Radially Aligned, Electrospun Nanofibers as Dural Substitutes for Wound Healing and Tissue Regeneration Applications

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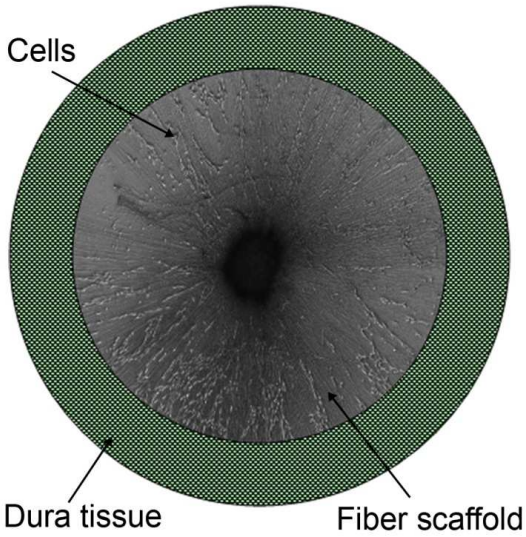

Figure S1. Schematic illustrating cell migration from dura tissue placed at the edge of a scaffold made of nanofibers.

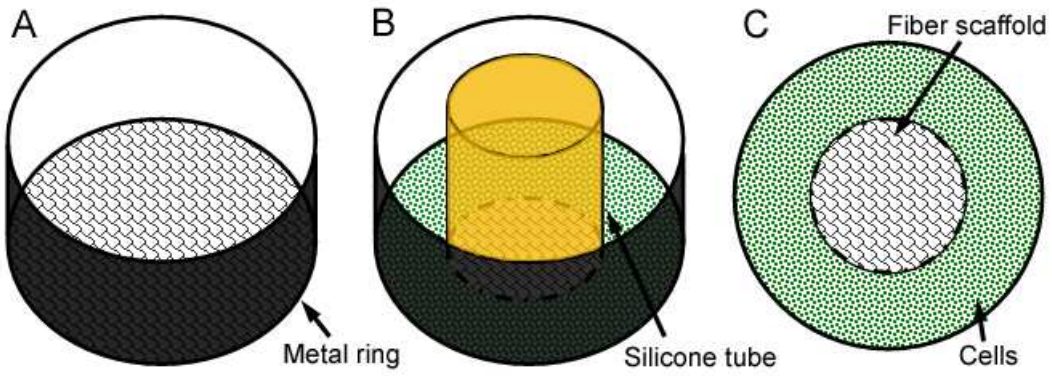

Figure S2. Schematic illustrating our home-made cell culture system. (A) A nanofiber-based scaffold was attached to the bottom of a metal ring. (B) A silicone tube was placed at the center of the metal ring prior to cell seeding. (C) A top view showing cells at the surrounding areas and fibers in the center.

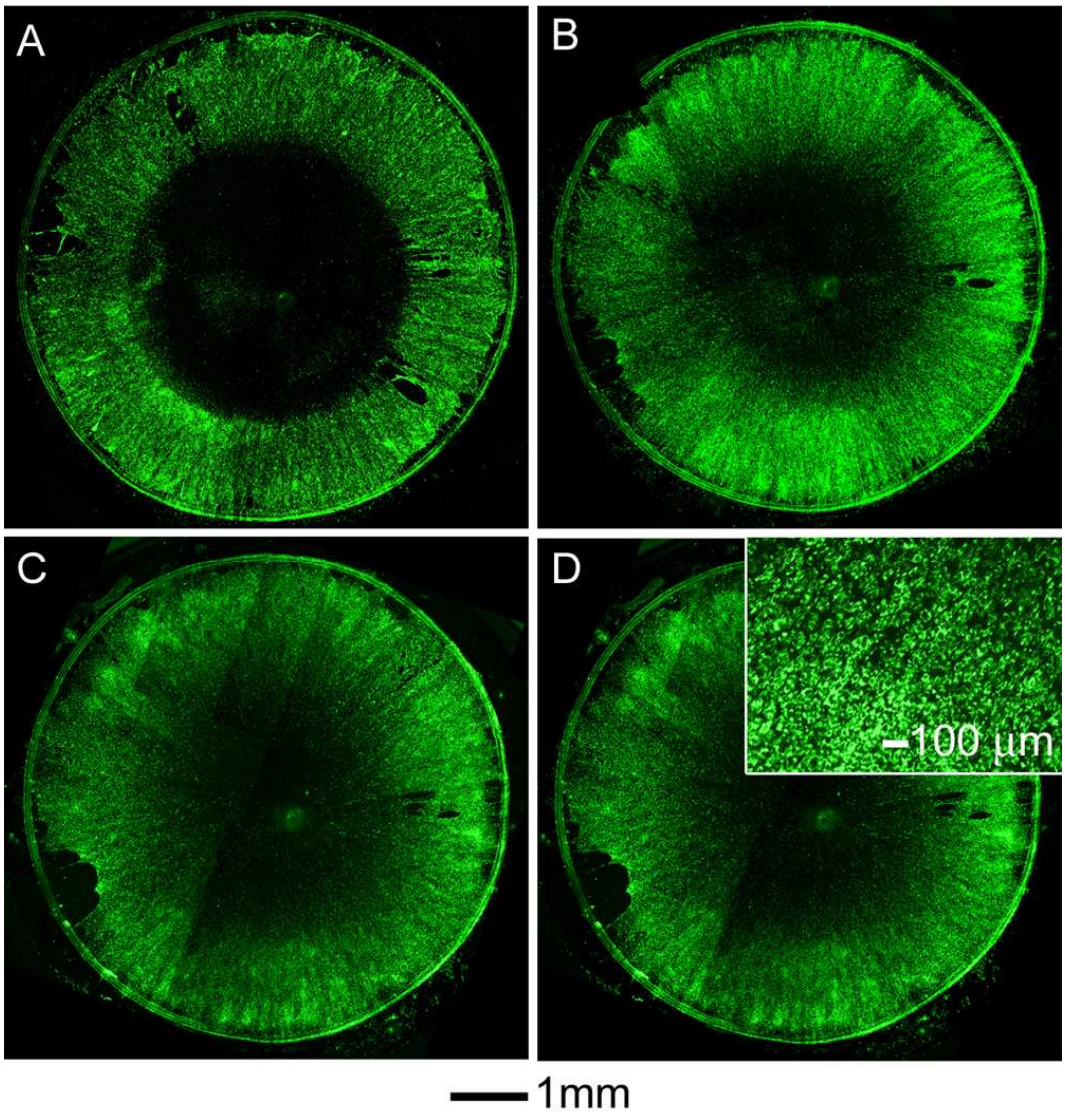

Figure S3. Live dural fibroblasts labeled with membrane dye on scaffolds of radially aligned nanofibers with fibronectin coating after (A) 1, (B) 3, (C) 7, and (D) 10-day culture. Inset: a high magnification image of (D), indicating that the cells were also radially aligned.

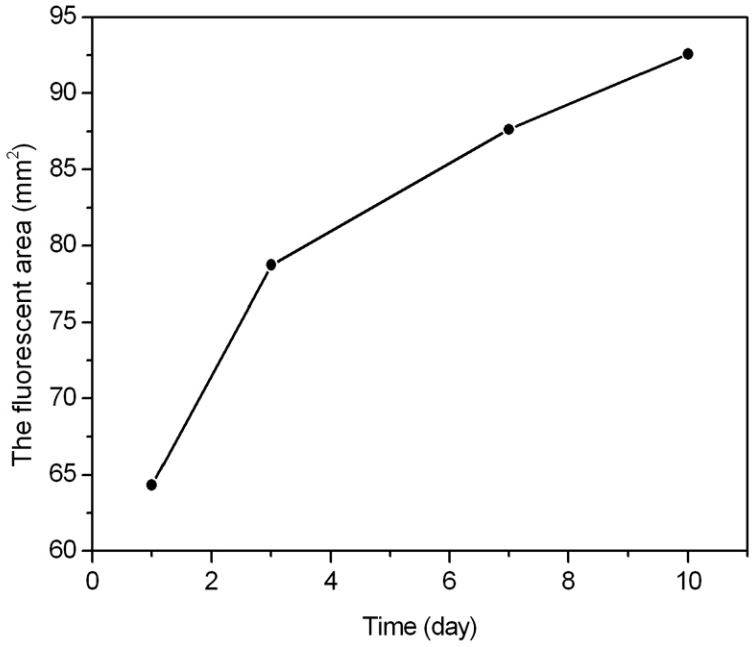

Figure S4. The fluorescent area (the area dura cells covered) in Figure S3 was quantified using Image J.

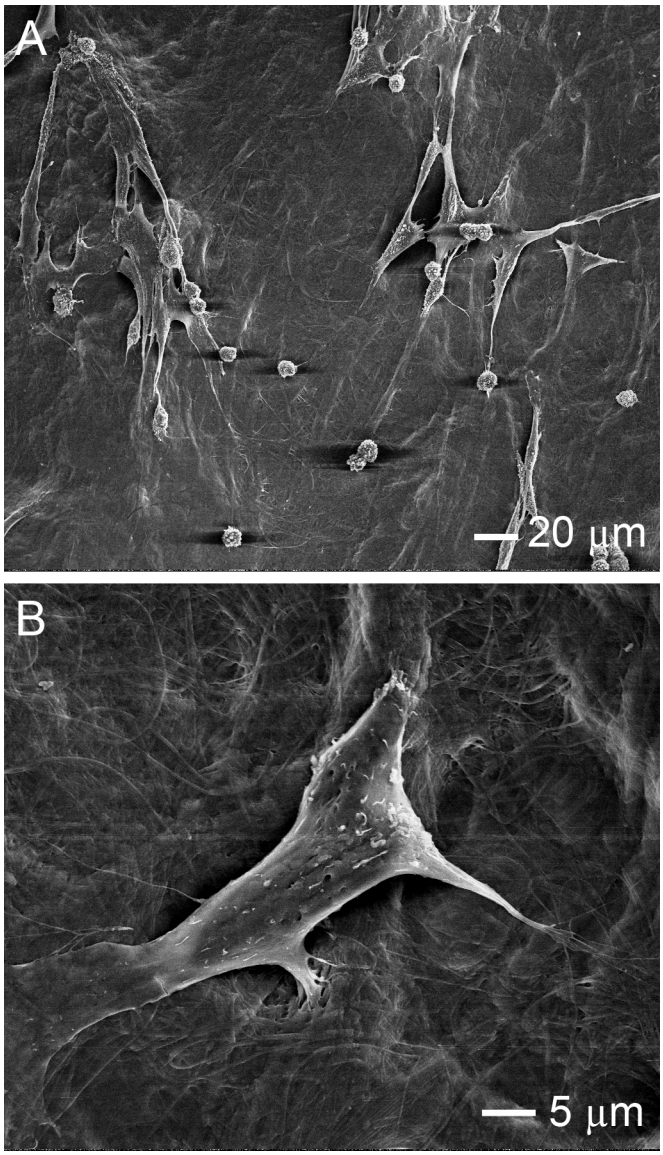

Figure S5. SEM images of dura fibroblasts on the DuraMatrix-Onlay^{TM} collagen dura substitute membrane at two different magnifications.