

Bai Li Ping



Academic Title: Professor

Faculty: State Key Laboratory of Quality Research in Chinese Medicine, Macau Institute for Applied Research in Medicine and Health

Position: Deputy director of Laboratory of Natural Products and Bioorganic and Medicinal Chemistry

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Prof. Bai received her Bachelor and Mphil degrees from Liaoning University of Traditional Chinese Medicine in 2001 and 2004, respectively. In 2008, she obtained her PhD degree from Hong Kong Baptist University. 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. In 2015, she achieved an accelerated promotion to an associate professor. In 2023, she was promoted to a full professor.

Prof. Bai's research fields include bioorganic chemistry, medicinal chemistry and natural medicinal chemistry. Her research focuses on bioactive ingredients in traditional Chinese medicines (TCMs), design and synthesis of bioactive small organic molecules, and their pharmacodynamic evaluations as anticancer agents, viral entry inhibitors against SARS-CoV-2 and molecules inhibiting pulmonary fibrosis. Recently, Prof. Bai has a strong interest in designing and synthesizing

innovative cationic sphingolipids (Chinese Patent No. ZL202210358677.7) in constructing lipid nanoparticles (LNPs) that can effectively deliver RNA, including siRNA and mRNA, for both cancer therapy and vaccine development. Additionally, she also focuses on discovery of medicinal molecules against pulmonary fibrosis. She had also been 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 more than 100 research articles in SCI journals including *European Journal of Medicinal Chemistry*, *Bioorganic Chemistry*, *Organic Letters*, *Journal of Natural Products*, *Journal of Organic Chemistry*, *Phytochemistry*, *Biomedicine & Pharmacotherapy*, *Organic Chemistry Frontiers* and *Food Chemistry*. She has obtained 24 patent approvals (including 5 U.S. patent approval), and 1 Chinese invention patent has achieved technology transfer to HEC Cordyceps Co., Ltd. Hengqin Zhuhai. Since 2013, Prof. Bai achieved the Bank of China Excellent Research Award (2013), Excellent Teaching Award of Macau University of Science and Technology (2019), and Third Natural Science Award in Macao (2020). Her research was financially supported by Macao Science and Technology Development Fund, and The Macao Foundation. As a principal investigator, she has obtained more than 10 research grants including 2 FDCT Key R & D research projects (PI of the first subprojects on both “Intelligent Identification of Chinese Medicinal Materials Using Computer Vision Technology” and “In-depth analysis and sample library establishment of triterpene saponins from edible traditional Chinese medicines”), 2 FDCT-MOST Joint Fund, and 1 FDCT-GDST Joint Fund. As a co-investigator, she also participated in research projects of “Guangdong-Hong Kong-Macao Joint Laboratory of Respiratory Infectious Diseases (2020-2022)” financially supported by Department of Science and Technology of Guangdong Province, “Class C Program of the Science and Technology of Shenzhen Guangdong-Hong Kong-Macao Greater Bay Area (2022)” funded by Shenzhen Municipal Committee of Science and Technology Innovation, and various projects supported by National Natural Science Foundation of China, and Natural Science Foundation of Guangdong Province. In addition, she also serves as an editorial board member of JOURNAL OF ANALYSIS AND TESTING.

Research Areas and Research Interests:

Research Area: Bioorganic and Medicinal Chemistry, Natural Medicinal Chemistry

Research Interest (2020-2025):

- 1) Novel Sphingolipids' Synthesis and Application in Drug Delivery Systems (LNPs) for RNA Therapy
- 2) Research and Development of TCMs-derived or Synthetic Medicinal Molecules for the Treatment of Pulmonary Fibrosis;
- 3) Design, Synthesis and Pharmacodynamic Study of Anticancer Medicinal Molecules
- 4) *In-situ* Analysis of TCMs by TOF-SIMS
- 5) Development of Android Platform App for Identification of Chinese Medicinal Materials Using Artificial Intelligence (Collaboration with Prof. CAI Zhanchuan's Team)

Teaching Subjects:

- 1) Postgraduates course: Prospect and Progress in Chinese Medicine Research (Coordinator), Selected Topics of Chemistry of Chinese Materia Medica (Coordinator), Experimental Techniques in Chemistry of Chinese Materia Medica (Coordinator), etc.
- 2) Undergraduates course: Chemistry of Chinese Materia Medica, Experiments of Chemistry of CMM (Coordinator), Honor Projects (Coordinator).

Academic Qualifications

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|--------|--|
| 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 |

Work Experience

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|----------------|---|
| 2023.7-present | Professor, State Key Laboratory of Quality Research in Chinese Medicine, Macau University of Science and Technology |
| 2015.7-2023.6 | Associate Professor, State Key Laboratory of Quality Research in |

2011.9-2015.6	Chinese Medicine, Macau University of Science and Technology 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 (*: Corresponding authors; #: Co-first authors)

- 1) Fu, Lu; Wang, Can-Can; Tian, Wenyue; Liu, Zhiyan; Bao, Meng-Yu; Liu, Jiazheng; Zhang, Wei; **Bai, Li-Ping***; Jiang, Zhi-Hong*; Zhu, Guo-Yuan*. NMR-guided isolation of anti-inflammatory carabranolides from the fruits of *Carpesium abrotanoides* L. *Journal of Natural Products*, **2024**, *87*, 1786-1797.
- 2) Liu, Jiazheng; Xu, Ting; Ding, Jianjun; Wen, Haoyue; Meng, Jieru; Liu Qing; Liu, Xiaomei; Zhang, Wei; Zhu, Guo-Yuan; Jiang, Zhi-Hong*; Gao, Jing*; **Bai, Li-Ping***. Discovery of Anti-melanogenic Components in Persimmon (*Diospyros kaki*) Leaf Using LC-MS/MS-MN, AlphaFold2-enabled Virtual Screening and Biological Validation. *Food Chemistry*, **2024**, *455*, 139814.
- 3) Fu, Lu; Tian, Wenyue; Bao, Meng-Yu; Liu, Zhiyan; Ren, Wen-Jing; Liu, Jiazheng; Zhang, Wei; Zhang, Zhifeng; Gao, Jing; **Bai, Li-Ping***; Jiang, Zhi-Hong*; Zhu, Guo-Yuan*. Cevanine-type alkaloids from the bulbs of *Fritillaria unibracteata* var. *wabuensis* and their antifibrotic activities in vitro. *Phytochemistry*, **2024**, *220*, 114018.
- 4) Chen, Jian-Li; Jia, Xiao-Hui; Wu, Xuan; Yuan, Ming-Heng; Xia, Xinyue; Yin, Dan; Chen, Xu; Gu, Ze-Yun; Liu, Jia-Zheng; **Bai, Li-Ping**; Luo, Kathy Qian; Wang, Jianfang; Zhu, Xiao-Ming*. Kidney-targeted antioxidant salvianolic acid B nanoparticles restoring lysosome homeostasis

for acute kidney injury therapy. *Chemical Engineering Journal*, **2024**, *490*, 151811.

- 5) Lin, Zhi-Rong; Bao, Meng-Yu; Xiong, Hao-Ming; Cao, Dai; **Bai, Li-Ping**; Zhang, Wei; Chen, Cheng-Yu; Jiang, Zhi-Hong*; Zhu, Guo-Yuan*. Boswellianols A–I, Structurally Diverse Diterpenoids from the Oleo-gum Resin of *Boswellia carterii* and Their TGF- β Inhibition Activity. *Plants*, **2024**, *13*, 1074.
- 6) Lyu, Peilun; Liu, Jiazheng; Zhang, Yuhan; Ye, Ben; Lan, Ting; **Bai, Li-Ping**; Cai, Zhanchuan*; Jiang, Zhi-Hong*. A Novel Feature Fusion Framework for Industrial Automation Single-Multiple Object Detection. *IEEE Transactions on Industrial Informatics*, **2024**, DOI:10.1109/TII.2024.3353814.
- 7) Chen, Fei-Long; Liu, Dong-Li; Ren, Wen-Jing; Xiong, Hao-Ming; **Bai, Li-Ping**; Zhang, Wei; Hon, Chitin; Jiang, Zhi-Hong*; Zhu, Guo-Yuan*. Atrachinenins D-S, Novel Meroterpenoids with Geranyl Hydroquinone Moiety from *Atractylodes chinensis* by the LC/MS-based Molecular Decoy and Targeted Isolation. *Bioorganic Chemistry*, **2024**, *144*, 107111.
- 8) Wu, Yanqi; Guan, Yuhong; Huang, Peilin; Chen, Hui; **Bai, Li-Ping**; Jiang, Zhi-Hong*. Preparation of Norovirus GII Loop Mediated Isothermal Amplification Freeze-Drying Microsphere Reagents and Its Application in An On-Site Integrated Rapid Detection Platform. *Chinese Chemical Letters*, **2023**, 109308.
- 9) Zhou, Mingyue; Yang, Ziwei; Yin, Tianpeng; Zhao, Yunfeng; Wang, Cai-Yun; Zhu, Guo-Yuan; **Bai, Li-Ping**; Jiang, Zhi-Hong*; Zhang, Wei*. Functionalized Fe-Doped Carbon Dots Exhibiting Dual Glutathione Consumption to Amplify Ferroptosis for Enhanced Cancer Therapy. *ACS Applied Materials & Interfaces*, **2023**, *15*, 53228-53241.
- 10) Wang, Yue; Yu, Fei; Liu, Qinhua; Wang, Caiyun; Zhu, Guo-Yuan; **Bai, Li-Ping**; Shi, Shuai; Zhao, Yunfeng; Jiang, Zhi-Hong*; Zhang, Wei*. A novel and sensitive dual signaling ratiometric electrochemical aptasensor based on nanoporous gold for determination of Ochratoxin A. *Food Chemistry*, **2024**, 137192.
- 11) Liu, Qian-Bao; Liu, Jiazheng; Lu, Jing-Guang; Yang, Ming-Rong; Zhang, Wei; Li, Wen-Jia; Qian, Zheng-Ming; Jiang, Zhi-Hong*; **Bai, Li-Ping***. Quantitative ^1H NMR with global spectral deconvolution approach for quality assessment of natural and cultured *Cordyceps sinensis*. *Journal of Pharmaceutical and Biomedical Analysis*, **2023**, *235*, 115603.

- 12) Lyu, Hao-Yuan; Bao, Meng-Yu; Io, Chi-Cheng; Xiong, Hao-Ming; Chen, Fei-Long; **Bai, Li-Ping**; Zhang, Wei; Jiang, Zhi-Hong*; Zhu, Guo-Yuan*. Sesquiterpenoids from the roots of *Aucklandia costus* and their anti-inflammatory activities. *Fitoterapia*, **2023**, *169*, 105604.
- 13) Xiong, Hao-Ming; Li, Hui-Ying; Lin, Zhi-Rong; Liu, Xiao-Mei; **Bai, Li-Ping**; Zhang, Wei; Jiang, Zhi-Hong*; Zhu, Guo-Yuan*. Chemical Constituents from the Fruits of *Amomum kravanh* and Their Role in Activating Alcohol Dehydrogenase. *Molecules*, **2023**, *28*, 4878.
- 14) Zhang, Hui-Xia; Yu, Dian; Sun, Jian-Feng; Zeng, Ling; Wang, Cai-Yun; **Bai, Li-Ping**; Zhu, Guo-Yuan; Jiang, Zhi-Hong*; Zhang, Wei*. An Integrated Approach to Evaluate Acetamiprid-induced Oxidative Damage to tRNA in Human Cells Based on Oxidized Nucleotide and tRNA Profiling. *Environment International*, **2023**, *178*, 108038.
- 15) Ren, Wen-Jing; Io, Chi-Cheng; Jiang, Rong; Ng, Kei-Fong; Liu, Jiazheng; **Bai, Li-Ping**; Zhang, Wei; Jiang, Zhi-Hong*; Liu, Yuhong*; Zhu, Guo-Yuan*. Di- and Triterpenoids from the Rhizomes of *Isodon amethystoides* and Their Anti-inflammatory Activities. *Journal of Natural Products*, **2023**, *86*, 1230-1239.
- 16) Lu, Li; Zhang, Xin; Kang, Yu; Xiong, Zhuang; Zhang, Kun; Xu, Xuetao*, **Bai, Li-Ping***; Li, Hongguang*. Novel coumarin derivatives as potential tyrosinase inhibitors: Synthesis, binding analysis and biological evaluation. *Arabian Journal of Chemistry*, **2023**, *16*:104724.
- 17) Meng, Jie-Ru; Liu, Jiazheng; Fu, Lu; Shu, Tong; Yang, Lingzhi; Zhang, Xueji*; Jiang, Zhi-Hong*; **Bai, Li-Ping***. Anti-Entry Activity of Natural Flavonoids Against SARS-CoV-2 by Targeting Spike RBD. *Viruses*, **2023**, *15*, 160.
- 18) Hao, Mengyao; Fu, Rong; Tai, Jun; Tian, Zhenhuan; Yuan, Xia; Chen, Yang; Wang, Mingjin; Jiang, Huimin; Ji, Ming; Lai, Fangfang; Xue, Nina; **Bai, Li-Ping**; Zhu, Yizhun; Lv, Xiaoxi*; Chen, Xiaoguang*; Jin, Jing*. S1PR1 serves as a viable drug target against pulmonary fibrosis by increasing the integrity of the endothelial barrier of the lung. *Acta Pharmaceutica Sinica B*, **2023**, *13*, 1110-1127.
- 19) Zhang, Hui-Xia[#]; Qin, Jian-Feng[#]; Sun, Jian-Feng; Pan, Yu; Yan, Tongmeng; Wang, Cai-Yun; **Bai, Li-Ping**; Zhu, Guo-Yuan; Jiang, Zhi-Hong*; Zhang, Wei*. Selective chemical labeling strategy for oligonucleotides determination: a first application to full-range profiling of transfer RNA modifications. *Analytical Chemistry*, **2023**, *95*, 686-694.

- 20) Liu, Jiazheng[#]; Meng, Jieru[#]; Li, Runfeng[#]; Jiang, Haiming; Fu, Lu; Xu, Ting; Zhu, Guo-Yuan; Zhang, Wei; Gao, Jin; Jiang, Zhi-Hong*; Yang, Zi-Feng*; **Bai, Li-Ping***. Integrated Network Pharmacology Analysis, Molecular Docking, LC-MS Analysis and Bioassays Revealed the Potential Active Ingredients and Underlying Mechanism of *Scutellariae Radix* for COVID-19. *Frontiers in Plant Science*, **2022**, *13*, 988655.
- 21) Zheng, Zhiyuan[#]; Xu, Ting[#]; Liu, Zhiyang; Tian, Wenyue; Jiang, Zhi-Hong; Zhu, Guo-Yuan; Li, Ting; Gao, Jin; **Bai, Li-Ping***. Cryptolepine supresses breast adenocarcinoma *via* inhibition of HIF-1 mediated glycolysis. *Biomedicine & Phamarmacotherapy*, **2022**, *153*, 113319.
- 22) Wu, Xu-Jia; Cao, Dai; Chen, Fei-Long; Shen, Rong-Sheng; Gao, Jin; **Bai, Li-Ping**; Zhang, Wei; Jiang, Zhi-Hong*; Zhu, Guo-Yuan*. Chlorfortunoids A and B, Two Sesquiterpenoid Dimers Possessing Dispiro[4,2,5,2]pentadecane-6,10,14-tren Moiety from *Chloranthus fortunei*. *ACS Omega*, **2022**, *7*, 35063-35068.
- 23) Yin, Tianpeng; Yu, Yi; Liu, Qinghua; Zhu, Guoyuan; **Bai, Li-Ping**; Zhang, Wei*; Jiang, Zhi-Hong*. ¹³C-NMR-based MixONat strategy coupled with 2D NMR for rapid dereplication and identification of new secondary metabolites from *Aloe vera*. *Journal of Food Composition and Analysis*, **2022**, *115*, 104975.
- 24) Lu, Jing-Guang; Wang, Yingwei; Yang, Ming-Rong; Wang, Cai-Yun; Meng, Jieru; Liu, Jiazheng; Yang, Zi-Feng; Wu, Kongsong; **Bai, Li-Ping***; Zhu, Guo-Yuan*; Jiang, Zhi-Hong*. Structures, Biomimetic Synthesis, and Anti-SARS-CoV-2 Activity of Two Pairs of Enantiomeric Phenylpropanoid-Conjugated Pro-toberberine Alkaloids from the Rhizomes of *Corydalis decumbens*. *Archives of Pharmacal Research*, **2022**, *45*, 631-643.
- 25) Wu, Yanqi; **Bai, Li-Ping**; Ye, Chengfu; Guan, Yuhong; Yan, Kunming; Chen, Hui; Jiang Zhi-Hong*. Novel miniaturized fluorescence loop-mediated isothermal amplification detection system for rapid on-site virus detection. *Frontiers in Bioengineering and Biotechnology*, **2022**, *10*, 964244.
- 26) Shen, Rong-Sheng; Cao, Dai; Chen, Fei-Long; Wu, Xu-Jia; Gao, Jin; **Bai, Li-Ping**; Zhang, Wei; Jiang, Zhi-Hong*; Zhu, Guo-Yuan*. New monoterpene-conjugated phenolic constituents from nutmeg and their autophagy modulating activities. *Journal of Agricultural and Food Chemistry*, **2022**, *70*(31), 9684-9693.

- 27) Chen, Fei-Long; Liu, Dong-Li; Fu, Jing; Fu, Lu; Gao, Jin; **Bai, Li-Ping**, Zhang, Wei, Jiang, Zhi-Hong*; Zhu, Guo-Yuan*. Atrachinenynes A–D, four diacetylenic derivatives with unprecedented skeletons from the rhizomes of *Atractylodes chinensis*. *New Journal of Chemistry*, **2022**, Doi:10.1039/D2NJ02149H.
- 28) Kong, Lingkai[#]; Tian, Wenyue[#]; Liu, Zhiyan, Xu, Ting; Wen, Haoyue; Chen, Zihan; Gao, Jin; **Bai, Li-Ping***. TfOH-Catalyzed Cascade C-H/N-H Chemo-regioselective Annulation of Indole-2-carboxamides with Benzoquinones for the Construction of Anticancer Tetracyclic Indolo[2,3-*c*]quinolinones. *Journal of Organic Chemistry*, **2022**, *87*, 7955-7967.
- 29) Yin, Tianpeng; Yu, Yi; Liu, Qinghua; Mingyue Zhou; Zhu, Guo-Yuan; **Bai, Li-Ping**; Zhang, Wei*; Jiang, Zhi-Hong*. 2D NMR-based MatchNat Dereplication Enables Explosive Discovery of Novel Diterpenoid Alkaloids. *Chinese Journal of Chemistry*, **2022**, *40*, 2169-2178.
- 30) Xu, Ting[#]; Meng, Jieru[#]; Cheng, Wanqing; Liu, Jiazheng; Chu, Junyan; Zhang, Qian; Ma, Nannan; **Bai, Li-Ping***; Guo, Yong*. Discovery of honokiol thioethers containing 1,3,4-oxadiazole moieties as potential α -glucosidase and SARS-CoV-2 entry inhibitors. *Bioorganic and Medicinal Chemistry*, **2022**, *67*, 116838.
- 31) Liu, Qian-Bao[#]; Lu, Jing-Guang[#]; Jiang, Zhi-Hong*; Zhang, Wei; Li, Wen-Jia; Qian, Zheng-Ming; **Bai, Li-Ping***. In situ chemical Profiling and imaging of cultured and natural *Cordyceps sinensis* by TOF-SIMS. *Frontiers in Chemistry*, **2022**, *10*, 862007.
- 32) Xiao, Riping[#]; Lei, Kaiwai[#]; Kuok, Hioha[#]; Deng, Wende; Zhuang, Yuxing; Tang, Yanqing; Guo, Zhengyang; Qin, Hongyan*; **Bai, Li-Ping***; Li, Ting*. Synthesis and identification of lithocholic acid 3-sulfate as ROR γ t ligand to inhibit Th17 cell differentiation. *Journal of Leukocyte Biology*, **2022**, *112*, 835-843.
- 33) Wang, Yue; Wu, Xuan; Sun, Jianfeng; Wang, Caiyuan; Zhu, Guoyuan; **Bai, Li-Ping**; Jiang, Zhi-Hong*; Zhang, Wei*. Stripping voltammetric determination of cadmium and lead ions based on a bismuth oxide surface-decorated nanoporous bismuth electrode. *Electrochemistry Communications*, **2022**, *136*, 107233.
- 34) Kong, Lingkai; Hu, Xueping; **Bai, Li-Ping***. TBAI-Catalyzed Oxidative Coupling of Benzyl Ketones to Synthesize 2,3-Diary-1,4-Diketones in Water. *ACS OMEGA*, **2022**, *7*, 2337-2343.

- 35) Kong, Lingkai; Meng, Jieru; Tian, Wenyue; Liu, Jiazheng; Hu, Xueping; Jiang, Zhi-Hong; Zhang, Wei; Li, Yanzhong*; **Bai, Li-Ping***. I₂-Catalyzed Carbonylation of α -Methylene Ketones to Synthesize 1,2-Diaryl Diketones and Antiviral Quinoxalines in One Pot. *ACS OMEGA*, **2022**, 7, 1380-1394.
- 36) Chen, Fei-Long; Liu, Dong-Li; Fu, Jing; Yang, Ji; **Bai, Li-Ping**; Zhang, Wei; Jiang, Zhi-Hong*; Zhu Guo-Yuan*. (\pm)-Atrachinenins A–C, three pairs of caged C₂₇ meroterpenoids from the rhizomes of *Atractylodes Chinensis*. *Chinese Journal of Chemistry*, **2022**, 40, 460-466.
- 37) Guo, Yong[#]; Meng, Jieru[#]; Liu, Jiazheng; Xu, Ting; Zheng, Zhiyuan; Jiang, Zhi-Hong; **Bai Li-Ping***. Synthesis and biological evaluation of honokiol derivatives bearing 3-((5-phenyl-1,3,4-oxadiazol-2-yl)methyl)oxazol-2(3H)-ones as potential viral entry inhibitors against SARS-CoV-2. *Pharmaceuticals*, **2021**, 14, 885.
- 38) Guo, Yong; Enhua, Hou; Tingyu, Wen; Xiaoting, Yan; Meiyue, Han; **Bai, Li-Ping**; Xiangjing, Fu; Jifeng, Liu*; Shangshang, Qin*. Development of Membrane-Active Honokiol/Magnolol Amphiphiles as Potent Antibacterial Agents against Methicillin-Resistant *Staphylococcus aureus* (MRSA). *Journal of Medicinal Chemistry*, **2021**, 64, 12903-12916.
- 39) Hu, Chun-Mei; Wang, Wen-Jing; Ye, Yuan-Na; Kang, Yu; Lin, Jing; Wu, Pan-Pan; Li, Dong-Li; **Bai, Li-Ping**; Xu, Xue-Tao; Li, Bao-Qiong; Zhang, Kun. Novel cinnamic acid moganol derivatives as potent α -glucosidase and α -amylase inhibitors: Synthesis, in vitro and in silico studies. *Bioorganic Chemistry*, **2021**, 116, 105291.
- 40) 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**, 115, 105257.
- 41) Liu, Xin; Fu, Jing; Shen, Rong-Sheng; Wu, Xu-Jia; Yang, Ji; **Bai, Li-Ping**; Jiang, Zhi-Hong*; Zhu, Guo-Yuan*. Linderanoids A–O, dimeric sesquiterpenoids from the roots of *Lindera aggregata* (Sims) Kosterm. *Phytochemistry*, **2021**, 191, 112924.
- 42) 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.

- 43) 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.
- 44) 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.
- 45) 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.
- 46) Liu, Xin; Jing, Fu; Yang, Ji; Huang, AnCheng; Li, Run-Feng; **Bai, Li-Ping**; Liu, Liang; Jiang, Zhi-Hong*; Zhu, Guo-Yuan*. Linderaggregrolides A–N, Oxygen-Conjugated Sesquiterpenoid Dimers from the Roots of *Lindera aggregata*. *ACS Omega*, **2021**, *6*, 5898-5909.
- 47) 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.
- 48) 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 -Cabolin-4-ones. *Organic Chemistry Frontiers*, **2020**, *8*, 579-583.
- 49) 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.
- 50) 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.

- 51) 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.
- 52) 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.
- 53) Liu, Meixian; Li, Na; Zhang, Yida; Zheng, Zhiyuan; Zhuo, Yue; Sun, Baoqing; **Bai, Li-Ping**; Zhang, Mingming; Guo, Mingquan; Wu, Jianlin*. Characterization of Covalent Protein Modification by Triclosan in vivo and in vitro via Three-Dimensional Liquid Chromatography-Mass Spectrometry: New Insight into Its Adverse Effects. *Environment International* **2020**, *136*, 105423.
- 54) 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.
- 55) 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.
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- 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.
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Research Projects as PI

- 14) 2024.10-2027.10, The Mechanism Study of S1PR1 of Vascular Niche on Maintaining the Homeostasis of Pulmonary Alveolar Barrier and Research & Development of Targeted Drugs for Pulmonary Fibrosis, FDCT-MOST Joint Fund (FDCT project number 0161/2024/AMJ), MOP 2,081,000.00, PI
- 13) 2024.06-2027.06, Development of Next-Generation Anti-Aging Products Based on Synergistic Enhancement Techniques with Edible TCMs, FDCT Key R & D research project (FDCT project number 0001/2023/AKP), MOP 11,916,000.00, Co-PI. (PI of the first subproject on “In-depth analysis and sample library establishment of triterpene saponins from edible traditional Chinese medicines”)
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- 11) 2023.01-2023.12, Structural Modification of Components from Traditional Chinese Medicine and Their Antitumor Effects, Open fund project of State Key Laboratory of Oncology Chemogenomics Jointly-established by Ministry and Commission, Tsinghua Shenzhen International Graduate School, (grant number: SKLCO202210), RMB 100,000.00, PI
- 10) 2022.02-2025.02, A cardiac glycoside, its synthesis method and application, Chinese mainland invention patent application project of Macao Science and Technology Development Fund, (grant number: 0011/2021/APT), MOP 9,140.00, PI
- 9) 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), MOP 1,048,000.00, PI
- 8) 2022.08-2025.08, Design, synthesis and antitumor activity of novel VEGFR-2/ Aurora A dual-target inhibitors, Wuyi University-Hong Kong-Macao Joint R & D Fund Project (2021WGALH08), RMB 100,000.00, PI of Macau
- 7) 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), MOP 2,101,000.00, PI
- 6) 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), MOP 404,000.00, PI
- 5) 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), MOP 8,000,000.00, Co-PI. (PI of the first subproject on “Intelligent Identification of Chinese Medicinal Materials Using Computer Vision Technology”)
- 4) 2019.06-2022.06, Construction of Alkaline Sphingomyelin-based Cationic Liposome and Application in Co-delivery of siRNA and Chemotherapy Drug, Macao

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- 3) 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), MOP 3,040,000.00, Principal Investigator
- 2) 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), MOP 2,022,000.00, Principal Investigator
- 1) 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), MOP 85,000.00, Principal Investigator

Membership of Academic Associations and Community Service

- 1) Chinese Chemical Society
- 2) Inaugural Conference of the Specialty Committee on Manchu Medicine of the World Federation of Chinese Medicine Societies (Executive member of the council)

Academic 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 2016/2017 Zhongzhu Awards for Life Science Recognizing First Prize in Research (Zhongzhu Healthcare Holding Co., Ltd.)