

潘远伟 博士

特聘研究员

- **教育和工作背景：**

2013 年，北京科技大学，材料科学与工程，工学学士；

2016 年，上海大学，材料学，工学硕士；

2016 年，中科院宁波材料所，纳米生物材料，联合培养硕士；

2020 年，柏林自由大学，化学，自然科学博士；

2021 年—2023 年，深圳湾实验室/北京大学，化学，博士后；

2023 年—2026 年，深圳湾实验室，助理研究员、副研究员；

2026 年—至今，南昌大学基础医学院，特聘研究员、博士生导师。

- **研究兴趣、领域：**

课题组围绕疾病免疫治疗的关键瓶颈，以纳米材料的功能导向设计为核心切入点，系统开展仿生纳米材料的精准构筑与工程化修饰研究。通过细胞膜纳米囊泡、纳米疫苗、纳米酶等仿生材料平台，实现对免疫微环境的多维度调控与免疫应答激活，探索纳米界面性质与免疫功能之间的构效关系，为免疫治疗提供新策略。近年来以第一或通讯（共同）作者在 *Nat. Commun.*、*J. Am. Chem. Soc.*、*ACS Nano*、*Adv. Sci.*、*Matter*、*Bioact. Mater.*、*Biomaterials*、*Nano Lett.*等的国际知名期刊发表论文 20 余篇。荣获深圳市海外高层次人才、上海市优秀毕业生等荣誉。主持国家自然科学基金青年科学基金项目（C 类）、广东省自然科学基金面上项目、广东省区域联合基金青年基金项目等多项科研课题。

- **学术兼职：**

担任 Nanomedicine Therapeutics 青年编委，Viruses 期刊客座编辑，以及 20 余本国际权威期刊审稿人。

- **主要成果、荣誉、奖励（代表性即可，原则上不超过 10 项）：**

[1] Lei Cao[#], Qian-Fang Meng[#], **Yuanwei Pan[#]**, Yangtao Xu, Shukun Zhao, & Lang Rao*. Simultaneous degradation of transmembrane and intracellular checkpoint proteins potentiates cancer immunotherapy. ***Nat. Commun.***, 2026, in press.

[2] Qi Pan[#], Ye Zhu[#], Ziqin Zhou, Yao Jiang, Yuejin Yang, Ling Yu*, **Yuanwei Pan***, & Guihao Chen*. Complementary intervention for cardioprotection and efferocytosis by platelet-recruited circulating vesicles and sirpα blockade after myocardial ischemia-reperfusion. ***Advanced Science***, 2026, in press.

[3] **Yuanwei Pan**[#], Xuan Liu[#], Qian-Fang Meng[#], Lei Cao, Rongrong Li, Yangtao Xu, Jing Zhang, Chenchen Zhao, Lang Rao*, & Chen Yu*.Redirecting monocyte differentiation with engineered extracellular vesicles for glioma immunotherapy. ***Advanced Science***, 2026, *13*, e76910.

[4] **Yuanwei Pan**[#], Yuji Tang[#], Lefan Chen[#], Yangtao Xu, Xinyao Hu, Jing Zhang, Yongfa Zheng*, Peng She*, Lang Rao*, Ximing Xu*. Modularly designed hybrid vesicles as dual-adjuvant nanovaccines for cancer immunotherapy, ***Biomaterials***, 2026, *335*, 124320.

[5] Chenchen Zhao[#], **Yuanwei Pan**[#], Lei Cao, Yuji Tang, Xiaoyuan Chen, Xingzhong Zhao, & Lang Rao*. Metal-phenolic outer membrane vesicles for cancer radioimmunotherapy. ***Journal of the American Chemical Society***, 2025, *147*, 26195-26207.

[6] **Yuanwei Pan**[#], Ling Yu[#], Lujie Liu, Jing Zhang, Shuang Liang, Badri Parshad, Jialin Lai, Li-Min Ma*, Zhaohui Wang*, & Lang Rao*. Genetically engineered nanomodulators elicit potent immunity against cancer stem cells by checkpoint blockade and hypoxia relief. ***Bioactive Materials***, 2024, *38*, 31-44.

[7] Jing Zhang[#], **Yuanwei Pan**[#], Lujie Liu, Yangtao Xu, Chenchen Zhao, Wei Liu*, & Lang Rao*. Genetically edited cascade nanozymes for cancer immunotherapy. ***ACS Nano***, 2024, *18*, 12295-12310.

[8] **Yuanwei Pan**[#], Xianjia Wu[#], Lujie Liu[#], Chenchen Zhao, Jing Zhang, Shengren Yang, Pan Pan, Qinqin Huang*, Xing-Zhong Zhao, Rui Tian*, & Lang Rao*. Genetically engineered cytomembrane nanovaccines for cancer immunotherapy. ***Advanced Healthcare Materials***, 2024, *13*, 2400068.

[9] **Yuanwei Pan**, Lujie Liu, Lang Rao*, & Xiaoyuan Chen*. Nanomaterial-mediated ablation therapy for cancer stem cells. ***Matter***, 2022, *5*, 1367-1390.

[10] **Yuanwei Pan**, Suqiong Zhou, Chuang Liu, Xuehua Ma, Jie Xing, Badri Parshad, Wenzhong Li*, Aiguo Wu*, & Rainer Haag*. Dendritic polyglycerol-conjugated gold nanostars for metabolism inhibition and targeted photothermal therapy in breast cancer stem cells. ***Advanced Healthcare Materials*** 2022, *11*, 2102272.

[11] **Yuanwei Pan**, Xuehua Ma, Chuang Liu, Jie Xing, Suqiong Zhou, Badri Parshad, Tanja Schwerdtle, Wenzhong Li*, Aiguo Wu*, & Rainer Haag*. Retinoic acid-loaded dendritic polyglycerol-conjugated gold nanostars for targeted photothermal therapy in breast cancer stem cells. ***ACS Nano*** 2021, *15*, 15069.

[12] **Yuanwei Pan**, Suqiong Zhou, Yan Li, Badri Parshad, Wenzhong Li*, & Rainer Haag*. Novel dendritic polyglycerol-conjugated, mesoporous silica-based targeting nanocarriers for co-delivery of doxorubicin and tariquidar to overcome multidrug resistance in breast cancer stem cells. ***Journal of Controlled Release*** 2021, *330*, 1106-1117.

- **联系方式：**

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