

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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Dr. 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 full professor.

Dr. 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, Dr. Bai has a strong interest in designing and

synthesizing innovative cationic sphingolipids (Chinese Patent Application No. CN202210358677.7, & International application No. PCT/CN2022/098765, Priority date 7th April 2022) in constructing lipid nanoparticles (LNPs) that can effectively deliver RNA, including siRNA and mRNA, for both cancer therapy and vaccine development. 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 90 research articles in SCI journals including *European Journal of Medicinal Chemistry*, *Bioorganic Chemistry*, *Organic Letters*, *Journal of Natural Products*, *Journal of Organic Chemistry*, *Biomedicine & Pharmacotherapy*, and *Organic Chemistry Frontiers*. She has obtained more than 20 patent approvals (including 5 U.S. patent approval) so far. Since 2013, Dr. 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 FDCT Key R & D research project (PI of the first subproject on “Intelligent Identification of Chinese Medicinal Materials Using Computer Vision Technology”), FDCT-MOST Joint Fund, and 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.

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 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 |

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|----------------|------------------------------------------------------------------------------------------------------------------|
| 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) 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**, *in press*.
- 2) 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.
- 3) 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.
- 4) 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.
- 5) 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.

- 6) 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.
- 7) 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.
- 8) Zheng, Zhiyuan[#]; Xu, Ting[#]; Liu, Zhiyang; Tian, Wenyue; Jiang, Zhi-Hong; Zhu, Guo-Yuan; Li, Ting; Gao, Jin; **Bai, Li-Ping***. Cryptolepine suppresses breast adenocarcinoma via inhibition of HIF-1 mediated glycolysis. *Biomedicine & Pharmacotherapy*, **2022**, 153, 113319.
- 9) 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.
- 10) 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.
- 11) 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.
- 12) 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.

- 13) 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.
- 14) 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.
- 15) 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.
- 16) 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.
- 17) 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.
- 18) 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.
- 19) 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.
- 20) 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.

- 21) 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.
- 22) 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.
- 23) 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.
- 24) 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.
- 25) 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.
- 26) 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 magnolol derivatives as potent α -glucosidase and α -amylase inhibitors: Synthesis, in vitro and in silico studies. *Bioorganic Chemistry*, **2021**, *116*, 105291.
- 27) 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.

- 28) 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.
- 29) 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.
- 30) 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.
- 31) 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.
- 32) 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.
- 33) 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.
- 34) 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.
- 35) 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.

- 36) 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.
- 37) 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.
- 38) 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.
- 39) 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.
- 40) 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.
- 41) 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.
- 42) 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.

- 43) 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.
- 44) 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.
- 45) 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*. *Journal of Organic Chemistry* **2019**, *84* (12), 8242-8247.
- 46) 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. *Molecular Pharmaceutics* **2019**, *16* (2), 798-807.
- 47) Qin, Hong-Yan *; Kou, Jia-Xin; Rao, Zhi; Zhang, Guo-Qiang; Wang, Xiao-Hua; **Bai, Li-Ping**; Wei, Yu-Hui. N-acetyltransferase Activity Assay and Inhibitory Compounds Screening by Using Living Human Hepatoma HepaRG Cell Model. *International Journal of Pharmacology* **2019**, *15* (2), 229-237.
- 48) 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.
- 49) 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.
- 50) 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* **2019**, *83*, 450-460.

- 51) Sun, B.; Liang, Z.; Xie, B. P.; Li, R. T.; Li, L. Z.; Jiang, Z.-H.; **Bai, Li-Ping**; Chen, Jin Xiang*. Fluorescence sensing platform based on ruthenium(II) complexes as high 3S (sensitivity, specificity, speed) and "on-off-on" sensors for the miR-185 detection. *Talanta* **2018**, *179*, 658-667.
- 52) Zhou, Xiao Bo[#]; Chen, Ming[#]; Zheng, Zhi Yuan; Zhu, Guo-Yuan; Jiang, Zhi-Hong*; **Bai, Li-Ping***. Synthesis and evaluation of novel 12-aryl berberine analogues with hypoxia-inducible factor-1 inhibitory activity. *RSC Advances* **2017**, *7* (43), 26921-26929.
- 53) 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.
- 54) 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.
- 55) 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.
- 56) 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.
- 57) 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.
- 58) 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.

- 59) 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.
- 60) 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.
- 61) Parhira, Supawadee; Zhu, Guo-Yuan; Li, Ting; Liu, Liang; **Bai, Li-Ping***; Jiang, Zhi-Hong*. Inhibition of IKK-beta by epidioxysterols from the flowers of *Calotropis gigantea* (Niu jiao gua). *Chinese Medicine* **2016**, 11, 9.
- 62) 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.
- 63) Li, Jin Xin; Sakata, A.; He, Han Ping; **Bai, Li-Ping**; Murata, A.; Dohno, C.; Nakatani, Kazuhiko*. Naphthyridine-Benzoazaquinolone: Evaluation of a Tricyclic System for the Binding to (CAG)(n) Repeat DNA and RNA. *Chemistry-an Asian Journal* **2016**, 11 (13), 1971-1981.
- 64) 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.
- 65) 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.
- 66) 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.
- 67) 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.
- 68) 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 atrofolliculata. *RSC Advances* **2016**, *6* (115), 114135-114142.
- 69) 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.
- 70) 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.
- 71) Zhu, G.-Y.; Yao, X. J.; Liu, L.; **Bai, Li-Ping ***; Jiang, Z.-H.*. Alistonitrine A, a Caged Monoterpene Indole Alkaloid from Alstonia scholaris. *Organic Letters* **2014**, *16* (4), 1080-1083.
- 72) Zhu, G.-Y.; Chen, G. Y.; Liu, L.; **Bai, Li-Ping***; 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.
- 73) Zhu, G.-Y.; **Bai, Li-Ping**; Liu, L.*; Jiang, Z.-H.*. Limonoids from the fruits of Melia toosendan and their NF-kappa B modulating activities. *Phytochemistry* **2014**, *107*, 175-181.
- 74) Yang, Z. F.#, **Bai, Li-Ping**#; 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.
- 75) Parhira, S.; Zhu, G.-Y.; Jiang, R. W.; Liu, L.; **Bai, Li-Ping***; Jiang, Z.-H.*. 2'-Epi-uscharin from the Latex of Calotropis gigantea with HIF-1 Inhibitory Activity. *Scientific Reports* **2014**, *4*, 4748.

- 76) Parhira, S.; Yang, Z. F.; Zhu, G.-Y.; Chen, Q. L.; Zhou, B. X.; Wang, Y. T.; Liu, L.; **Bai, Li-Ping***; 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.
- 77) Law, B. Y. K.; Chan, W. K.; Xu, S. W.; Wang, J. R.; **Bai, Li-Ping**; Liu, L.; Wong, V. K. W., Natural small-molecule enhancers of autophagy induce autophagic cell death in apoptosis-defective cells. *Scientific Reports* **2014**, *4*.
- 78) **Bai, Li-Ping**; 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.
- 79) **Bai, Li-Ping**; Hagihara, M.; Nakatani, K.; Jiang, Z.-H.*, Recognition of Chelerythrine to Human Telomeric DNA and RNA G-quadruplexes. *Scientific Reports* **2014**, *4*, 6767.
- 80) **Bai, Li-Ping**; 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.
- 81) Yang, W. G.; Wong, Y.; Ng, O. T. W.; **Bai, Li-Ping**; Kwong, D. W. J.; Ke, Y.; Jiang, Z.-H.; Li, H. W.*; Yung, K. K. L.*; Wong, M. S.*, Inhibition of Beta-Amyloid Peptide Aggregation by Multifunctional Carbazole-Based Fluorophores. *Angewandte Chemie-International Edition* **2012**, *51* (8), 1804-1810.
- 82) He, H.; **Bai, Li-Ping**; Jiang, Z.-H.*, Synthesis and human telomeric G-quadruplex DNA-binding activity of glucosaminosides of shikonin/alkannin. *Bioorganic & Medicinal Chemistry Letters* **2012**, *22* (4), 1582-1586.
- 83) Man, B. Y. W.; Chan, H. M.; Leung, C. H.; Chan, D. S. H.; **Bai, Li-Ping**; Jiang, Z.-H.; Li, H. W.; Ma, D. L.*, Group 9 metal-based inhibitors of beta-amyloid (1-40) fibrillation as potential therapeutic agents for Alzheimer's disease. *Chemical Science* **2011**, *2* (5), 917-921.
- 84) Ma, D. L.; Kwan, M. H. T.; Chan, D. S. H.; Lee, P.; Yang, H.; Ma, V. P. Y.; **Bai, Li-Ping**; Jiang, Z.-H.; Leung, C. H., Crystal violet as a fluorescent switch-on probe for i-motif: label-free DNA-based logic gate. *Analyst* **2011**, *136* (13), 2692-2696.
- 85) Dong, H.#; **Bai, Li-Ping** #; Wong, V. K. W.; Zhou, H.; Wang, J. R.; Liu, Y.; Jiang, Z.-H.*;

- Liu, L.*; The in Vitro Structure-Related Anti-Cancer Activity of Ginsenosides and Their Derivatives. *Molecules* **2011**, *16* (12), 10619-10630.
- 86) Chan, D. S. H.; Yang, H.; Kwan, M. H. T.; Cheng, Z.; Lee, P.; **Bai, Li-Ping**; Jiang, Z.-H.; Wong, C. Y.; Fong, W. F.; Leung, C. H.*; Ma, D. L.*; Structure-based optimization of FDA-approved drug methylene blue as a c-myc G-quadruplex DNA stabilizer. *Biochimie* **2011**, *93* (6), 1055-1064.
- 87) Chu, C.; Xia, L.; **Bai, Li-Ping**; Li, Q.; Li, P.; Chen, H. B.; Zhao, Z. Z.*; Authentication of the 31 Species of Toxic and Potent Chinese Materia Medica by Light Microscopy, Part 3: Two Species of T/PCMM from Flowers and Their Common Adulterants. *Microscopy Research and Technique* **2009**, *72* (6), 454-463.
- 88) Xia, L.; **Bai, Li-Ping**; Chu, C.; Li, P.; Jiang, Z.-H.; Zhao, Z. Z.*; Authentication of the 31 species of Toxic and Potent Chinese Materia Medica (T/PCMM) by microscopic technique, Part 2: Three species of seed T/PCMM. *Microscopy Research and Technique* **2008**, *71* (4), 325-333.
- 89) **Bai, Li-Ping**; Hagihara, M.; Jiang, Z.-H.*; Nakatani, K.*; Ligand Binding to Tandem G Quadruplexes from Human Telomeric DNA. *ChemBioChem* **2008**, *9* (16), 2583-2587.
- 90) **Bai, Li-Ping**; Cai, Z. W.; Zhao, Z. Z.; Nakatani, K.; Jiang, Z.-H.*; Site-specific binding of chelerythrine and sanguinarine to single pyrimidine bulges in hairpin DNA. *Analytical and Bioanalytical Chemistry* **2008**, *392* (4), 709-716.
- 91) Xia, L.; **Bai, Li-Ping**; Yi, L.; Liu, B. B.; Chu, C.; Liang, Z. T.; Li, P.; Jiang, Z.-H.; Zhao, Z. Z.*; Authentication of the 31 species of toxic and potent chinese materia medica (T/PCMM) by microscopic technique, part 1: Three kinds of toxic and potent animal CMM. *Microscopy Research and Technique* **2007**, *70* (11), 960-968.
- 92) Long, Y. H. #; **Bai, Li-Ping** #; Qin, Y.; Pang, J. Y.; Chen, W. H.; Cai, Z. W.; Xu, Z. L.; Jiang, Z.-H.; Spacer length and attaching position-dependent binding of synthesized protoberberine dimers to double-stranded DNA. *Bioorganic & Medicinal Chemistry* **2006**, *14* (13), 4670-4676.
- 93) **Bai, Li-Ping**; Zhao, Z. Z.; Cai, Z. W.; Jiang, Z.-H.*; DNA-binding affinities and sequence

selectivity of quaternary benzophenanthridine alkaloids sanguinarine, chelerythrine, and nitidine. *Bioorganic & Medicinal Chemistry* **2006**, *14* (16), 5439-5445.

- 94) **Bai, Li-Ping**; Jiang, H.; Kang, T.; Zhang, H.; Jiang, Z.-H.; Zhao, Z.*. Pharmacognostical Evaluation of Arctii Fructus (5): Chemical Constituents from Fruits of *Amorpha fruticosa* L. *Natural Medicines* (The present journal name: *Journal of Natural Medicines*) **2004**, *58*, 275-277.

Patents

- 1) **Bai Li-Ping**, Zheng, Zhiyuan, Zhou Xiaobo, Zhu Guo-Yuan, Jiang Zhi-Hong. A cardiac glycoside, its synthesis method and application (一種強心苷類化合物及其合成方法與應用). Chinese Patent No. ZL202010913582.8, granted on 3rd August 2021.
- 2) Jiang Zhi-Hong, **Bai Li-Ping**, Lu Jiang-Guang, Liu Qianbao. An analytical approach for components in *Cordyceps sinensis* and its application (一種冬蟲夏草的成分分析方法與應用). Chinese Patent No. ZL202011103633.7, granted on 2nd November 2021.
- 3) Liu Liang, Wong Kam Wai Vincent, **Bai Li-Ping**, Huang Qi, Xiong Hao-Ming. A derivative of ginsenoside and its synthesis method and application (一種人參皂苷衍生物及其合成方法與應用). Chinese Patent No. ZL202010309939.1, granted on 23th November 2021.
- 4) Liang Chun, Jiang Zhi-Hong, Wang Ziyi, Yu Zhiling, Wang Jing-Rong, **Bai Li-Ping**. Method and compounds for inhibiting the MCM complex and their application in cancer treatment (抑制 MCM 蛋白複合物的方法和化合物及其在治療癌症上的應用). Chinese Patent No. ZL201910489605.4, granted on 15th November 2022.
- 5) **Bai Li-Ping**, Zhou Xiaobo, Chen Ming, Zhu Guo-Yuan, Jiang Zhi-Hong. Berberine derivatives, their preparation and use. IP Australia 2017100179, granted on 16 March 2017.
- 6) Jiang Zhi-Hong, **Bai Li-Ping**, Zhou Xiaobo, Wong Kam Wai Vincent, Zheng Zhiyuan, Law Yuen Kwan Betty. Compounds that activate autophagy. filed on Jan. 3, 2018, U.S. Patent Application Serial No. 15/861,641. **Patent No. US 10,618,885 B2, Date of Patent 14 Apr. 2020**/ IP Australia 2018100123, granted on 14 February 2018.

- 7) Chen Jin-Xiang; Pang Jian-Xin, Liu Shu-Wen, **Bai Li-Ping**, Jiang Zhi-Hong. Crystalline contrast agent for magnetic resonance imaging, kit and composition comprising it and their use. filed on Sep. 21, 2016, U.S. Patent Application Serial No. 15/271,368. **Patent No. US 10,759,757 B2, Date of Patent 1 Sep. 2020/** IP Australia 2016101702, granted on 6 Oct. 2016.
- 8) Chen Jin-Xiang, Xie Bao-Ping, Qiu Gui-Hua, Hu Pei-Pei, Liang Zhen, Liang Ye-Mei, Sun Bin, **Bai Li-Ping**, Jiang Zhi-Hong. Crystalline copper-based coordination polymers and their use. filed on 22 May. 2017, Application Serial No. 15/600,957, **Patent No. US 10.519.500 B2, Date of Patent 31 Dec. 2019/** IP Australia 2017100590, granted on 8 Jun. 2017.
- 9) Chen Jin-Xiang, Sun Bin, Xie Bao-Ping, Jiang Zhi-Hong, **Bai Li-Ping**. Crystalline lanthanum-carboxylate coordination polymers and their use. filed on 18 May. 2017, Application Serial No. 15/598,434, **Patent No. US 10.260.114 B2, Date of Patent 16 Apr. 2019/** IP Australia 2017100565, granted on 1 Jun. 2017.
- 10) Chen Jin-Xiang, Sun Bin, Zhao Hai-Qing, Xie Bao-Ping, **Bai Li-Ping**, Jiang Zhi-Hong. Zwitterionic zinc(II) carboxylate compounds and their use. filed on 30 Aug. 2016, Application Serial No. 15/251,300, **Patent No. US 10,023,594 B2, Date of Patent 17 Jul. 2018/** IP Australia 2016101528, granted on 29 Sep. 2016.
- 11) Zhu Guo-Yuan, Jiang Zhi-Hong, Yang Ji, Yao Xiao-Jun, Liu Xin, Fu Jing, **Bai Li-Ping**, Liu Liang. Novel Liganamides and a method of treating neurodegenerative diseases by using the same. **Patent No. US 10,155,721 B2 Date of Patent 18 Dec. 2018/** IP Australia 2017100992, granted on 9 August 2017.
- 12) Liu Liang, Li Ting, **Bai Li-Ping**. Method of Treating an Autoimmune Disease. IP Australia 2017101742, granted on 17 Jan. 2018.
- 13) **Bai Li-Ping** and Jiang Zhi-Hong. Recognition of chelerythrine to human telomeric DNA and RNA G-quadruplexes. IP Australia 2014100708, granted on 10 July 2014.
- 14) **Bai Li-Ping**, Parhira Supawadee, Zhu Guo-Yuan, Yang Zi-Feng, Chen Qiao-Lian, Wang Yu-Tao, Liu Liang, Jiang Zhi-Hong. *In Vitro* Anti-influenza Virus Activities of a New Lignan Glycoside from the Latex of *Calotropis gigantea*. IP Australia 2014100709, granted on 10 July 2014.

- 15) **Bai Li-Ping** and Jiang Zhi-Hong. Mass Spectrometric Studies on Effects of Counter Ions of TMPyP4 on Binding to Human Telomeric DNA and RNA G-Quadruplexes. IP Australia 2014100806, granted on 31 July 2014.
- 16) **Bai Li-Ping**, Parhira Supawadee, Zhu Guo-Yuan, Liu Liang, Jiang Zhi-Hong. 2'-Epi-uscharin from the Latex of *Calotropis gigantea* with HIF-1 Inhibitory Activity. IP Australia 2014100813, granted on 14 August 2014.
- 17) **Bai Li-Ping**, Parhira Supawadee, Zhu Guo-Yuan, Li Ting, Liu Liang, Jiang Zhi-Hong. Method of using epidioxysterols from *Calotropis gigantea* to inhibit IKK-beta activity, IP Australia 2014100822, granted on 31 July 2014.
- 18) Zhu Guo-Yuan, **Bai Li-Ping**, Liu Liang, Jiang Zhi-Hong. Limonoids from the Fruits of *Melia toosendan* and Their NF- κ B Modulating Activities. IP Australia 2014100777, granted on 31 July 2014.
- 19) Zhu Guo-Yuan, **Bai Li-Ping**, Chen Guang-Ying, Liu Liang, Jiang Zhi-Hong. Lactam-bearing limonoids from the twigs and leaves of *Amoora tsangii*. IP Australia 2014100738, granted on 17 July 2014.
- 20) Liu Liang, **Bai Li-Ping**, Dong Hang, Wong Kam-Wai, Jiang Zhi-Hong, Zhou Hua. A novel ginsenoside with anticancer activity and the preparation method thereof. U.S. Patent Application Serial No. 61725997, Patent No. US9,051,348B2
- 21) Liu Liang, **Bai Li-Ping**, Dong Hang, Wong Kam-Wai, Jiang Zhi-Hong, Zhou Hua. A novel ginsenoside with anti-cancer activity and the preparation method thereof. IP Australia 2013101321, granted on 24 October 2013.
- 22) **Bai Li-Ping**, Jiang Zhi-Hong, Kong Lingkai, Tian Wenyue, Liu Zhiyan. A kind of indole quinolinone compound, its synthetic method and application (一種吲哚喹啉酮類化合物及其合成方法和應用). Chinese Patent Application No. 202210245932.7, filing on 14th March 2022; Publication No. CN114605407 A, Publication Date 10th June 2022.
- 23) Jiang Zhi-Hong, **Bai Li-Ping**, Xu Ting, Zhou Xiaobo, Guo Yong. Sphingolipids, liposomes containing sphingolipids, and their applications (鞘脂類化合物、含有鞘脂類化合物的脂質體和應用). Chinese Patent Application No. 202210358677.7, filing on 7th April 2022;

Publication No. CN114933569 A, Publication Date 23rd August 2022; International application No. PCT/CN2022/098765, international filing on 14th June 2022.

24) Jiang Zhi-Hong, Cai Zhanchuan, **Bai Li-Ping**, Zhang Yuhan, Liu Jiazheng, Lyu Peilun, Ye Ben, Lan Ting. A method and device for identifying Chinese medicinal materials (一種識別藥材的方法和裝置). Chinese Patent Application No. 202210344018.8, filing on 2nd April 2022; Publication No. CN 114818874 A, Publication Date 29th July 2022.

25) Cai Zhanchuan, Jiang Zhi-Hong, Ye Ben, Lyu Peilun, Zhang Yuhan, Liu Jiazheng, Lan Ting, **Bai Li-Ping**. Image recognition method, electronic device, and storage medium (圖像識別方法、電子設備及存儲介質). Chinese Patent Application No. 202210346579.1, filing on 2nd April 2022; Publication No. CN 114821554 A, Publication Date 29th July 2022.

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 as PI

- 12) 2023.05-2026.05, Development of novel LNP- COVID-19 mRNA vaccine delivery system based on sphingolipid carrier, Macao Science and Technology Development Fund (FDCT project number 0137/2022/A3), MOP 1,988,000.00, PI
- 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-Macau 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, PI: Professor JIANG Zhi-Hong), 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 Science and Technology Development Fund (FDCT project number 0004/2019/A1), MOP 2,700,000.00, Principal Investigator
- 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.)