

Supporting information

Waterborne polyurethane 3D scaffold containing PLGA with controllable degradation rate and anti-inflammatory for potential applications in neural tissue repair

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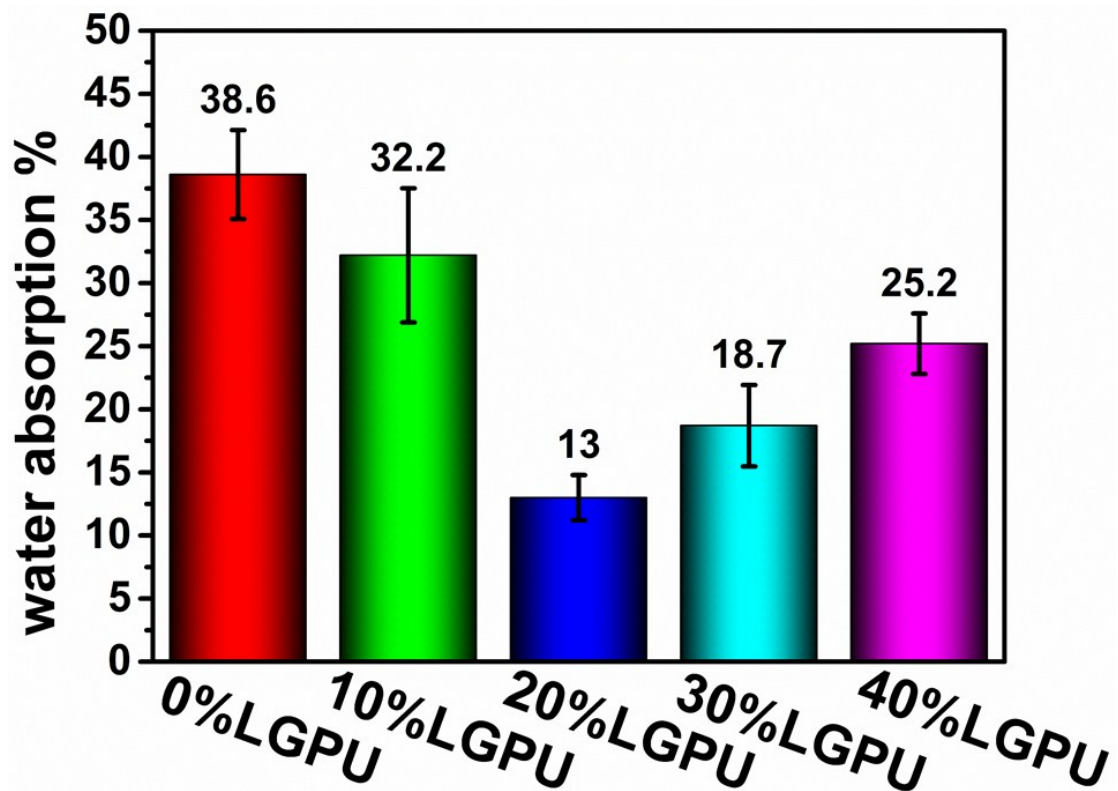


Figure S1. The water absorption of 0%-40%LGPU films. The data are shown as the mean \pm SD ($n \geq 3$). The samples of 0%-40% LGPU films with the same area and thickness absorbed water for 24 hours after the first weighing. Then the wet weight of the films was obtained by the second weighing.

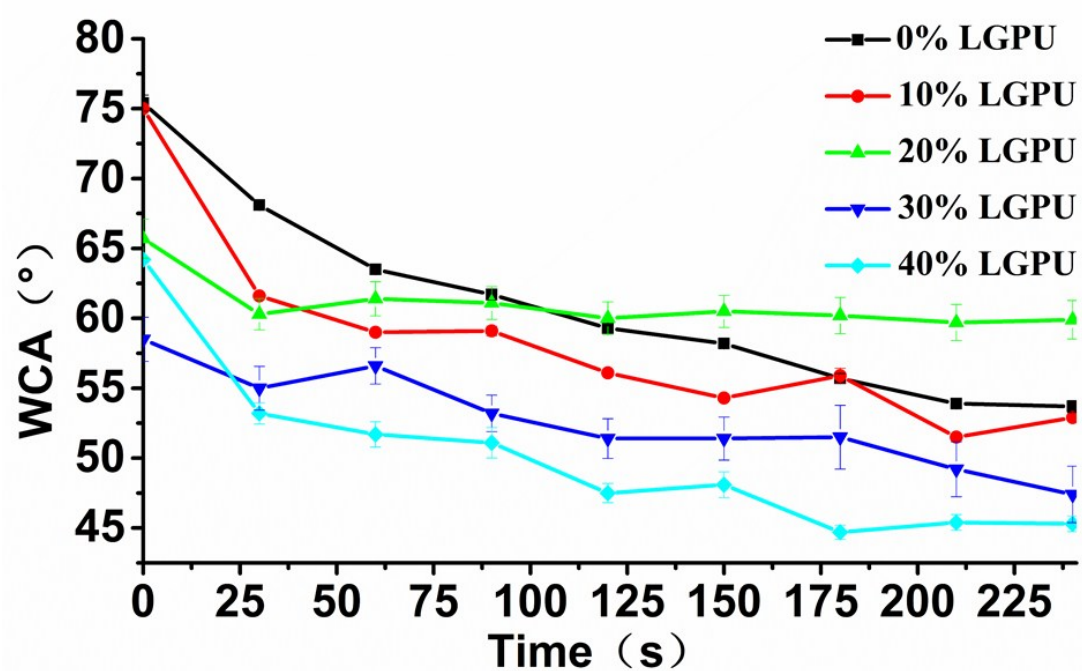


Figure S2. The water contact angle of 0%-40%LGPU films. The data are shown as the mean \pm SD(n=3).

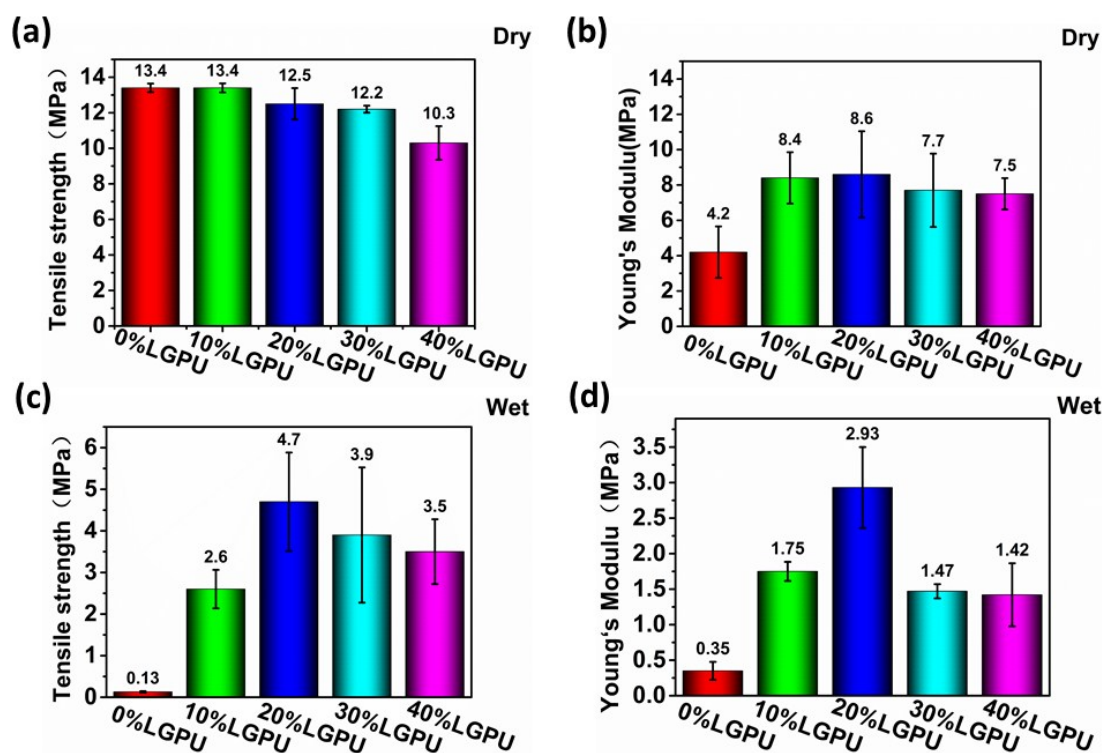


Figure S3. (a) The tensile strength of 0%-40%LGPU films in dry condition. (b) The Young's modulus of 0%-40%LGPU films in dry condition. (c) The tensile strength of 0%-40%LGPU films in wet condition. (d) The Young's modulus of 0%-40%LGPU films in wet condition. The data are shown as the mean \pm SD (n \geq 3).

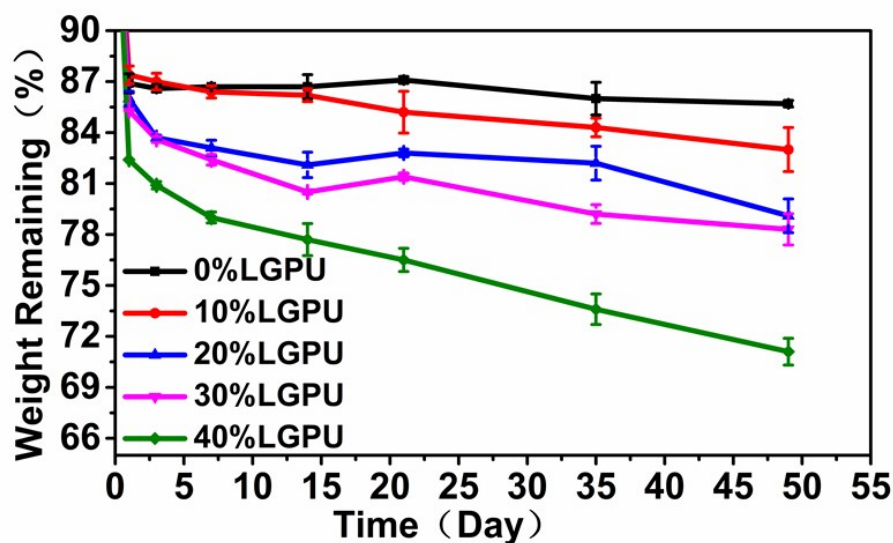


Figure S4. The remaining weight of 0%-40% LGPU films during degradation in vitro. The data are shown as the mean \pm SD (n=3). The 0%-40% LGPU films were sealed into EP tubes filled with PBS. The EP tubes were then placed into a shaker (90rpm, 37°C). When reaching the selected time point, the films were taken out and frozen dry. The dried films were weighed to obtain the remaining weight.

7 Week

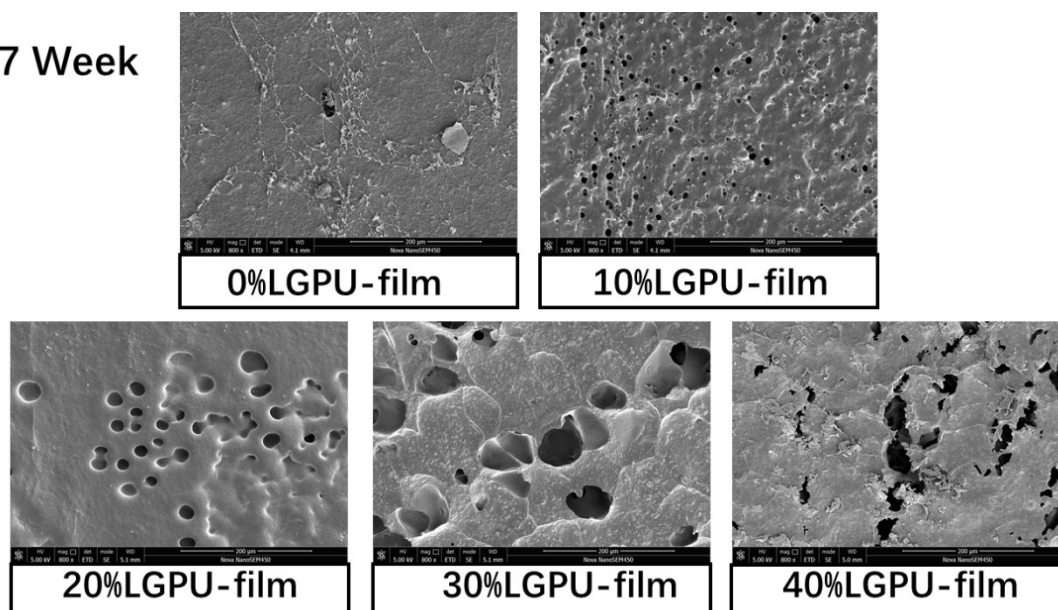


Figure S5. The micromorphology of 0%-40% LGPU films after hydrolyzing for 7 weeks in vitro. Images were obtained by SEM (magnify 800 times).

Table S1. The size and distribution of the LGPU emulsion particle tested by dynamic light scattering (DLS). The data are shown as the mean \pm SD (n=3).

Sample name	Size (d.nm)	PDI
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0%LGPU	122.6±1.2	0.214±0.004
10%LGPU	136.3±2.9	0.249±0.004
20%LGPU	111.2±5.4	0.168±0.015
30%LGPU	156.0±4.1	0.265±0.010
40%LGPU	163.7±3.1	0.469±0.014
