Electronic Supplementary Material (ESI) for Nanoscale. This journal is © The Royal Society of Chemistry 2021

SUPPORTING INFORMATION

pH-responsive Doxorubicin Delivery using Shear-Thinning Biomaterials for Localized Melanoma Treatment

Junmin Lee, A,b,c,d Yonggang Wang, C,d,e Chengbin Xue, C,d,f,g Yi Chen, C,d,h Moyuan Qu, C,d Jai Thakor, Xingwu Zhou, A Natan Roberto de Barros, Natashya Falcone, Patric Young, Floor W. van den Dolder, Kangju Lee, A,c,d,i Yangzhi Zhu, Hyun-Jong Cho, C,d,j Wujin Sun, A,c,d Bo Zhao, Samad Ahadian, A,c,d Vadim Jucaud, Mehmet R. Dokmeci, A,c,d Ali Khademhosseini A,c,d and Han-Jun Kim

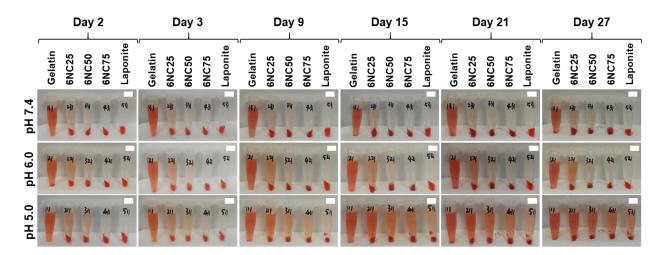


Fig. S1. Representative images of biomaterials with different compositions between gelatin and Laponite showing DOX release at pH 7.4, 6.0, and 5.0 for 30 days. Scale bar is 1 cm.

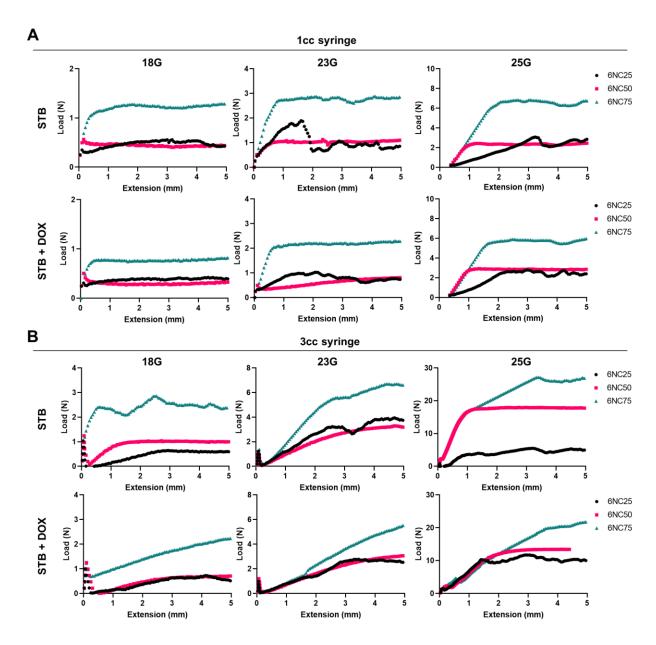


Fig. S2. Load-extension graph of the testing results for different compositions of STBs through (A) 1cc syringe or (B) 3cc syringe with different sizes of catheters.

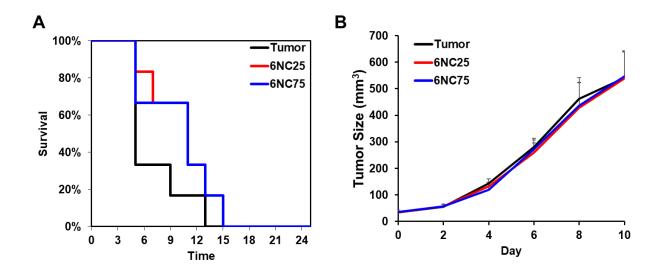


Fig. S3. (A) Kaplan-Meier survival analysis of STBs (6NC25, 6NC75) without DOX. (B) Tumor growth curve of STBs (6NC25, 6NC75) without DOX. There were no significant differences between STB-injected groups and Tumor-only groups.

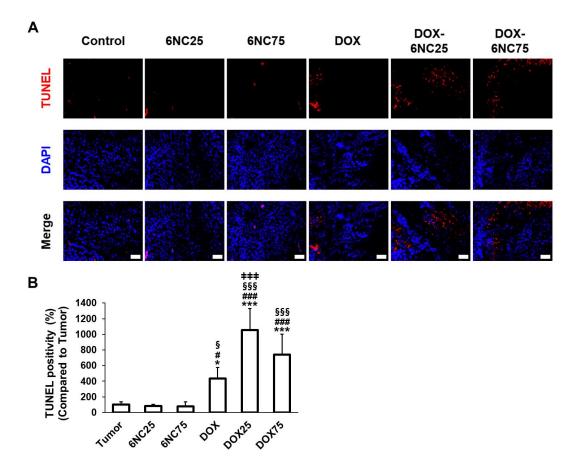


Fig. S4. (A) Representative immunofluorescence images of excised tumor tissues stained for DAPI (Blue) and TUNEL (Red) across the conditions. (B) The average percentage of cells positively expressing TUNEL. Scale bar is 50 μ m. *; compared to Tumor, #; compared to 6NC25, §; compared to 6NC75, †; compared to DOX. *p < 0.05, **p < 0.01, ***p < 0.001, ANOVA. Error bars are standard deviations.