# Journal of Materials Chemistry B

Materials for biology and medicine

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### Cover

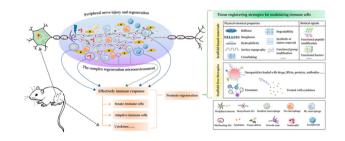
See Ling Chao et al., pp. 2274-2281. Image reproduced by permission of Ziyu Cui and Che-Lun Chin from J. Mater. Chem. B, 2024, 12, 2274.

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### Immune-cell-mediated tissue engineering strategies for peripheral nerve injury and regeneration

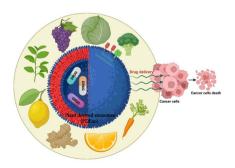
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### Plant-derived exosomes: a green approach for cancer drug delivery

Shrishti Madhan, Rajib Dhar and Arikketh Devi\*







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Fundamental questions Elemental answers

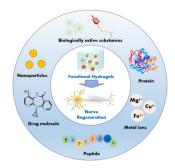


### **REVIEWS**

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Recent advances in peptide-based bioactive hydrogels for nerve repair and regeneration: from material design to fabrication, functional tailoring and applications

Zhengang Sun, Huigiang Hu, Xingchao Zhang, Xin Luan, Yongming Xi,\* Gang Wei\* and Xuanfen Zhang\*

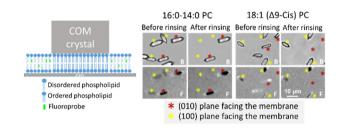


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Size-selective adhesion of calcium oxalate monohydrate crystals to lipid membranes

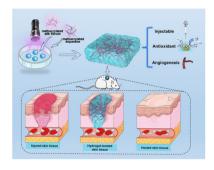
Ziyu Cui, Che-Lun Chin, Akhtar Fikri Kurniawan, Ching-Chun Huang, Ling-Ting Huang and Ling Chao\*



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An injectable photocuring silk fibroin-based hydrogel for constructing an antioxidant microenvironment for skin repair

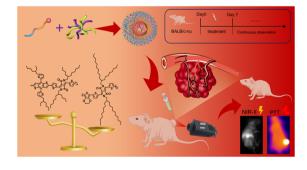
Tangjinhai Liu, Yuxiang Wang, Jingyi Liu, Xiaowen Han, Yaping Zou, Peilei Wang, Ruiling Xu, Lei Tong, Junli Liu,\* Jie Liang, Yong Sun, Yujiang Fan\* and Xingdong Zhang



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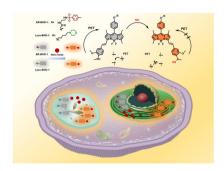
Design of donor-acceptor conjugated polymers based on diketopyrrolopyrrole for NIR-II multifunctional imaging

Mengyu Cao, Xuezhen Ma, Chang Wang, Wentao Zou, Fang Wang, Bing Yu,\* Hailin Cong\* and Youqing Shen



### **PAPERS**

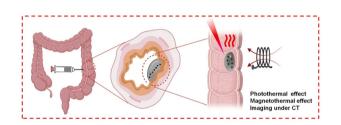
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### Engineering organelle-specific activatable molecules for ultra-fast and reliable in situ mapping of subcellular nitric oxide

Lixin Sun, Xinyu Wang, Rui Chen, Xuemei Dong, Jie Sun, Chengjun Dong, Haijiao Xie, Xianfeng Gu\* and Chunchang Zhao\*

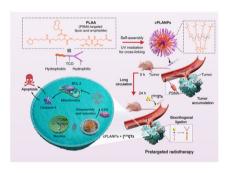
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### Magnetic and injectable Fe-doped liquid metals for controlled movement and photothermal/electromagnetic therapy

Yingjie Cao, Linlin Fan,\* Jianye Gao, Xiyu Zhu, Bingjie Wu, Hongzhang Wang, Bo Wang, Jun Shi\* and Jing Liu\*

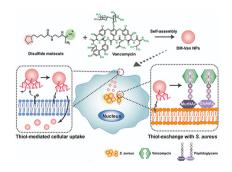
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### Pretargeted radiotherapy and synergistic treatment of metastatic, castration-resistant prostate cancer using cross-linked, PSMA-targeted lipoic acid nanoparticles

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### A disulfide molecule-vancomycin nanodrug delivery system efficiently eradicates intracellular bacteria

Yuting Luo, Liu Su, Hui Yang, Aizhen Geng, Shumeng Bai\* and Jie Zhou\*

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### Carbon dots derived from metformin by electrochemical synthesis with broad-spectrum antibacterial properties

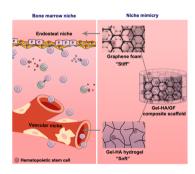
Xin Du, Mengling Zhang,\* Yurong Ma, Yan Zhang, Wenwen Li, Tao Hu, Yang Liu,\* Hui Huang\* and Zhenhui Kang

## MCDs: broad-spectrum antibacterial Affect the transport MCDs-SA (1) Stimulate the producti of excess ROS MCDs-E. coil

### 2354

### Bone marrow-inspired hydrogel/graphene composite scaffolds to support in vitro expansion of hematopoietic stem cells

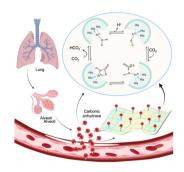
Jing Hong, Zhanchi Zhu, Leisha Cui, Zhaojun Wang, Ying Hao,\* Xiaopeng Tian\* and Guosheng Cheng\*



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### Immobilization of carbonic anhydrase on modified PES membranes for artificial lungs

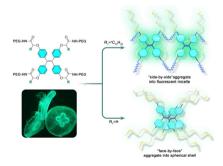
Yi Wang, Chong Cheng, Shuang Li, Shudong Sun\* and Changsheng Zhao\*



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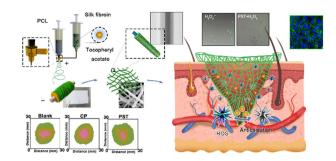
Jellyfish-inspired smart tetraphenylethene lipids with unique AIE fluorescence, thermal response, and cell membrane interaction

Yujie Zheng, Yu Li, Changsheng Ke, Mojie Duan, Lijun Zhu, Xin Zhou, Minghui Yang, Zhong-Xing Jiang\* and Shizhen Chen\*



### **PAPERS**

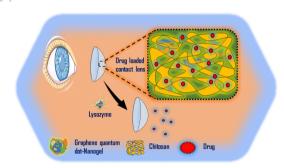
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### Fabrication of a core-shell nanofibrous wound dressing with an antioxidant effect on skin injury

Kexin Feng, Jinlan Tang, Ruiyang Qiu, Bin Wang,\* Jianglin Wang and Weikang Hu\*

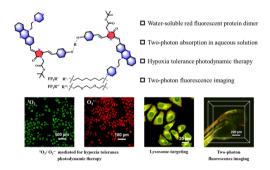
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A promising 'single' and 'dual' drug-nanocomposite enriched contact lens for the management of glaucoma in response to the tear fluid enzyme

- B. N. Kumara, K. Velmurugan, M. Vivek Ghate,
- R. Shambhu, Jayabalan Nirmal\* and
- K. Sudhakara Prasad\*

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Water-soluble red fluorescent protein dimers for hypoxic two-photon photodynamic therapy

Wan Feng and Ying Qian\*