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Materials for biology and medicine

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EDITORIAL

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Introduction to microneedles

Ryan Donnelly, Ester Caffarel-Salvador, Harvinder Gill and Hyungil Jung

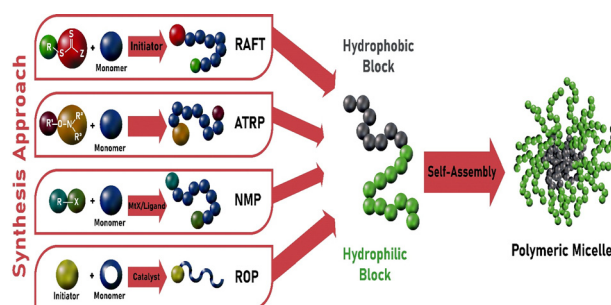


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Ali Aliabadi, Maliheh Hasannia, Masoume Vakili-Azghandi, Fatemeh Araste, Khalil Abnous, Seyed Mohammad Taghdisi, Mohammad Ramezani* and Mona Alibolandi*



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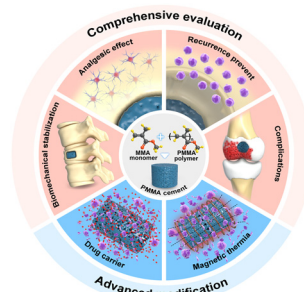


REVIEWS

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Comprehensive evaluation and advanced modification of polymethylmethacrylate cement in bone tumor treatment

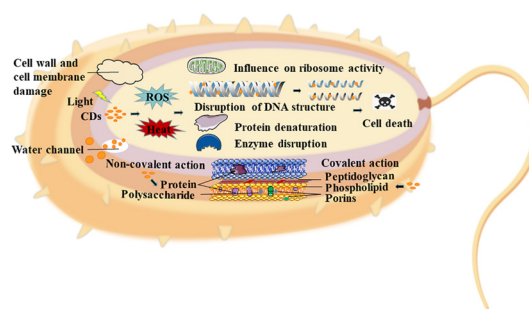
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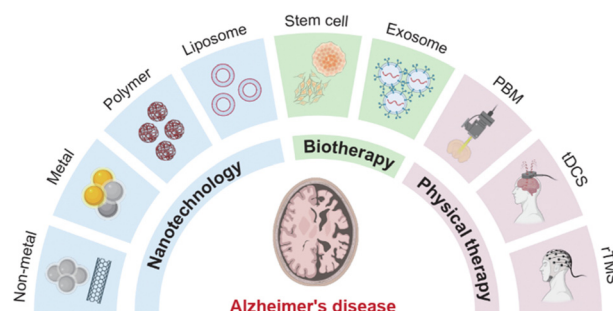
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Current emerging novel therapies for Alzheimer's disease and the future prospects of magneto-mechanical force therapy

Yajing Shen, Meng Wang, Shutang Li and Jinfei Yang*

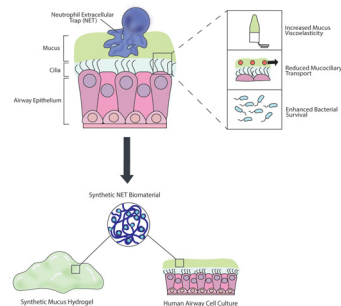


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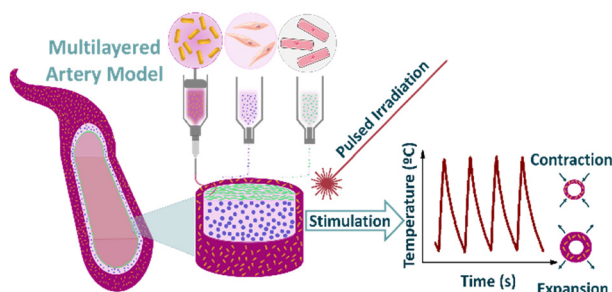
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Engineering *in vitro* models of cystic fibrosis lung disease using neutrophil extracellular trap inspired biomaterials

Allison Boboltz, Sydney Yang and Gregg A. Duncan*



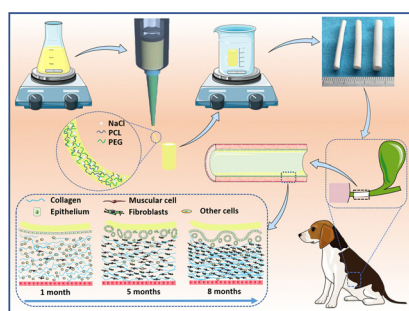
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Remodeling arteries: studying the mechanical properties of 3D-bioprinted hybrid photoresponsive materials

Uxue Aizarna-Lopetegui, Clara García-Astrain, Carlos Renero-Lecuna, Patricia González-Callejo, Irune Villaluenga, Miguel A. del Pozo, Miguel Sánchez-Álvarez, Malou Henriksen-Lacey* and Dorleta Jimenez de Aberasturi*

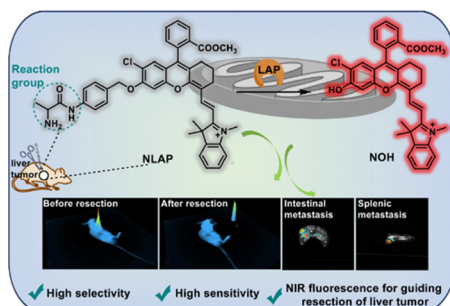
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Fabrication of 3D printed PCL/PEG artificial bile ducts as supportive scaffolds to promote regeneration of extrahepatic bile ducts in a canine biliary defect model

Yu-Long Cai, Fang Nan, Guo-Tao Tang, Yuan Ma, Yi Ren, Xian-Ze Xiong, Rong-Xing Zhou, Fu-Yu Li, Nan-Sheng Cheng and Xia Jiang*

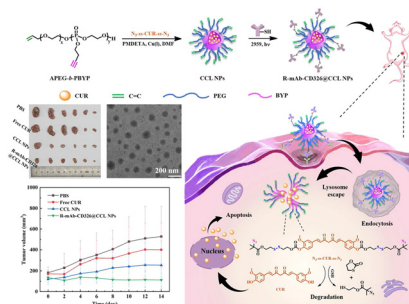
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Engineering a near-infrared LAP fluorescent probe with high sensitivity and selectivity for surgical resection of liver cancer

Renfeng Jiang, Jiayu Zeng, Qian Liu, Songjiao Li,* Longwei He* and Dan Cheng*

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A CD326 monoclonal antibody modified core cross-linked curcumin-polyphosphoester prodrug for targeted delivery and cancer treatment

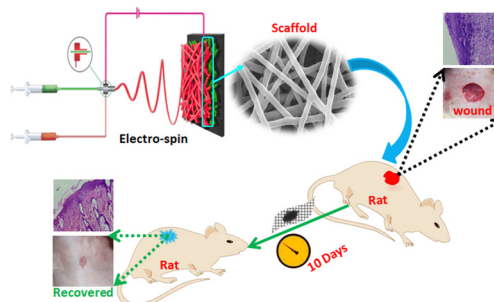
Haijiao Li, Mingzu Zhang, Jinlin He, Jian Liu, Xingwei Sun* and Peihong Ni*



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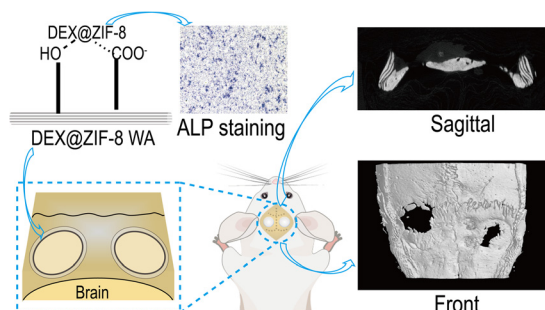
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Green synthesis of metal–organic framework loaded dexamethasone on wood aerogels for enhanced cranial bone regeneration

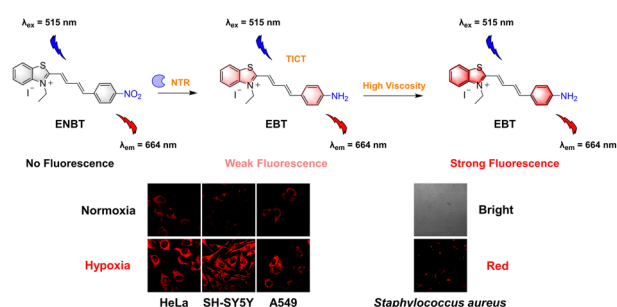
Zheng-Yang Chen, Rui-Deng Wang, Shi-Long Su, You-Liang Hao* and Fang Zhou*



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A fluorescent probe for imaging nitroreductase with signal amplification in high-viscosity environments

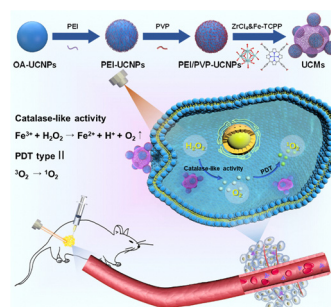
Yunfan Liu, Jiaying Li, Hongjin Huang and Yang Shu*



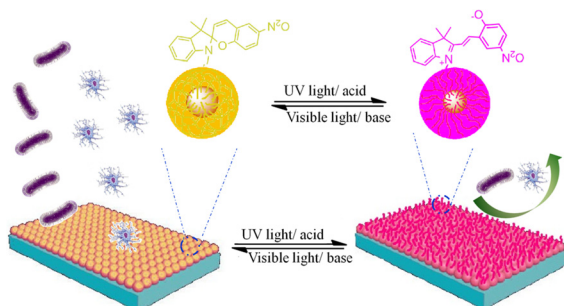
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Dual ligand-assisted assembly of metal–organic frameworks on upconversion nanoparticles for NIR photodynamic therapy against hypoxic tumors

Xinyue Zhang, Jiasen Cui, Jinhui Liu, Xi Chen, Mingli Chen* and Jianhua Wang*



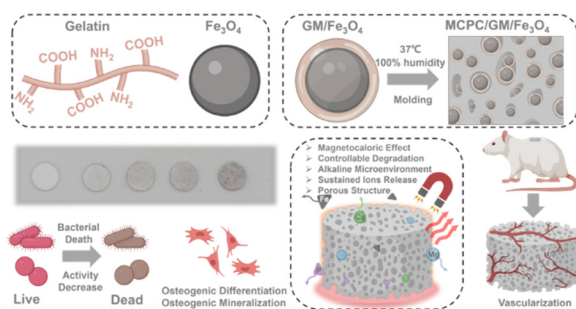
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A spiropyran-decorated nanocoating for dynamically regulating bacteria/cell adhesion and detachment

Jie Li, Zhuang Ma, Anran Li, Siyuan Huang, Yufei Zhang, Yun Xue, Xianhui Song, Ye Zhang, Shihao Hong, Mo Wang,* Zhongming Wu* and Xinge Zhang*

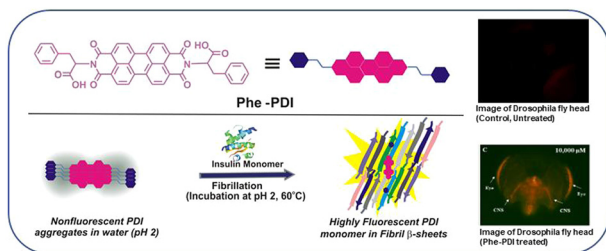
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Multifunctional magnetocaloric bone cement with a time-varying alkaline microenvironment for sequential bacterial inhibition, angiogenesis and osteogenesis

Xiaokang Yao, Yanan Zhao, Wen Hou, Kai Huang, Manqi Yan, Rong Tu, Takashi Goto and Honglian Dai*

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Spectroscopic features of a perylene-3,9,10-tricarboxylic diimide probe for sensing amyloid fibrils: *in vivo* imaging of A β -aggregates in a *Drosophila* model organism

Nilotpal Barooah, Puja Karmakar, M. K. Sharanya, Monalisa Mishra,* Achikanath C. Bhasikuttan* and Jyotirmayee Mohanty*

