Vascularized dental pulp regeneration using cell-laden microfiber aggregates

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**Figure S1.** Identification of DPSCs and HUVECs. (A) DPSCs isolated from human pulp tissue. Scale bars, 100μm. (B) The expressions of CD73, CD29, CD146, CD34, and CD45 in DPSCs detected by flow cytometry. (C) The curve of DPSCs proliferation measured by cck8 assay from day 1 to day 7. (D) Clone formation assay of DPSCs for evaluating self-renewal capacity. (E) Alizarin red and oil red staining of DPSCs after osteogenic and adipogenic induction for 21 days. Tubulin βIII immunofluorescence staining after neurogenic induction of DPSCs for 24 hours. Scale bars, 50μm. (F) HUVECs (Passage 5) isolated from human umbilical vein. Scale bars, 200μm. (G) Flow
cytometry identified expression CD31, CD105, and CD106 in HUVECs. (H) Angiogenesis experiment of HUVECs for 4 hours. Scale bars, 200μm.

**Figure S2.** Technical diagram of the preparation of microfiber aggregates and implantation of them into the root of a tooth (Figure S2).

**Figure S3.** Angiogenesis in new pulp-like tissue.