

# Journal of Materials Chemistry B

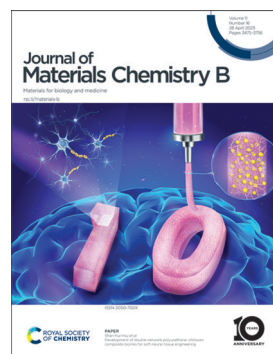
Materials for biology and medicine

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## IN THIS ISSUE

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### Cover

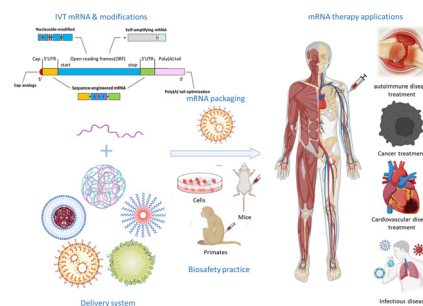
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## REVIEWS

3484

### mRNA therapeutics for disease therapy: principles, delivery, and clinical translation

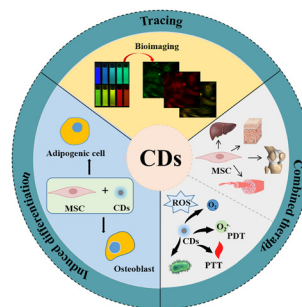
Da-Wei Zhou, Ke Wang, Ying-Ao Zhang, Ke Ma, Xiao-Chun Yang, Zhen-Yi Li, Shou-Shan Yu, Ke-Zheng Chen and Sheng-Lin Qiao\*



3511

### Carbon dots as a new class of multifunctional nanomaterial in mesenchymal stem cells: opportunities and challenges

Qian He, Zewen Wu and Liyun Zhang\*



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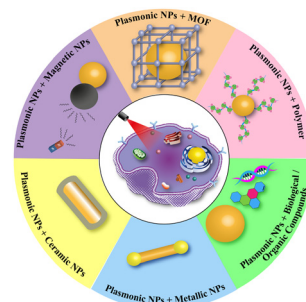


## REVIEWS

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## Plasmon-enhanced nano-photosensitizers: game-changers in photodynamic therapy of cancers

Amirmostafa Amirjani,\* Parand Shokrani, Sepideh Abbasi Sharif, Hossein Moheb, Hossein Ahmadi, Zahra Sadreddini Ahmadiani and Maryam Sharifi Paroushi

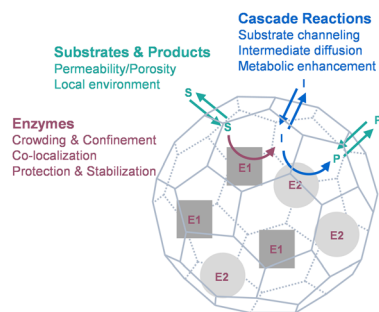


## PERSPECTIVE

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## Tuning properties of biocatalysis using protein cage architectures

Yang Wang and Trevor Douglas\*

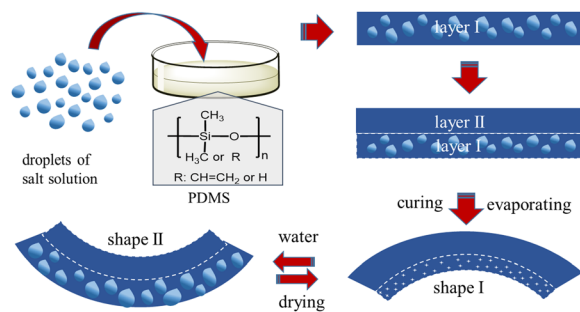


## COMMUNICATIONS

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## Water-actuated reversible shape-memory polydimethylsiloxane for potential biomedical applications

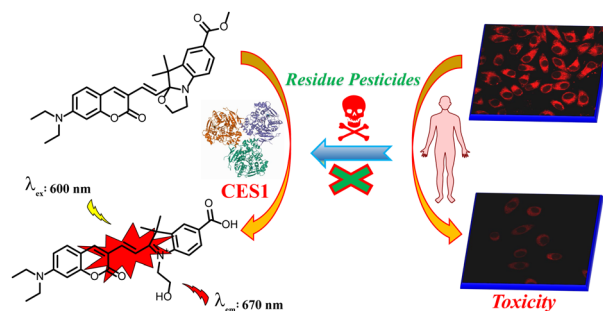
Wenjing Sha, Junge Zhao, Yannong Zhou, Jiangnan Xia, Ming Yuan, Ningning Zhang, Huaixia Zhao\* and Yangxin Wang\*



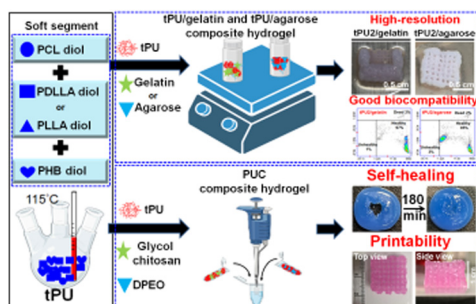
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## A near-infrared fluorescent probe based on a hemi-cyanine skeleton for detecting CES1 activity and evaluating pesticide toxicity

Xin Zhao, Manman Tian, Yan Wang, Fangyu Yang, Guobiao Liang,\* Xiangge Tian,\* Lei Feng and Jingnan Cui\*



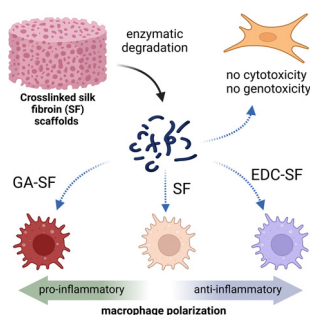
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### Development of double network polyurethane–chitosan composite bioinks for soft neural tissue engineering

Kun-Chih Cheng, Yi-Ming Sun and Shan-hui Hsu\*

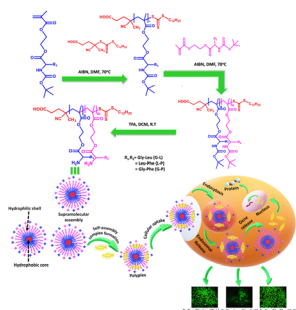
3607



### Degradation products of crosslinked silk fibroin scaffolds modulate the immune response but not cell toxicity

Jiranuwat Sapudom,\* Mesayamas Kongsema, Apipon Methachittipan, Siriporn Damrongsakkul, Sorada Kanokpanont, Jeremy C. M. Teo, Mattaka Khongkow, Khaow Tonsomboon\* and Peerapat Thongnuek\*

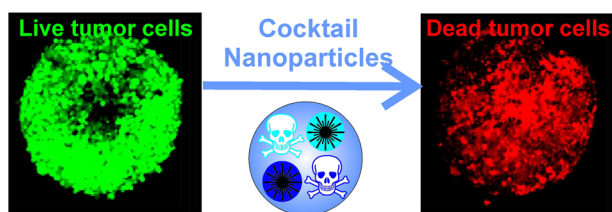
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### Superior gene transfection efficiency in triple negative breast cancer by RAFT-mediated amino acid-based cationic diblock copolymers

Rima Saha, Satyajit Haldar, Subhashree Subhasmita Pradhan, Kuladip Jana and Kishor Sarkar\*

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### Theranostic inorganic–organic hybrid nanoparticles with a cocktail of chemotherapeutic and cytostatic drugs

Mikhail Khorenko, Juliana Pfeifer, Joanna Napp, Anna Meschkov, Frauke Alves,\* Ute Schepers\* and Claus Feldmann\*

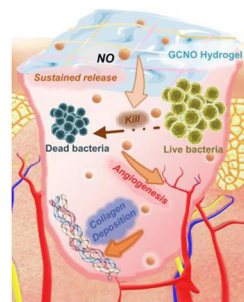


## PAPERS

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### Multifunctional antibiotics-free hydrogel dressings with self-regulated nitric oxide-releasing kinetics for improving open wound healing

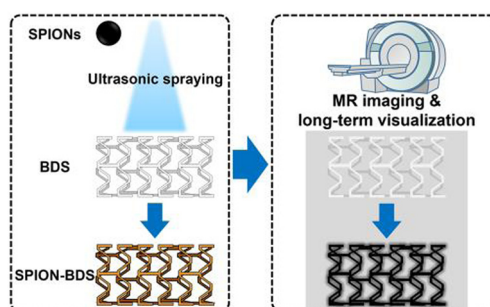
Yuan Liu, Lu Tan, Yan Huang, Maohua Chen, Menghuan Li, Kaiyong Cai,\* Zhong Luo\* and Yan Hu\*



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### Magnetic nanoparticle loaded biodegradable vascular stents for magnetic resonance imaging and long-term visualization

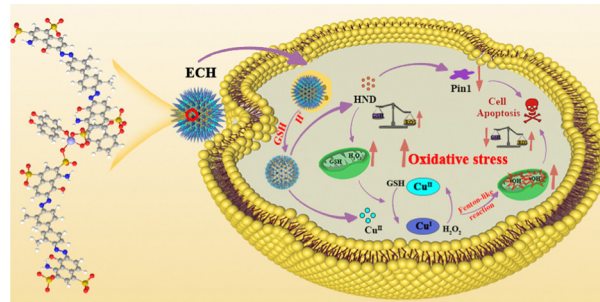
Mingxi Li, Dongwen Deng, Zhe Chen, Wentao Liu, Gutian Zhao, Yu Zhang, Fang Yang\* and Zhonghua Ni\*



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### TME-triggered copper-coordinated engineered programmable nanogenerators for on-demand cascade-amplifying oxidative stress

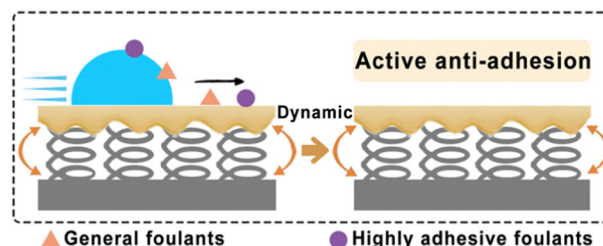
Lingling Huang, Feng Wu, Qiuli Wang, Jiahao Meng, Juan Feng, Guanghao Su,\* Xue Yi, Ying Li, Jin-Yao Li,\* Zhenqing Hou\* and Zhongxiong Fan\*



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### Daphnia-inspired dynamic slippery chemically bonded liquid surface for the active prevention of covalently attached foulant adhesion

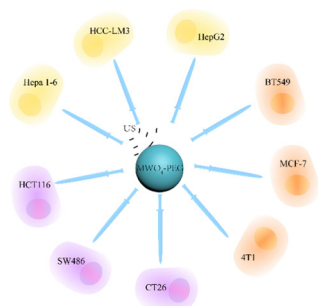
Huajun Zhai, Xiangyu Li, Shuaiheng Zhao, Jiujiang Ji, Yue Liu, Ye Tian, Yen Wei, Na Liu\* and Lin Feng\*





## PAPERS

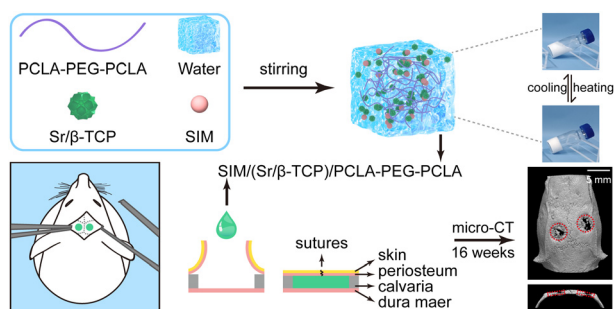
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### Universal nanosonosensitizer for ROS-mediated reduction of various cancer cells

Junna Jiao, Kun Shao, Kaixin Wang, Jiaxuan Liu, Zhijie Weng, Junrong Jiao\* and Zhuangwei Lv\*

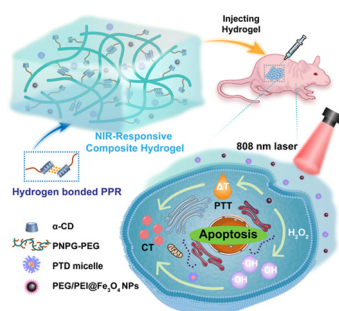
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### Accelerating bone regeneration in cranial defects using an injectable organic–inorganic composite hydrogel

Qiao Bian, Chao Guo, Shuquan Cui, Jia Liu, Guohua Xu\* and Wei Feng\*

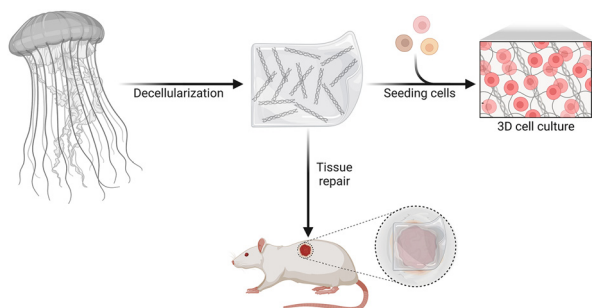
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### *In situ* injectable NIR-responsive supramolecular hydrogels encapsulating ROS-triggered chain-breakage prodrug micelles and hydrophilic Fe<sub>3</sub>O<sub>4</sub> nanoparticles for enhanced synergistic chemophotothermal therapy

Shiwei Huang, Nuoya Zhao, Zhiyi Qian and Weizhong Yuan\*

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### Structural and biofunctional evaluation of decellularized jellyfish matrices

Jie Zhao, Wenjun Yu, Qi Zhang, Xiaojing Li, Yongjie Huang, Suwen Zhao, Tao Li, Shanshan Liu,\* Yang Li\* and Hong Shan\*



## CORRECTION

3752

**Correction: Core–shell bioceramic fiber-derived biphasic granules with adjustable core compositions for tuning bone regeneration efficacy**

Zhaonan Bao, Jun Yang, Jian Shen, Cong Wang, Yifan Li, Yan Zhang, Guojing Yang, Cheng Zhong, Sanzhong Xu, Lijun Xie, Miaoda Shen\* and Zhongru Gou\*

