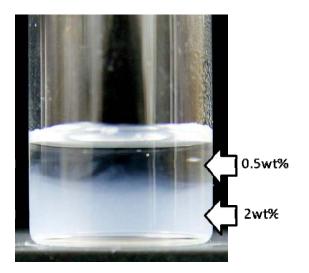
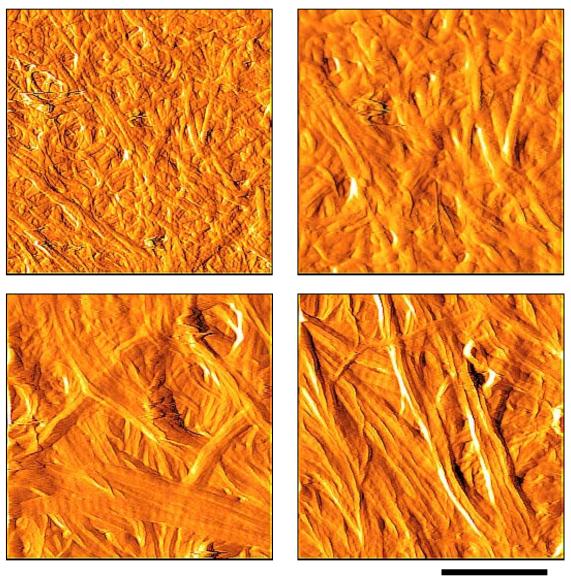
## **Supplementary Figures**



**Figure S1.** Deposition of the 0.5-wt% collagen aqueous solution onto the 2-wt% collagen aqueous solution.



1µm

(a) (b)

**Figure S2.** AFM images (deflection mode) of the collagen fibrils of the 2-wt% monolithic collagen matrix (a) and multi-layered collagen matrix (b). The upper images represent the sparse collagen layer and the below images represent the dense collagen layer.

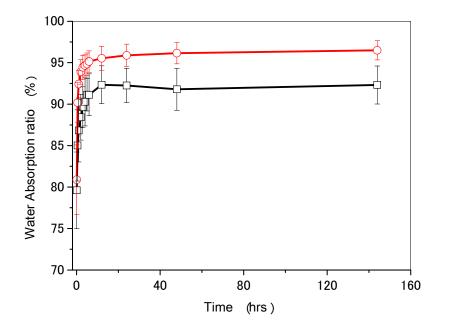


Figure S3. Water absorption ratio of the 0.5-wt% and 2-wt% monolithic collagen matrices.

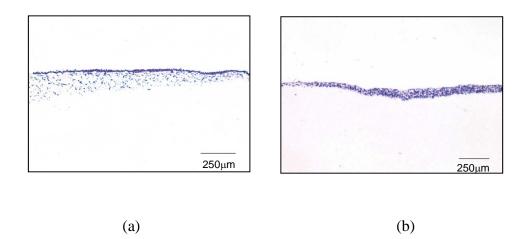


Figure S4. (a) L929 cells seeded on the upper (c) and lower (b) collagen layer of the0.5-wt% collagen matrix. The depth of the cell infiltration was approximately 146 μm.