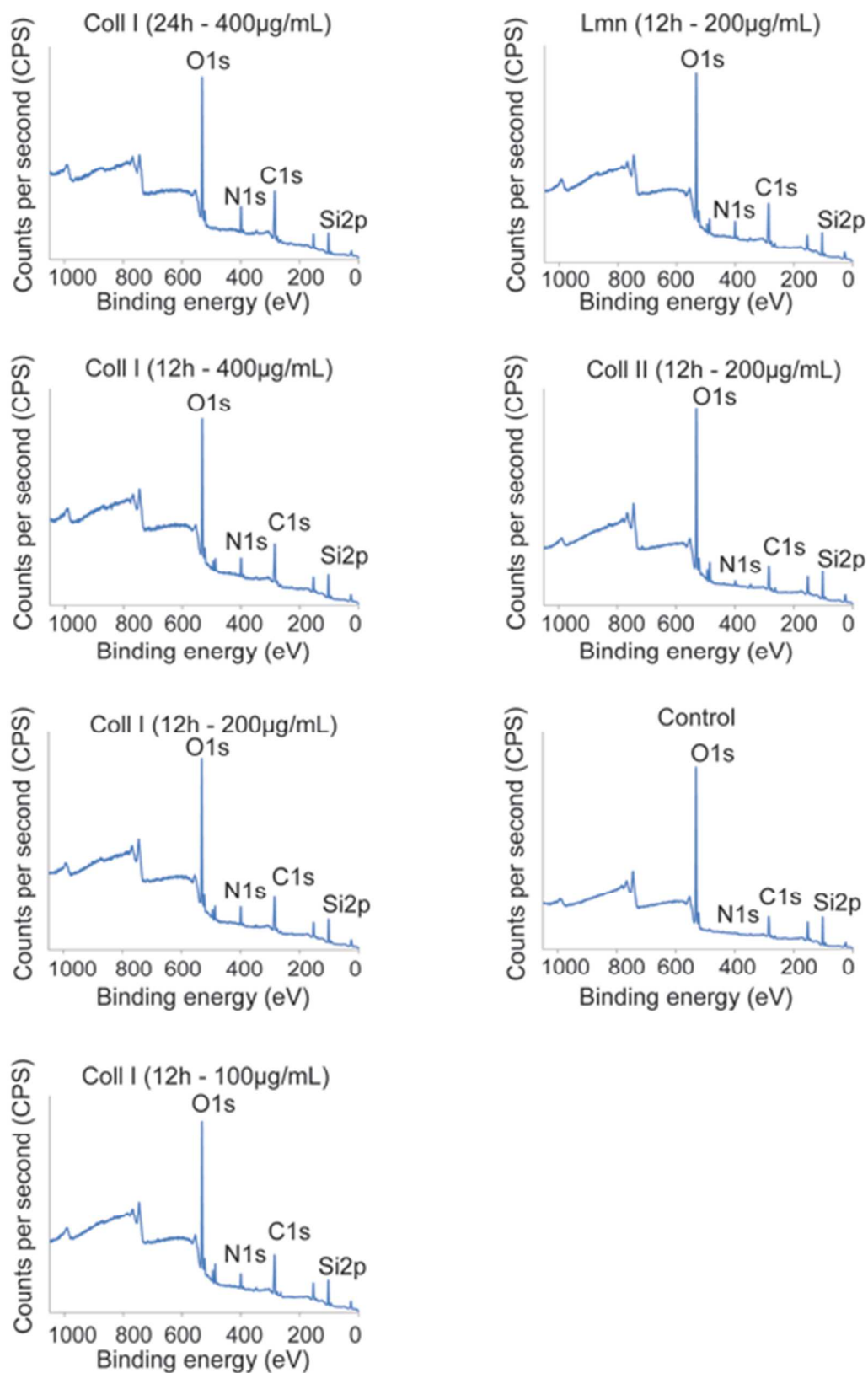
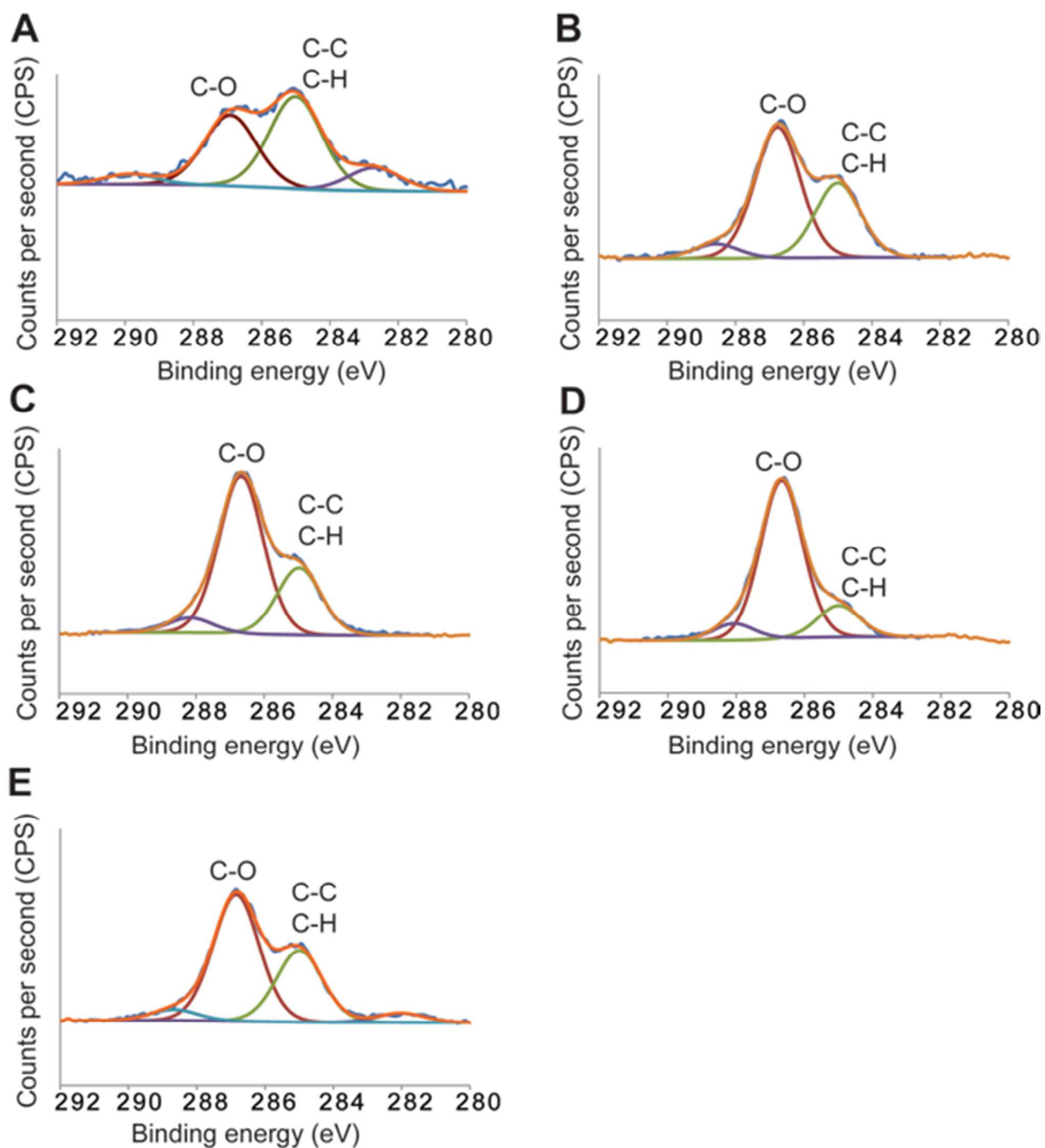


**Table S1.** Summary of survey XPS spectra for ECM proteins immobilized on epoxy-coated surfaces at concentration of 200  $\mu\text{g}/\text{mL}$  after 12 h incubation time.

| <b>Sample</b>                 | <b>At.% O</b> | <b>At.% N</b> | <b>At.% C</b> | <b>At.% Si</b> |
|-------------------------------|---------------|---------------|---------------|----------------|
| Lmn                           | 37.9          | 5.3           | 35.5          | 21.3           |
| Coll II                       | 45.6          | 2.2           | 23.7          | 28.5           |
| Control (epoxy silane coated) | 45.8          | 0.2           | 22.0          | 32.0           |

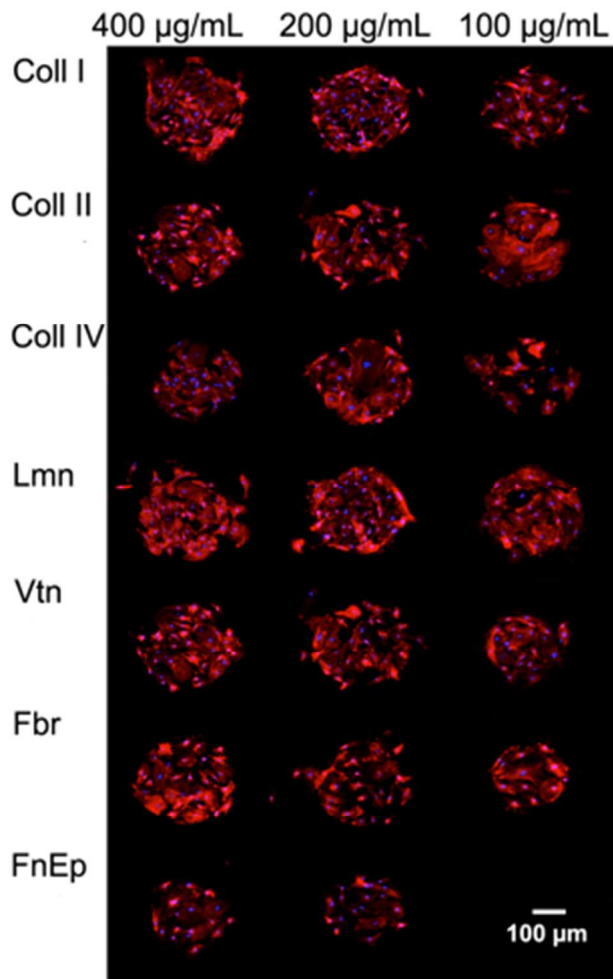


**Figure S1.** XPS survey spectra for ECM proteins immobilized on epoxy-coated surfaces using various concentrations and immobilization reaction times (refer to Table 1 and Table S1 for summary).

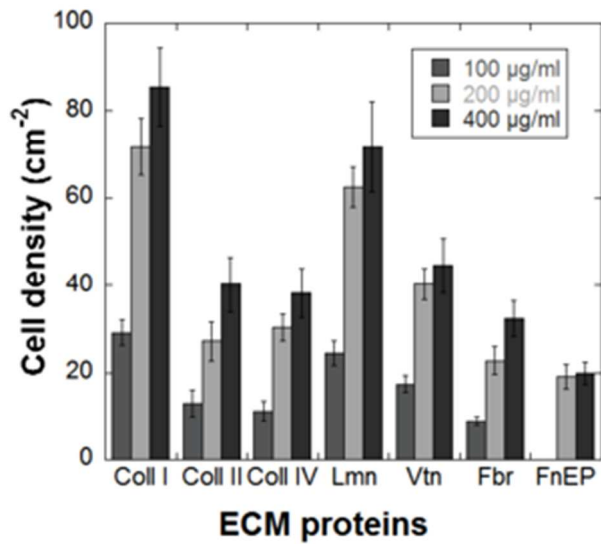


**Figure S2.** XPS C 1s spectra of different molecular weight A-PEG grafted under the cloud point conditions on epoxy-coated surface. (A) Epoxy silanized slide as control, (B) A-PEG 3000 Da, (C) A-PEG

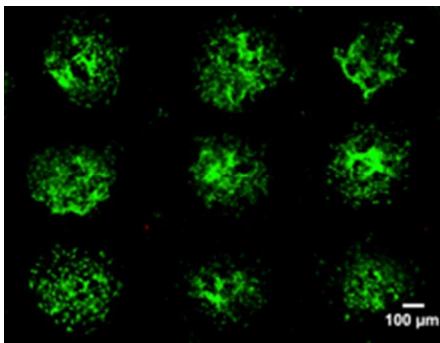
6000 Da, (D) A-PEG 10000 Da and (E) A-PEG 6000 Da coated surfaces after incubation in PBS at 37°C for 7 days.



**Figure S3.** Fluorescence microscopy images of MSCs captured on different ECM printed spots with A-PEG 10000 Da passivated background after 24 h. The cytoskeleton was stained by phalloidin (red) and the nucleus with Hoechst 33342 (blue).



**Figure S4.** MSC adhesion on printed ECM proteins with A-PEG 10000 Da passivated background after 30-60 min incubation time. Cell seeding density was 15000 cell/cm<sup>2</sup>. Error bars show standard error of cell counts.  $n = 5$ .



**Figure S5.** MSC viability on the Coll I printed microarray with A-PEG 10000 Da passivated background after 5 days in culture. Live cells stained with FDA (green) and dead cells stained with PI (red).