Electronic Supplementary Information (ESI) for Analyst

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Electronic Supplementary Information

Straightforward neuron micropatterning and neuronal network construction on cell-repellent polydimethylsiloxane using microfluidics-guided functionalized Pluronic modification

Wenming Liu,*ab Wenzhu Fu,a Meilin Sun,a Kai Han,a Rui Hu,a Dan Liu,a and Jinyi Wang*b

aDepartments of Biomedical Engineering and Pathology, School of Basic Medical Science, Central South University, Changsha, Hunan 410013, China. E-mail: liuwenming0229@csu.edu.cn

bDepartment of Chemistry, College of Chemistry and Pharmacy, Northwest A&F University, Yangling, Shaanxi 712100, China. E-mail: jywang@nwsuaf.edu.cn

Abstract. This supplementary information provides all the additional information as mentioned in the text.
Fig. S1 Neuronal cell distribution after 1 d in culture on the modified PDMS substrate by F127-PDL using microfluidics.
**Fig. S2** Optical images of 5 d neuronal cultures on the modified PDMS surface by microfluidic F127-PDL deposition with respective straight (top), wavy (middle), and zigzag (bottom) stripe geometry.
Fig. S3 Optical image of 5 d standard neuronal cultures on the PDL-modified PS surface.
Fig. S4 Optical images of 5 d neuronal cultures on the modified PDMS surface by microfluidic F127-PDL deposition with respective square (top), circular (middle), and pentagonal (bottom) geometry.
**Fig. S5** Optical images of 5 d neuronal cultures on the modified PDMS surface by microfluidic F127-PDL deposition with circular geometry.
Fig. S6 Optical and fluorescent images of 5 d neuronal cultures on the modified PDMS surface by microfluidic F127-PDL deposition with a word (university)-like geometry. Immunocytochemical staining was performed for neuronal visualization (axon: SMI-312; somatodendrite: MAP2; nucleus: Hoechst 33258).
Fig. S7 Optical images of 5 d neuronal cultures on the modified PDMS surface by microfluidic F127-PDL deposition with respective straight (top), wavy (middle), and zigzag (bottom) line geometry.
Fig. S8 Optical image of neuronal network after 7 d in culture on the modified PDMS surface by microfluidic F127-PDL deposition with interconnected spot array shape.