

Biomaterials Science

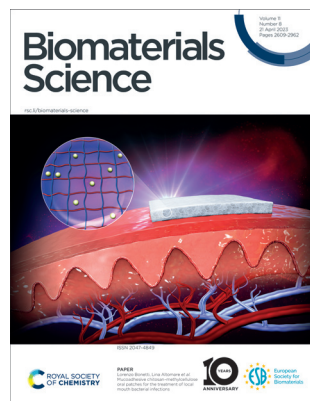
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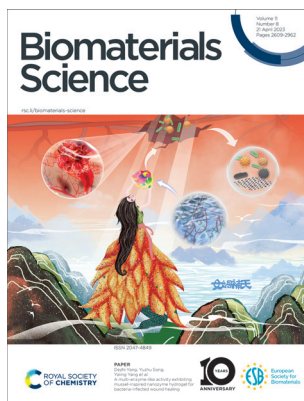


Cover

See Lorenzo Bonetti, Lina Altomare *et al.*, pp. 2699–2710.

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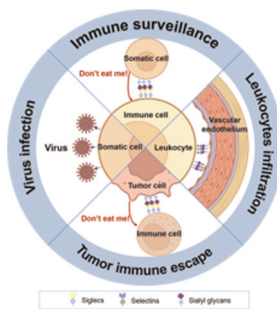
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REVIEWS

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Multivalent sialic acid materials for biomedical applications

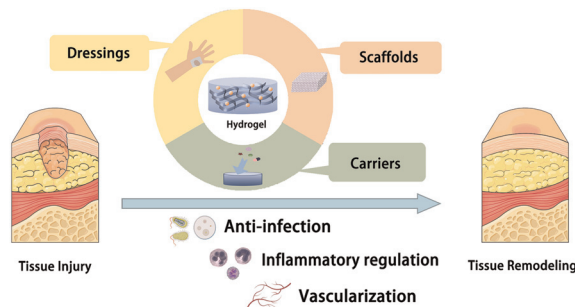
Yusong Cao, Wantong Song* and Xuesi Chen*



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The diversified hydrogels for biomedical applications and their imperative roles in tissue regeneration

Xinhui Wang, Yuan Ma, Feng Lu* and Qiang Chang*



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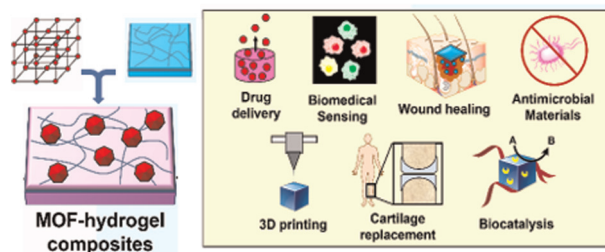


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Biomedically-relevant metal organic framework-hydrogel composites

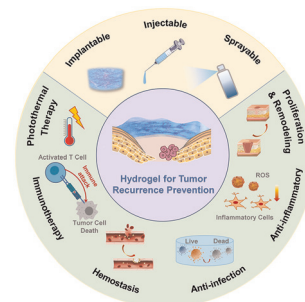
Jason Y. C. Lim,* Leonard Goh, Ken-ichi Otake, Shermin S. Goh, Xian Jun Loh and Susumu Kitagawa*



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Recent advances in hydrogels for preventing tumor recurrence

Qiuhui Qian,* Jie Song, Chen Chen, Qian Pu, Xingcheng Liu and Huili Wang*

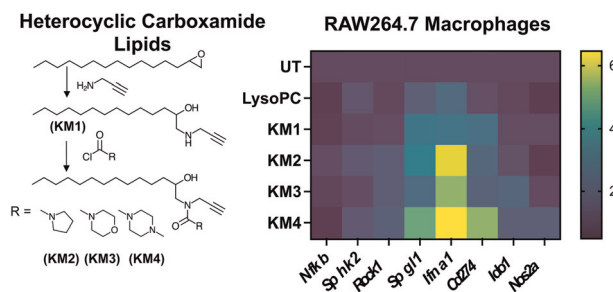


COMMUNICATION

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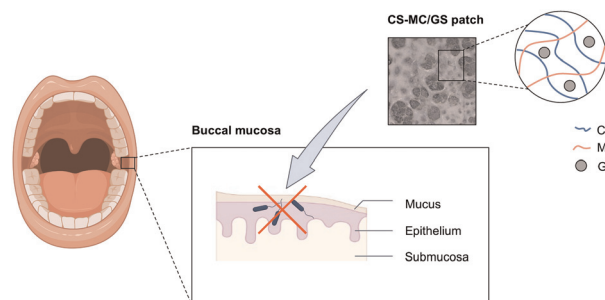


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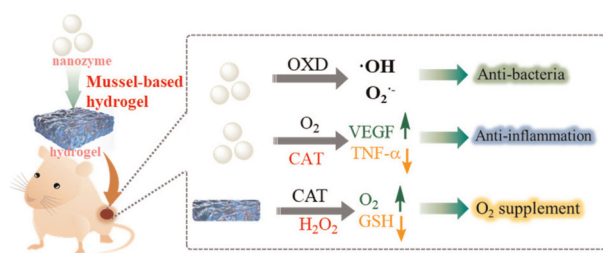
Mucoadhesive chitosan–methylcellulose oral patches for the treatment of local mouth bacterial infections

Lorenzo Bonetti,* Alice Caprioglio, Nina Bono, Gabriele Candiani and Lina Altomare*



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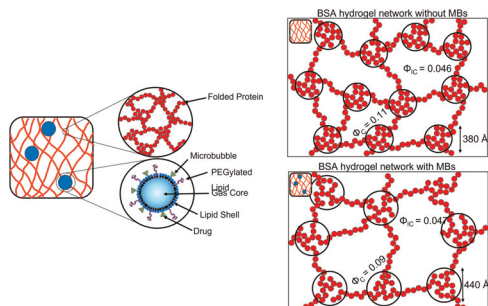
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A multi-enzyme-like activity exhibiting mussel-inspired nanozyme hydrogel for bacteria-infected wound healing

Junrun Zhu, Qinqin Han, Qiulan Li, Fang Wang, Miaodan Dong, Nuoya Liu, Xiao Li, Dan Chen, Dezhi Yang,* Yuzhu Song* and Yaling Yang*

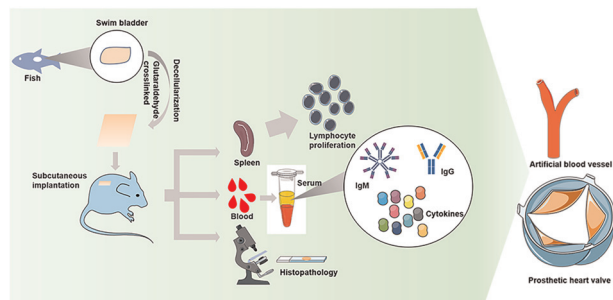
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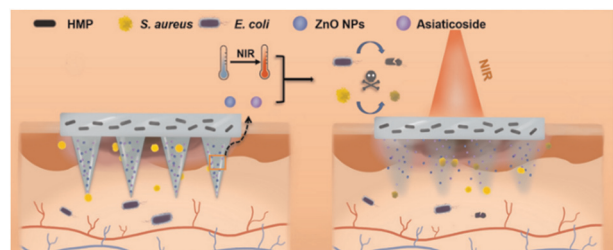
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Yuanyuan Kong, Jing Liu, Honghui Jiang, Lili Song, Deling Kong and Zhihong Wang*

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Multifunctional zwitterionic microneedle dressings for accelerated healing of chronic infected wounds in diabetic rat models

Yuqing Cai, Xiaodong Xu, Minmin Wu, Jiaqi Liu, Jie Feng* and Jing Zhang*

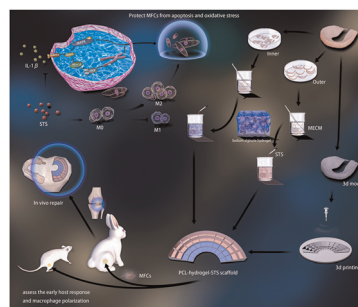


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STS loaded PCL-MECM based hydrogel hybrid scaffolds promote meniscal regeneration via modulating macrophage phenotype polarization

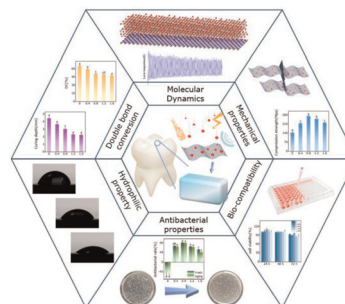
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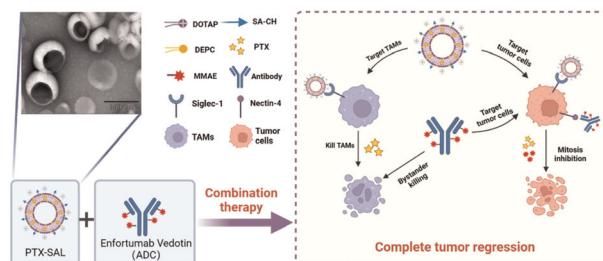
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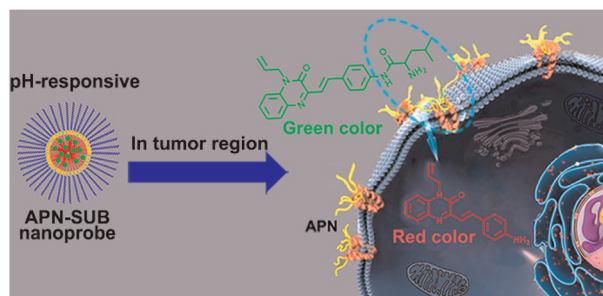
Wenliang Sun, Yantong Li, Dezhi Sui, Zhaowei Qi, Xinran Zhao, Wei Zhou, Huiguo Hu, Xinrong Liu, Yanzhi Song* and Yihui Deng*



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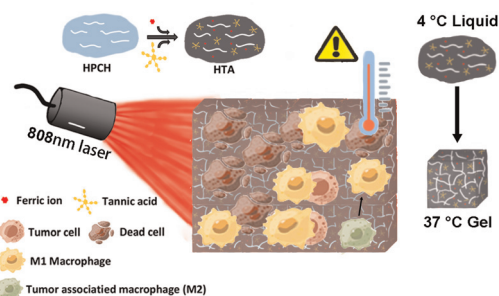
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Jiapei Yang, Chengshuo Shen, Ting Zhu, Qiuhui Qian, Xuebo Diao, Wei Huang, Wumaier Yasen,* Yue Su,* Xinyuan Zhu and Leilei Shi*



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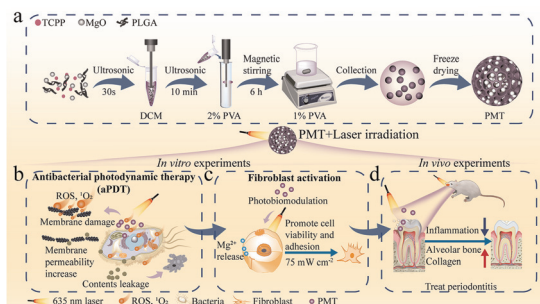
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Biodegradable photothermal thermosensitive hydrogels treat osteosarcoma by reprogramming macrophages

Guowen Luo, Ziyang Xu, Hua Zhong, Hongwei Shao, Hongyi Liao, Nan Liu, Xulin Jiang,* Yu Zhang* and Xiongfa Ji*

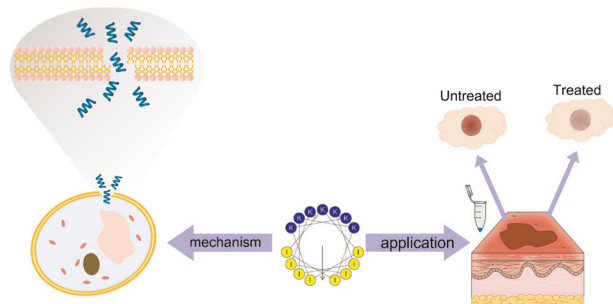
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TCPP/MgO-loaded PLGA microspheres combining photodynamic antibacterial therapy with PBM-assisted fibroblast activation to treat periodontitis

Wanmeng Wang, Yunjia Song, Yuan Tian, Bo Chen, Yunkai Liang, Yu Liang, Changyi Li* and Ying Li*

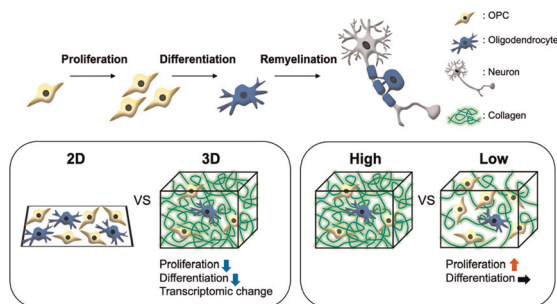
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Antifungal activity of designed α -helical antimicrobial peptides

Ruicheng Xu, Jing Tang, Roja Hadianamrei, Suyu Liu, Songwei Lv, Rongrong You, Fang Pan, Peng Zhang, Nan Wang, Zhiqiang Cai and Xiubo Zhao*

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Phenotypic and transcriptional characterization of oligodendrocyte precursor cells in a 3D culture

Shizuka Nakano, Akiko Uyeda, Yukiko T. Matsunaga* and Rieko Muramatsu*

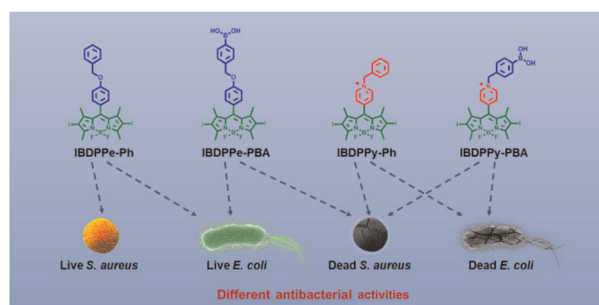


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Structural optimization of BODIPY photosensitizers for enhanced photodynamic antibacterial activities

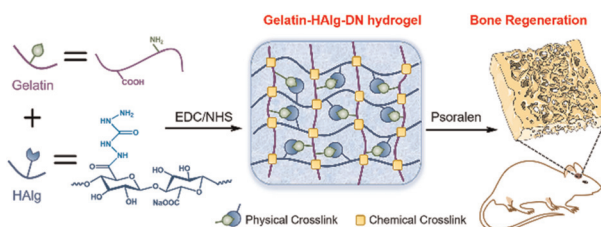
Hui Wen, Qihang Wu, Liqian Liu, Yite Li, Tingting Sun* and Zhigang Xie*



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Extracellular matrix (ECM)-inspired high-strength gelatin-alginate based hydrogels for bone repair

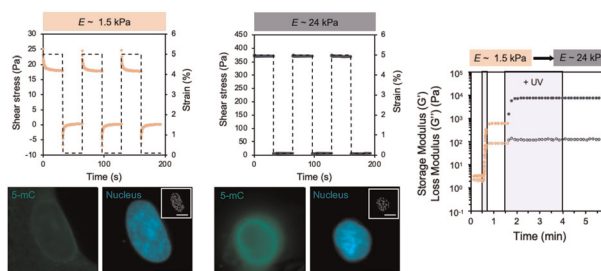
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Hydrogel mechanics regulate fibroblast DNA methylation and chromatin condensation

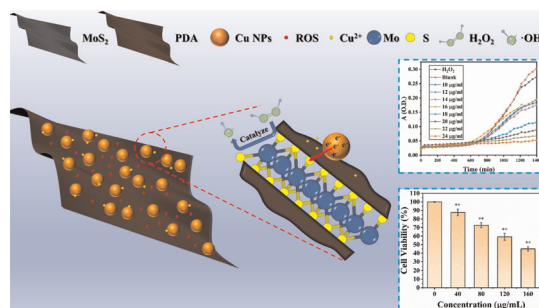
Jenna L. Sumey, Peyton C. Johnston, Abigail M. Harrell and Steven R. Caliari*



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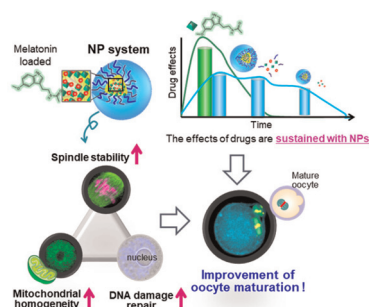
MoS₂/PDA@Cu composite as a peroxidase-mimicking enzyme with high-effect antibacterial and anticancer activity

Junli Liu,* Jiahao Shen, Yile Wang, Chenfeng Dong, Jin Liu, Yunxiao Yi, Hui Liu, Yan Bao, AiPing Hui and Aiqin Wang



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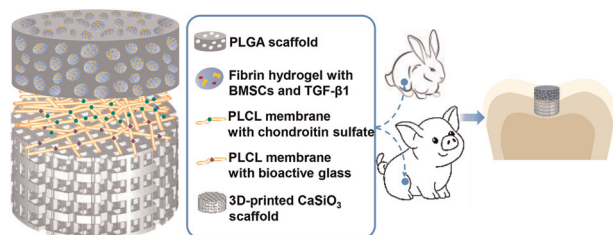
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Melatonin loaded PLGA nanoparticles effectively ameliorate the *in vitro* maturation of deteriorated oocytes and the cryoprotective abilities during vitrification process

Sujin Lee, Hye Jin Kim, Hui Bang Cho, Hye-Ryoung Kim, Sujeong Lee, Ji-In Park and Keun-Hong Park*

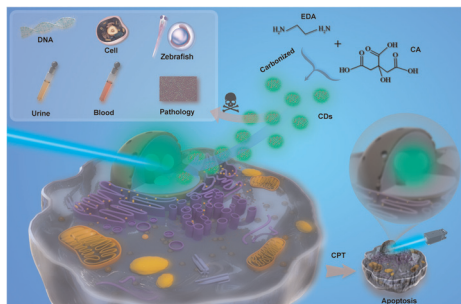
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A triphasic biomimetic BMSC-loaded scaffold for osteochondral integrated regeneration in rabbits and pigs

Zhaoyi Wang, Wangbei Cao, Fanghui Wu, Xiurong Ke, Xinyu Wu, Tong Zhou, Jun Yang, Guojing Yang, Cheng Zhong, Zhongru Gou* and Changyou Gao*

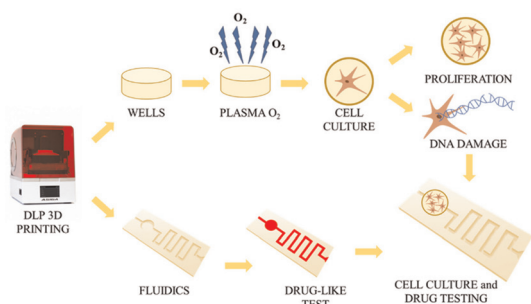
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Superior biocompatible carbon dots for dynamic fluorescence imaging of nucleoli in living cells

Liyun Lin, Zhouzhou Bao, Pengfei Jiang, Zhourui Xu, Bo Shi, Gaixia Xu,* Dan Wang,* Xunbin Wei* and Bobo Gu*

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3D printable acrylate polydimethylsiloxane resins for cell culture and drug testing

Simona Villata, Marta Canta, Désirée Baruffaldi, Alice Pavan, Annalisa Chiappone, Candido Fabrizio Pirri, Francesca Frascella* and Ignazio Roppolo



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Xianfang Jiang, Xianyuan Huang, Tongmeng Jiang, Li Zheng,* Jinmin Zhao and Xingdong Zhang

