

## RESEARCH ARTICLE

## High-precision depth-controlled laser bioprinting of cells in extracellular matrix for three-dimensional structures

**Supplementary File**

**Video S1.** Jet propagation of Bio-ink 1 (10,000 cells/ $\mu$ L) for 400 mJ/cm<sup>2</sup> laser fluence in observation Area A.

**Video S2.** Jet propagation of Bio-ink 2 (75,000 cells/ $\mu$ L) for 400 mJ/cm<sup>2</sup> laser fluence in observation Area A.

**Video S3.** Jet propagation of Bio-ink 1 (10,000 cells/ $\mu$ L) for 600 mJ/cm<sup>2</sup> laser fluence in observation Area A.

**Video S4.** Jet propagation of Bio-ink 2 (75,000 cells/ $\mu$ L) for 600 mJ/cm<sup>2</sup> laser fluence in observation Area A.

**Video S5.** Jet propagation of Bio-ink 1 (10,000 cells/ $\mu$ L) for 800 mJ/cm<sup>2</sup> laser fluence in observation Area A.

**Video S6.** Jet propagation of Bio-ink 2 (75,000 cells/ $\mu$ L) for 800 mJ/cm<sup>2</sup> laser fluence in observation Area A.

**Video S7.** Jet propagation of Bio-ink 1 (10,000 cells/ $\mu$ L) for 1000 mJ/cm<sup>2</sup> laser fluence in observation Area A.

**Video S8.** Jet propagation of Bio-ink 2 (75,000 cells/ $\mu$ L) for 1000 mJ/cm<sup>2</sup> laser fluence in observation Area A.

**Video S9.** Precise immobilization of Bio-ink 1 (10,000 cells/ $\mu$ L) in BME diluted with DMEM for 400 mJ/cm<sup>2</sup> laser fluence in observation Area B.

**Video S10.** Precise immobilization of Bio-ink 2 (75,000 cells/ $\mu$ L) in BME diluted with DMEM for 400 mJ/cm<sup>2</sup> laser fluence in observation Area B.

**Video S11.** Precise immobilization of Bio-ink 1 (10,000 cells/ $\mu$ L) in BME diluted with DMEM for 600 mJ/cm<sup>2</sup> laser fluence in observation Area B.

**Video S12.** Precise immobilization of Bio-ink 2 (75,000 cells/ $\mu$ L) in BME diluted with DMEM for 600 mJ/cm<sup>2</sup> laser fluence in observation Area B.

**Video S13.** Precise immobilization of Bio-ink 1 (10,000 cells/ $\mu$ L) in BME diluted with DMEM for 800 mJ/cm<sup>2</sup> laser fluence in observation Area B.

**Video S14.** Precise immobilization of Bio-ink 2 (75,000 cells/ $\mu$ L) in BME diluted with DMEM for 800 mJ/cm<sup>2</sup> laser fluence in observation Area B.

**Video S15.** Precise immobilization of Bio-ink 1 (10,000 cells/ $\mu$ L) in BME diluted with DMEM for 1,000 mJ/cm<sup>2</sup> laser fluence in observation Area B.

**Video S16.** Precise immobilization of Bio-ink 2 (75,000 cells/ $\mu$ L) in BME diluted with DMEM for 1,000 mJ/cm<sup>2</sup> laser fluence in observation Area B.