

# Biomaterials Science

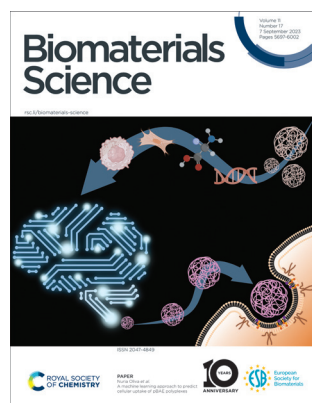
An international high impact journal exploring the underlying science behind the function, interactions and design of biomaterials

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## IN THIS ISSUE

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### Cover

See Nuria Oliva *et al.*, pp. 5797–5808.

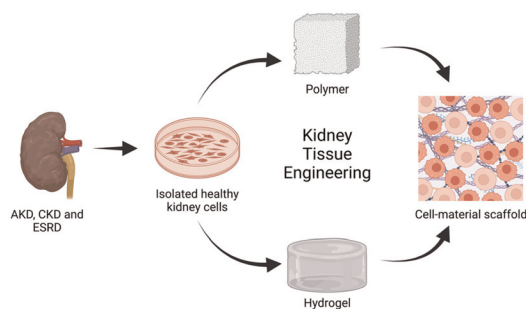
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## REVIEWS

5706

### Renal tissue engineering for regenerative medicine using polymers and hydrogels

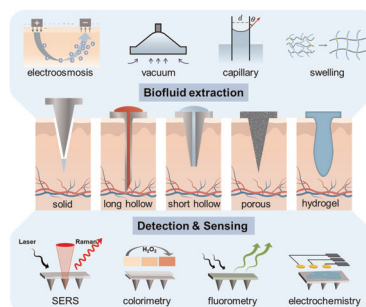
Syed Mohammad Daniel Syed Mohamed, Gavin I. Welsh and Ipsita Roy\*



5727

### Microneedle-based glucose monitoring: a review from sampling methods to wearable biosensors

Yan Wang, You Wu and Yifeng Lei\*



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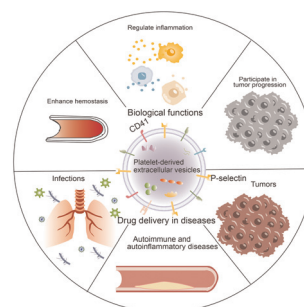


## REVIEWS

5758

## Platelet-derived extracellular vesicles for drug delivery

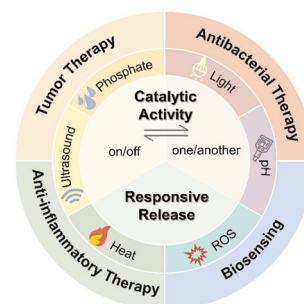
Chenlu Yao and Chao Wang\*



5769

## Stimuli-responsive nanozymes for biomedical applications

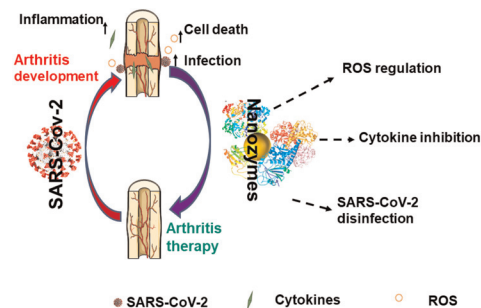
Mengli Zhang and Weijun Tong\*



5781

## Development of nanozymes for promising alleviation of COVID-19-associated arthritis

Dan Li,\* Baofeng Zhao, Pengfei Zhuang and Xifan Mei\*

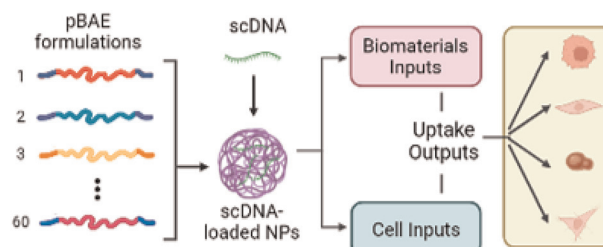


## PAPERS

5797

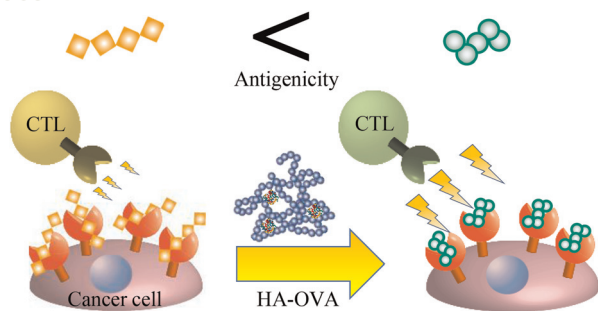
## A machine learning approach to predict cellular uptake of pBAE polyplexes

Aparna Loecher, Michael Bruyns-Haylett, Pedro J. Ballester, Salvador Borros and Nuria Oliva\*



## PAPERS

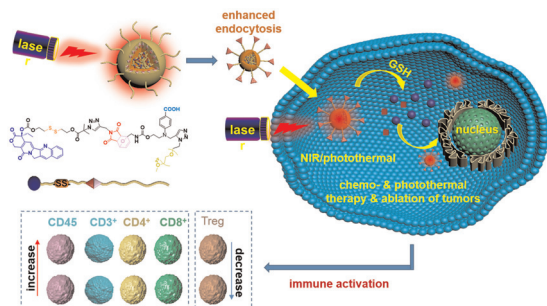
5809



### Modification of the antigenicity of cancer cells by conjugates consisting of hyaluronic acid and foreign antigens

Soichi Ogata, Reika Tsuji, Atsushi Moritaka, Shoya Ito and Shinichi Mochizuki\*

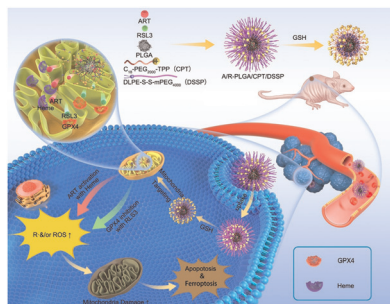
5819



### Synergistic chemo-photo anticancer therapy by using reversible Diels–Alder dynamic covalent bond mediated polyprodrug amphiphiles and immunoactivation investigation

Jinhao Yan, Wenlong Jiang, Guijie Kang, Qingjie Li, Longxiang Tao,\* Xuefu Wang\* and Jun Yin\*

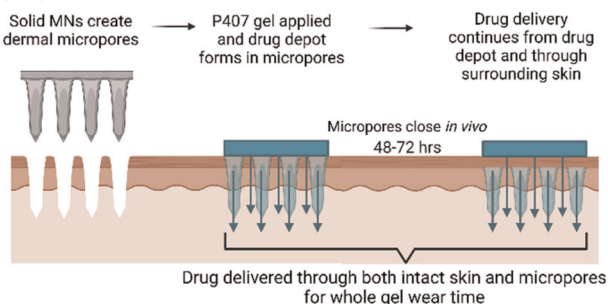
5831



### GPX4 inhibition synergistically boosts mitochondria targeting nanoartemisinin-induced apoptosis/ferroptosis combination cancer therapy

Hui Yu, Jia-Mi Li, Kai Deng, Wei Zhou, Kun-Heng Li, Cai-Xia Wang, Qian Wang, Meng Wu\* and Shi-Wen Huang\*

5846



### Thermosensitive biomaterial gels with chemical permeation enhancers for enhanced microneedle delivery of naltrexone for managing opioid and alcohol dependency

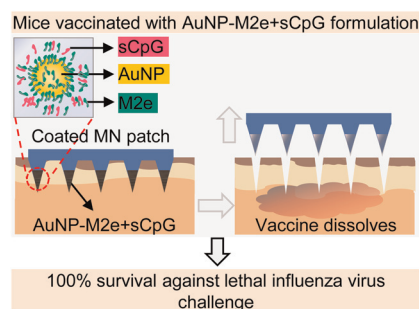
Kevin V. Tobin and Nicole K. Brogden\*



5859

### Delivery of gold nanoparticle-conjugated M2e influenza vaccine in mice using coated microneedles

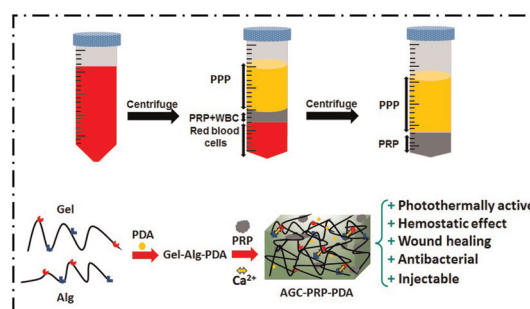
Lazar D. Nesovic, Carsen J. Roach, Gaurav Joshi and Harvinder Singh Gill\*



5872

### Engineering a platelet-rich plasma-based multifunctional injectable hydrogel with photothermal, antibacterial, and antioxidant properties for skin regeneration

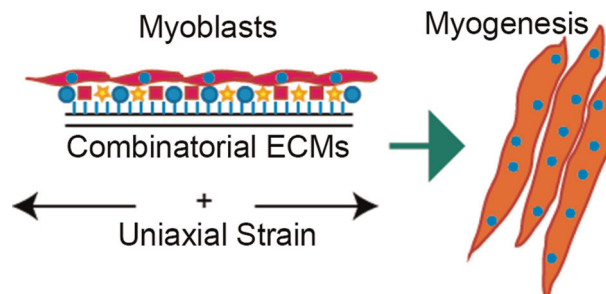
Vajihe Alinezhad, Kimia Esmailzadeh, Hadi Bagheri, Habib Zeighami, Ali Kalantari-Hesari, Rahim Jafari, Pooyan Makvandi, Yi Xu, Hamidreza Mohammadi, Mohammad-Ali Shahbazi and Aziz Maleki\*



5893

### Combinatorial extracellular matrix cues with mechanical strain induce differential effects on myogenesis *in vitro*

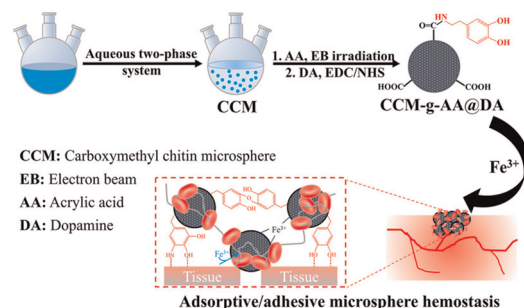
Alex H. P. Chan, Ishita Jain, Beu P. Oropeza, Tony Zhou, Brandon Nelsen, Nicholas A. Geisse and Ngan F. Huang\*



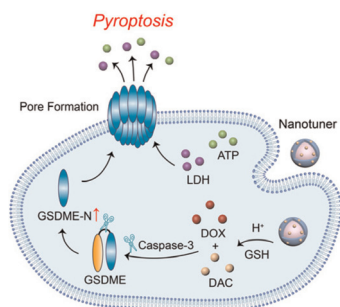
5908

### Electron beam irradiation modified carboxymethyl chitin microsphere-based hemostatic materials with strong blood cell adsorption for hemorrhage control

Fan Leng, Taotao Li, Tongfei Li, Cong Xie\* and Xulin Jiang\*



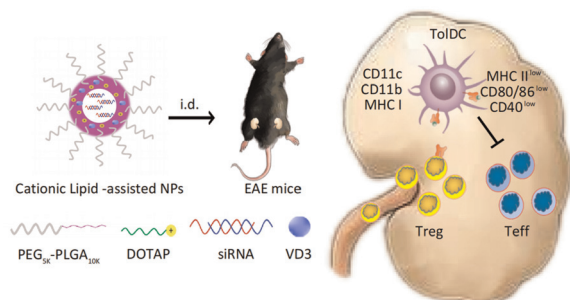
5918



### Metal–organic-framework-based pyroptosis nanotuner with long blood circulation for augmented chemotherapy

Weichu Zhu, Jian Xu, Xianxian Yao, Shuting Mai, Dan Shu and Wuli Yang\*

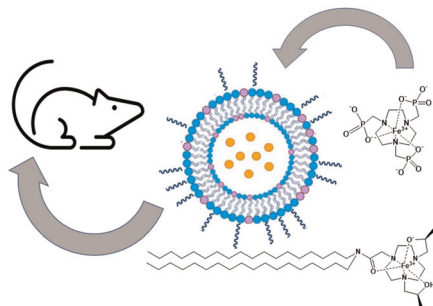
5931



### Co-delivery of vitamin D3 and Lkb1 siRNA by cationic lipid-assisted PEG-PLGA nanoparticles to effectively remodel the immune system *in vivo*

Haochuan Liu, Yuning Zhang, He Li, Xue Gao, Jialiang Wang, Xiuxiu Cong, Yanbao Xin, Qingsan Zhu, Bing Chen,\* Yong-Guang Yang and Tianmeng Sun\*

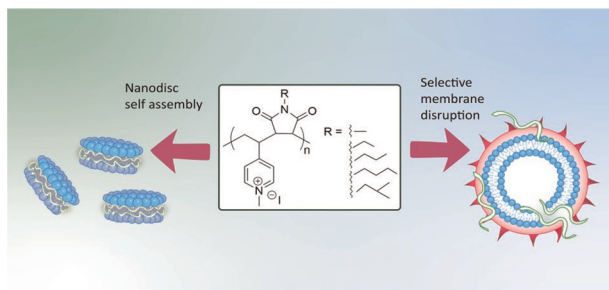
5942



### Liposomal MRI probes containing encapsulated or amphiphilic Fe(III) coordination complexes

Md Saiful I. Chowdhury, Elizabeth A. Kras, Steven G. Turowski, Joseph A. Sperry and Janet R. Morrow\*

5955



### Membrane interaction and selectivity of novel alternating cationic lipid-nanodisc assembling polymers

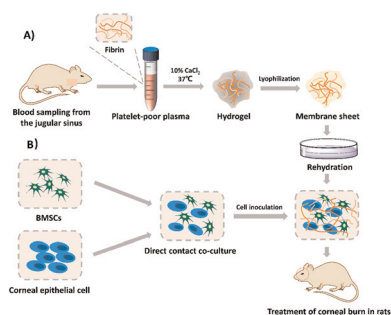
Michelle D. Farrelly, Jiali Zhai, Alice Y. J. Tiong, Leonie van 't Hag, Heidi H. Yu, Jian Li, Lisandra L. Martin\* and San H. Thang\*



5970

### Plasma fibrin membranes loaded with bone marrow mesenchymal stem cells and corneal epithelial cells promote corneal injury healing *via* attenuating inflammation and fibrosis after corneal burns

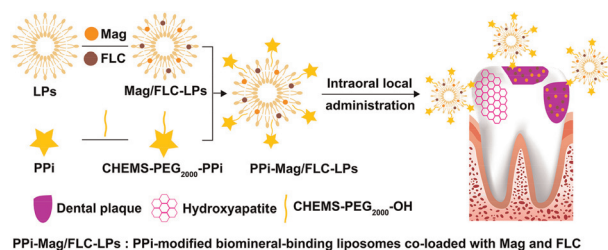
Liqun Song, Xue Yang and Huifei Cui\*



5984

### Biomimetic-binding liposomes with dual antibacterial effects for preventing and treating dental caries

Zhongling Luo, Yan Lin, Xiaoling Zhou, Lingling Yang, Zijun Zhang, Zerong Liu, Meiling Zhou, Jun Jiang, Jianming Wu, Zhongbing Liu,\* Pei Jing\* and Zhirong Zhong\*



PPI-Mag/FLC-LPs : PPI-modified biomimetic-binding liposomes co-loaded with Mag and FLC

