

Curriculum Vitae

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EDUCATION

- 2008 Ph.D. (Biochemistry), The Chinese University of Hong Kong, Hong Kong
- 2002 M.Sc. (Microbial and Biochemical Pharmacology), Jilin University, China
- 1999 B.S. (Biotechnology), Jilin University, China

PROFESSIONAL EXPERIENCE

- 2021.8-present, Associate Professor
Faculty of Health Sciences, University of Macau, Macau
- 2016.4-2021.7, Assistant Professor
Faculty of Health Sciences, University of Macau, Macau
- 2013.6-2016.4, Principle Investigator
Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China
- 2012.8-2013.6, Research Associate
Memorial Sloan-Kettering Cancer Center, USA
- 2011.12-2012.8, Research Fellow
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- 2008.12-2011.12, Postdoctoral Fellow
National Cancer Institute/NIH, USA

HONORS AND AWARDS

- Dr. Stanley Ho Medical Development Foundation “Set Sail for New Horizons, Create the Future” Grant, 2023
- Incentive Scheme for Outstanding Academic Staff, University of Macau, 2023
- FHS Best Paper Award 2022, University of Macau, 2022
- Peacock Talent Award , Shenzhen Government, 2014
- Federal Technology Transfer Award, NIH, USA, 2011

PUBLICATIONS

1. Yeneng Dai, Lipeng Zhu, Xue Li, Fengjuan Zhang, Kai Chen, Guanda Jiao, Yu Liu, Ziyi Yang, Ziang Guo, Baohong Zhang, Qingming Shen, Qi Zhao, A biomimetic cuproptosis amplifier for targeted NIR-II fluorescence/photoacoustic imaging-guided synergistic NIR-II photothermal immunotherapy, *Biomaterials*, 2024, 122455
2. Zhang D, Lyu L, Han S, Xu J, Hu G, Zhao Q, Hu Y. Profiling targets and potential target pairs of CAR-T cell therapy in clinical trials. *International Immunopharmacology*. 2023 Dec 1;126:111273
3. Yeneng Dai, Dongliang Leng, Ziang Guo, Jiaqi Wang, Yuheng Gu, Yingjun Peng, Lipeng Zhu, Qi Zhao, NIR-II excitation self-assembly nanomedicine for targeted NIR-IIa fluorescence imaging-guided cuproptosis-promoted synergistic therapy against triple-negative breast cancer, *Chemical Engineering Journal*, 2023, 147704,
4. Gongcheng Ma, Qihang Ding, Yuding Zhang, Yue Wang, Jingjing Xiang, Mingle Li, Qi Zhao, Saipeng Huang, Ping Gong, Jong Seung Kim, Palladium-free chemoselective probe for in vivo fluorescence imaging of carbon monoxide, *Chinese Chemical Letters*, 2023, 109293,
5. Ma X, Zhao Q. Application of artificial intelligence in oncology. *Semin Cancer Biol*. 2023 Nov 15;97:68-69.
6. Xue M, Lin Z, Zhang T, Cheng ZJ, Lin R, Guo B, Zeng Y, Hu F, Li F, Zheng P, Huang H, Li N, Zhao Q, Sun B, Tang X. ERC-BiP Functional Protein Pathway for Assessing Endoplasmic Reticulum Stress Induced by SARS-CoV-2 Replication after Cell Invasion. *Can J Infect Dis Med Microbiol*. 2023 Oct 9;2023:7253779.
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9. Guo S, Zheng Y, Gao Z, Duan M, Liu S, Du P, Xu X, Xu K, Zhao X, Chai Y, Wang P, Zhao Q, Gao GF, Dai L. Dosing interval regimen shapes potency and breadth of antibody repertoire after vaccination of SARS-CoV-2 RBD protein subunit vaccine. *Cell Discov*. 2023 Jul 28;9(1):79.
10. Deng CH, Li TQ, Zhang W, Zhao Q, Wang Y. Targeting Inflammasome Activation in Viral Infection: A Therapeutic Solution? *Viruses*. 2023 Jun 27;15(7):1451.
11. Bai G, Sun C, Guo Z, Wang Y, Zeng X, Su Y, Zhao Q, Ma B. Accelerating antibody discovery and design with artificial intelligence: Recent advances and prospects. *Semin Cancer Biol*. 2023 Oct; 95:13-24.
12. Wu L, Zhang T, Luo W, Zheng X, Zhang H, Ren H, Huang D, Li G, Wei C, Dong L, Sun

- X, Zhang R, Wang Y, Hu P, Chen Y, Zhao Q, Hao C, Sun B. Rhinitis symptom in patients with self-reported allergic rhinitis is influenced by sensitization pattern: A cross-sectional study of China. *Int Forum Allergy Rhinol.* 2023 Jun;13(6):1007-1016.
13. Huang S, Yang J, Shen N, Xu Q, Zhao Q. Artificial intelligence in lung cancer diagnosis and prognosis: current application and future perspective. *Seminars in Cancer Biology* 2023 Jan 20.
 14. Dai Y, Li X, Xue Y, Chen K, Jiao G, Zhu L, Li M, Fan Q, Dai Y, Zhao Q, Shen Q. Self-delivery of metal-coordinated NIR-II nanoadjuvants for multimodal imaging-guided photothermal-chemodynamic amplified immunotherapy. *Acta Biomaterialia*, 2023,166:496-511.
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 16. Di XJ, Zhao Q, Wang HT, Wei XW, Liang X. Editorial: Community series in novel insights into immunotherapy targeting tumor microenvironment in ovarian cancer: volume I. *Front Immunol.* 2023 Apr 11;14:1192190.
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Patents

- 基因工程化的NK细胞、其制备方法和用途，专利号：ZL202010703308.8
- 表达抗CD22嵌合抗原受体和PD-L1阻断蛋白的细胞的制备方法、表达载体及应用，申请号：ZL202010891848.3
- 靶向CD22的强杀伤性嵌合抗原受体和T细胞及其在制备治疗肿瘤的药物中的用途，ZL201610318870.2
- 一种化合物及其制备方法和在抗体药物偶联物制备中的用途，专利号：ZL201710633408.6
- IgG杂合型抗TNF和IL-17A双特异性抗体，PCT/CN2015/099847
- 构建HIV病毒抗体酵母展示库的方法和筛选病毒广谱中和抗体的方法及其应用。CN104725501A

- 一种用于抗体表达的表达框、表达载体、含该载体的宿主细胞及其制备方法和应用，CN104711253A
- 一种通用型重组表达载体及其构建方法和应用. CN103725705A
- Antibodies, compositions, and uses, PCT/US2015/047013
- High affinity anti-GD2 antibodies. US2014/029308
- Human monoclonal antibodies to IGF1,2 with picomolar affinity, PCT/US2012/033128
- An engineering recombinant anti-CEA/CD3/CD28 single-chain tri-specific antibody, US 2009/0117108

Grants

1. Manufacturing technology and preclinical studies on TCR mimetic antibodymodified T cells for the treatment of liver cancer (FDCT/0009/2023/RIC), 2024-2026, MOP 3,760,000, PI
2. Multi-year Research Grant from University of Macau (MYRG2022-00143-FHS): Development of an IL-15-dimeric tri-specific antibodies recognizing B7-H3 and CD16, 2023-2024, MOP480,000, PI
3. Multi-year Research Grant from University of Macau (MYRG2019-00069-FHS): Targeting B7-H3 with awakened natural killer cells for therapy of non-small cell lung cancer, 2021-2022, MOP150,000, PI
4. Macao Science and Technology Development Fund (FDCT/0043/2021/A1) : Development of anti-B7-H3 CART and bispecific antibodies against non-small cell lung cancer, 2021-2024 年, MOP 2,100,000, PI
5. National Major Science R&D Program 国家重大科技研发计划 (2019YFA0904400) : Synthetic synthesis of functional immune molecules and their application in tumor immunotherapy 功能性免疫分子的人工合成及其在肿瘤免疫治疗中的应用, 2020-2024 年, RMB 18,600,000, Co-PI
6. Shenzhen-Hong Kong-Macao Science and Technology Programm 深圳市科技计划-深港澳 (SGDX2020110309280301) , NIR-activated photoacoustic probes monitor changes in tumor-infiltrating lymphocytes in real time in tumor evolution 近红外激活型光声探针实时监测肿瘤演化中肿瘤浸润性淋巴细胞的变化, 2021-2023, RMB 1,000,000, PI
7. Guangzhou Science and Technology Plan for Foreign Science and Technology Cooperation(广州市科技计划对外科技合作) (201807010004) ,2018-2021, Development of targeted

- regulation of PD-1 to enhance WT1-specific T cell therapy technology for leukemia 靶向调控 PD-1 增强 WT1 特异性 T 细胞治疗白血病技术的研发, 2018-2021, RMB2,000,000, PI
8. Macao Science and Technology Development Fund (FDCT/15/2018/A1) : Development of potent TCR-mimic CAR T cells with multiplex genome editing , 2018-2021, MOP1,790,000, PI
 9. Macao Science and Technology Development Fund (FDCT/131/2016/A3) : Multi-targeting therapy of T-cell receptor-mimic antibodies recognizing tumor-specific class I MHC-peptide epitopes , 2017-2019, MOP 2,100,000, PI
 10. Novo Nordisk-CAS Joint Fund (NNCAS-2013-9): Novel bispecific antibodies for the treatment of autoimmune diseases, 2014-2015, RMB 500,000, PI
 11. National Natural Science Foundation of China 国家自然科学基金项目 (31440041) :In vitro directed evolution of T cell receptor-like antibodies in human germline and their application in T cell therapy 人 germline 中 T 细胞受体样抗体的体外定向进化及在 T 细胞治疗中的应用, 2015, RMB 150,000, PI
 12. Natural Science Foundation of Guangdong Province 广东省自然科学基金 (2015A030313741) : Research on novel anti-insulin-like growth factor multifunctional antibodies in the treatment of breast cancer 新型抗类胰岛素生长因子多功能抗体治疗乳腺癌的研究, 2015-2018, RMB100,000, PI
 13. The Department of Science and Technology of Guangdong Province focuses on national international cooperation 广东省科技厅重点国家国际合作 (2016A050502034) : Research on insulin-like growth factors as therapeutic targets for tumors 类胰岛素生长因子作为肿瘤治疗靶点的研究, 2016-2018, RMB500,000, PI
 14. Shenzhen overseas high-level talent innovation and entrepreneurship funds 深圳市海外高层次人才创新创业资金 (KQCX20140520154115029) : Research and development of human-derived antibody drugs for the treatment of malignant tumors in children 治疗儿童恶性肿瘤 人源抗体药物的研发, 2015-2017, RMB500,000, PI