

# Biomaterials Science

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

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### Cover

See Shangbo Zhou,  
Qiang Wang,  
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pp. 5656–5679.

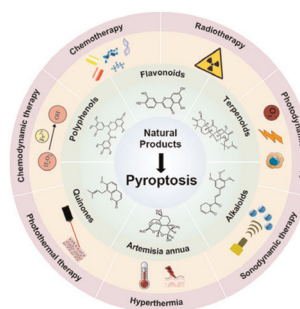
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*Biomater. Sci.*,  
2024, **12**, 5656.

## REVIEWS

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### Pyroptosis induced by natural products and their derivatives for cancer therapy

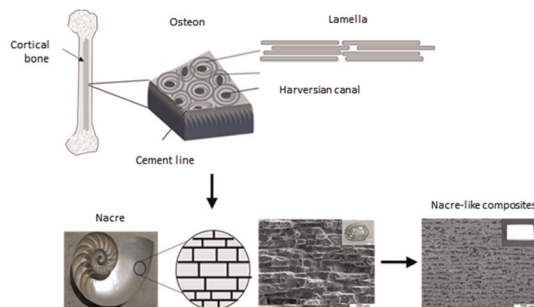
Yingfei Wen, You Li, Bin-bin Li, Peng Liu, Miaojuan Qiu, Zihang Li, Jiaqi Xu, Bo Bi, Shiqiang Zhang, Xinyi Deng, Kaiyuan Liu, Shangbo Zhou,\* Qiang Wang\* and Jing Zhao\*



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### From bone to nacre – development of biomimetic materials for bone implants: a review

Parinaz Tabrizian, Sean Davis and Bo Su\*



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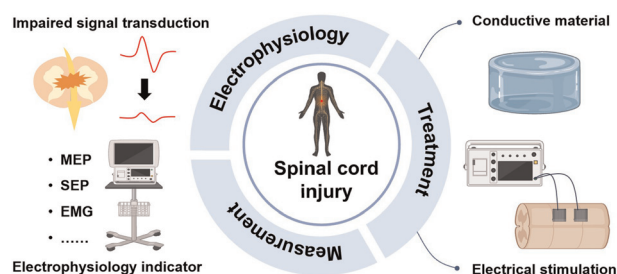
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## REVIEWS

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**Electrical stimulation and conductive materials: electrophysiology-based treatment for spinal cord injury**

Jing Guo, Jian Cao, Jiahe Wu\* and Jianqing Gao\*

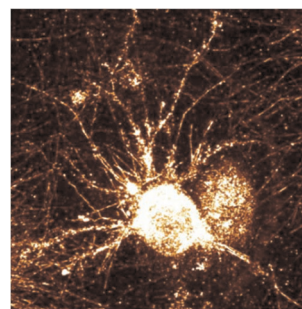


## COMMUNICATION

5722

**Sensitive label free imaging of 3D cell models with minimal toxicity using confocal reflectance**

Michael A. Taylor, Jung Un Ally Choi, Shiva Muthuswamy, Marco A. Enriquez Martinez, Jan Lauko, Amanda W. Kijas\* and Alan E. Rowan\*

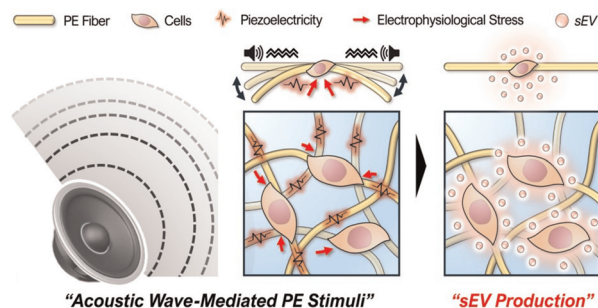


## PAPERS

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**Stimulative piezoelectric nanofibrous scaffolds for enhanced small extracellular vesicle production in 3D cultures**

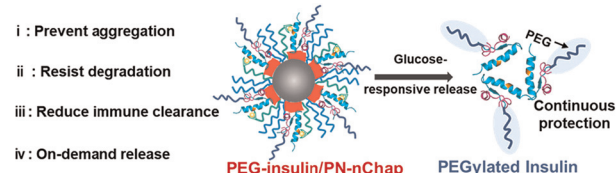
James Johnston, Hyunsu Jeon, Yun Young Choi, Gaeun Kim, Tiger Shi, Courtney Khong, Hsueh-Chia Chang, Nosang Vincent Myung and Yichun Wang\*



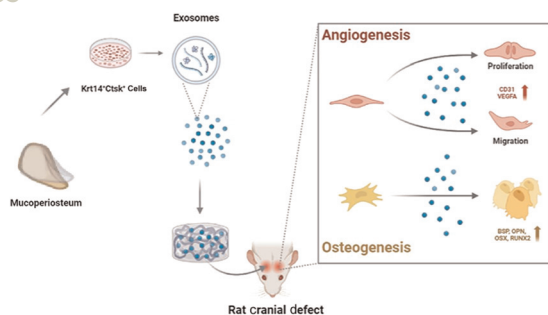
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**Functional nanochaperones for PEGylated insulin delivery in long-term glycemic control**

Xiaohui Wu, Yanli Zhang, Shuoshuo Song, Sainan Liu, Feihe Ma,\* Rujiang Ma\* and Linqi Shi\*



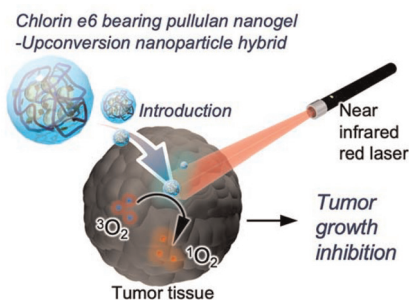
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### Exosomes derived from mucoperiosteum Krt14<sup>+</sup>Ctsk<sup>+</sup> cells promote bone regeneration by coupling enhanced osteogenesis and angiogenesis

Rong Zhou, Rui Huang, Yue Xu, Dandan Zhang, Li Gu, Yun Su, Xirui Chen, Wodong Shi, Jing Sun, Ping Gu,\* Ni Ni\* and Xiaoping Bi\*

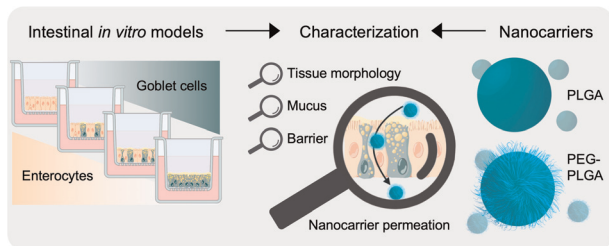
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### Photodynamic therapy using hybrid nanoparticles comprising of upconversion nanoparticles and chlorin e6-bearing pullulan

Riku Kawasaki,\* Takuro Eto, Nanami Kono, Reo Ohdake, Keita Yamana, Hidetoshi Hirano, Shogo Kawamura, Naoki Tarutani, Kiyofumi Katagiri and Atsushi Ikeda\*

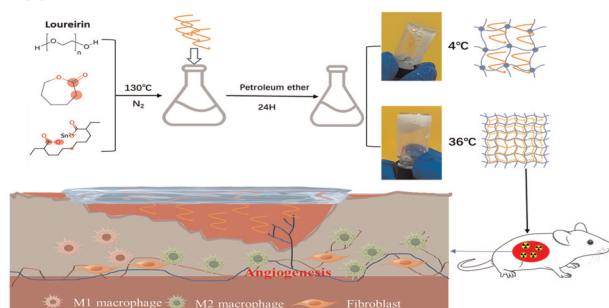
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### Predicting nanocarrier permeation across the human intestine *in vitro*: model matters

Nathalie Jung,\* Jonas Schreiner, Florentin Baur, Sarah Vogel-Kindgen and Maïke Windbergs\*

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### Loureirin hydrogel promotes healing of radionuclide-contaminated wounds by regulating angiogenesis and immune cells

Zhuojun Wu, Longjiang Xu, Xiaoting Xu, Jun Hou, Wenlin Li, Guibin Luo, Yufan Xu, Qiu Chen\* and Fengmei Cui\*

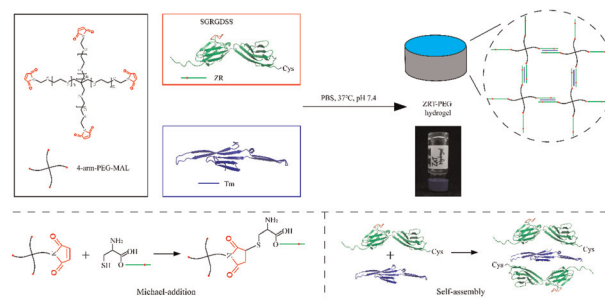


## PAPERS

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### Development of ZmT-PEG hydrogels through Michael addition reaction and protein self-assembly for 3D cell culture

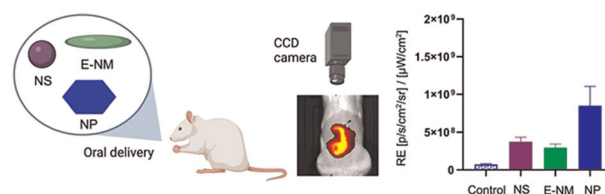
Yunhui Fu, Yiwen Zhou, Yiyang Chen, Zhedan Zhang, Chen Zhang, Changping Deng, Xikui Tong, Wenyun Zheng,\* Meiyang Wang\* and Xingyuan Ma\*



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### Hyaluronan nanoplatelets exhibit extended residence time compared to spherical and ellipsoidal nanomaterials with equivalent surface potentials and volumes after oral delivery in rats

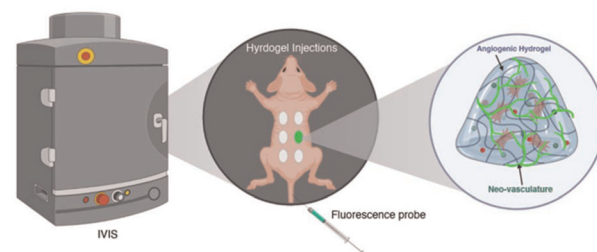
Hicheme Hadji, Catherine Cailleau, Benoit Chassaing, Mickaël Bourge, Gilles Ponchel and Kawthar Bouchemal\*



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### Rapid method to screen biomaterial angiogenesis *in vivo* using fluorescence imaging in mice

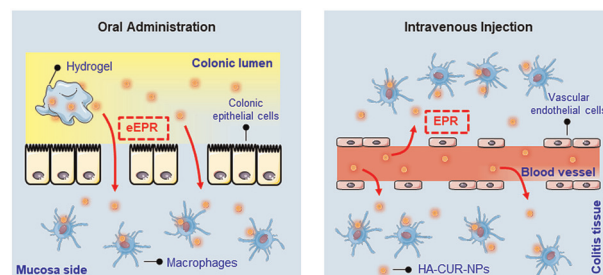
Boram Kim, Joseph W. R. Swain, Martha J. Fowler, Claire Y. Yang, Dilrasobonu Vohidona, Jeffrey D. Hartgerink and Omid Veisheh\*



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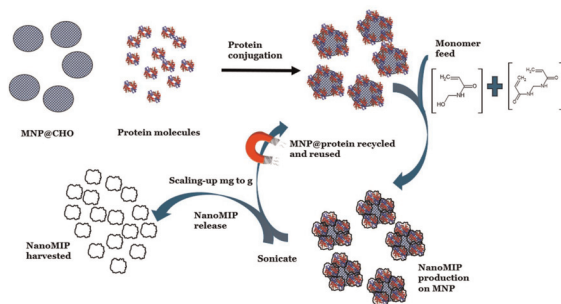
### Hyaluronic acid-functionalized nanoparticles for ulcerative colitis-targeted therapy: a comparative study of oral administration and intravenous injection

Jinhua Liu,\* Chunhua Yang, Didier Merlin and Bo Xiao



## PAPERS

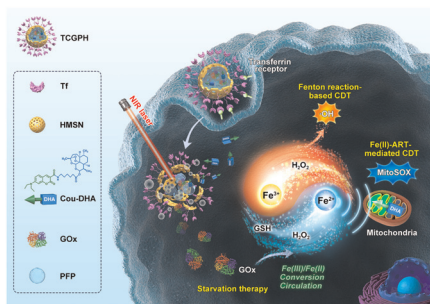
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### Magnetic nanoparticle-facilitated rapid mass production of high affinity polymeric materials (nanoMIPs) for protein recognition and biosensing

Subrayal M. Reddy,\* Andrei N. Stephen, Mark A. Holden, William J. Stockburn and Sarah R. Dennison

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### Enhanced Fe(II)-artemisinin-mediated chemodynamic therapy with efficient Fe(III)/Fe(II) conversion circulation for cancer treatment

Xiao Xu, Yun Wang, Dan Yan, Chunling Ren, Yuqian Cai, Shanting Liao, Lingyi Kong\* and Chao Han\*

## CORRECTION

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### Correction: A novel nano delivery system targeting different stages of osteoclasts

Bosong Zhang, Juzhi Zhao, Hongji Yan, Yufang Zhao, Hui Tian, Cao Wang, Ruiqi Wang, Jiaming Jin, Yue Chen, Chaofan Yang, Chunfeng Li, Yanwen Jiao, Kaipeng Zheng, Fuxing Zhu and Weiming Tian\*

## RETRACTIONS

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### Retraction: PEG-poly(amino acid)s/EpCAM aptamer multifunctional nanoparticles arrest the growth and metastasis of colorectal cancer

Yingru Zhang, Chunpu Li, Ru Jia, Ruixuan Gao, Yiyang Zhao, Qing Ji, Jianfeng Cai,\* Qi Li\* and Yan Wang\*



## RETRACTIONS

5872

**Retraction: Development of EGFR-targeted evodiamine nanoparticles for the treatment of colorectal cancer**

Chunpu Li, Gang Cai, Daqian Song, Ruixuan Gao, Peng Teng, LiHong Zhou, Qing Ji, Hua Sui, Jianfeng Cai,\* Qi Li\* and Yan Wang\*

