

# Journal of Materials Chemistry B

Materials for biology and medicine

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## IN THIS ISSUE

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## EDITORIAL

5236

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

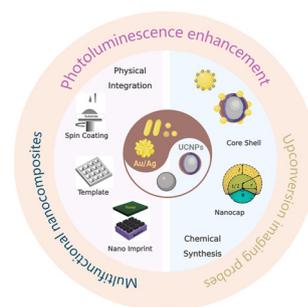


## REVIEWS

5238

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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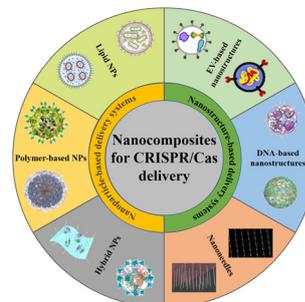


## REVIEWS

5251

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

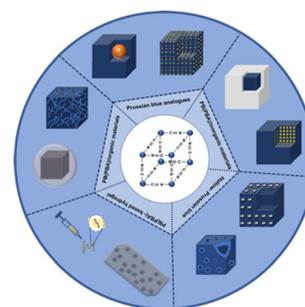
Muhammad Waseem Ghani, Ambreen Iqbal, Hammad Ghani, Sidra Bibi, Zixun Wang\* and Renjun Pei\*



5272

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

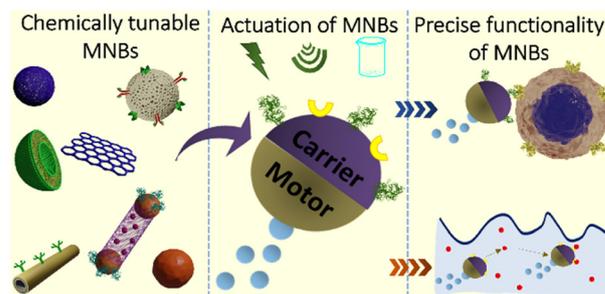
Kun Lu, Xiao-Yang Zhu, Yan Li\* and Ning Gu\*



5301

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

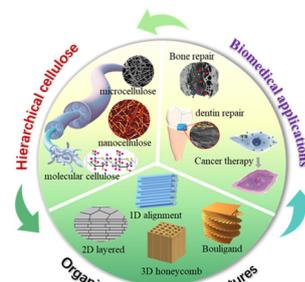
Saloni Andhari, Ganesh Khutale, Rituja Gupta, Yuvraj Patil and Jayant Khandare\*



5321

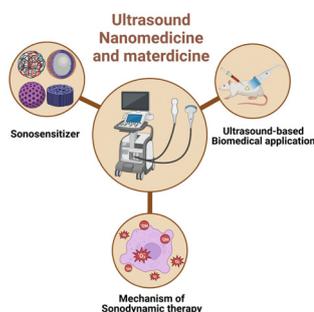
### Organized mineralized cellulose nanostructures for biomedical applications

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



## REVIEWS

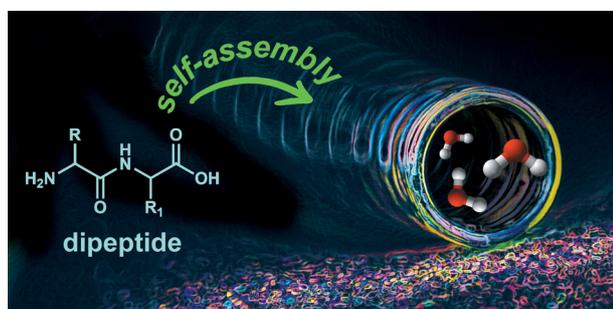
5350



## Ultrasound nanomedicine and materdicine

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

5378

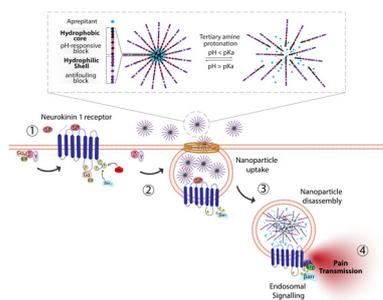


## Nanotubes and water-channels from self-assembling dipeptides

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

## PERSPECTIVE

5390

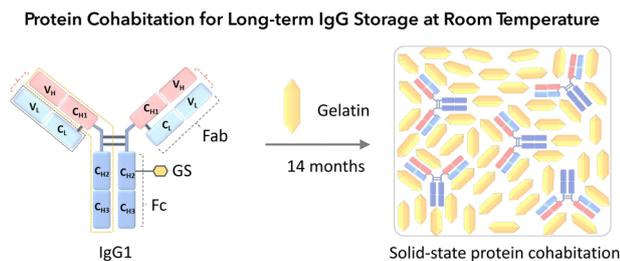


## Targeting endosomal receptors, a new direction for polymers in nanomedicine

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

## COMMUNICATION

5400



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

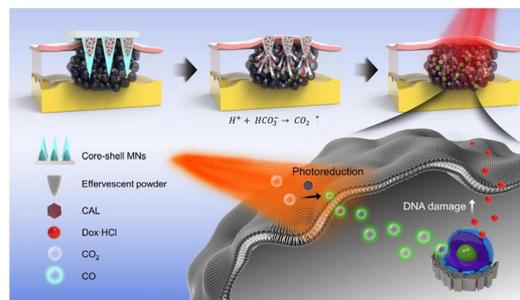
Pankaj Bharmoria,\* Saik Ann Ooi, Andrea Cellini, Daniel Tietze, Michal Maj, Kasper Moth-Poulsen\* and Alesia A. Tietze\*



5406

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

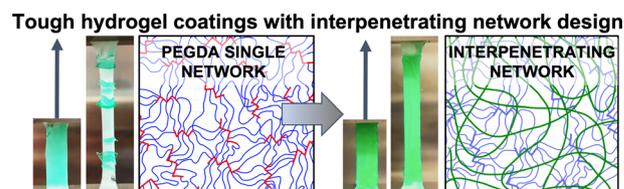
Junzhe Fu, Weijiang Yu, Xuedan Qian, Youxiang Wang\* and Jian Ji\*



5416

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

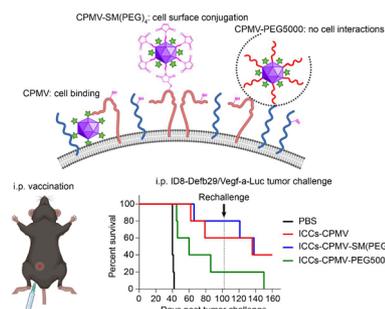
Megan Wancura, Abbey Nkansah, Malgorzata Chwatko, Andrew Robinson, Ashauntee Fairley and Elizabeth Cosgriff-Hernandez\*



5429

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

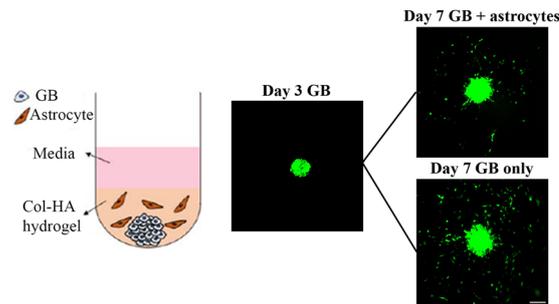
Zhongchao Zhao, Oscar A. Ortega-Rivera, Young Hun Chung, Andrea Simms and Nicole F. Steinmetz\*



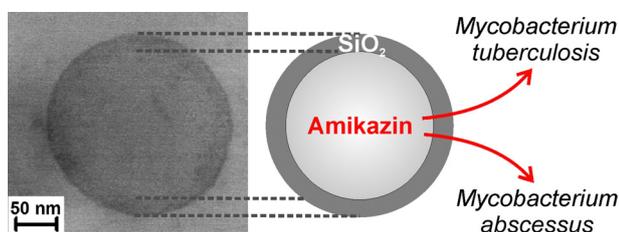
5442

### 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\*



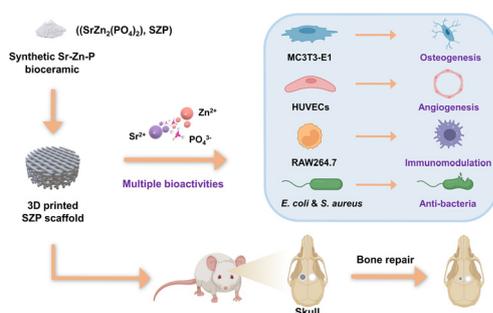
5460



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

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

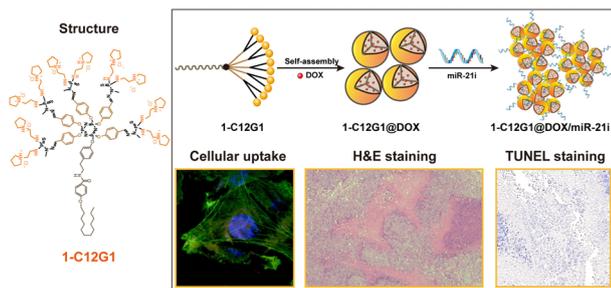
5469



### 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\*

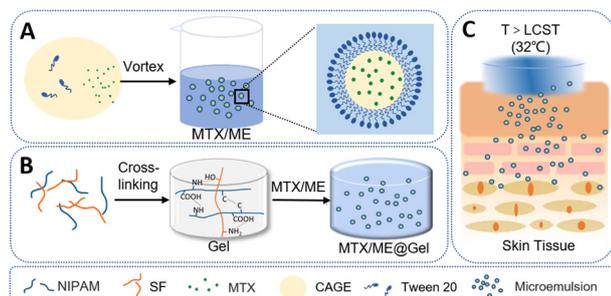
5483



### 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\*

5494



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

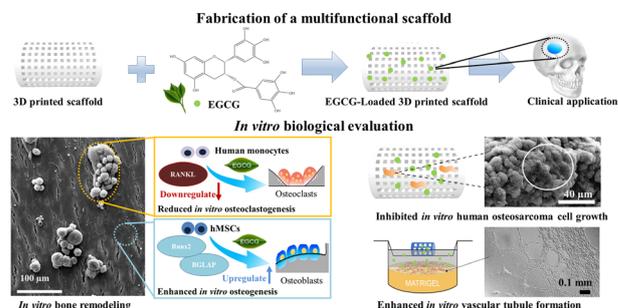
Yang Shu, Rong Xue, Yiru Gao, Wenxin Zhang and Jianhua Wang\*



5503

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

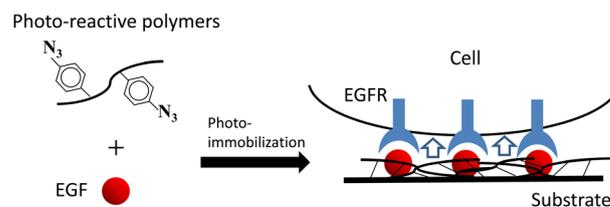
Yongdeok Jo, Naboneeta Sarkar and Susmita Bose\*



5514

### Photo-reactive polymers for the immobilisation of epidermal growth factors

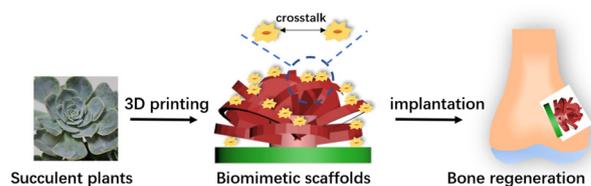
Liang-Chun Wu, Seiichi Tada, Takashi Isoshima, Takeshi Serizawa and Yoshihiro Ito\*



5523

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

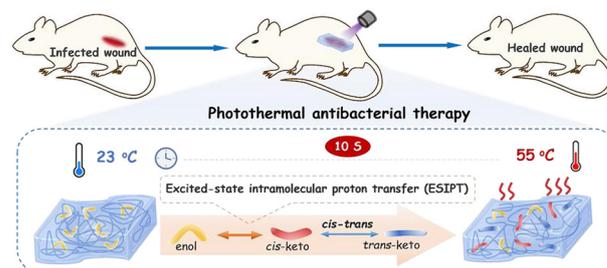
Yufeng Wang, Zikang Wang, Xiaopeng Yu, Meng Zhang, Xin Wang, Yanling Zhou, Qingqiang Yao\* and Chengtie Wu\*



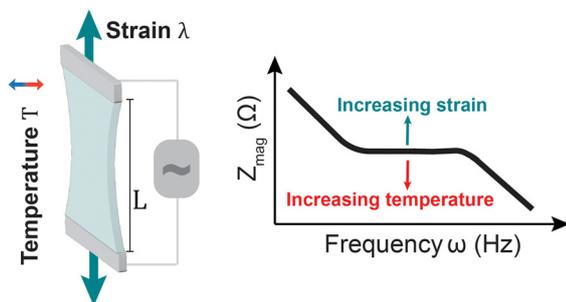
5537

### 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\*



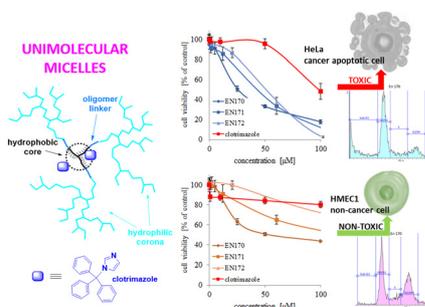
5544



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

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

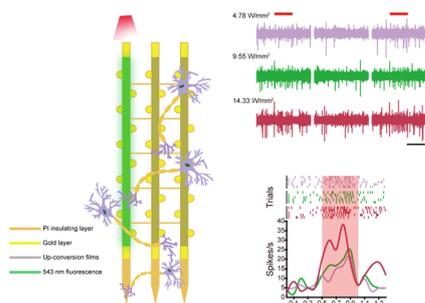
5552



### Cross-linkable star-hyperbranched unimolecular micelles for the enhancement of the anticancer activity of clotrimazole

Mateusz Gosecki, Piotr Ziemczonek, Monika Gosecka,\* Malgorzata Urbaniak, Ewelina Wielgus, Monika Marcinkowska, Anna Janaszewska\* and Barbara Klajnert-Maculewicz

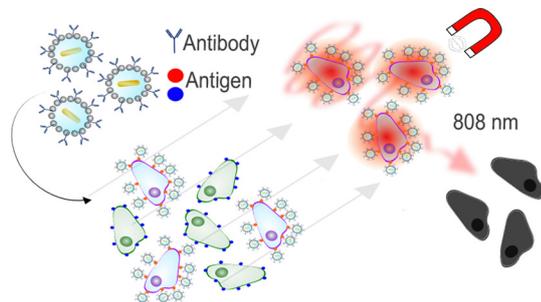
5565



### 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\*

5574



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

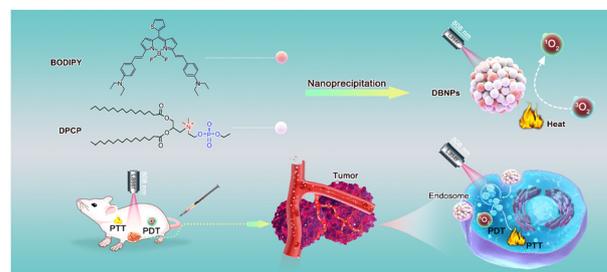
Cristina de la Encarnación, Felix Jungwirth, David Vila-Liarte, Carlos Renero-Lecuna, Safiyye Kavak, Iñaki Orue, Claire Wilhelm, Sara Bals, Malou Henriksen-Lacey, Dorleta Jimenez de Aberasturi\* and Luis M. Liz-Marzán\*



5586

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

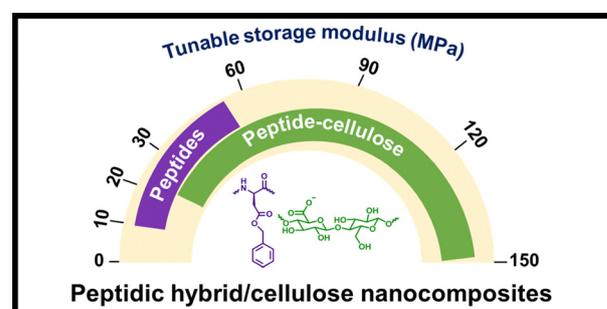
Huafeng Geng, Wenhai Lin, Junbao Liu,\* Qing Pei\* and Zhigang Xie\*



5594

### 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\*



5607

### 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\*

