

# Journal of Materials Chemistry B

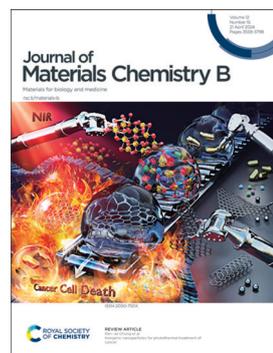
Materials for biology and medicine

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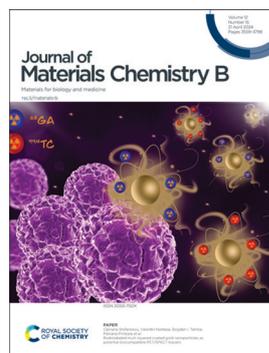
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See Ren-Jei Chung *et al.*, pp. 3569–3593. Image reproduced by permission of Ren-Jei Chung from *J. Mater. Chem. B*, 2024, 12, 3569.



### Inside cover

See Cipriana Stefanescu, Valentin Nastasa, Bogdan I. Tamba, Mariana Pinteala *et al.*, pp. 3659–3675. Image reproduced by permission of Adina Coroabá from *J. Mater. Chem. B*, 2024, 12, 3659.

## EDITORIAL

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### Functional framework materials for biomedical applications

Ross S. Forgan,\* Ruxandra Gref\* and Jianqiang Liu\*

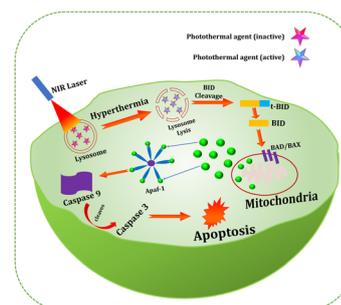


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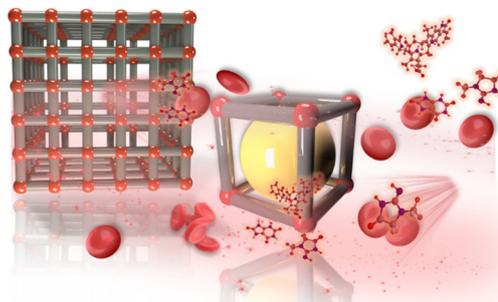


## REVIEWS

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### Metal–organic framework-based adsorbents for blood purification: progress, challenges, and prospects

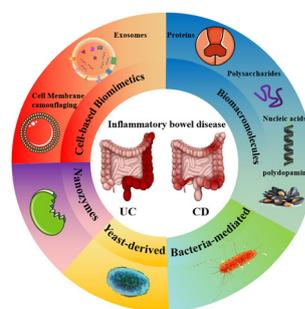
Jiemin Wang, Chong Cheng, Shudong Sun, Weifeng Zhao and Changsheng Zhao\*



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### Bioinspired and biomimetic strategies for inflammatory bowel disease therapy

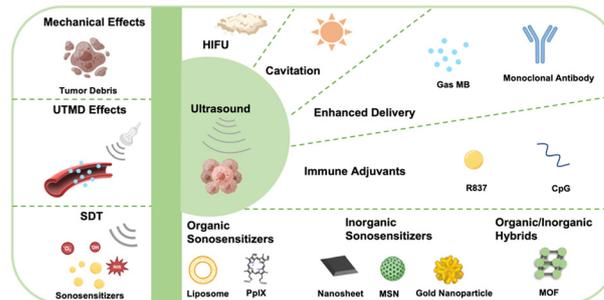
Limei Zhang, Peng Ye, Huatai Zhu, Liyu Zhu, Yuting Ren and Jiandu Lei\*



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### Ultrasound-augmented cancer immunotherapy

Bingjie Liu, Fangxue Du, Ziyang Feng, Xi Xiang, Ruiqian Guo, Lang Ma, Bihui Zhu\* and Li Qiu\*

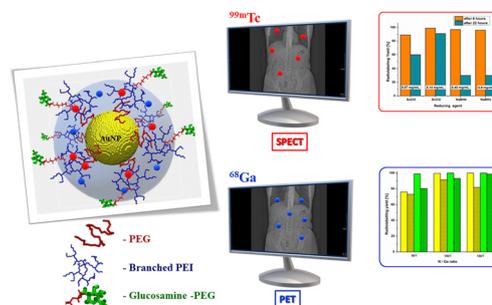


## PAPERS

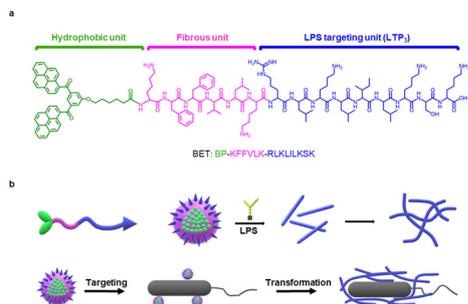
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### Radiolabeled multi-layered coated gold nanoparticles as potential biocompatible PET/SPECT tracers

Cristina M. Uritu, Cristina M. Al-Matarneh, Denisse I. Bostiog, Adina Coroaba, Vlad Ghizdovat, Silviu I. Filipciuc, Natalia Simionescu, Cipriana Stefanescu,\* Wael Jalloul, Valentin Nastasa,\* Bogdan I. Tamba,\* Stelian S. Maier and Mariana Pinteala\*



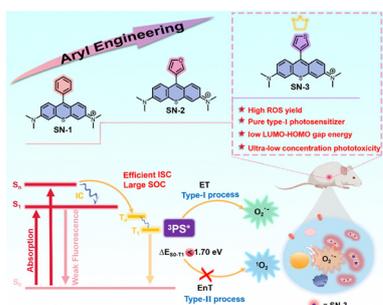
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### A peptide selectively recognizes Gram-negative bacteria and forms a bacterial extracellular trap (BET) through interfacial self-assembly

Xiao-Ling Sha, Gan-Tian Lv, Qing-Hua Chen, Xin Cui, Lei Wang\* and Xu Cui\*

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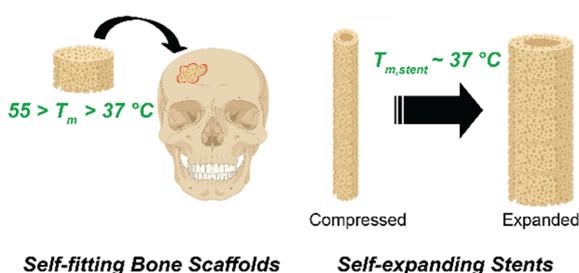


### Rational design of type-I photosensitizer molecules for mitochondrion-targeted photodynamic therapy

Jiaxin Liang, Xiaoyun Ran, Yanhong Liu, Xiaoqi Yu, Shanyong Chen\* and Kun Li\*

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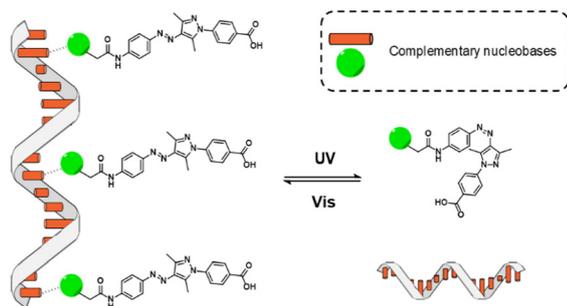
### Tissue-safe star-PCL Scaffolds



### Star-PCL shape memory polymer (SMP) scaffolds with tunable transition temperatures for enhanced utility

Courteney T. Roberts, Sarah K. Beck, C. Mabel Prejean, Lance M. Gaul, Duncan J. Maitland and Melissa A. Grunlan\*

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### Selectivity in the chiral self-assembly of nucleobase-arylazopyrazole photoswitches along DNA templates

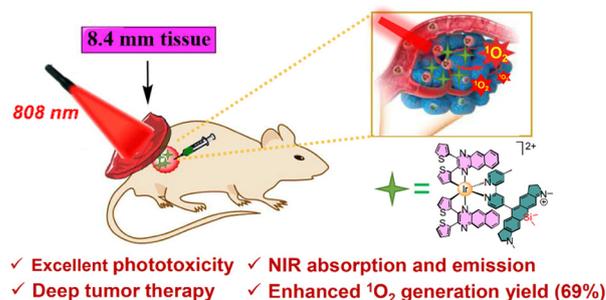
Noemí Nogal, Santiago Guisán, David Delleme, Mathieu Surin\* and Andrés de la Escosura\*



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### Iridium(III) complexes decorated with silicane-modified rhodamine: near-infrared light-initiated photosensitizers for efficient deep-tissue penetration photodynamic therapy

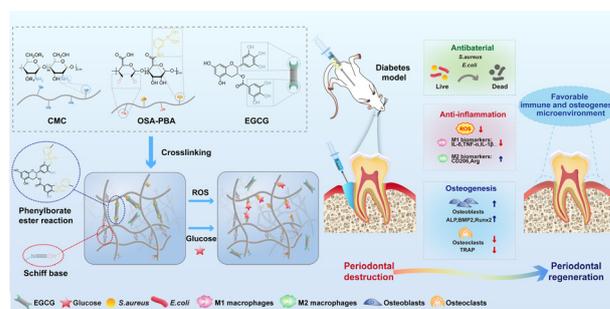
Jiqiang Liu, Xing Yang, Siye Wu, Ping Gong,\* Fan Pan, Pengfei Zhang,\* Chi-Sing Lee, Chuangjun Liu and Keith Man-Chung Wong\*



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### A whole-course-repair system based on ROS/glucose stimuli-responsive EGCG release and tunable mechanical property for efficient treatment of chronic periodontitis in diabetic rats

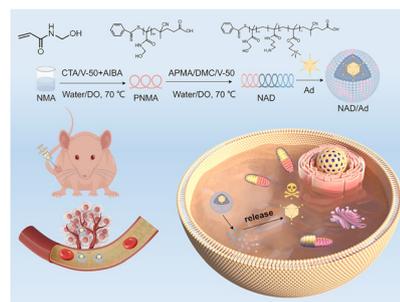
Qingchen Feng, Mei Zhang, Guanning Zhang, Hongxiang Mei, Chongying Su, Lisa Liu, Xiaoxia Wang, Ziqianhong Wan, Zhengyi Xu, Liangkui Hu, Yu Nie\* and Juan Li\*



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### Enhancing oncolytic virus efficiency with methionine and *N*-(3-aminopropyl)methacrylamide modified acrylamide cationic block polymer

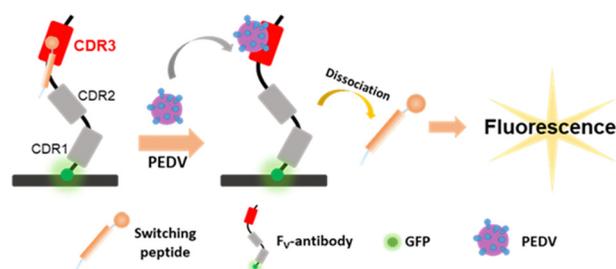
Gong Chen, Yuan Yuan, Ying Li, Qianyuan He, Zizhen Qin, Han Hu, Congcong Gao, Zushun Xu, Qi Xu,\* Qinglei Gao\* and Fei Li\*



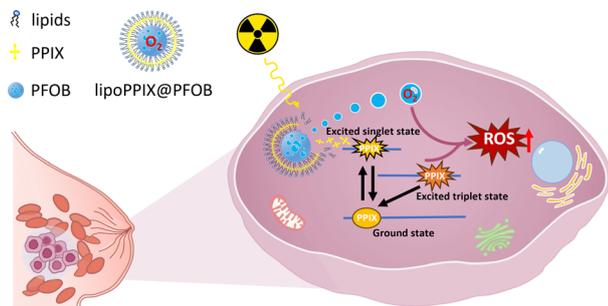
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### A one-step immunoassay based on switching peptides for diagnosis of porcine epidemic diarrhea virus (PEDV) using screened Fv-antibodies

Tae-Hun Kim, Jae-Yeon Park, Jaeyong Jung, Jeong Soo Sung, Soonil Kwon, Hyung Eun Bae, Hyun-Jin Shin, Min-Jung Kang, Joachim Jose and Jae-Chul Pyun\*



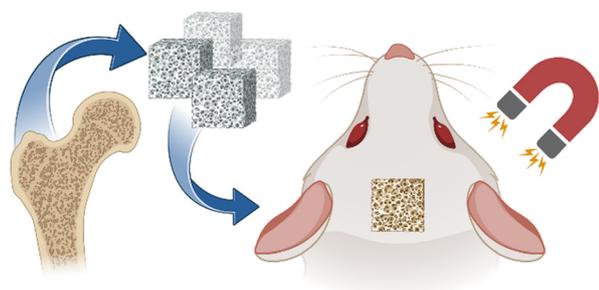
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### Improved effectiveness of X-PDT against human triple-negative breast cancer cells through the use of liposomes co-loaded with protoporphyrin IX and perfluorooctyl bromide

Biyao Yang, Rui Sang, Yi Li, Ewa M. Goldys and Wei Deng\*

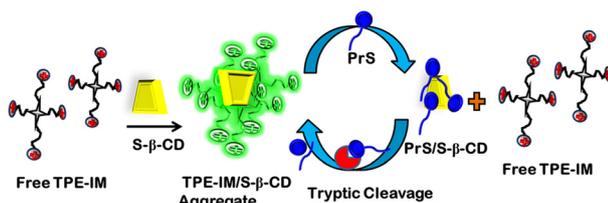
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### Static magnetic field enhances the bone remodelling capacity of human demineralized bone matrix in a rat animal model of cranial bone defects

SeyedJamal Hosseini, Houman Parsaei, MirJavad Moosavifar, Narjes Tavakoli, Reza Ahadi and Kaveh Roshanbinfar\*

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### Expanding the scope of self-assembled supramolecular biosensors: a highly selective and sensitive enzyme-responsive AIE-based fluorescent biosensor for trypsin detection and inhibitor screening

Jasvir Kaur, Harshad A. Mirgane, Vrushi S. Patil, Geetika M. Ahlawat, Sheshanath V. Bhosale and Prabhat K. Singh\*

