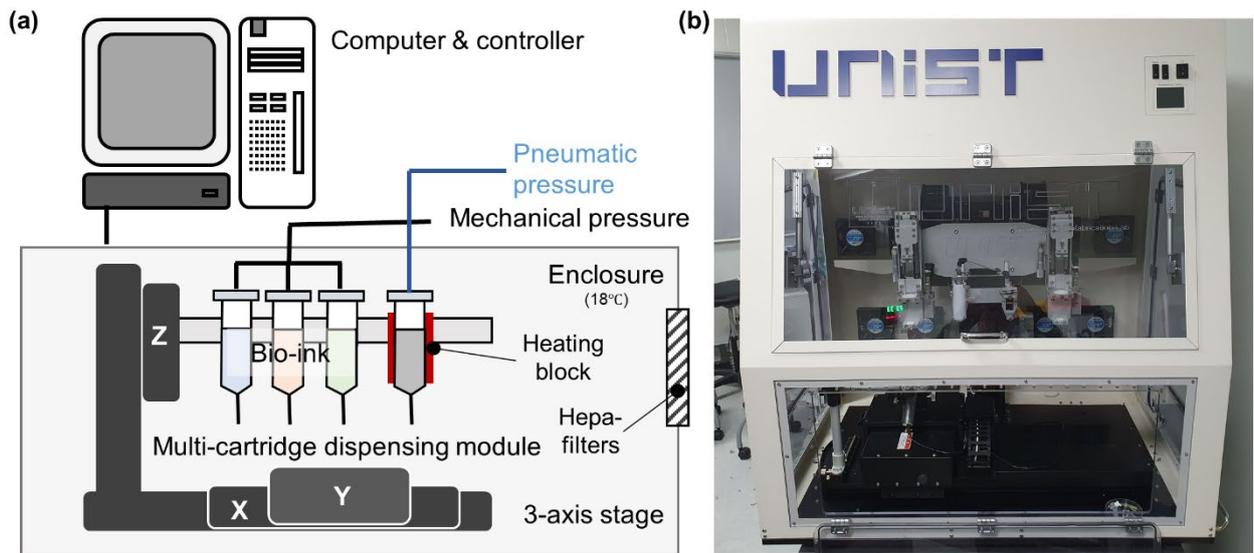
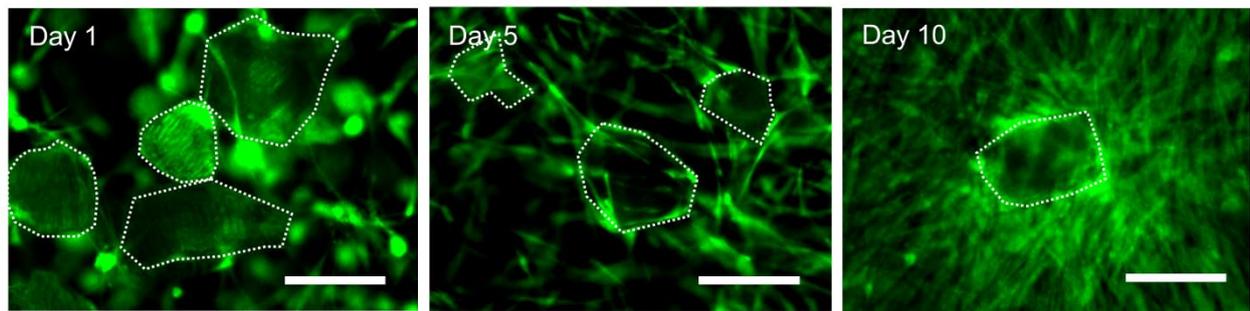


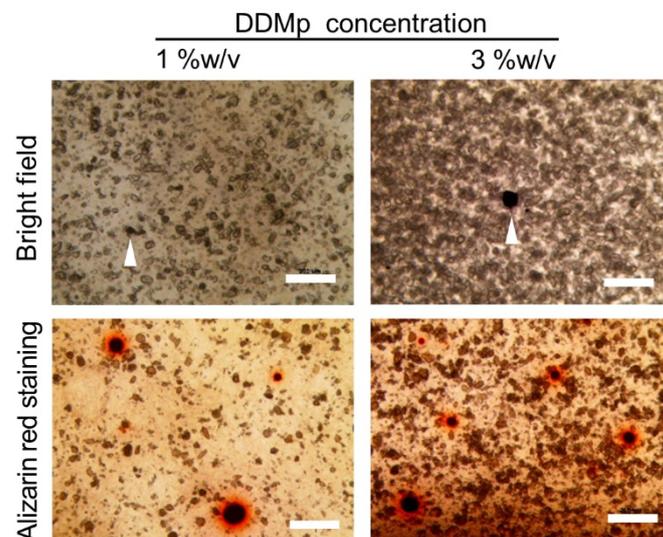
# Supporting Information



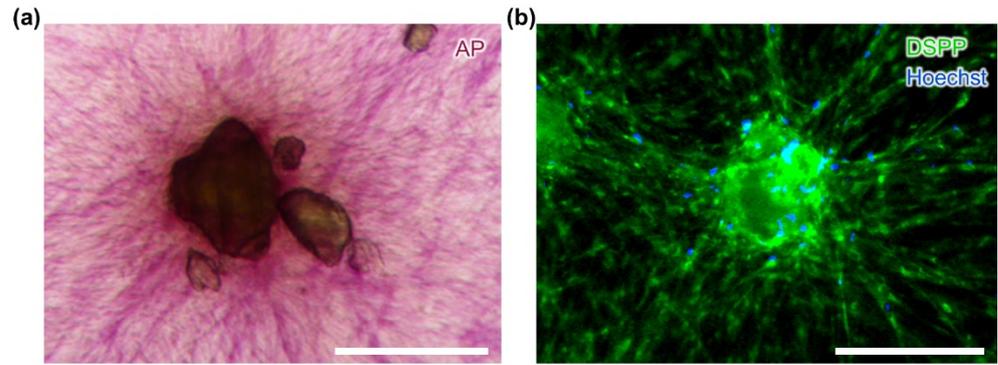
**Figure S1.** (a) Schematic diagram and (b) photograph of a home-made 3D bioprinter.



**Figure S2.** Fluorescence images of DPSCs in 10 %w/v DDMp bio-ink on days 1, 5, and 10 (Scale bars: 20  $\mu\text{m}$ ). DPSCs-laden DDMp bio-inks were cultured in proliferation medium for 10 days, and the samples were stained with calcein AM. White dot lines represent DDMp.



**Figure S3.** Odontogenic differentiation of DPSCs in DDMp bio-ink. Bright field microscopy images and alizarin red staining results of DPSCs-laden DDMp bio-inks after culturing with differentiation medium for 15 days. White arrowheads indicate the formation of mineral nodules (Scale bar: 500  $\mu\text{m}$ ).



**Figure S4.** Odontogenic protein expression of DPSCs in 10 %w/v DDMp bio-ink. (a) Alkaline phosphatase (AP; dark bluish–purple) staining and (b) dentin sialophosphoprotein (DSPP; green) immunofluorescence staining results of DPSCs-laden DDMp bio-ink after culturing in odontogenic differentiation for 15 days. Cell nuclei were stained with Hoechst (blue). (Scale bars: 100  $\mu$ m).

**Table S1.** Genes and their primer sequences for RT-qPCR.

| Genes | Primer Sequences              |                            |
|-------|-------------------------------|----------------------------|
| GAPDH | Forward (5' $\rightarrow$ 3') | GAA-GGT-GAA-GGT-CGG-AGT    |
|       | Reverse (3' $\rightarrow$ 5') | GAA-GAT-GGT-GAT-GGG-ATT-TC |
| DMP-1 | Forward (5' $\rightarrow$ 3') | CAA-GAC-AGT-GCC-CAA-GAT-AC |
|       | Reverse (3' $\rightarrow$ 5') | TTC-CCT-CAT-CGT-CCA-ACT    |
| DSPP  | Forward (5' $\rightarrow$ 3') | CTG-GTG-CAT-GAA-GGT-GAT-AG |
|       | Reverse (3' $\rightarrow$ 5') | CCC-TCT-TCG-TTT-GCT-AAT-GT |