

# Journal of Materials Chemistry B

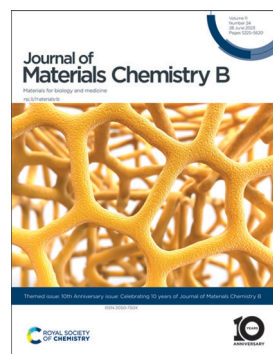
Materials for biology and medicine

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ISSN 2050-750X CODEN JMCBDV 11(24) 5225–5620 (2023)



## EDITORIAL

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Introducing the tenth anniversary issues of *Journal of Materials Chemistry A, B and C*

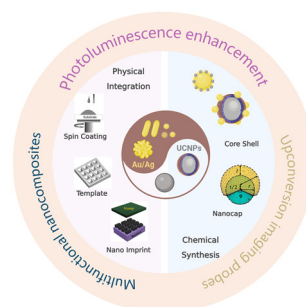


## REVIEWS

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Surface plasmon resonance of Au/Ag metals for the photoluminescence enhancement of lanthanide ion  $\text{Ln}^{3+}$  doped upconversion nanoparticles in bioimaging

Hao Peng, Shunxiang Li, Jie Xing, Fang Yang\* and Aiguo Wu\*



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Journal of Materials Chemistry B (electronic: ISSN 2050-7518) is published

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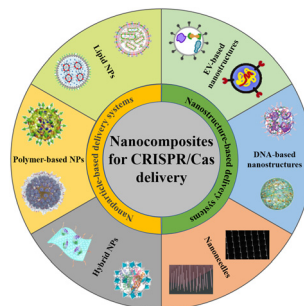


## REVIEWS

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### Recent advances in nanocomposite-based delivery systems for targeted CRISPR/Cas delivery and therapeutic genetic manipulation

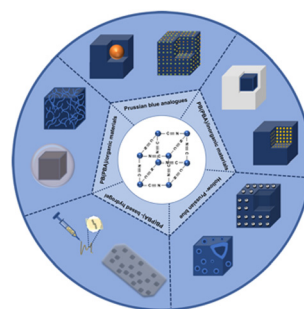
Muhammad Waseem Ghani, Ambreen Iqbal, Hammad Ghani, Sidra Bibi, Zixun Wang\* and Renjun Pei\*



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### Progress in the preparation of Prussian blue-based nanomaterials for biomedical applications

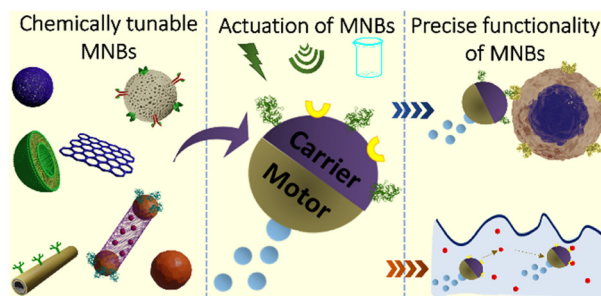
Kun Lu, Xiao-Yang Zhu, Yan Li\* and Ning Gu\*



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### Chemical tunability of advanced materials used in the fabrication of micro/nanobots

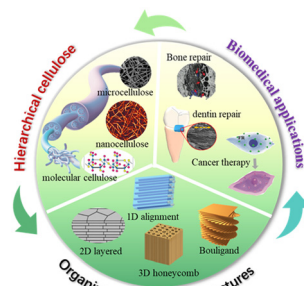
Saloni Andhari, Ganesh Khutale, Rituja Gupta, Yuvraj Patil and Jayant Khandare\*



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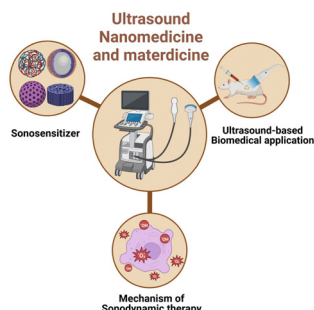
### Organized mineralized cellulose nanostructures for biomedical applications

Yanhuizhi Feng, Helmut Cölfen\* and Rui Xiong\*



## REVIEWS

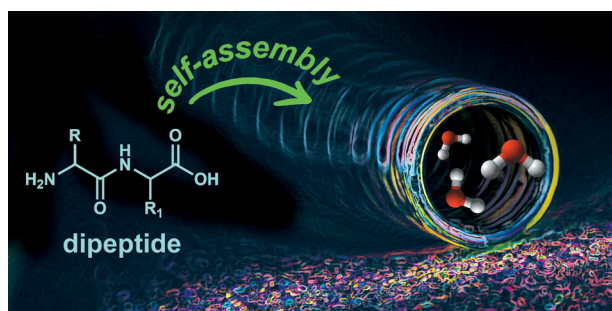
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## Ultrasound nanomedicine and materdicine

Zeyu Wang, Xue Wang, Meiqi Chang,\* Jia Guo\* and Yu Chen\*

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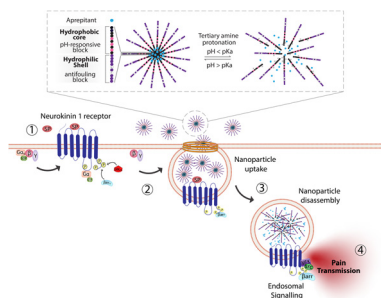


## Nanotubes and water-channels from self-assembling dipeptides

Ottavia Bellotto, Paola D'Andrea and Silvia Marchesan\*

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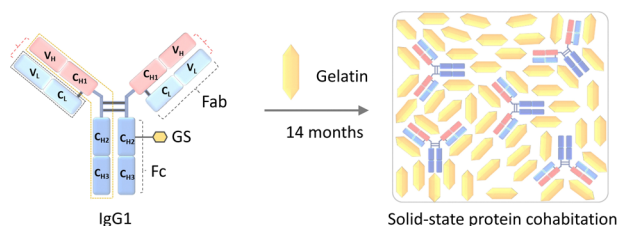
## Targeting endosomal receptors, a new direction for polymers in nanomedicine

Paulina D. Ramirez-Garcia,\* Nicholas A. Veldhuis, Nigel W. Bunnett and Thomas P. Davis\*

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## Protein Cohabitation for Long-term IgG Storage at Room Temperature



## Protein cohabitation: long-term immunoglobulin G storage at room temperature

Pankaj Bharmoria,\* Saik Ann Ooi, Andrea Cellini, Daniel Tietze, Michal Maj, Kasper Moth-Poulsen\* and Alesia A. Tietze\*

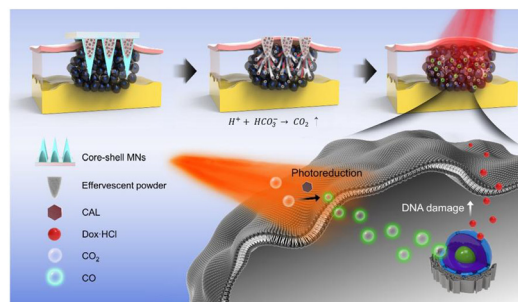


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# A photocatalytic carbon monoxide-generating effervescent microneedle patch for improved transdermal chemotherapy

Junzhe Fu, Weijiang Yu, Xuedan Qian, Youxiang Wang\* and Jian Ji\*

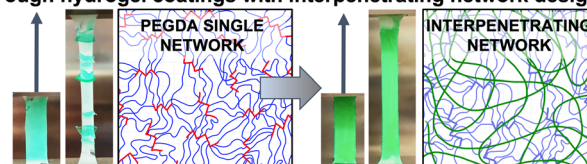


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# Interpenetrating network design of bioactive hydrogel coatings with enhanced damage resistance

Megan Wancura, Abbey Nkansah, Malgorzata Chwatko, Andrew Robinson, Ashauntee Fairley and Elizabeth Cosgriff-Hernandez\*

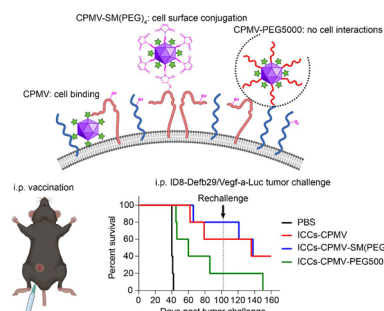
## Tough hydrogel coatings with interpenetrating network design



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# A co-formulated vaccine of irradiated cancer cells and cowpea mosaic virus improves ovarian cancer rejection

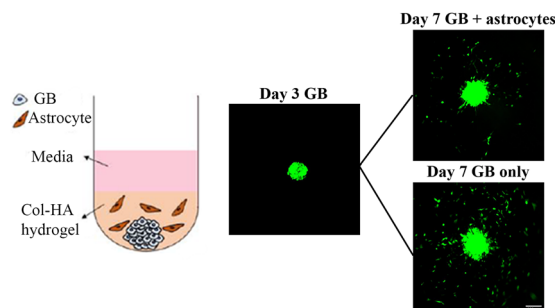
Zhongchao Zhao, Oscar A. Ortega-Rivera, Young Hun Chung, Andrea Simms and Nicole F. Steinmetz\*



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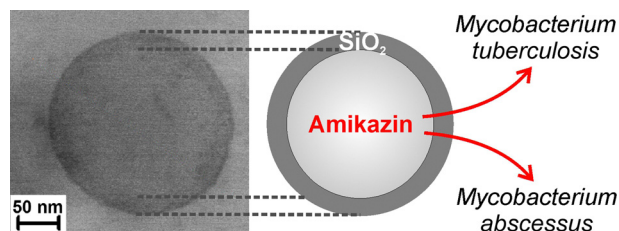
# Evaluating glioblastoma tumour sphere growth and migration in interaction with astrocytes using 3D collagen-hyaluronic acid hydrogels

Yixiao Cui, Paul Lee, Jesse J. Reardon, Anna Wang, Skylar Lynch, Jose J. Otero, Gina Sizemore and Jessica O. Winter\*



## PAPERS

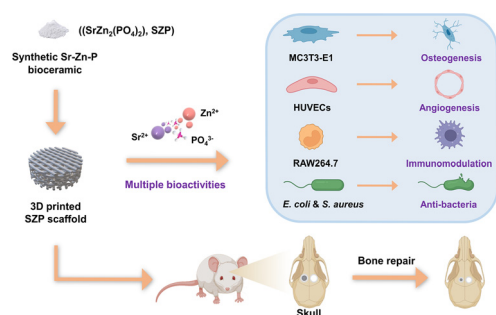
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### Amikacin@SiO<sub>2</sub> core@shell nanocarriers to treat pulmonary bacterial infections

Mark Rutschmann, Natalja Redinger, Ulrich E. Schaible\* and Claus Feldmann\*

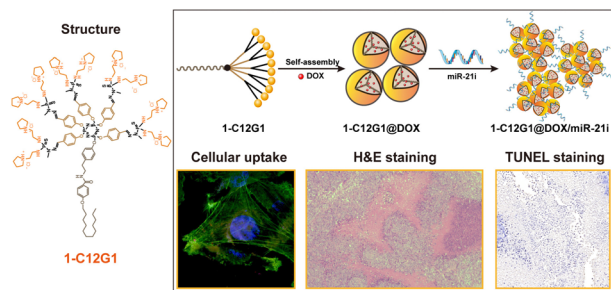
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### 3D printed strontium–zinc–phosphate bioceramic scaffolds with multiple biological functions for bone tissue regeneration

Li Deng, Lingwei Huang, Hao Pan, Qi Zhang, Yumei Que, Chen Fan, Jiang Chang,\* Siyu Ni\* and Chen Yang\*

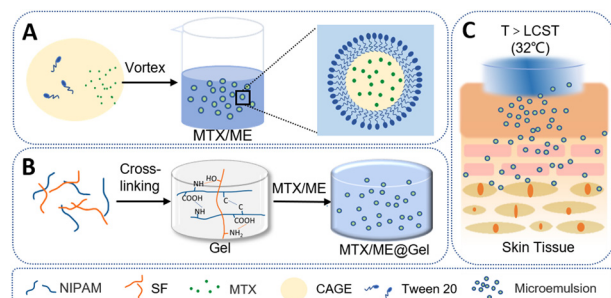
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### Amphiphilic phosphorous dendron micelles co-deliver microRNA inhibitor and doxorubicin for augmented triple negative breast cancer therapy

Liang Chen, Mengsi Zhan, Jin Li, Liu Cao, Huxiao Sun, Régis Laurent, Serge Mignani, Anne-Marie Caminade,\* Jean-Pierre Majoral\* and Xiangyang Shi\*

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### A thermo-responsive hydrogel loaded with an ionic liquid microemulsion for transdermal delivery of methotrexate

Yang Shu, Rong Xue, Yiru Gao, Wenxin Zhang and Jianhua Wang\*

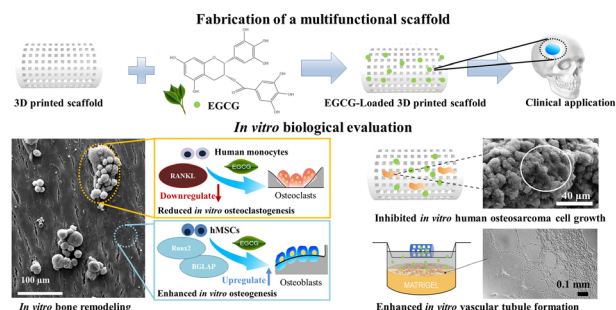


## PAPERS

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**In vitro biological evaluation of epigallocatechin gallate (EGCG) release from three-dimensional printed (3DP) calcium phosphate bone scaffolds**

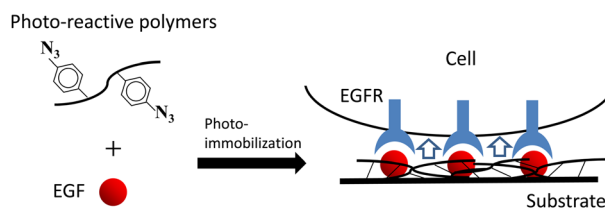
Yongdeok Jo, Naboneeta Sarkar and Susmita Bose\*



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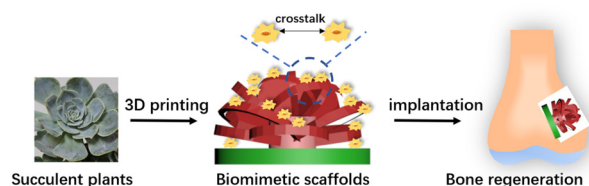
Liang-Chun Wu, Seiichi Tada, Takashi Isoshima, Takeshi Serizawa and Yoshihiro Ito\*



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**3D-Printing of succulent plant-like scaffolds with beneficial cell microenvironments for bone regeneration**

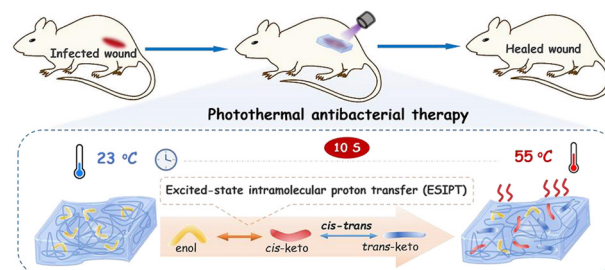
Yufeng Wang, Zikang Wang, Xiaopeng Yu, Meng Zhang, Xin Wang, Yanling Zhou, Qingqiang Yao\* and Chengtie Wu\*



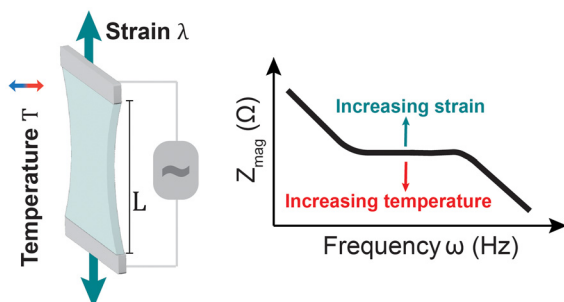
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**Promoting photothermal antibacterial activity through an excited-state intramolecular proton transfer process**

Wanni Yao, Tian Deng, Arui Huang, Yufeng Zhang,\* Qianqian Li\* and Zhen Li\*



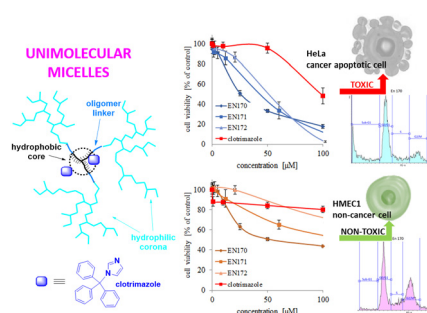
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### Poisson–Nernst–Planck framework for modelling ionic strain and temperature sensors

Gaurav Balakrishnan, Jiwoo Song, Aditya S. Khair and Christopher J. Bettinger\*

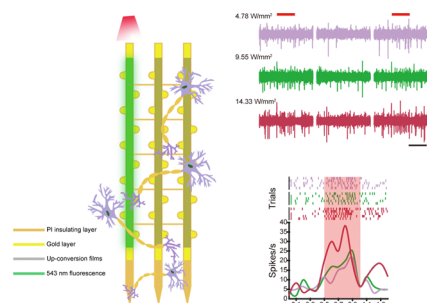
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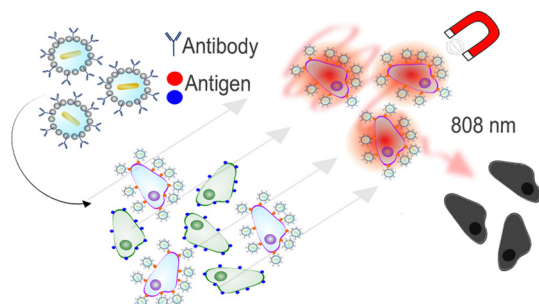
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### Electrodeposited $\text{NaYF}_4:\text{Yb}^{3+}$ , $\text{Er}^{3+}$ up-conversion films for flexible neural device construction and near-infrared optogenetics

Xuran Zhang, Jianfei Ding, Liang Zou, Huihui Tian, Ying Fang\* and Jinfen Wang\*

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### Hybrid core–shell nanoparticles for cell-specific magnetic separation and photothermal heating

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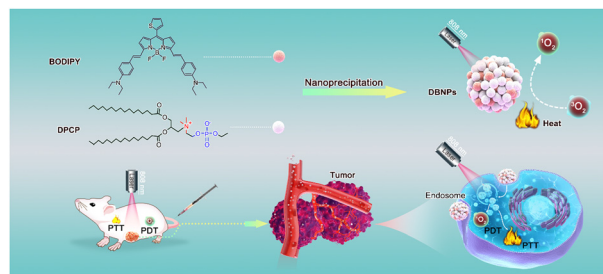


## PAPERS

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### Choline phosphate lipid-hitchhiked near-infrared BODIPY nanoparticles for enhanced phototheranostics

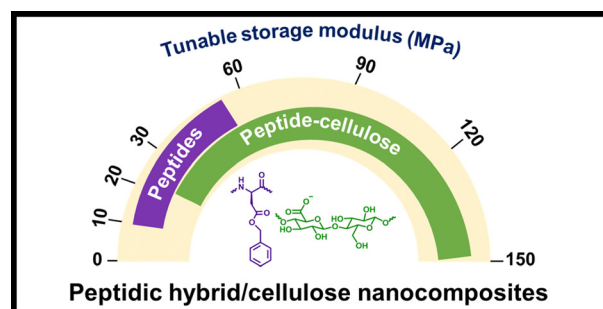
Huafeng Geng, Wenhai Lin, Junbao Liu,\* Qing Pei\* and Zhigang Xie\*



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### Leveraging peptide–cellulose interactions to tailor the hierarchy and mechanics of peptide–polymer hybrids

Daseul Jang, Laura E. Beckett, Jong Keum and LaShanda T.J. Korley\*



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### X-ray sensitive selenium-containing Ru complexes sensitize nasopharyngeal carcinoma cells for radio/chemotherapy

Changhe Shi, Zhongwen Yuan, Ting Liu, Leung Chan, Tianfeng Chen\* and Jianfu Zhao\*

