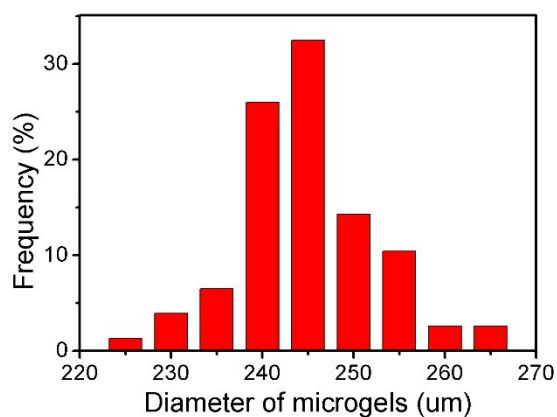


1 Electronic Supplementary Information (ESI)

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3 **One-step Generation of Cell-laden Microgels Using Double Emulsion Drops with**  
4 **a Sacrificial Ultra-thin Oil Shell**

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6 Chang-Hyung Choi, Huanan Wang\*, Hyomin Lee, June Hwan Kim, Liyuan Zhang, Angelo Mao,  
7 David J. Mooney, and David A. Weitz\*

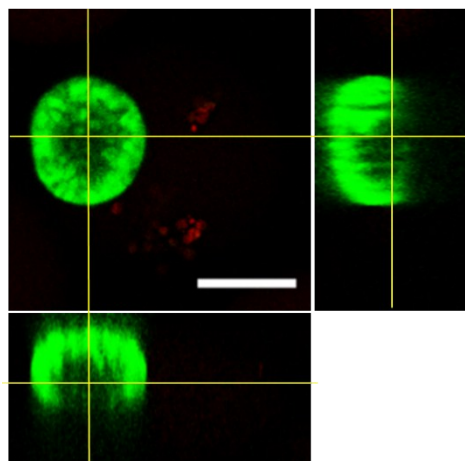
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13 **Fig. S1.** Size distribution of cell-laden microgels.

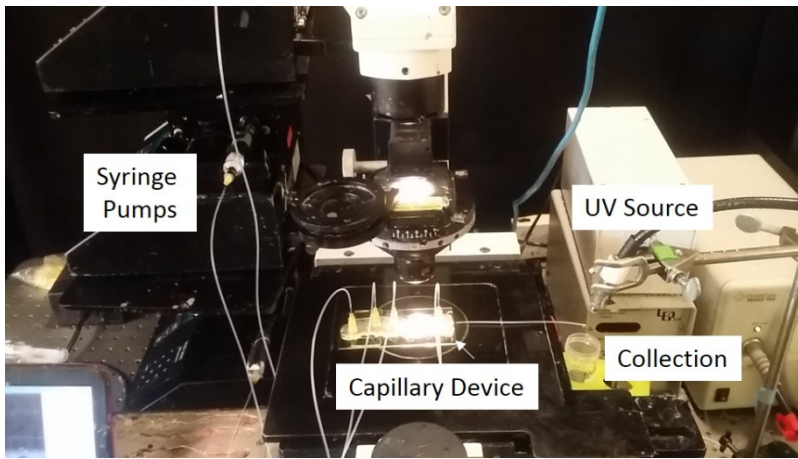
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17 **Fig. S2.** Representative fluorescent microscopic image showing cyst formed by MDCK cells after  
18 7days of 3D culture in GelMA microgels. Orthogonal view showing three-dimensionally the cyst  
19 structure with a multi-cell thick shell and a central lumen.

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2 **Fig. S3.** Experimental setup of the proposed one-step microfluidic technique for continuous  
3 production of microgels.

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