Electronic Supplementary Material (ESI) for Lab on a Chip.

Supporting Information

Microfluidic vascularized bone tissue model with hydroxyapatite-incorporated extracellular matrix

Norhana Jusoh[a,b,+], Soojung Oh[a,c,+], Sudong Kim[a], Jangho Kim[d,*] and Noo Li Jeon [a,c,*]

[a]School of Mechanical and Aerospace Engineering, Seoul National University, Seoul, 151-744, South Korea. E-mail: njeon@snu.ac.kr; Tel: +82-2-880-7111
[b]Faculty of Biosciences and Medical Engineering, Universiti Teknologi Malaysia, Skudai, Johor, 80990, Malaysia.
[c] Institute of Advanced Machinery and Design (SNU-IAMD), Seoul National University, Seoul, 151-744, South Korea.
[d]Department of Rural and Biosystems Engineering, Chonnam National University, Gwangju, 500-757, South Korea. Email: rain2000@jnu.ac.kr; Tel: +82-62-530-5181
*Corresponding authors
[+]These authors contributed equally to the work

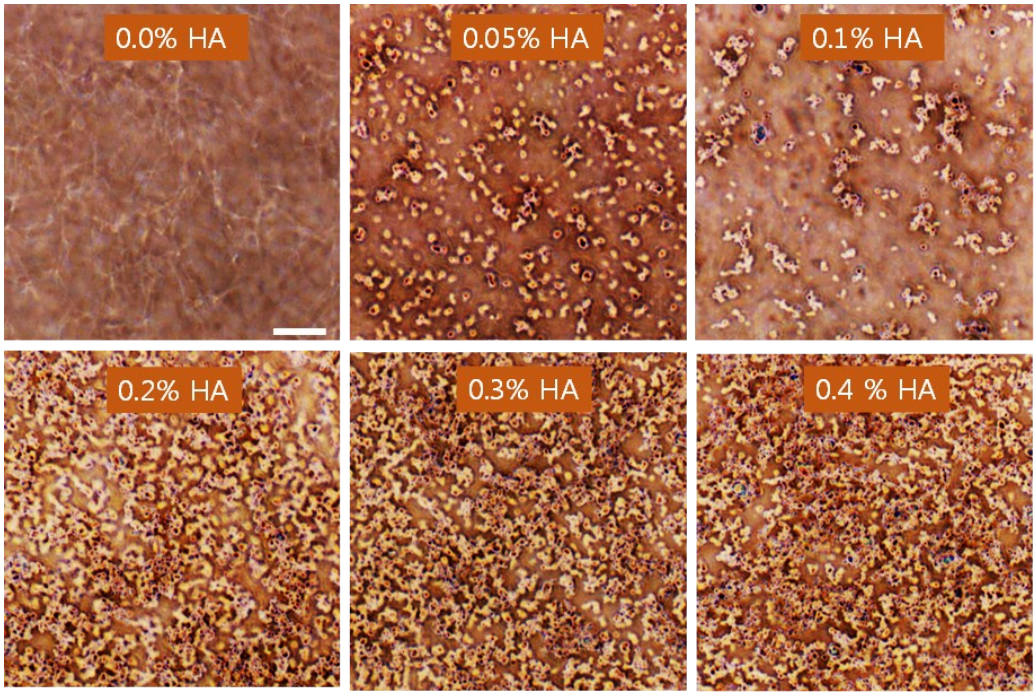

Fig. S1. Magnified images of the HAs in the fibrin ECMs in the microfluidic device. Scale bar = 20 μm

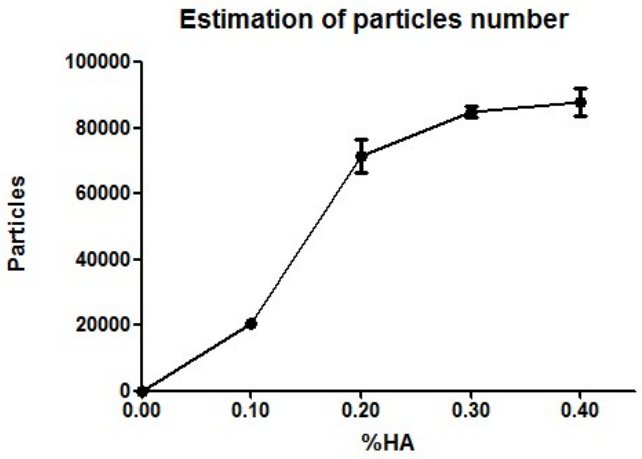

Fig. S2. Estimation on particle numbers of HA based on the image analysis (63 µm x 63 µm) for each HA concentration (n=4).

Table S1. Correlation of concentration of HA and particle numbers in the microfluidic device

% HA	*HA (mg/ml)	**Area of HA (μm^2)	***Number of HA Particles
0.00	0	0.00	0
0.10	1.33	633.26	20428
0.20	2.67	2212.32	71365
0.30	3.99	2630.07	84841
0.40	5.33	2724.46	87886

Note : * HA (mg/ml) based on the experimental condition

** Total area of HA per image (63 µm x 63 µm) for each HA concentration

*** 200 nm diameter per HA particle