

## Professor Liu Zhuang

Macao Institute of materials science and engineering

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### Academic Qualification:

- Post-doctoral Scholar, Stanford University, 2009
- Ph.D. in Chemistry, Stanford University, 2008
- B.S. in Chemistry, Peking University, 2004

### Teaching Area

Materials science

### Research Area

- Inorganic nanomaterials for biomedical imaging and cancer theranostics.
- Polymer-based, protein-based, and other biomimetic nano-platforms for cancer combination therapy.
- Nanomedicine and cancer radiation therapy.
- Biomaterials for immunoengineering.
- Nanotechnology to modulate tumor microenvironment for enhanced cancer treatment.
- Translational nanomedicine and biomaterials.

- Jun Xu, Jia Lv, Qi Zhuang, Zongjin Yang, Zhiqin Cao, Ligeng Xu, Pei Pei, Chenya Wang, Hanfei Wu, Ziliang Dong, Yu Chao, Chao Wang, Kai Yang, Rui Peng\*, Yiyun Cheng\* and **Zhuang Liu\*** ers  
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- Xuan Yi, Hailin Zhou, Yu Chao, Saisai Xiong, Jing Zhong, Zhifang Chai, Kai Yang\*, and **Zhuang Liu\*** -triggered tumor-specific thrombosis to enable potent photothermal  
*Sci. Adv.*, 6(33): eaba3546 (2020).
- Fei Gong, Liang Cheng\*, Nailin Yang, Yuehan Gong, Yanwen Ni, Shang Bai, Xianwen Wang, Muchao Chen, Qian Chen, **Zhuang Liu\***. "Preparation of TiH<sub>1.924</sub> nanodots by liquid-phase exfoliation for enhanced sonodynamic cancer therapy" *Nat. Commun.*, 11, 3712 (2020).
- Lele Sun, Fengyun Shen, Jun Xu, Xiao Han, Chunhai Fan, **Zhuang Liu\***. -Edited Ligand Positioning on Red Blood Cells to Enable Optimized T Cell Activation for Adoptive  
*Angew. Chem. Int. Ed.*, 59, 2-14 (2020).
- Yu Chao, Chao Liang, Huiquan Tao, Yaran Du, Di Wu, Ziliang Dong, Qitong Jin, Guobin Chen, Jun Xu, Zhisheng Xiao, Qian Chen, Chao Wang, Jian Chen and **Zhuang Liu\*** cock-  
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- Ziliang Dong, Liangzhu Feng\*, Yu Hao, Quguang Li, Muchao Chen, Zhijuan Yang, He Zhao, **ZhuangLiu\***. CaCO<sub>3</sub> based Nanomedicine for Enhanced Sonodynamic  
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- Lin Zhang, Jinhua Zhou, Lvzhong Hu, Xiao Han, Xinwei Zou, Qian Chen, Youguo Chen\*, **Zhuang Liu\***, Chao Wang\*. Formed Fibrin Scaffold with Cyclophosphamide to  
Synergize with Immune Checkpoint Blockade for Inhibition of Cancer Recurrence after  
*Adv. Funct. Mater.*, 30(7), 1906922 (2020).
- Xiao Han, Shufang Shen, Qin Fan, Guojun Chen, Edikan Archibong, Gianpietro Dotti, **Zhuang Liu\*** Derived Nanoerythroosome for Antigen  
*Sci. Adv.*, 5 (10), eaaw6870 (2019).
- Qian Chen\*, Muchao Chen, and **Zhuang Liu\***. -Assisted Cancer  
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- Longlong Tian, Yaxing Wang, Lele Sun, Kai Yang, Shuao Wang, **Zhuang Liu**  
Luminescence-Induced NO Release from <sup>32</sup>P-Labeled ZnFe(CN)<sub>5</sub>NO Nanosheets to Enhance  
Radioisotope- *Matter*,1(4),1061-76 (2019).
- Yu Chao, Qian Chen\*, **Zhuang Liu**  
*Adv. Funct. Mater.*,1902785 (2019).

- Liang Cheng\*, Xianwen Wang, Fei Gong, Teng Liu, **Zhuang Liu**  
*Adv. Mater.*, 2019, 1902333 (2019).
- Fei Gong, Liang Cheng\*, Nailin Yang, Oshra Betzer, Liangzhu Feng, Qiang Zhou, Yonggang Li, Ruihua Chen, Rachela Popovtzer and **Zhuang Liu** –Deficient Bimetallic Oxide MnWOX Nanoparticles for Depletion of Endogenous GSH and Enhanced Sonodynamic  
*Adv. Mater.*, (31)23, 1900730 (2019).
- Yu Chao, Ligeng Xu, Chao Liang, Liangzhu Feng, Jun Xu, Ziliang Dong, Longlong Tian, Xuan Yi, Kai Yang\* and **Zhuang Liu\***. "Combined Local Immunostimulatory Radioisotope Therapy and Systemic Immune Checkpoint Blockade Imparts Potent Antitumour Responses" *Nat. Biomed. Eng.*, 2, 611-621(2018).
- Guangbao Yang, Ligeng Xu, Yu Chao, Jun Xu, Xiaoqi Sun, Yifan Wu, Rui Peng, and **Zhuang Liu** as A Tumor-microenvironment-responsive Biodegradable Nano-platform for  
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- Qian Chen, Chao Liang, Xiaoqi Sun, Jiawen Chen, Zhijuan Yang, He Zhao, Liangzhu Feng, and **Zhuang Liu**  $^2\text{O}_2$ -responsive Liposomal Nanoprobe for Photoacoustic Inflammation  
*Proc. Natl. Acad. Sci. U.S.A.*, 114(21), 5343-5348 (2017).
- Qian Chen, Ligeng Xu, ChaoLiang, Chao Wang, Rui Peng, and **Zhuang Liu**  
Therapy with Immune-adjuvant Nanoparticles Together with Checkpoint Blockade for Effective  
*Nat. Commun.*, 7, 13193 (2016).

- Associate Editor, Biomaterials (2014-)
- Editorial Board Member, Advanced NanoBiomed Research (2020-)
- Editorial Board Member, Drug Delivery and Translational Research (2019-)
- Editorial Board Member, Acta Chimica Sinica (2018-)
- Editorial Board Member, Particle & Particle Systems Characterization (2018-)
- Editorial Board Member, Advanced Healthcare Materials (2018-)
- Editorial Board Member, Science China Chemistry (2017-)
- Editorial Board Member, Frontiers in Chemistry (2017-)
- Editorial Board Member, Advanced Therapeutics (2017-)
- Editorial Board Member, Journal of Interdisciplinary Nanomedicine (2017-)
- Editorial Board Member, ChemMedChem (2016-)
- Editorial Board Member, Nano Research (2014- )
- Editorial Board Member, Scientific Reports (2013-2017)
- Editorial Board Member, American Journal of Nuclear Medicine and Molecular Imaging (2012- )
- Guest Editor, Nano Research (2018)
- Guest Editor, Nanoscale (2016)
- Guest Editor, Carbon (2015)
- Guest Editor, Advanced Healthcare Materials (2014)
- Guest Editor, Theranostics (2012)