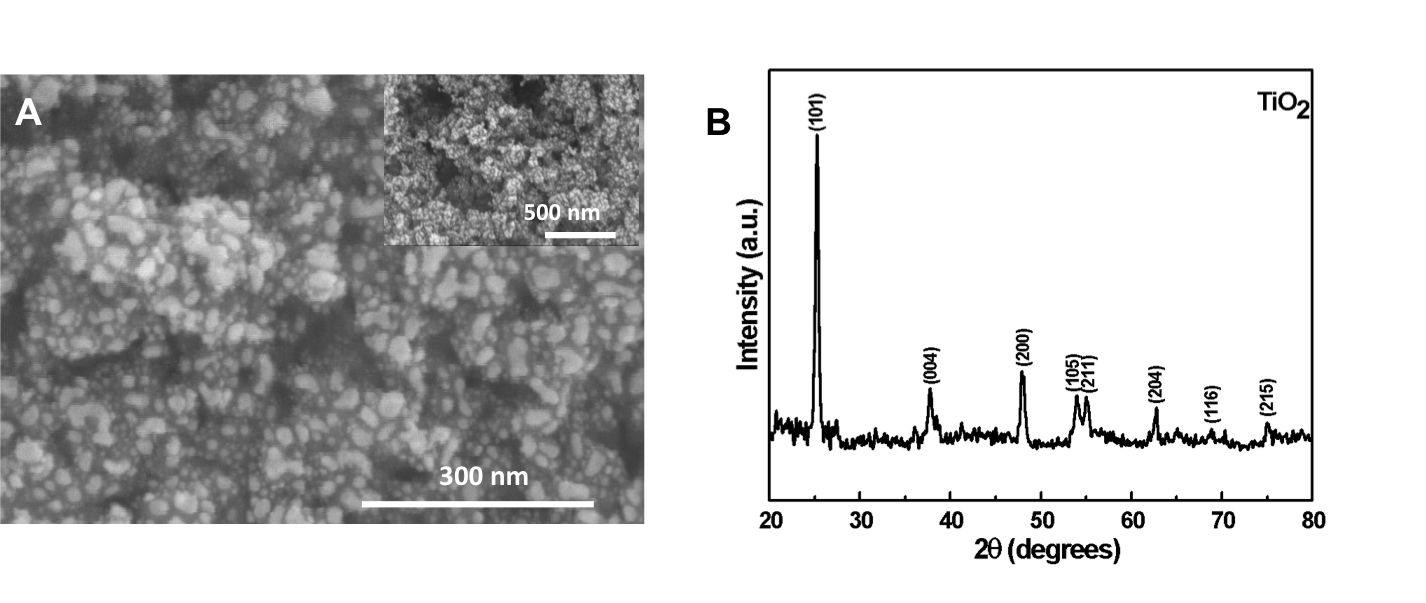
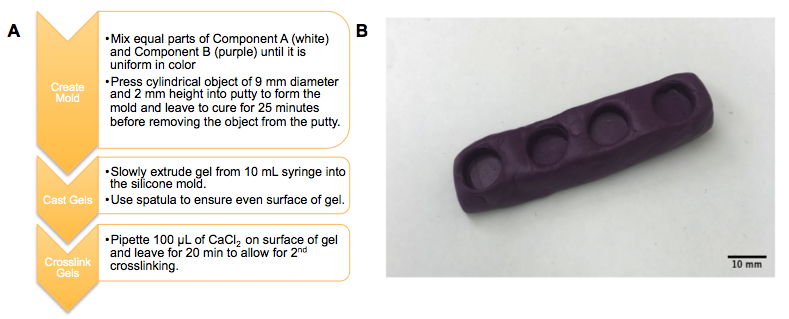
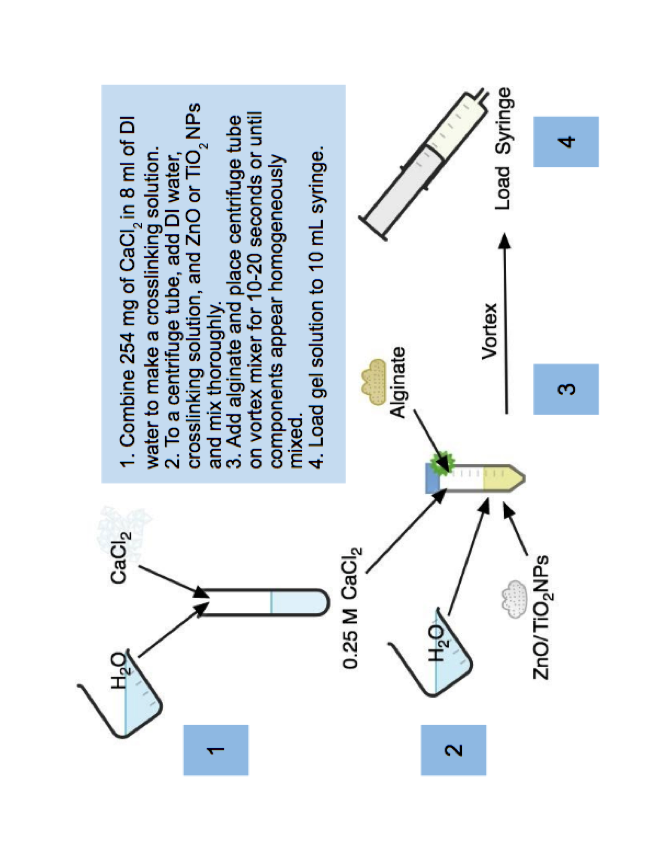
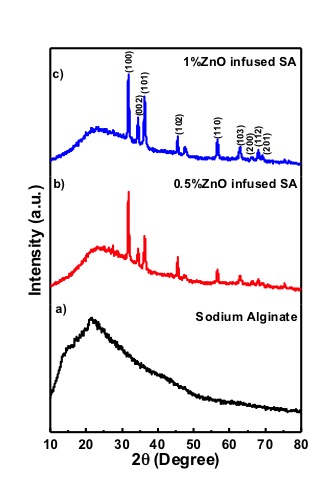
****

**Supplementary Figure S1.** TiO2 nanoparticle characterization (A) SEM micrographs of TiO2 nanoparticles at different magnifications. The inset shows the low magnification image of TiO2 nanoparticle. (B) XRD patterns of commercially procured TiO2 nanoparticles.

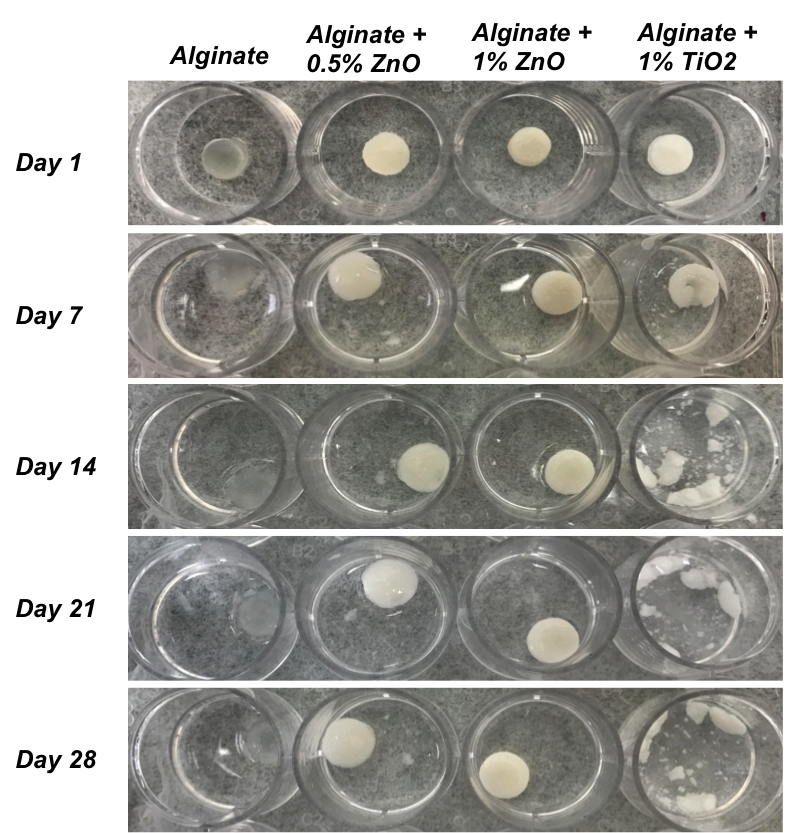


**Supplementary Figure S2.** A. Process for casting gels using EasyMold Silicone Putty. B. Silicone mold for cast gels.

**Supplementary Figure S3.** Schematic depicting the steps for gel formulation.



**Supplementary Figure S4.** XRD patterns of a) pure sodium alginate b) 0.5% and c) 1% ZnO nanoparticle infused sodium alginate.



**Supplementary Figure S5.** Images of samples in 1X PBS visually tracked over time.