

# A facile method for high-throughput screening of drug-eluting coating in droplet microarrays based on ultrasonic spray deposition

*Cong Wang<sup>†a</sup>, Yunfan Xue<sup>†a</sup>, Junjie Huang<sup>†a</sup>, Kefeng Ren<sup>a</sup>, A. Greiner<sup>b</sup>, S. Agarwal<sup>b</sup>,*

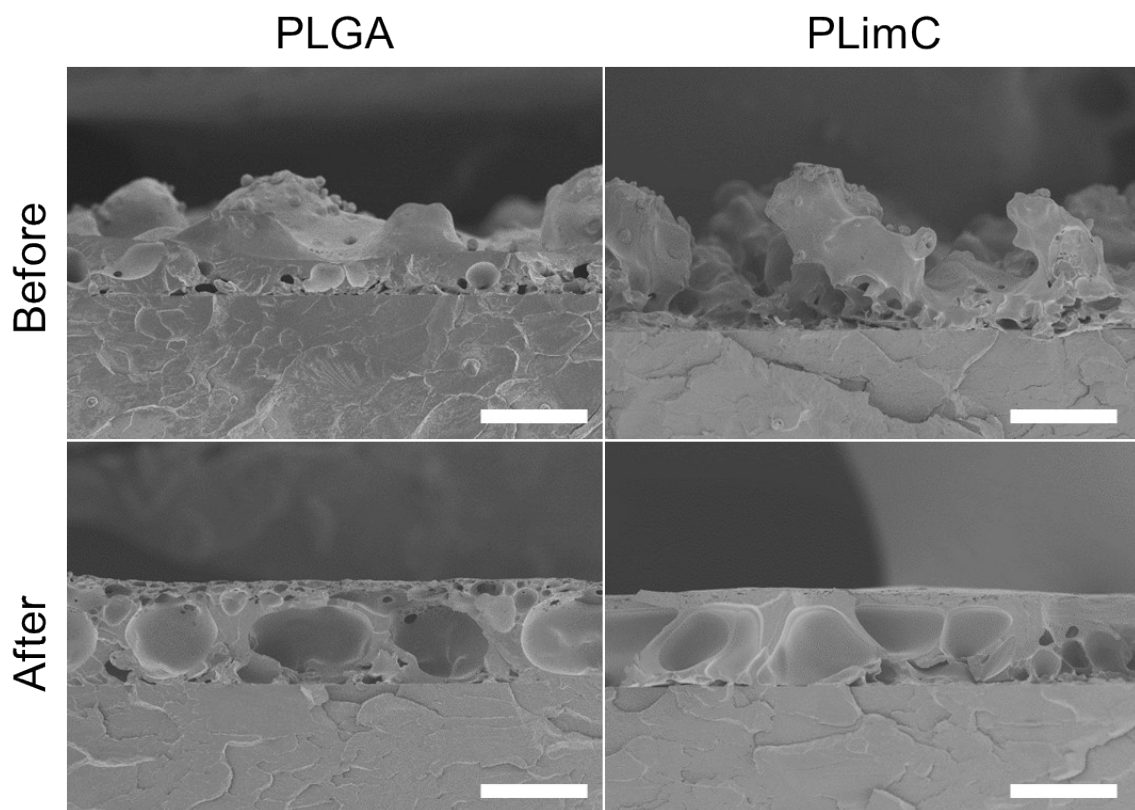
*Jian Ji<sup>\*a</sup>*

## **AUTHOR ADDRESS:**

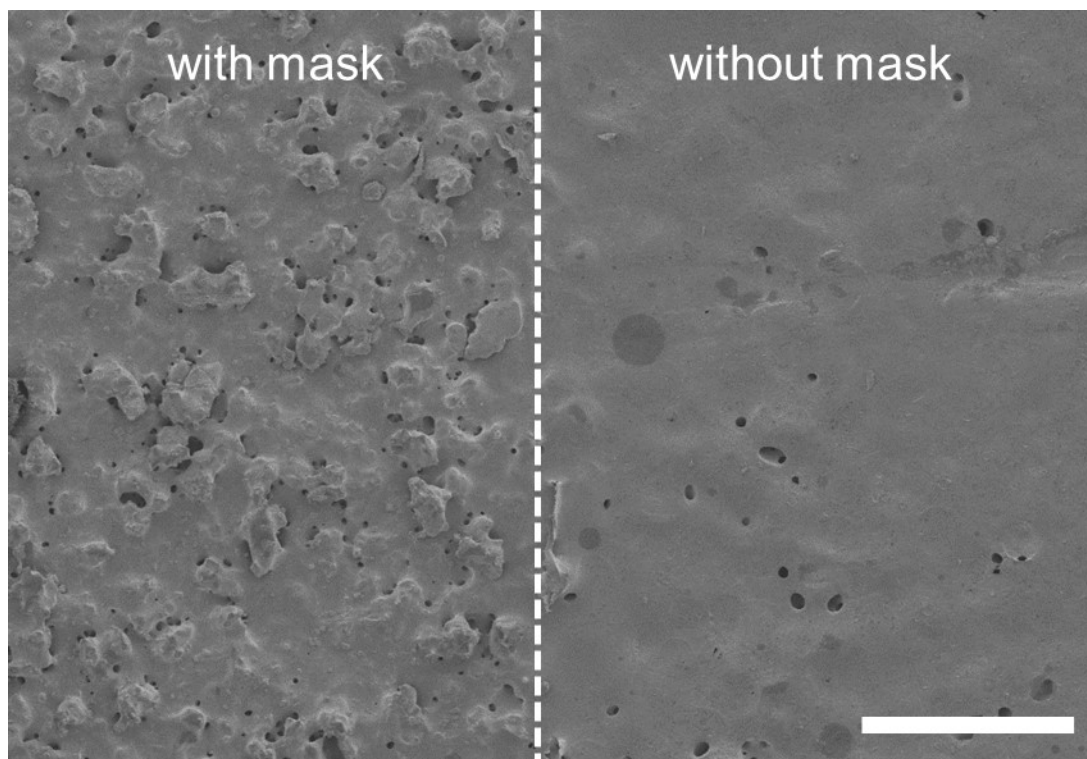
<sup>a</sup>MOE Key Laboratory of Macromolecule Synthesis and Functionalization, Department of Polymer Science and Engineering, Zhejiang University, Hangzhou 310027, PR China.

\*E-mail: jijian@zju.edu.cn.

<sup>b</sup>Macromolecular Chemistry II, University of Bayreuth, Universitätsstr. 30, 95440 Bayreuth, Germany.

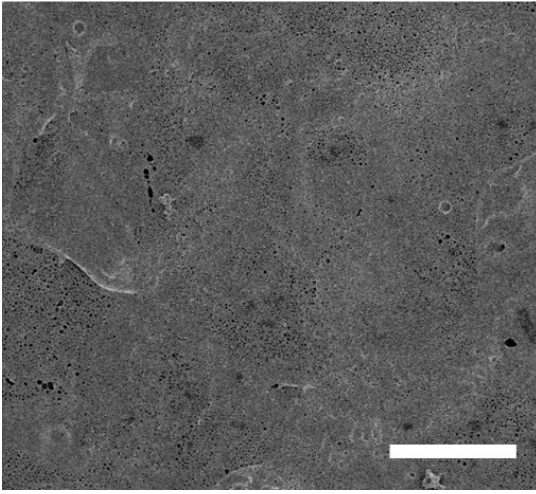


**Figure S1.** Crosssections of PLGA and PLimC before and after dichloromethane smoothing. The rough surface morphology was flattened. Scale bars: 50  $\mu\text{m}$ .

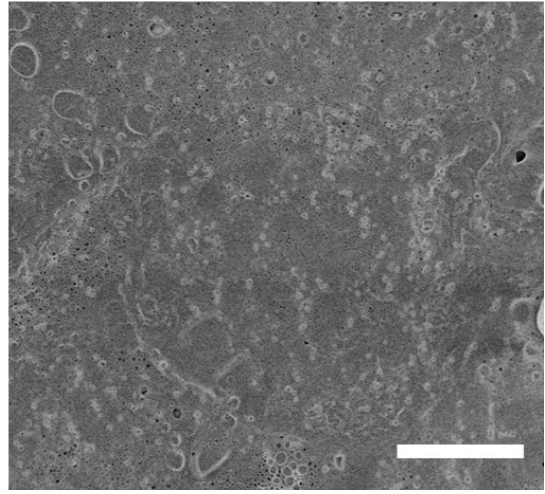


**Figure S2.** PLimC surfaces smoothed by dichloromethane. The white dotted line indicates the boundary between surface covered by mask or not. Scale bars: 250  $\mu\text{m}$ .

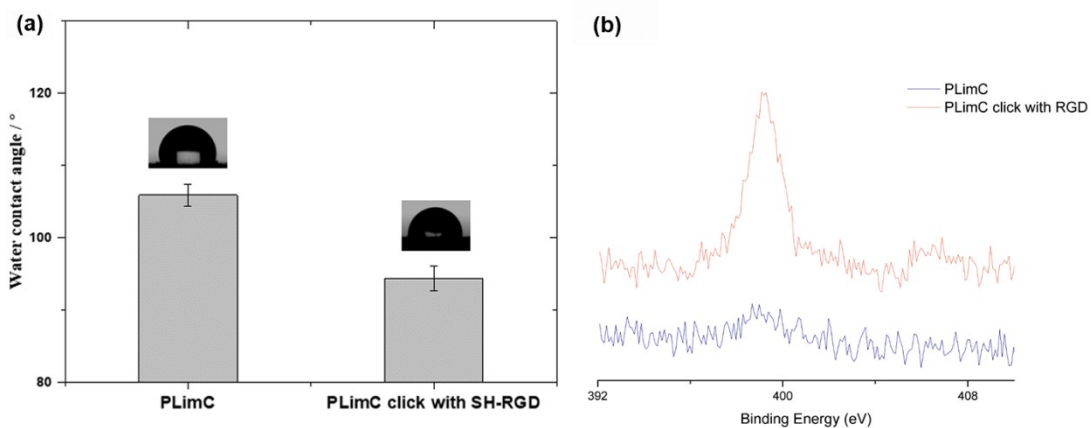
PLimC



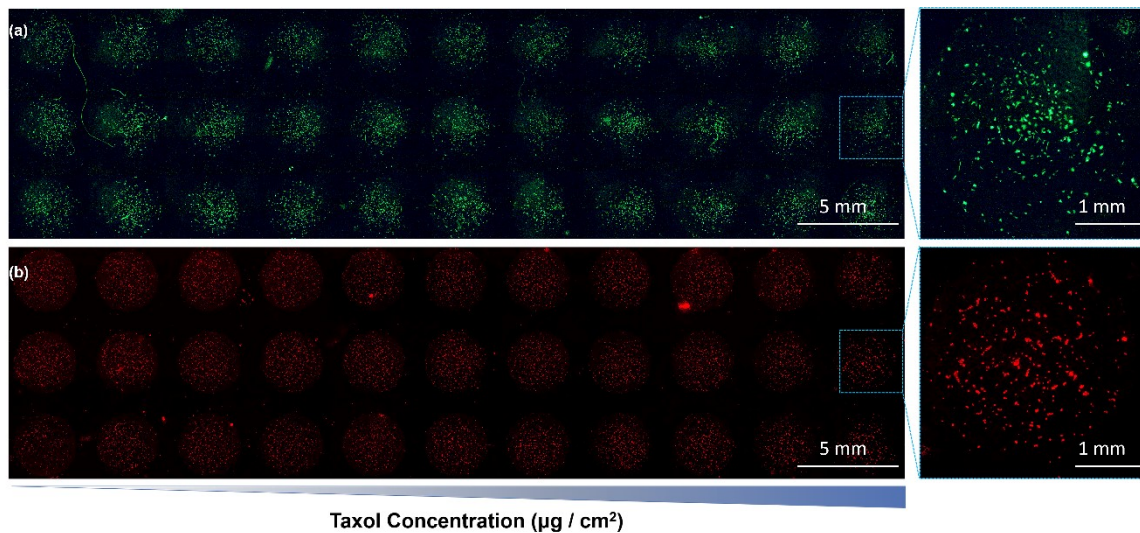
PLimC +RGD



**Figure S3.** Comparison of PLimC surface (left) and RGD grafted PLimC surface (right).  
Scale bars: 10  $\mu\text{m}$ .



**Figure S4.** (a) Water contact angles (WCAs) of PLimC after smoothing and PLimC modified with SH-RGD. WCA was reduced as grafted RGD promoted surface hydrophilicity. (b) High-resolution XPS survey spectra of N 1s for samples of PLimC and SH-RGD grafted PLimC. The presence of N peak indicated the existence of RGD.



**Figure S5.** (a) SMCs (green) and (b) ECs (red) grown on the coating arrays after 24h incubation.