

Bai Li Ping



Position: Associate Professor

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Dr. Bai received her Bachelor and Master degrees from Liaoning University of Traditional Chinese Medicine in 2001 and 2004, respectively. She obtained her PhD degree from Hong Kong Baptist University in 2008. She has been in The Institute of Scientific and Industrial Research (SANKEN), Osaka University, Japan, as a visiting research scholar carrying out the G-quadruplex DNA-binding study of benzophenanthridine alkaloids from October 2006 to January 2007. After graduation, she joined School of Chinese Medicine, Hong Kong Baptist University as a research assistant in 2008, senior research assistant in 2009 and research associate in 2010. In September 2011, she moved to State Key Laboratory of Quality Research in Chinese Medicine, Macau University of Science and Technology as an assistant professor. She was promoted to be an associate professor in July 2015.

Dr. Bai's research fields include bioorganic chemistry, and natural products chemistry. Her research focuses on bioactive ingredients in traditional Chinese medicines (TCM), structural modification of bioactive small molecules, and pharmacodynamic evaluations, design and synthesis of novel sphingolipids, and their application in the field of pharmaceutical preparations, and quality standards of TCM. She was also engaged in the project of Authentication of the 31 Species of Toxic and Potent Chinese Materia Medica by Microscopic Technique in Hong Kong. She has published research papers in SCI journals including *Organic Letters*, *European Journal of Medicinal Chemistry*, *Bioorganic Chemistry*, *International Journal of Molecular Sciences*, *Journal of Natural Products*, *RSC Advances*, *ChemBioChem*, *Analytical and Bioanalytical Chemistry* and

Bioorganic & Medicinal Chemistry, and obtained 18 international patent approvals (including 5 U.S. patent approval) so far. Her research was financially supported by Macao Science and Technology Development Fund, and The Macao Foundation. As a co-investigator, she also participated in research projects financially supported by Faculty Research Grants from Hong Kong Baptist University, National Natural Science Foundation of China, and Natural Science Foundation of Guangdong Province.

Teaching and Research Areas:

Teaching subjects: Natural Products Chemistry, Prospect and Progress in Chinese Medicine Research, Selected Topics of Chemistry of Chinese Materia Medica, Experimental Techniques in Natural Products Chemistry Research; Honor Project

Research Areas: Bioorganic and Medicinal Chemistry, Natural Products Chemistry

Academic Qualifications

- 2008.9 Ph.D., Hong Kong Baptist University, Hong Kong
- 2004.7 M. Sc., Liaoning University of Traditional Chinese Medicine, Shenyang, China
- 2001.7 B. Sc., Liaoning University of Traditional Chinese Medicine, Shenyang, China

Teaching Experience

- 2015.7-present Associate Professor, State Key Laboratory of Quality Research in Chinese Medicine, Macau University of Science and Technology
- 2011.9-2015.6 Assistant Professor, State Key Laboratory of Quality Research in Chinese Medicine, Macau University of Science and Technology
- 2010.10-2011.8 Research Associate, School of Chinese Medicine, Hong Kong Baptist University
- 2008.10-2010.9 Research Assistant and Senior Research Assistant, School of Chinese Medicine, Hong Kong Baptist University
- 2006.10-2007.1 Visiting Research Scholar, The Institute of Scientific and Industrial Research (SANKEN), Osaka University, Japan
- 2003.10-2005.4 Visiting Research Scholar, School of Chinese Medicine, Hong Kong Baptist University

Representative Publications (*: Co-corresponding authors; #: Co-first authors)

- 1) Xu, Ting; Tian Wenyue; Zhang, Qian; Liu Jiazheng; Liu, Zhiyan; Jin, Jing; Guo, Yong*; **Bai, Li-Ping***. Novel 1,3,4-thiadiazole/oxadiazole-linked honokiol derivatives suppress cancer via inducing PI3K/Akt/mTOR-dependent autophagy. *Bioorganic Chemistry*, 2021, in press
- 2) Zheng, Zhiyuan[#]; Zhou, Zhongbo[#]; Zhang, Qiulong; Zhou, Xiaobo; Yang, Ji; Yang, Ming-Rong; Zhu, Guo-Yuan; Jiang, Zhi-Hong; Li, Ting; Lin, Qianyu; **Bai, Li-Ping***. Non-classical Cardenolides from *Calotropis gigantea* Exhibit Anticancer Effect as HIF-1 Inhibitors. *Bioorganic Chemistry*, **2021**, 109, 104740.
- 3) Li, Yan[#]; Zhang, Huixia[#]; Luo, Wendi; Lam, Christopher Wai Kei; Wang, Caiyun; **Bai, Li-Ping**; Wong, Vincent Kam Wai; Zhang, Wei*; Jiang, Zhi-Hong*. Profiling ribonucleotide and deoxyribonucleotide pools perturbed by remdesivir in human bronchial epithelial cells. *Frontiers in Pharmacology*, **2021**, 12, 647280.
- 4) Liu, Xin; Yang, Ji; Fu, Jing; Xu, Pei-Lin; Xie, Tang-Gui; **Bai, Li-Ping**; Jiang, Zhi-Hong*, Zhu, Guo-Yuan*. Monoterpene-Flavonoid Conjugates from *Sarcandra glabra* and Their Autophagy Modulating Activities. *Bioorganic Chemistry*, **2021**, 112, 104830.
- 5) Zhong Shan^{#*}; **Bai, Li-Ping[#]**; Liu, Xiaodong; Cai, Dieyi; Yau, Leefong; Huang, Chuqin; Zhang, Jiaqi; Lai, Kefang*; Zhong, Nanshan. Cough inhibition activity of *Schisandra chinensis* in guinea pigs. *Journal of Medicinal Food*, **2021**, 24, 348-357.
- 6) Liu, Xin; Jing, Fu; Yang, Ji; Huang, AnCheng; Li, Run-Feng; **Bai, Li-Ping**; Liu, Liang; Jiang, Zhi-Hong*; Zhu, Guo-Yuan*. Linderaggrenolides A–N, Oxygen-Conjugated Sesquiterpenoid Dimers from the Roots of *Lindera aggregata*. *ACS Omega*, **2021**, 6, 5898-5909.
- 7) Yang, Ji; Liu, Xin; Fu, Jing; Lyu, Hao-Yuan; **Bai, Li-Ping**; Jiang, Zhi-Hong*; Zhu, Guo-Yuan*. Calycindaphines A–J, Daphniphyllum alkaloids from the roots of *Daphniphyllum calycinum*. *RSC Advances*, **2021**, 11, 9057-9066.
- 8) Wang, Ye; Zheng, Zhong; Yuan, Yang; Wang, Mengdan; Guo, Zixia; Jiang, Yuan-Ye*; **Bai, Li-Ping***; Li, Yanzhong*. Cascade C-N Bond Cleavage of Amides / Intramolecular Amination Reactions: An Atom Economical Way to α -Cabolins-4-ones. *Organic Chemistry Frontiers*, **2020**, 8, 579-583. <https://doi.org/10.1039/D0QO01257B>.

- 9) Zhou, Xiaobo[#]; Xiao, Riping[#]; Chen, Ming; **Bai, Li-Ping***. Synthesis of Uscharin Oxime Analogues and Their Biological Evaluation as HIF-1 Inhibitors. *ChemistrySelect*, **2020**, 5, 12869.
- 10) Li, Zheng; Qian, Zengting; Chen, Hongwei; Zhang, Huixia; Li, Yan; Wang, Caiyun; **Bai, Li-Ping**; Zhang, Wei*; Jiang, Zhi-Hong*. Similarity and specificity of traditional Chinese medicine formulas for the management of coronavirus disease 2019 and rheumatoid arthritis based on integrated network pharmacology. *ACS Omega*, **2020**, 5, 30519.
- 11) Xu, Ting; Zheng, Zhiyuan; Guo, Yong*; **Bai, Li-Ping***. Semisynthesis of novel magnolol-based Mannich base derivatives that suppress cancer cells via inducing autophagy. *European Journal of Medicinal Chemistry*, **2020**, 205, 112663.
- 12) Huang, Qi; Zhang, Hui; **Bai, Li-Ping**, Law, Betty Yuen Kwan; Xiong, Haoming; Zhou, Xiaobo; Xiao, Riping; Qu, Yuan Qing; Mok, Simon Wing Fai; Liu, Liang*; Wong, Vicent Kam Wai*. Novel ginsenoside derivative 20(S)-Rh2E2 suppresses tumor growth and metastasis in vivo and in vitro via intervention of cancer cell energy metabolism, *Cell Death and Disease* **2020**, 11, 621.
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- 14) Wang, Zhihua; Wu, Wenbo; Guan, Xiangchen; Guo, Shuang; Li, Chaowen; Niu, Ruixue; Gao, Jie; Jiang, Min; **Bai, Li-Ping**; Leung, Elaine Laihan; Hou, Yuanyuan*; Jiang, Zhi-Hong*; Bai, Gang*. Multiomic analysis revealed 20(s)-protopanaxatriol promotes the binding of P53 and DNA to regulate the antitumor network. *Acta Pharmaceutica Sinica B*, **2020**, 10(6), 1020-1035.
- 15) Jin, Jing [#]*; Xue, Nina [#]; Liu, Yuan; Fu, Rong; Wang, Mingjin; Ji, Ming; Lai, Fangfang; Hu, Jinping; Wang, Xiaojian; Xiao, Qiong; Zhang, Xiaoying; Yin, Dali; **Bai, Li-Ping**; Chen, Liping*; Rao, Shuan *. A novel S1P1 modulator IMM002 ameliorates psoriasis in multiple animal models, *Acta Pharmaceutica Sinica B*, **2020**, 10(2), 276-288.

- 16) Chen, Qi; Liu, Juan; Zhuang, Yuxin; **Bai, Li-Ping**; Yuan, Qing; Zheng, Silin; Liao, Kangsheng; Khan, Md. Asaduzzaman; Wu, Qibiao; Luo, Cheng; Liu, Liang; Wang, Hui *; Li, Ting *. Identification of an IKK β inhibitor for inhibition of inflammation in vivo and in vitro. *Pharmacological Research*, **2019**, 149, 104440.
- 17) Zhou, Xiaobo[#]; Chen, Li[#]; Jiang, Zhi-Hong; Chen, Xiao Yi; Luo, Pei*; **Bai, Li-Ping***. Synthesis of 21-Alkylidenes and 21-Alkylol Analogues of Uscharin and Their Effects on Intracellular Calcium in Cardiac Cells. *Chemistryselect* **2019**, 4 (19), 5512-5517.
- 18) Liu, Xin; Yang, Ji; Yao, Xiaojun; Yang, Xing; Fu, Jing; **Bai, Li-Ping**; Liu, Liang; Jiang, Zhi-Hong*; Zhu, Guo-Yuan*. Linderalides A-D, Disesquiterpenoids Geranylbenzofuranone Conjugates from *Lindera aggregate*. *J Org Chem* **2019**, 84 (12), 8242-8247.
- 19) Liu, Juan; **Bai, Li-Ping**; Yang, Fen; Yao, Xiaojun; Lei, Kawai; Lam, Christopher Wai Kei; Wu, Qibiao; Zhuang, Yuxin; Xiao, Riping; Liao, Kangsheng; Kuok, Hioha; Li, Ting*; Liu, Liang*. Potent Antagonists of ROR γ 1, Cardenolides from *Calotropis gigantea*, Exhibit Discrepant Effects on the Differentiation of T Lymphocyte Subsets. *Mol Pharm* **2019**, 16 (2), 798-807.
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- 21) Fan, Dongsheng; Li, Ting; Zheng, Zhiyuan; Zhu, Guo-Yuan; Yao, Xiaojun; Jiang, Zhi-Hong*; **Bai, Li-Ping***. Macrolide sesquiterpene pyridine alkaloids from the stems of *Tripterygium regelii*. *Journal of Natural Medicines* **2019**, 73 (1), 23-33.
- 22) Zhu, Guo-Yuan*; Yang, Ji; Yao, Xiaojun; Yang, Xing; Fu, Jing; Liu, Xin; **Bai, Li-Ping**; Liu, Liang; Jiang, Zhi-Hong*. (+/-)-Sativamides A and B, Two Pairs of Racemic Nor-Lignanamide Enantiomers from the Fruits of *Cannabis sativa*. *Journal of Organic Chemistry* **2018**, 83 (4), 2376-2381.
- 23) Zhou, Xiaobo[#]; Qu, Yuan Qing[#]; Zheng, Zhiyuan; Law, B. Yuen Kwan; Mok, S. Wing Fai; Jiang, Zhi-Hong*; Wong, V. Kam Wai*; **Bai, Li-Ping***. Novel dauricine derivatives suppress cancer via autophagy-dependent cell death. *Bioorganic Chemistry* **2018**, 83, 450-460.
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- 26) Yang, S. P.; Zhao, W.; Hu, P. P.; Wu, K. Y.; Jiang, Z.-H.; **Bai, Li-Ping**; Li, M. M.; Chen, J. X. Lanthanum-Based Metal-Organic Frameworks for Specific Detection of Sudan Virus RNA Conservative Sequences down to Single-Base Mismatch. *Inorg Chem* **2017**, 56 (24), 14880-14887.
- 27) Sun, B.; Zhao, H. Q.; Xie, B. P.; **Bai, Li-Ping**; Jiang, Z.-H.; Chen, Jin Xiang. Sequence-specific fluorometric recognition of HIV-1 ds-DNA with zwitterionic zinc(II)-carboxylate polymers. *J Inorg Biochem* **2017**, 176, 17-23.
- 28) Qiu, G. H.; Lu, W. Z.; Hu, P. P.; Jiang, Z.-H.; **Bai, Li-Ping**; Wang, T. R.; Li, M. M.; Chen, Jin Xiang*. A metal-organic framework based PCR-free biosensor for the detection of gastric cancer associated microRNAs. *J Inorg Biochem* **2017**, 177, 138-142.
- 29) Fan, Dongsheng; Zhou, Shuangyan; Zheng, Zhiyuan; Zhu, Guo-Yuan; Yao, Xiaojun; Yang, Ming Rong; Jiang, Zhi-Hong; **Bai, Li-Ping***. New Abietane and Kaurane Type Diterpenoids from the Stems of *Tripterygium regelii*. *International Journal of Molecular Sciences* **2017**, 18 (1), 147.
- 30) Xie, B.-P.[#]; Qiu, G.-H.[#]; Hu, P.-P.; Liang, Z.; Liang, Y.-M.; Sun, B.; **Bai, Li-Ping**; Jiang, Z.-H.; Chen, Jin-Xiang*. Simultaneous detection of Dengue and Zika virus RNA sequences with a three-dimensional Cu-based zwitterionic metal-organic framework, comparison of single and synchronous fluorescence analysis. *Sensors and Actuators B: Chemical* **2017**, 254, 1133-1140.
- 31) Yan, Fenggen; Yang, Fen; Wang, Rui; Yao, Xiao Jun; **Bai, Li-Ping**; Zeng, Xing; Huang, J.; Wong, V. Kam Wain; Lam, C. W.; Zhou, Hua; Su, Xiaohui; Liu, Juan; Li, Ting*; Liu, Liang*. Isoliquiritigenin suppresses human T Lymphocyte activation via covalently binding cysteine 46 of IkappaB kinase. *Oncotarget* **2017**, 8(21), 34223-34235.
- 32) Wong, V. Kam Wai; Dong, Hang; Liang, Xu; **Bai, Li-Ping**; Jiang, Zhi-Hong; Guo, Y.; Kong,

- A. N. T.; Wang, R.; Kam, R. K. T.; Law, B. Yuen Kwan; Hsiao, W. W. L.; Chan, K. M.; Wang, Jing Rong; Chan, R. W. K.; Guo, J. R.; Zhang, W.; Yen, F. G.; Zhou, H.; Leung, E. L. H.; Yu, Z. L.; Liu, Liang*. Rh2E2, a novel metabolic suppressor, specifically inhibits energy-based metabolism of tumor cells. *Oncotarget* **2016**, 7 (9), 9907-9924.
- 33) Wang, Jing-Rong; Tong, Tian Tian; Yau, Lee Fong; Chen, Cheng Yu; **Bai, Li-Ping**; Ma, Jing; Hu, Ming; Liu, Liang; Jiang, Zhi-Hong. Characterization of oxygenated metabolites of ginsenoside Rg1 in plasma and urine of rat. *J Chromatogr B Analyt Technol Biomed Life Sci* **2016**, 1026, 75-86.
- 34) Parhira, Supawadee; Zhu, Guo-Yuan; Li, Ting; Liu, Liang; **Bai, Li-Ping***; Jiang, Zhi-Hong*. Inhibition of IKK-beta by epidioxyterols from the flowers of *Calotropis gigantea* (Niu jiao gua). *Chinese Medicine* **2016**, 11, 9.
- 35) Parhira, Supawadee; Zhu, Guo-Yuan; Chen, Ming; **Bai, Li-Ping***; Jiang, Zhi-Hong*, Cardenolides from *Calotropis gigantea* as potent inhibitors of hypoxia-inducible factor-1 transcriptional activity. *Journal of Ethnopharmacology* **2016**, 194, 930-936.
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- 37) Li, Jin Xin; Matsumoto, J.; **Bai, Li-Ping**; Murata, A.; Dohno, C.; Nakatani, Kazuhiko*. A Ligand That Targets CUG Trinucleotide Repeats. *Chemistry-a European Journal* **2016**, 22 (42), 14881-14889.
- 38) Fan, Dong Sheng; Zhu, Guo-Yuan; Li, Ting; Jiang, Zhi-Hong*; **Bai, Li-Ping***. Dimacrolide Sesquiterpene Pyridine Alkaloids from the Stems of *Tripterygium regelii*. *Molecules* **2016**, 21 (9), 1146.
- 39) Fan, Dong Sheng; Zhu, Guo-Yuan; Chen, Ming; Xie, Li Min; Jiang, Zhi-Hong; Xu, Liang; **Bai, Li-Ping***. Dihydro-beta-agarofuran sesquiterpene polyesters isolated from the stems of *Tripterygium regelii*. *Fitoterapia* **2016**, 112, 1-8.
- 40) Fan, Dong Sheng; Parhira, Supawadee; Zhu, Guo-Yuan; Jiang, Zhi-Hong; **Bai, Li-Ping***. Triterpenoids from the stems of *Tripterygium regelii*. *Fitoterapia* **2016**, 113, 69-73.

- 41) Chen, Cheng Yu; **Bai, Li-Ping**; Ke, Zhen Feng; Liu, Yan; Wang, Jing-Rong*; Jiang, Zhi-Hong*, G-Quadruplex DNA-binding quaternary alkaloids from *Tylophora atrofoliculata*. *RSC Advances* **2016**, 6 (115), 114135-114142.
- 42) Wang, Rui; Zhang, C. Y.; **Bai, Li-Ping**; Pan, Hui Dan; Shu, L. M.; Kong, A. N. T.; Leung, E. Lai Han; Liu, Liang; Li, Ting*. Flavonoids derived from liquorice suppress murine macrophage activation by up-regulating heme oxygenase-1 independent of Nrf2 activation. *International Immunopharmacology* **2015**, 28 (2), 917-924.
- 43) Wang, Jing-Rong; Yau, Lei-Fong; Tong, Tian-Tian; Feng, Qi-Tong; **Bai, Li-Ping**, Ma, Jing; Hu, Ming; Liu, Liang; Jiang, Zhi-Hong*. Characterization of Oxygenated Metabolites of Ginsenoside Rb1 in Plasma and Urine of Rat. *Journal of Agricultural and Food Chemistry* **2015**, 63, 2689-2700.
- 44) Zhu, G.-Y.; Yao, X. J.; Liu, L.; **Bai, L.-P.***; Jiang, Z.-H.*, Alistonitrine A, a Caged Monoterpene Indole Alkaloid from *Alstonia scholaris*. *Organic Letters* **2014**, 16 (4), 1080-1083.
- 45) Zhu, G.-Y.; Chen, G. Y.; Liu, L.; **Bai, L.-P.***; Jiang, Z.-H.*, C-17 Lactam-Bearing Limonoids from the Twigs and Leaves of *Amoora tsangii*. *Journal of Natural Products* **2014**, 77 (4), 983-989.
- 46) Zhu, G.-Y.; **Bai, L.-P.**; Liu, L.*; Jiang, Z.-H.*, Limonoids from the fruits of *Melia toosendan* and their NF-kappa B modulating activities. *Phytochemistry* **2014**, 107, 175-181.
- 47) Yang, Z. F.[#]; **Bai, L.-P.** [#]; Huang, W. B.; Li, X. Z.; Zhao, S. S.; Zhong, N. S.*; Jiang, Z.-H.*, Comparison of in vitro antiviral activity of tea polyphenols against influenza A and B viruses and structure-activity relationship analysis. *Fitoterapia* **2014**, 93, 47-53.
- 48) Parhira, S.; Zhu, G.-Y.; Jiang, R. W.; Liu, L.; **Bai, L.-P.***; Jiang, Z.-H.*, 2'-Epi-uscharin from the Latex of *Calotropis gigantea* with HIF-1 Inhibitory Activity. *Scientific Reports* **2014**, 4, 4748.
- 49) Parhira, S.; Yang, Z. F.; Zhu, G.-Y.; Chen, Q. L.; Zhou, B. X.; Wang, Y. T.; Liu, L.; **Bai, L.-P.***; Jiang, Z.-H.*, In Vitro Anti-Influenza Virus Activities of a New Lignan Glycoside from the Latex of *Calotropis gigantea*. *Plos One* **2014**, 9 (8), e104544.
- 50) Law, B. Y. K.; Chan, W. K.; Xu, S. W.; Wang, J. R.; **Bai, L.-P.**; Liu, L.; Wong, V. K. W.,

Natural small-molecule enhancers of autophagy induce autophagic cell death in apoptosis-defective cells. *Scientific Reports* **2014**, *4*.

- 51) **Bai, L.-P.**; Liu, J.; Han, L.; Ho, H. M.; Wang, R. X.; Jiang, Z.-H.*, Mass spectrometric studies on effects of counter ions of TMPyP4 on binding to human telomeric DNA and RNA G-quadruplexes. *Analytical and Bioanalytical Chemistry* **2014**, *406* (22), 5455-5463.
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- 53) **Bai, L.-P.**; Ho, H. M.; Ma, D. L.; Yang, H.; Fu, W. C.; Jiang, Z.-H.*, Aminoglycosylation Can Enhance the G-Quadruplex Binding Activity of Epigallocatechin. *Plos One* **2013**, *8* (1), e53962.
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Books

- 1) **Li-Ping Bai** (Assistant Editor). in L. He & Z.-H. Jiang (Editor) Resources Chemistry of

Natural Products (天然產物資源化學). Science Press, Beijing, 2008.

- 2) **Li-Ping Bai** (Assistant Editor). in Z.Z. Zhao & Y.S. Li (Editor) Authentication of One Hundred of Chinese Medicines. Wan Li Book Co., Ltd., Hong Kong, 2008.
- 3) **Li-Ping Bai** (Assistant Editor). in Z.Z. Zhao & P.G. Xiao (Editor) Encyclopedia of Medicinal Plants (Traditional Chinese Version), Volumes 1-2. Hong Kong Jockey Club Institute of Chinese Medicine, Hong Kong, 2006. [China Outstanding Science Book Prize (for imported books)].
- 4) **Li-Ping Bai** (Assistant Editor). in Z.Z. Zhao & Y.S. Li (Editor) Easily Confused Chinese Medicines in Hong Kong. Chinese Medicine Merchants Association Ltd., Hong Kong, 2005.

Research Projects

- 1) 2021.03-2023.03, Improvement of Quality Standard and Clinical Research of the new Chinese Patent Medicine “Jade Butterfly Freckle Removal Cream”, FDCT-GDST Joint Fund (FDCT project number 0043/2020/AGJ), PI
- 2) 2020.09-2023.09, Innovative drug research of novel S1P1 modulator for the treatment of idiopathic pulmonary fibrosis, FDCT-MOST Joint Fund (FDCT project number 0074/2019/AMJ), PI
- 3) 2020.04-2021.04, Research and development of specially-effective Chinese medicines against novel coronavirus pneumonia, Macao Science and Technology Development Fund (FDCT project number 0064/2020/A), PI
- 4) 2020.01-2023.01, Study on multi-dimensional quality control of six Chinese herbal medicines by combining artificial intelligence and multi-omics technologies, FDCT Key R & D research project (FDCT project number 0023/2019/AKP), Co-PI
- 5) 2019.06-2022.06, Construction of Alkaline Spingomyelin-based Cationic Liposome and Application in Co-delivery of siRNA and Chemotherapy Drug, Macao

Science and Technology Development Fund (FDCT project number 0004/2019/A1), Principal Investigator

- 6) 2014.01-2018.01, Chemical Studies on Cardenolides in *Calotropis* Plants and Evaluation of Their Hypoxia Inducible Factor-1 (HIF-1) Inhibitory Activity, Macao Science and Technology Development Fund (FDCT project number 056/2013/A2), Principal Investigator
- 7) 2012.06-2014.11, GSH-guided isolation of IKK β -modifying Epoxides from Chinese medicinal herbs and evaluation of their anti-inflammatory activities, Macao Science and Technology Development Fund (FDCT project number 063/2011/A3), Principal Investigator
- 8) 2012.01-2012.12, Comparative study of flavanols and flavonols binding to amyloid beta peptide by ESI-TOF-MS and MALDI-TOF-MS techniques, Macao Foundation (#0205), Principal Investigator

Membership of Academic Associations and Community Service

- 1) Chinese Chemical Society
- 2) Inaugural Conference of the Specialty Committee on Immunology of Traditional Chinese Medicine of the World Federation of Chinese Medicine Societies (Executive member of the council)
- 3) Inaugural Conference of the Specialty Committee on Manchu Medicine of the World Federation of Chinese Medicine Societies (Executive member of the council)
- 4) Macau International Collaboration Alliance for Rheumatology Research (Executive Council Member of the First Council)

Awards

- 1) 2020 Macao Natural Science Award (3rd Prize, 3/5), Characteristic Molecular Profiling for Discovering New Drug Targets and Bioactive TCM Components. (Project No. 012/2020/AN), 2020.10
- 2) “Excellent Teacher” in the 11th Teaching Excellence Award for the Academic Year 2018/2019
- 3) The 2013 Bank of China (BOC) Excellent Research Award (Bank of China Macau Branch)

- 4) The 2016 Zhongzhu Awards for Life Science Recognizing First Prize in Research (Zhongzhu Healthcare Holding Co., Ltd.)
- 5) Excellent Poster Award in 29th Annual Congress of Chinese Chemical Society (4-7th Aug. 2014 in Beijing China)