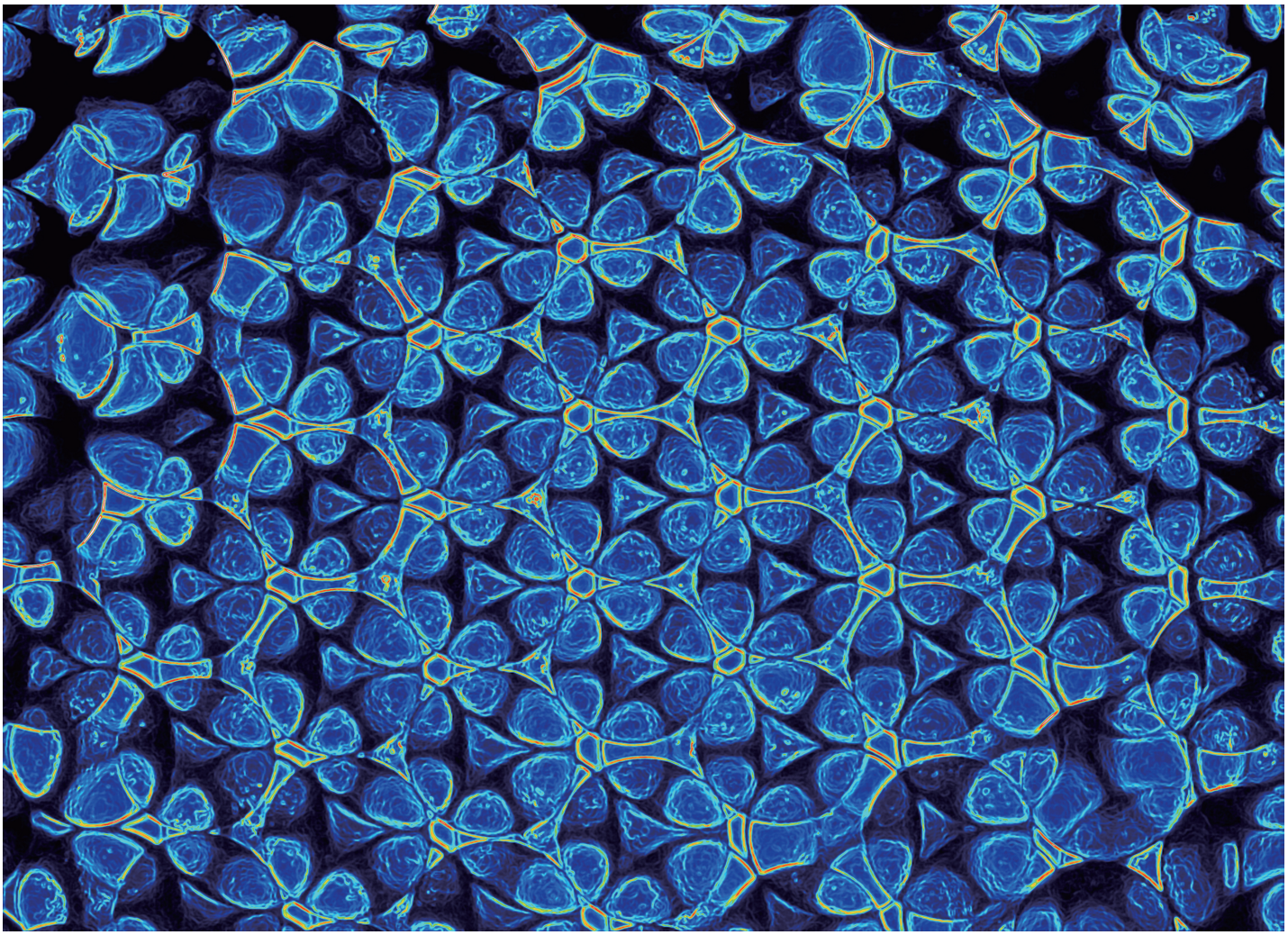

Showcasing research from Professor LinGe Wang's laboratory, School of Emergent Soft Matter, South China University of Technology, Guangzhou, China.

Microfluidics-driven templating preparation of polymer vesicles with tailorable dimensions and rapid cellular internalization

Polymer vesicles hold immense potential in biomedicine and nanotechnology, yet conventional rehydration methods face critical limitations in controlling vesicle architecture due to stochastic block copolymer (BCP) self-assembly. Here, this study presents a first-reported microsphere-templated strategy that synergizes microfluidic precision with BCP assembly to overcome these constraints. By engineering emulsion templates *via* flow rate, BCP concentration and collection distance optimization, we establish a method based on radius-square law governing the evolution of uniform vesicles, enabling on-demand size tuning, a capability unattainable with traditional approaches

Image reproduced by permission of LinGe Wang from *Biomater. Sci.*, 2025, **13**, 2925.

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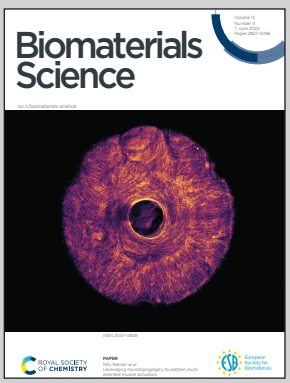

See Qianqian Yu, LinGe Wang *et al.*, *Biomater. Sci.*, 2025, **13**, 2925.

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