

# Journal of Materials Chemistry B

Materials for biology and medicine

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### Cover

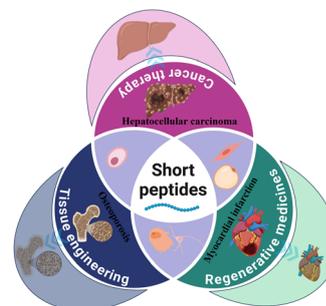
See B. Feringa and M.J. Vicent Labs *et al.*, pp. 2658–2665. Image reproduced by permission of Ainoa Guinart Planellas from *J. Mater. Chem. B*, 2025, **13**, 2658.

## REVIEWS

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### Programmable short peptides for modulating stem cell fate in tissue engineering and regenerative medicine

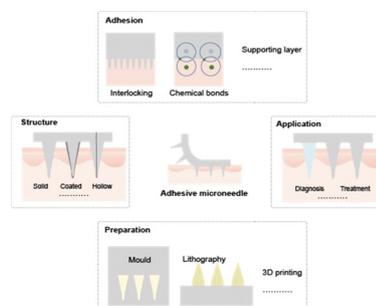
Rohan Vishwanath, Abhijit Biswas, Unnati Modi, Sharad Gupta, Dhiraj Bhatia\* and Raghu Solanki\*



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### Advances in adhesion of microneedles for bioengineering

Zhen Gu,\* Kaiyu Song, Heng An, Dadi Sun, Yinglei Ma, Hanyu Wang, Yanxia Chen, Qi Gu\* and Yongqiang Wen\*



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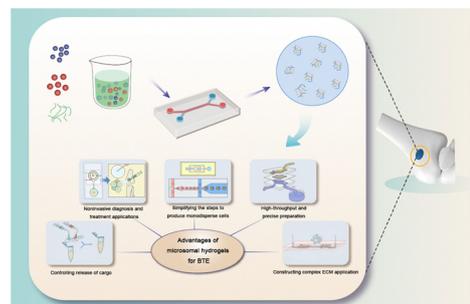


## REVIEWS

2611

## Versatile hydrogels prepared by microfluidics technology for bone tissue engineering applications

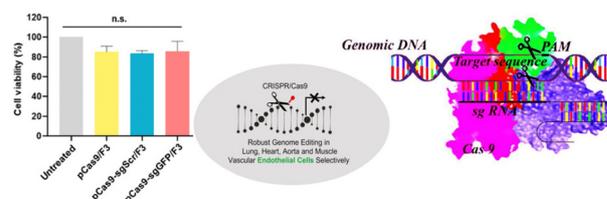
Luyue Zhang, Liqian Su, Lina Wu, Weikai Zhou, Jing Xie, Yi Fan, Xuedong Zhou, Changchun Zhou, Yujia Cui\* and Jianxun Sun\*



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## Mechanistic understanding of pH as a driving force in cancer therapeutics

Vivek Pandey\* and Tejasvi Pandey

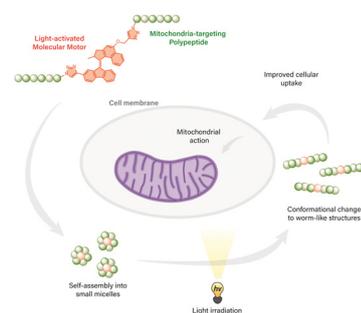


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## A light-driven molecular motor-polypeptide conjugate supports controlled cell uptake

Camilla Pegoraro, Ainoa Guinart, Esther Masía Sanchis, Daniel Doellerer, Marc C. A. Stuart, Inmaculada Conejos-Sánchez,\* Ben L. Feringa\* and María J. Vicent\*

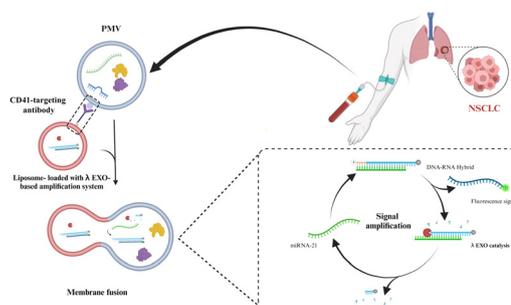


## PAPERS

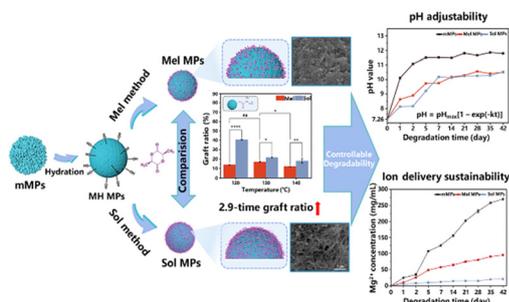
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## Liposome-encapsulated lambda exonuclease-based amplification system for enhanced detection of miRNA in platelet-derived microvesicles of non-small cell lung cancer

Mohamed Aimene Benariba, Kanza Hannachi, Sanxia Wang, Yuting Zhang, Xiaoli Wang, Li Wang\* and Nandi Zhou\*



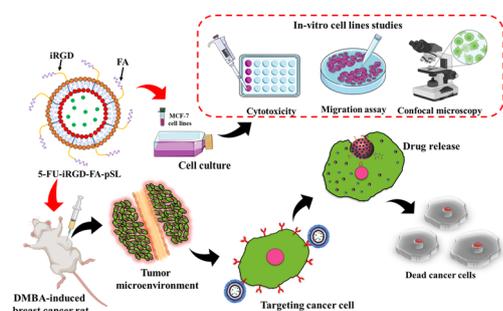
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### Conjugation of PDLA onto MgO microspheres: comparison between solution grafting and melt grafting methods

Wenhao Yu, Dong Zhou, Fangrui Liu, Xu Li, Lan Xiao, Muhammad Rafique, Zhiyong Li, João Rodrigues, Ruilong Sheng and Yulin Li\*

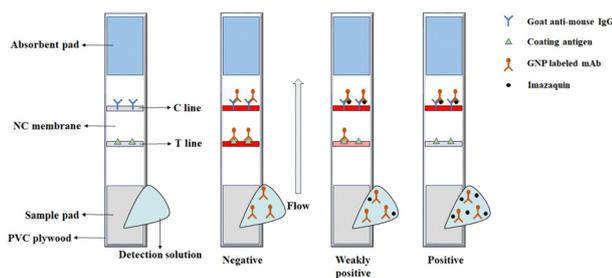
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### Dual ligand functionalized pH-sensitive liposomes for metastatic breast cancer treatment: *in vitro* and *in vivo* assessment

Prashant Pandey, Dilip Kumar Arya, Anit Kumar, Ajeet Kaushik, Yogendra Kumar Mishra and P. S. Rajinikanth\*

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### Rapid on-site detection of imazaquin residue in corn and soybeans using an immunochromatographic assay

Xuyang Ma, Lingling Guo, Liqiang Liu, Hua Kuang, Chuanlai Xu and Aihua Qu\*

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### BSA/PEI/GOD modified cellulose nanocrystals for construction of hydrogel-based flexible glucose sensors for sweat detection

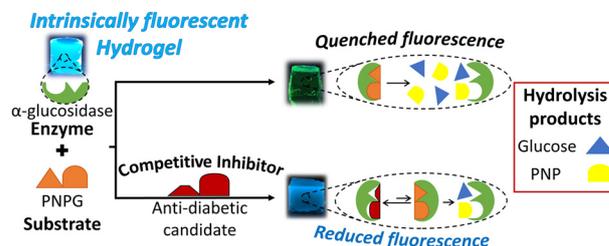
Tianjun Zhou, Pan Li, Yujie Sun, Wenxiang Wang, Liangjiu Bai,\* Hou Chen,\* Huawei Yang, Lixia Yang and Donglei Wei



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### Intrinsic fluorescence hydrogels for ON/OFF screening of antidiabetic drugs: assessing $\alpha$ -glucosidase inhibition by acarbose

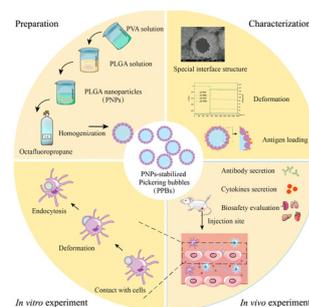
F. Javier Patiño, Josué M. Galindo, Alicia Jiménez, Yolanda Alacid, C. Reyes Mateo, Ana M<sup>a</sup> Sánchez-Migallón, Ester Vázquez, Sonia Merino\* and M. Antonia Herrero\*



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### Flexible deformation and special interface structure in nanoparticle-stabilized Pickering bubbles strengthen the immunological response as adjuvant

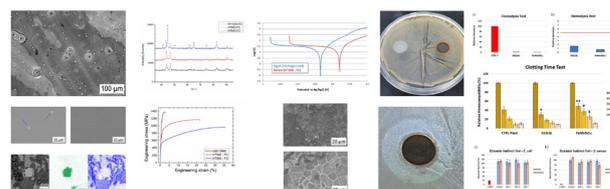
Qiuting Chen, Jie Teng, Cuixiao Zhu, Jinzhi Du,\* Guixiang Wang\* and Jie Wu\*



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### Design, development and performance of a Fe–Mn–Si–Cu alloy for bioabsorbable medical implants

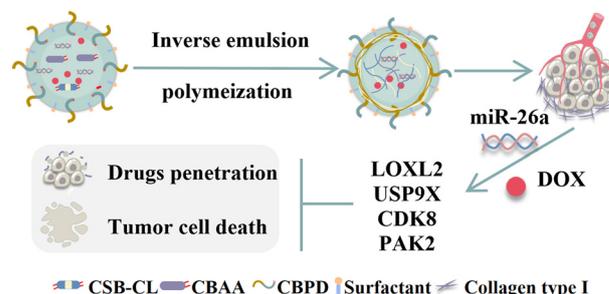
J. N. Lemke,\* J. Fiocchi, C. A. Biffi, A. Tuissi, F. Copes, C. Paternoster, D. Mantovani and A. Coda



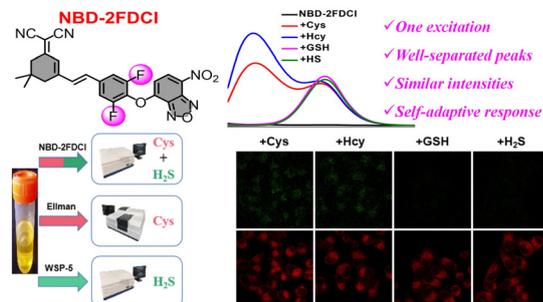
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### A facile combined therapy of chemotherapeutic agent and microRNA for hepatocellular carcinoma using non-cationic nanogel

Dingyue Zhang, Mingxiang Zuo, Jinhui Zhou, Siyu Ouyang, Shuang Liu, Jianming Yuan, Chiyi Ou, Qinghua Chen, Dongsheng Yu, Du Cheng\* and Jin Wang\*



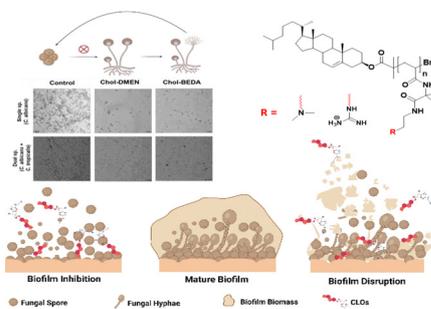
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## A steric hindrance-regulated probe with single excitation dual emissions for self-adaptive detection of biothiols and H<sub>2</sub>S in human urine samples and living cells

Zhan Wang, Wenbo Shi, Yi-Jun Gong, Yanjun Du, Wei Luo, Huang Zhou and Ke Pan\*

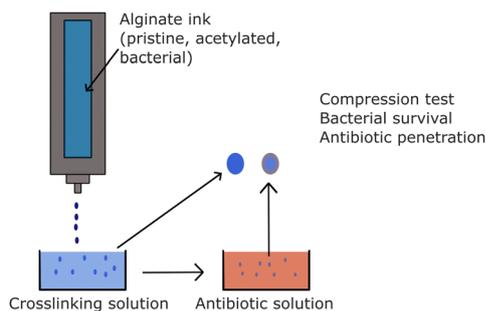
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## Cholesterol-terminated cationic lipidated oligomers (CLOs) as a new class of antifungals

Muhammad Bilal Hassan Mahboob, Santhni Subramaniam, Jessica R. Tait, James L. Grace, Alysha G. Elliott, Holly Floyd, Johannes Zuegg, John F. Quinn, Clive A. Prestidge,\* Cornelia B. Landersdorfer\* and Michael R. Whittaker\*

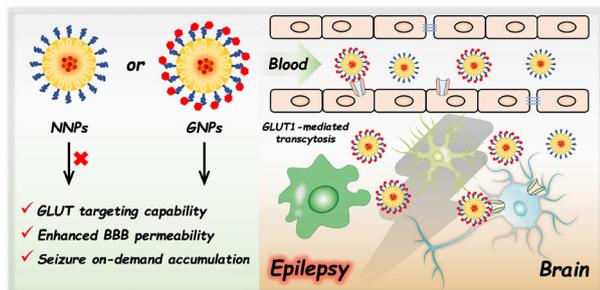
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## Acetylation of alginate enables the production of inks that mimic the chemical properties of *P. aeruginosa* biofilm

Stephan Schandl,\* Goodness Osundu-Chuka, Giuseppe Guagliano, Stjepan Perak, Paola Petrini, Francesco Briatico-Vangosa, Erik Reimhult and Olivier Guillaume

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## Nanoparticles modified with glucose analogs to enhance the permeability of the blood–brain barrier and their accumulation in the epileptic brain

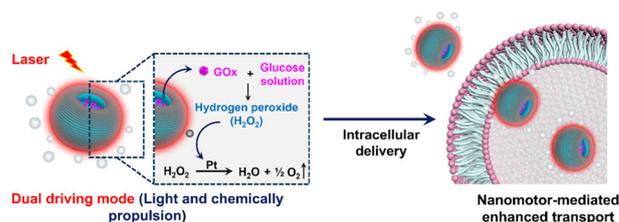
Qian Meng, Xiaoyu Zhang, Yuwen Chen, Hao Yang, Jinshuai Liu, Zifan Yang, Jianxiang Lei, Fengqing Lu, Dengyuan Hao, Lijie Feng\* and Yu Wang\*



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### Dual-driven biodegradable nanomotors for enhanced cellular uptake

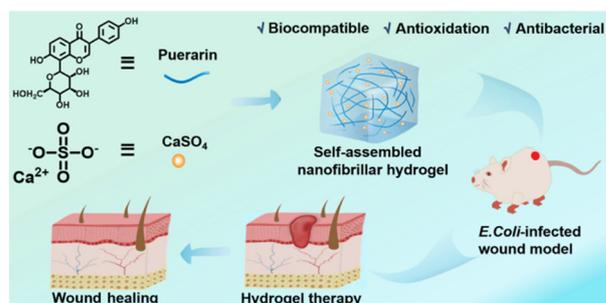
Jianhong Wang, Andreas Polyviou, Jari F. Scheerstra, Shoupeng Cao, Alexander D. Fusi, Jingxin Shao\* and Jan C. M. van Hest\*



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### Chinese herbal medicine-inspired construction of multi-component hydrogels with antibacterial and wound-healing-promoting functions

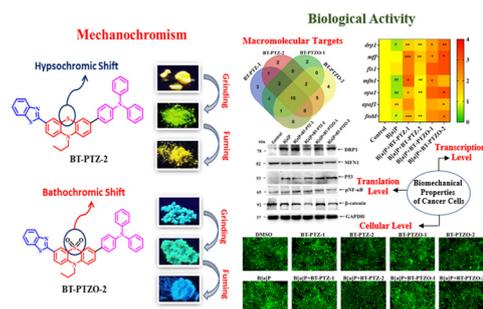
Chuying Yao, Yue Yuan, Guangyan Du,\* Quan Li\* and Yutian Ji



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### Stimuli-responsive benzothiazole-phenothiazine derivatives: mechanochromism, AIE, acid sensing, and anticancer efficacy in benzo[a]pyrene-induced cancer models

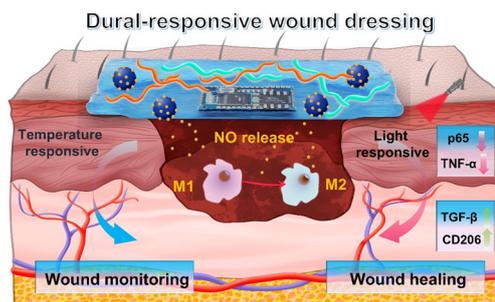
Ramakant Gavale, Siddharth Singh, Anupama Ekbote, Hem Chandra Jha\* and Rajneesh Misra\*



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### Temperature and light dual-responsive hydrogels for anti-inflammation and wound repair monitoring

Ji Jiang, Yuan Tian, Xiaoyang Wu, Mingze Zeng, Chengheng Wu, Dan Wei, Hongrong Luo, Jing Sun, Jie Ding\* and Hongsong Fan



## CORRECTIONS

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**Correction: Phosphatidylserine-functionalized liposomes-in-microgels for delivering genistein to effectively treat ulcerative colitis**

Huijia Yan, Yanfei Li, Sihui Li, Di Wu, Yu Xu and Jiangning Hu\*

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**Correction: Core–shell structured microneedles with programmed drug release functions for prolonged hyperuricemia management**

Rui Wang, Yanfang Sun,\* Han Wang, Tianqi Liu, Amin Shavandi, Lei Nie, Khaydar E. Yunusov and Guohua Jiang\*

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**Correction: Development of a tannic acid- and silicate ion-functionalized PVA–starch composite hydrogel for *in situ* skeletal muscle repairing**

Longkang Li, Huipeng Li, Zhentian Diao, Huan Zhou,\* Yanjie Bai\* and Lei Yang

## RETRACTION

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**Retraction: Growth factors regional patterned and photoimmobilized scaffold applied to bone tissue regeneration**

Ling-Kun Zhang, Wu-Ya Chen, Hui-Min Wang, Chao Liu, Jiecheng He, Yunzhi Tang, Yuxuan Jiao and Yan-Qing Guan\*

