Electronic Supplementary Information (ESI)

Tuning the crosslinking and degradation of hyaluronic acid/gelatin hydrogels using hydrogen peroxide for muscle cell sheet fabrication

Kelum Chamara Manoj Lakmal Elvitigala,[a] Wildan Mubarok [a] and Shinji Sakai,[a]*

[a]Department of Materials Engineering Science, Graduate School of Engineering Science, Osaka University, Toyonaka, Osaka, 560-8531, Japan.

* Corresponding author: sakai@cheng.es.osaka-u.ac.jp

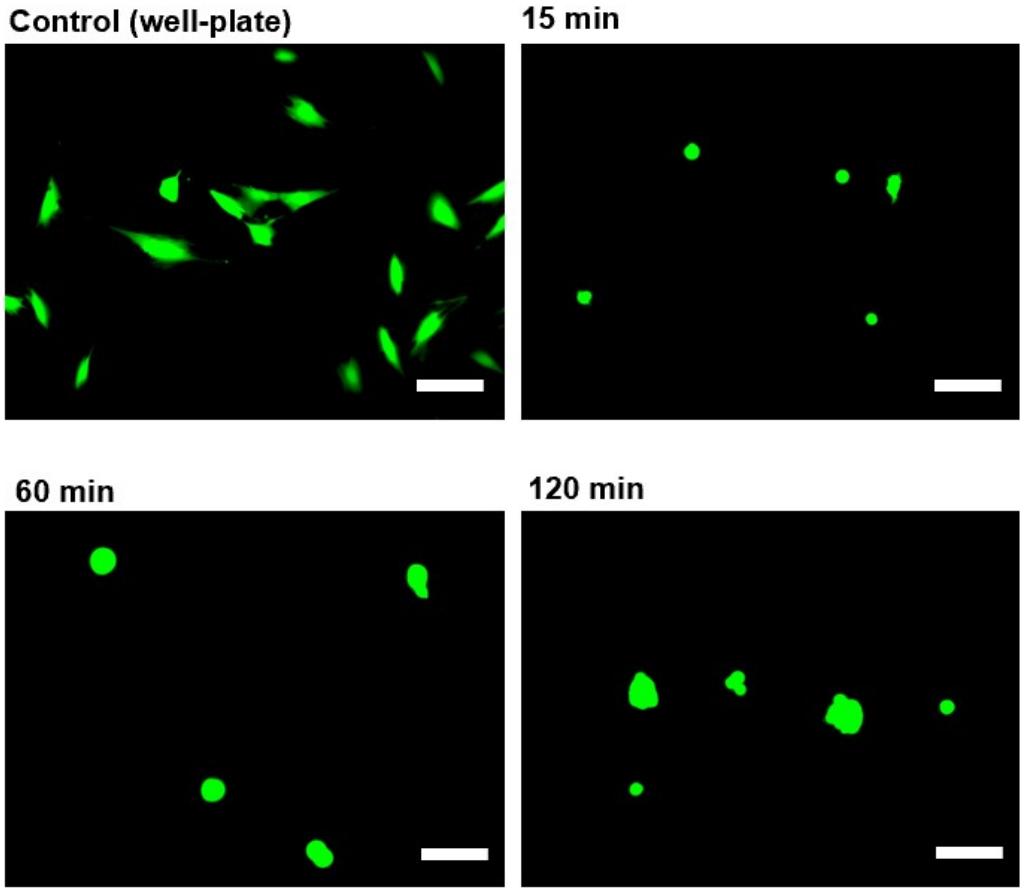

Fig. S1. Fluorescence micrographs of C2C12 cell after 2 days of culture on HA-Ph hydrogel obtained through exposing air containing H_2O_2 for PBS containing 2 w/v% HA-Ph and 1 U/mL HRP for 15-120 min. Bars: 100 μm.

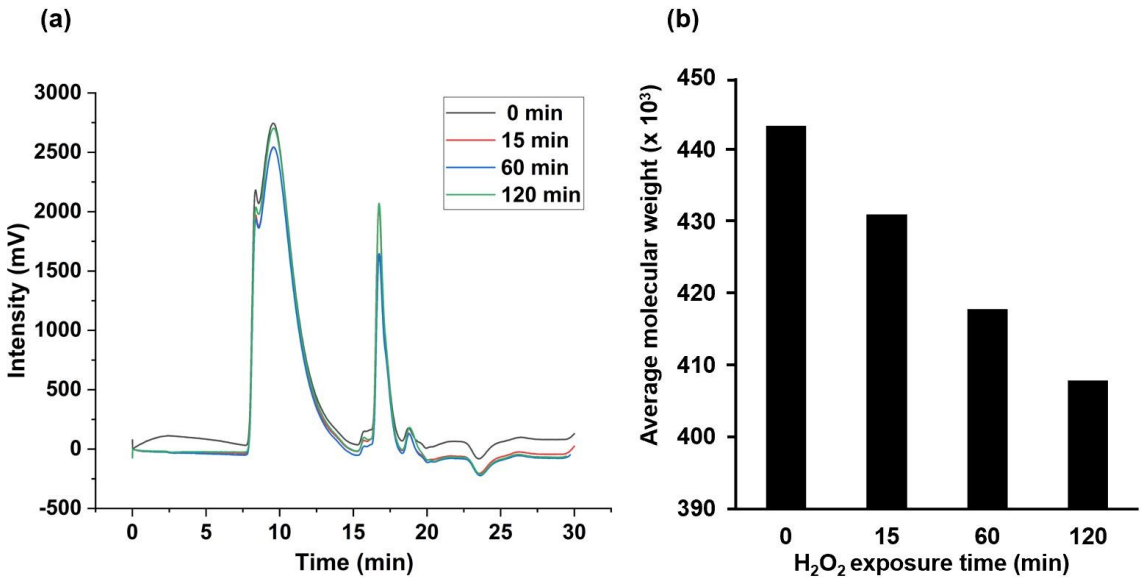

Fig. S2. (a) Intensity time curve and (b) The average molecular weight of HA-Ph after exposure to 16 ppm H_2O_2 supplied from the air for 0 – 120 min. The average molecular weight was calculated relative to the pullulan standards. HPLC conditions: separation was conducted on a SHIMADZU HPLC (LC-20AD, Shimadzu, Kyoto, Japan) system equipped with Shodex OHpak SB805 HQ, 8 mmID x 300 mmL column; mobile phase PBS at pH 7.4; flowrate 0.7 mL/min; temperature, 25 °C.