

Biomaterials Science

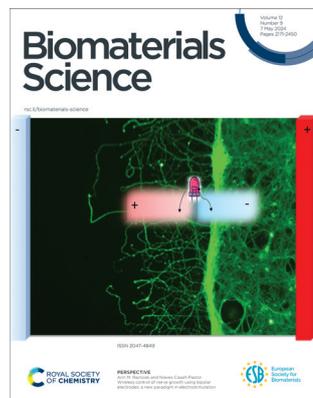
An international high impact journal exploring the underlying science behind the function, interactions and design of biomaterials

rsc.li/biomaterials-science

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 2047-4849 CODEN BSICCH 12(9) 2171–2450 (2024)



Cover

See Ann M. Rajnicek and Nieves Casañ-Pastor, pp. 2180–2202.

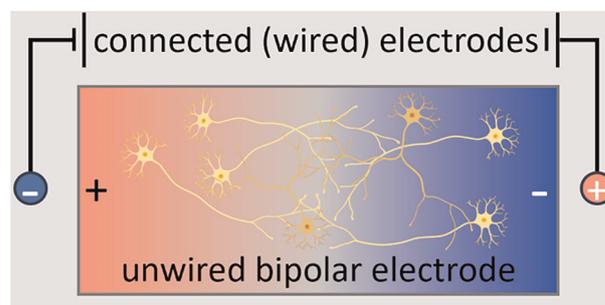
Image reproduced by permission of Nieves Casañ-Pastor from *Biomater. Sci.*, 2024, **12**, 2180.

PERSPECTIVE

2180

Wireless control of nerve growth using bipolar electrodes: a new paradigm in electrostimulation

Ann M. Rajnicek and Nieves Casañ-Pastor*

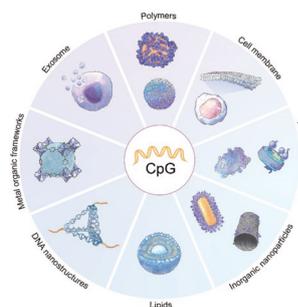


REVIEWS

2203

Emerging nanoparticle platforms for CpG oligonucleotide delivery

Mingqi Li, Haochen Yao, Ke Yi, Yeh-Hsing Lao, Dan Shao and Yu Tao*



Royal Society of Chemistry approved training courses

Explore your options.
Develop your skills.
Discover learning
that suits you.

**Courses in the classroom,
the lab, or online**

Find something for every
stage of your professional
development. Search our
database by:

- subject area
- location
- event type
- skill level

Members **get at least 10% off**

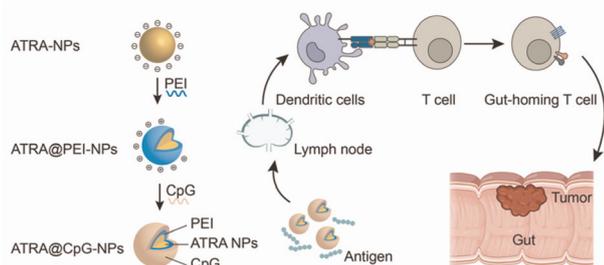
Visit rsc.li/cpd-training



**SAVE
10%**

PAPERS

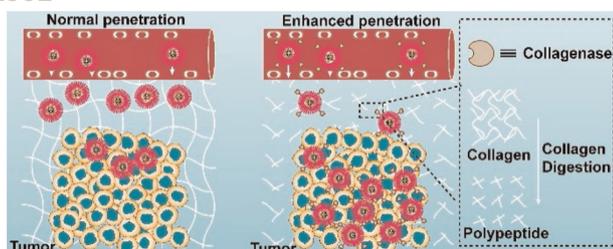
2292



Layer-by-layer nanoparticle encapsulating all-trans retinoic acid and CpG as a mucosal adjuvant targeting colorectal cancer

Shiwei Mi, Wei Li, Yixing Wen, Chen Yang, Shuai Liu, Jingjiao Li, Xingdi Cheng, Yuanyuan Zhao, Haonan Huo, Haowei Zu and Xueguang Lu*

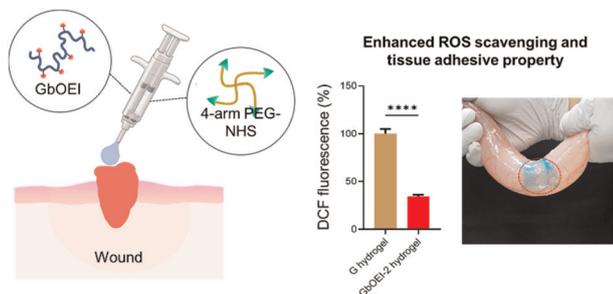
2302



Enhancing the tumor penetration of multiarm polymers by collagenase modification

Bo Yu, Weijie Wang, Yongmin Zhang, Ying Sun, Cheng Li, Qian Liu, Xu Zhen,* Xiqun Jiang* and Wei Wu*

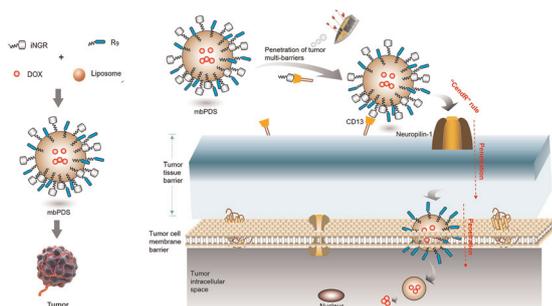
2312



Enhanced ROS scavenging and tissue adhesive abilities in injectable hydrogels by protein modification with oligoethyleneimine

Debabrata Palai, Miho Ohta, Iga Cetnar, Tetsushi Taguchi* and Akihiro Nishiguchi*

2321



Multibarrier-penetrating drug delivery systems for deep tumor therapy based on synergistic penetration strategy

Hui-Feng Zhang, Huan Yu, Shuang-Xue Pan, Chuang Zhang, Ying-Hui Ma, Yan-Fei Zhang, Li-Li Zuo, Cheng-Yi Hao, Xiao-Ying Lin, Hao Geng, Di Wu, Shang-Qiang Mu, Wei-Lun Yu and Nian-Qiu Shi*

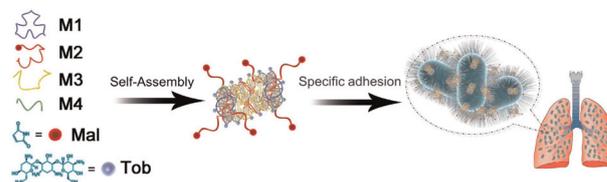


PAPERS

2331

Tobramycin-mediated self-assembly of DNA nanostructures for targeted treatment of *Pseudomonas aeruginosa*-infected lung inflammation

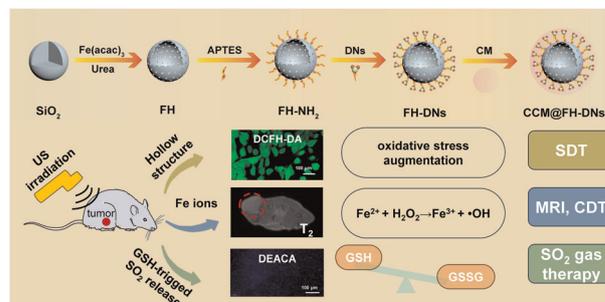
Yuhang Xu, Qian Liu, Bin Wang, Quan Li, Yue Chen, Yao Yang, Zhihao Zhu, Daohui Gong, Chuan Zhang,* Guansong Wang* and Hang Qian*



2341

Glutathione-triggered release of SO₂ gas to augment oxidative stress for enhanced chemodynamic and sonodynamic therapy

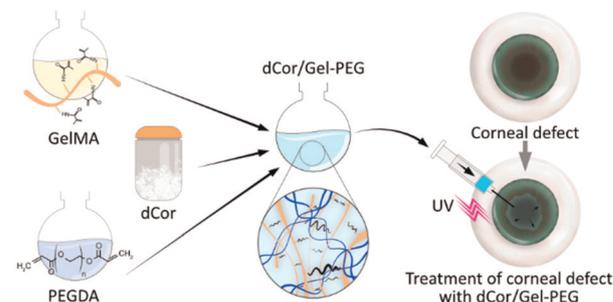
Ya Tian, Pei Li, Likai Wang, Xueli Ye, Zhonghuan Qu, Juan Mou,* Shiping Yang and Huixia Wu*



2356

ECM-based bioadhesive hydrogel for sutureless repair of deep anterior corneal defects

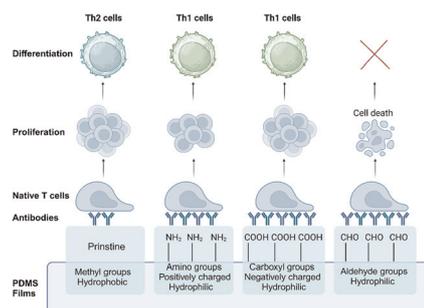
Safieh Borouman, Faraz Sigaroodi, Seyed Mohsen Ahmadi Tafti, Keyvan Khoshmaram, Masoud Soleimani and Mohammad-Mehdi Khani*



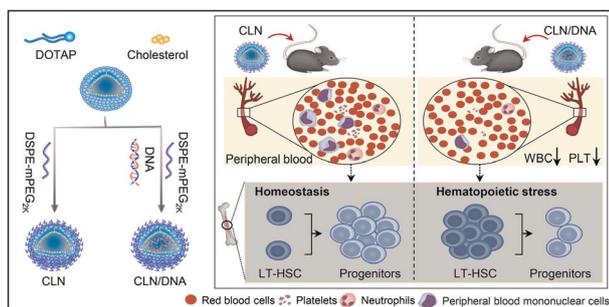
2369

Surface chemical modification of poly(dimethylsiloxane) for stabilizing antibody immobilization and T cell cultures

Qiongjiao Zeng, Bowen Xu, Cheng Qian, Nan Li,* Zhenhong Guo* and Shuqing Wu*



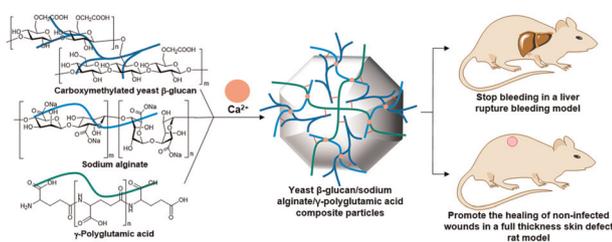
2381



Impacts of cationic lipid–DNA complexes on immune cells and hematopoietic cells *in vivo*

Xiuxiu Cong, Huizhu Tan, Yue Lv, Kuirong Mao, Yanbao Xin, Jialiang Wang, Xiandi Meng, Meng Guan, Haorui Wang, Yong-Guang Yang and Tianmeng Sun*

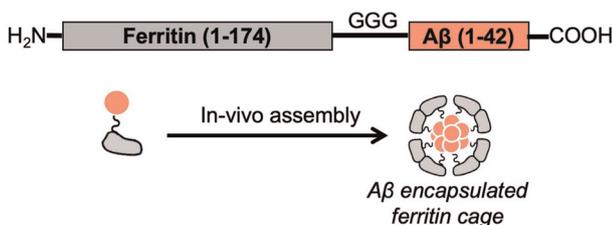
2394



Fabrication of yeast β -glucan/sodium alginate/ γ -polyglutamic acid composite particles for hemostasis and wound healing

Qinglin Zou, Hongdong Duan, Shimin Fang, Wenlong Sheng, Xiaobin Li, Rostyslav Stoika, Nataliya Finiuk, Rostyslav Panchuk, Kechun Liu* and Lizhen Wang*

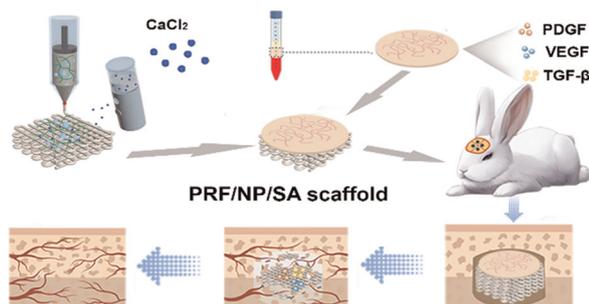
2408



Fusion of amyloid beta with ferritin yields an isolated oligomeric beta-sheet-rich aggregate inside the ferritin cage

Basudev Maity, Shiori Kameyama, Jiaxin Tian, Thuc Toan Pham, Satoshi Abe, Eri Chatani, Kazuyoshi Murata and Takafumi Ueno*

2418



3D printing nacre powder/sodium alginate scaffold loaded with PRF promotes bone tissue repair and regeneration

Bin Liu, Cewen Hu, Xinyue Huang, Kaiqi Qin, Lei Wang, Zhilong Wang, Jiachen Liang, Fuqiang Xie* and Zengjie Fan*

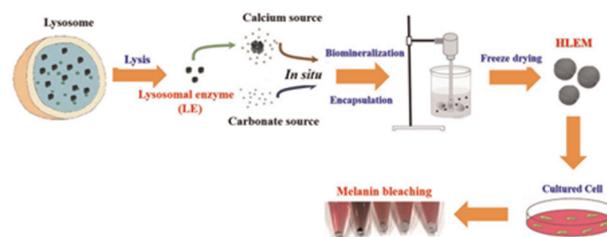


PAPERS

2434

Hybrid protein microspheres and their responsive release behaviors and inhibitory effects on melanin synthesis

Ee Taek Hwang,* Yeahwa Yoon, Ka Ram Kim, Chan Hee Lee, Kyung Chan Jeon, Ji Ho Min, Jae Won Lee and Jangyong Kim



CORRECTIONS

2444

Correction: ECM-based bioadhesive hydrogel for sutureless repair of deep anterior corneal defects

Safieh Boroumand, Faraz Sigaroodi, Seyed Mohsen Ahmadi Tafti, Keyvan Khoshmaram, Masoud Soleimani and Mohammad-Mehdi Khani*

2445

Correction: Hybrid protein microspheres and their responsive release behaviors and inhibitory effects on melanin synthesis

Ee Taek Hwang,* Yeahwa Yoon, Ka Ram Kim, Chan Hee Lee, Kyung Chan Jeon, Ji Ho Min, Jae Won Lee and Jangyong Kim

2446

Correction: Clodronate-nintedanib-loaded exosome–liposome hybridization enhances the liver fibrosis therapy by inhibiting Kupffer cell activity

Keqin Ji, Mingrui Fan, Dong Huang, Lingna Sun, Bingqin Li, Ruoting Xu, Jiajing Zhang, Xuan Shao and Yanzuo Chen*

