and Russia Union of the Innovation and Development of Traditional Chinese Medicine (2016.6 - 2019.6)
Supervisor:	Board of Supervisors, Macau Association for Promotion of Science and Technology (2016 - 2019)
Executive Member	Council, The Second Board of Committee of Standard Construction of World Federation of Chinese Medicine Societies (2014.12 - 2018.12)
Vice Secretary	Council, The First Board of Specialty Committee of Immunology of Traditional Chinese Medicine of World Federation of Chinese Medicine Societies (2014.11 - 2018.11)
Executive Member	Council, The First Board of Specialty Committee of Medical Resources Utilization and Conservation of World Federation of Chinese Medicine Societies (2013.10 - 2017.10)
Member	Council, the Specialty Committee of Pharmaceutics and Pharmacology of Chinese Medicine, Guangdong Provincial Association of Chinese Medicine (2013.9 - 2016.8)
Member	Guangdong Provincial Association of Chinese Medicine (2013.9 - Present)
Vice Chairman:	Division of Pharmaceutical History, Guangdong Pharmaceutical Association (2013.9 - 2016.8)
Academic Editor:	PLOS ONE (2013.7 - Present)
Executive Member:	Council, Macau Association for Promotion of Science and Technology (2013 - 2016)

- Executive Member: The Division of Anti-inflammatory and Immunological Pharmacology, Chinese Pharmacological Society (2012 - Present)
- Secretary: Working Group 1 “Quality and Safety of Raw Materials and Traditional Processing”, ISO/TC249 Traditional Chinese Medicine (2011 - Present)
- Executive Member: Subcommittee of Immunology in Chinese Medicine, Chinese Society of Immunology, P.R. China (2009 - 2018)
- Specialist: Hong Kong Council for Accreditation of Academic and Vocational Qualifications (25 June 2008 - Present)

Professional Qualifications and Awards

- (1) The 2nd Prize of Science & Technology Progress Category of the 2020 Macao Science and Technology Award. Oct. 2020, Macao SAR, China.
- (2) The 3rd Prize of Standard Project Category of the 2020 China Standard Innovation and Commitment Award. 2020, Beijing, China
- (3) Special Prize in Teaching of the 2018 Zhongzhu Awards for Life Science, Macau University of Science and Technology. Sept. 2019, Macao SAR, China.
- (4) First prize of the Nature and Science Category of 2018 Ministry of Education Higher Education Outstanding Scientific Research Output Awards (the 4th awardee) for Studies on the New Mechanism in Suppressing Abnormal Cell Proliferation and Differentiation, the Ministry of Education of the People’s of Republic China, 15 Jan. 2019, Beijing, China
- (5) Special Prize in Teaching of the 2017 Zhongzhu Awards for Life Science, Macau University of Science and Technology. Sept. 2018, Macao SAR, China.
- (6) Special Prize in Research of the 2016 Zhongzhu Awards for Life Science, Macau University of Science and Technology. Sept. 2017, Macao SAR, China.
- (7) First Prize of the Nature and Science Category of the 2016 Macao Science and Technology Award (the second awardee) for Discovery of New Factors of Pathogenesis and Treatment Strategy in Rheumatoid Arthritis, Macao SAR, Oct. 2016, Macao SAR, China.
- (8) Third Prize of Science & Technology Progress Category of the 2016 Macao Science and Technology Award (the second awardee) for R&D and Application of the Home Indoor Air Disinfectant from Chinese Herbal Medicine, Macao SAR, Oct. 2016, Macao SAR, China.
- (9) First prize of the Nature and Science Category of 2014Ministry of Education Higher Education Outstanding Scientific Research Output Awards (the sixth awardee) for Studies on the network-based modulatory mechanism of the holistic therapy of traditional Chinese medicine, the Ministry of Education of the People’s of Republic China, 1 Dec. 2014, Beijing, China.
- (10) Special prize of the 2014 Macao Science and Technology Award (the second awardee) for Innovative methods in quality control and bioactivity evaluation for research and development of anti-arthritic proprietary Chinese medicine, Macao SAR, 8 Oct. 2014, Macao SAR, China.

- (11) Second prize of the 2012 National Science & Technology Progress Award (the third awardee) for Innovative methods in quality control and bioactivity evaluation for research and development of anti-arthritic proprietary Chinese medicine, 2012-J-234-2-01-R03, the People's of Republic China, 19 Dec. 2012, Beijing, China.
- (12) Li Shi Zhen Innovation Award in Medicine and Pharmacy (third awardee) for Methodology innovation in quality control and pharmacological evaluation of Chinese medicinal preparation for treating arthritic diseases and product development thereof, China Association of Chinese Medicine, Jan. 2012, Beijing, China.
- (13) Faculty / School Performance Award, Hong Kong Baptist University, 24 Feb 2011, Hong Kong, China.
- (14) Award of excellent paper for Pharmacological studies of QFGJS, an anti-arthritic herbal preparation, for treating rheumatoid arthritis, The 4th National Congress on Immunology of Chinese Medicine. 1 Nov. 2007. Nanjing, China.
- (15) Award of excellent paper for Anti-inflammatory and analgesic effects of the extract of Qingfu Guanjieshu, a research drug from Chinese medicine for arthritis, and its mechanism of action, The 3rd National Congress on Immunology of Chinese Medicine. 15 Aug. 2006. Changsha, China.
- (16) 2002 Guangdong Provincial Science & Technology Progress Award (Ninth awardee) for A Phytochemical and Pharmacological Analysis of Chinese Medicinal Formulae, Sijunzi Decoction, Guangdong Provincial Department of Science and Technology, China