

# Biomaterials Science

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

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### Cover

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Qiang Wang,  
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pp. 5656–5679.

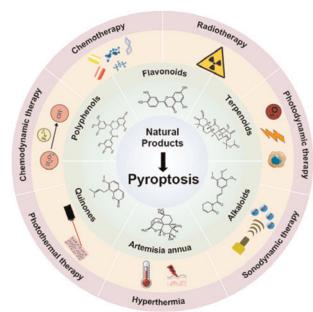
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*Biomater. Sci.*,  
2024, **12**, 5656.

## REVIEWS

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

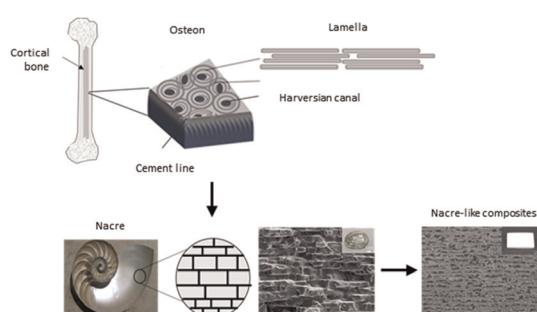
Yingfei Wen, You Li, Bin-bin Li, Peng Liu, Miaojuan Qiu, Zihang Li, Jiaqi Xu, Bo Bi, Shiqiang Zhang, Xinyi Deng, Kaiyuan Liu, Shangbo Zhou,\* Qiang Wang\* and Jing Zhao\*



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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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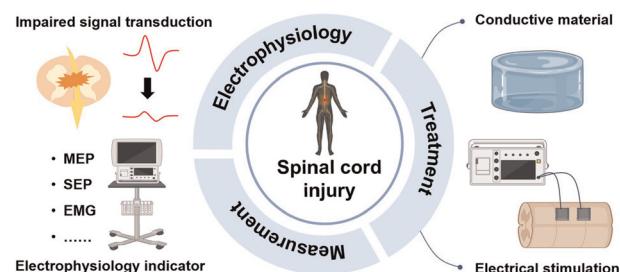
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## REVIEWS

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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\*

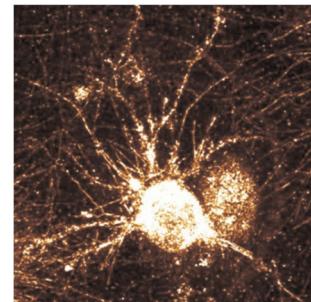


## COMMUNICATION

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**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\*

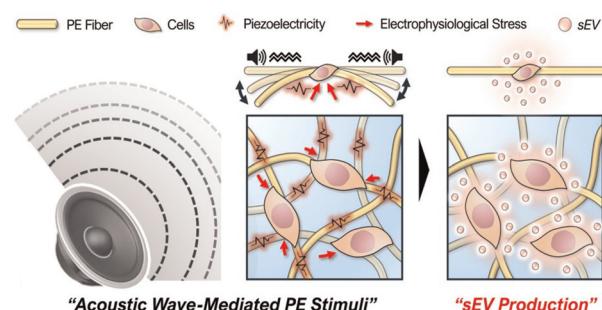


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**Stimulative piezoelectric nanofibrous scaffolds for enhanced small extracellular vesicle production in 3D cultures**

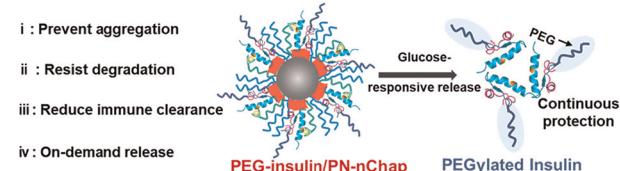
James Johnston, Hyunsu Jeon, Yun Young Choi, Gaeun Kim, Tiger Shi, Courtney Khong, Hsueh-Chia Chang, Nosang Vincent Myung and Yichun Wang\*



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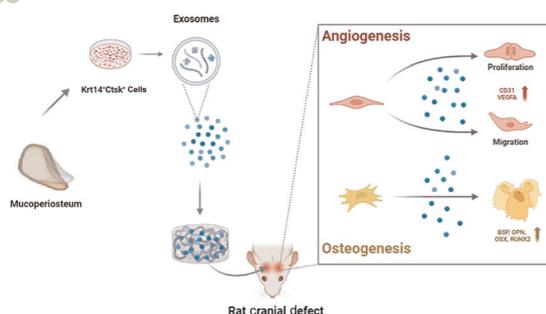
**Functional nanochaperones for PEGylated insulin delivery in long-term glycemic control**

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



## PAPERS

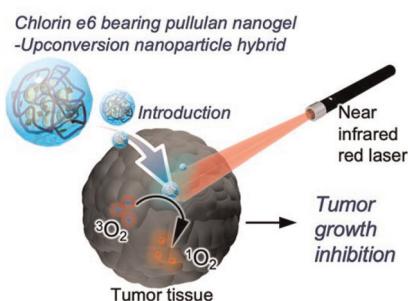
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**Exosomes derived from mucoperiosteum Krt14<sup>+</sup>Ctsk<sup>+</sup> cells promote bone regeneration by coupling enhanced osteogenesis and angiogenesis**

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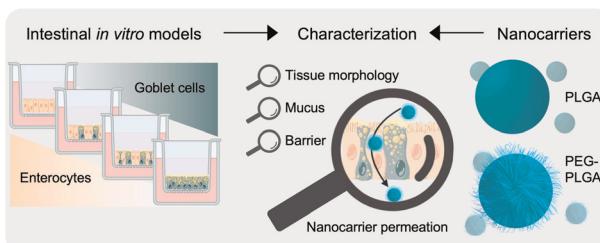
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**Photodynamic therapy using hybrid nanoparticles comprising of upconversion nanoparticles and chlorin e6-bearing pullulan**

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

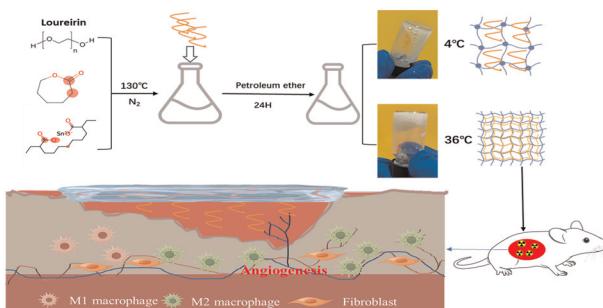
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**Predicting nanocarrier permeation across the human intestine *in vitro*: model matters**

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

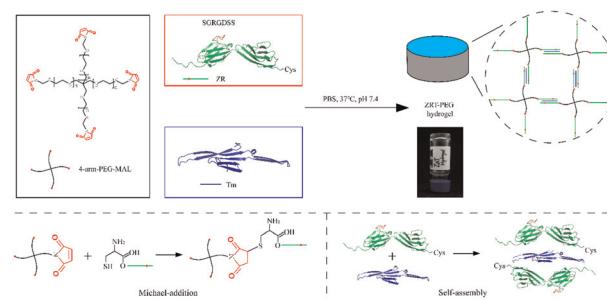


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## Development of ZmT-PEG hydrogels through Michael addition reaction and protein self-assembly for 3D cell culture

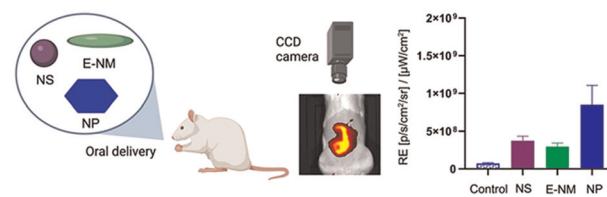
Yunhui Fu, Yiwen Zhou, Yiyi Chen, Zhedan Zhang, Chen Zhang, Changping Deng, Xikui Tong, Wenyun Zheng,\* Meiyuan Wang\* and Xingyuan Ma\*



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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

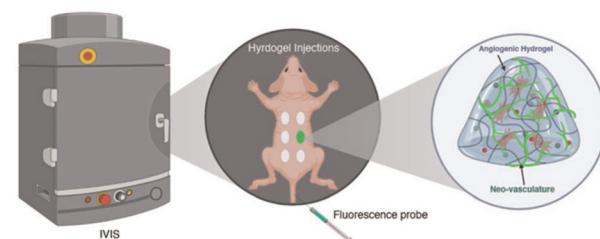
Hicheme Hadji, Catherine Cailleau, Benoit Chassaing, Mickaël Bourge, Gilles Ponchel and Kawthar Bouchemal\*



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

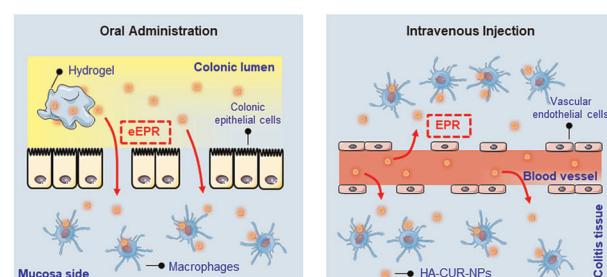
Boram Kim, Joseph W. R. Swain, Martha J. Fowler, Claire Y. Yang, Dilrasobonu Vohidona, Jeffrey D. Hartgerink and Omid Veiseh\*



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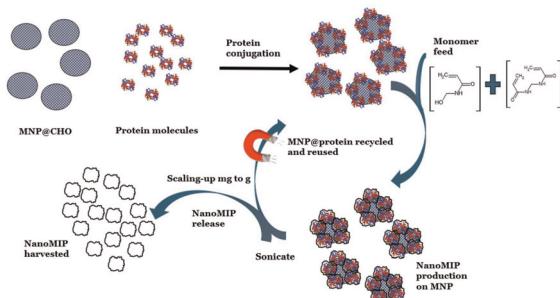
## Hyaluronic acid-functionalized nanoparticles for ulcerative colitis-targeted therapy: a comparative study of oral administration and intravenous injection

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



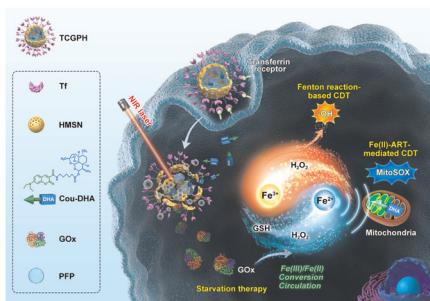
## PAPERS

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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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**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

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**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\*

