

## Supplementary Materials for

### **Balancing Antibacterial and Osteogenic Effects of Double-layer TiO<sub>2</sub> Nanotubes Loaded with Silver Nanoparticles for Osseointegration of Implants**

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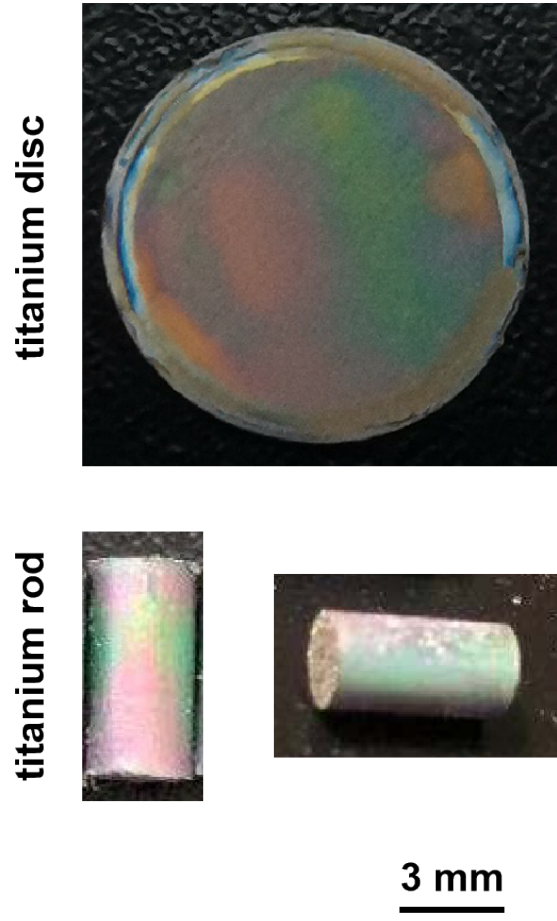
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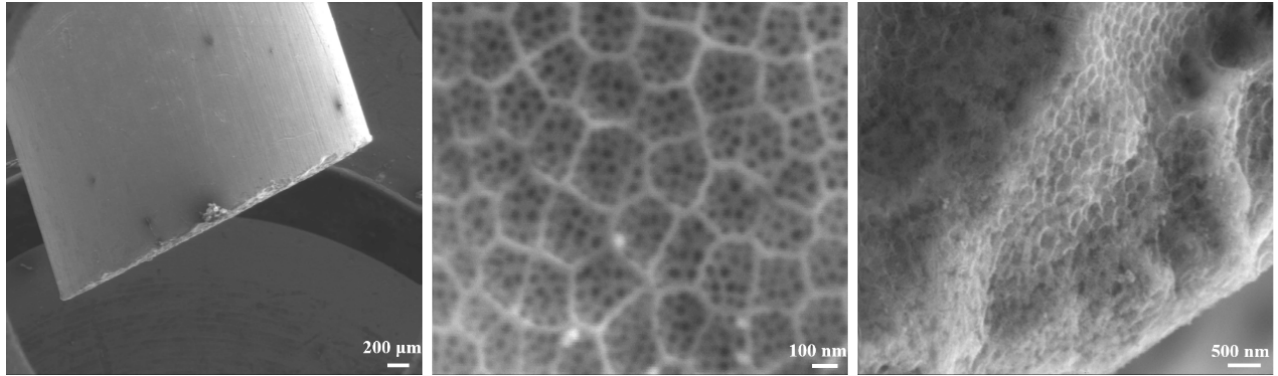
Figs. S1 to S8

Table S1.

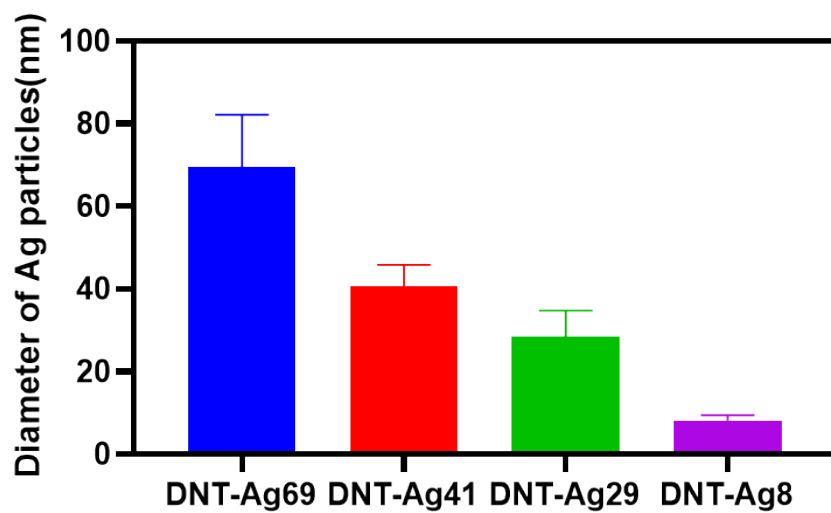
**Fig. S1.** Images of the titanium disc and rod.



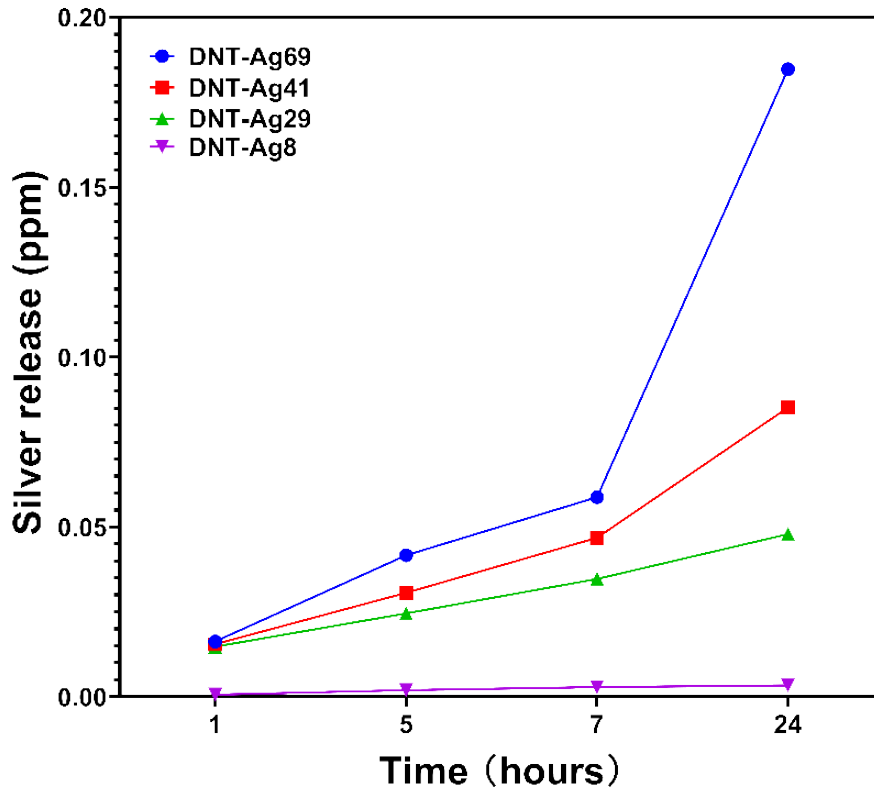
**Fig. S2.** The SEM images of the titanium rods of DNT.



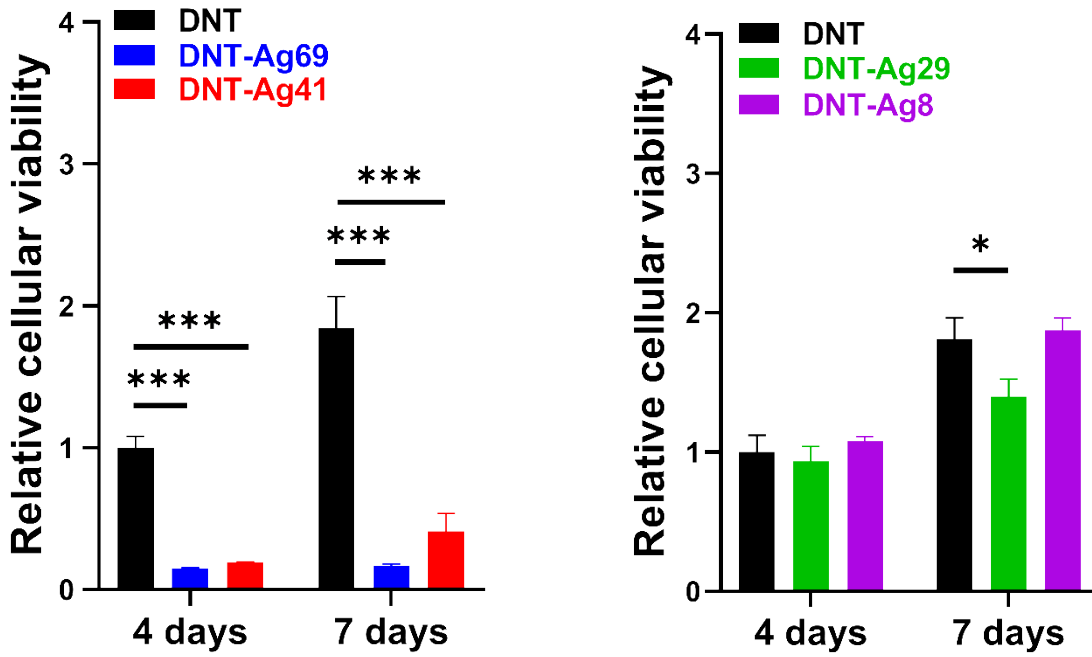
**Fig. S3.** The average diameter of Ag particles that were loaded onto the DNT-Ag.



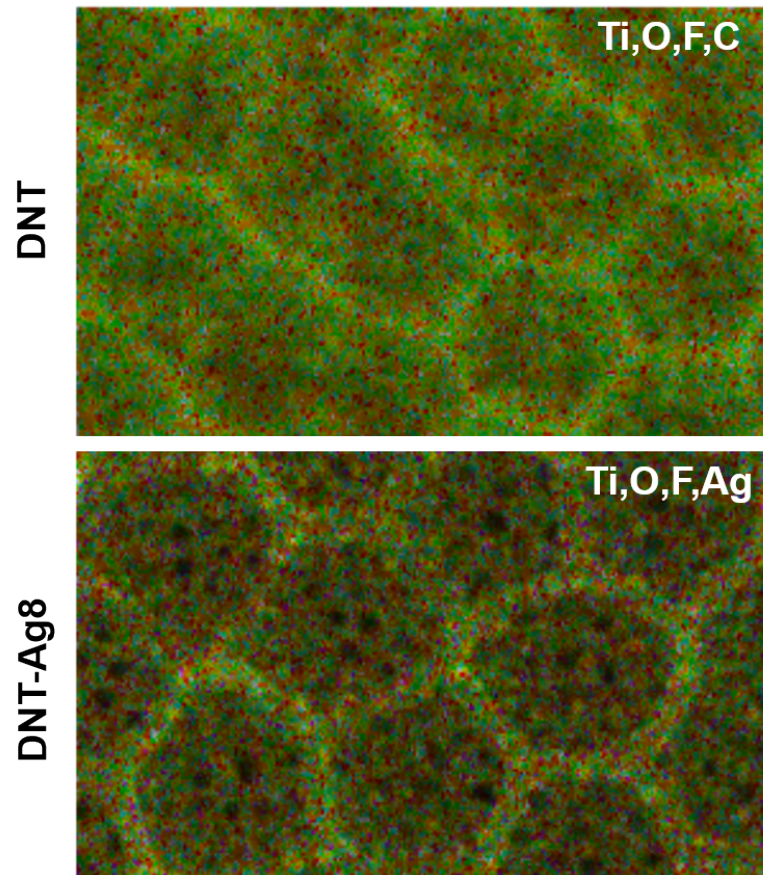
**Fig. S4.** Silver ion release (ppm) from the exposed surface of the DNT-Ag samples over time when incubated in 5 mL of water.



**Fig. S5.** The relative cellular viability of rBMSCs attached to the surface of DNT and DNT-Ag. Data are presented as the mean  $\pm$  SD. \* $P < 0.05$ ; \*\*\* $P < 0.001$ .

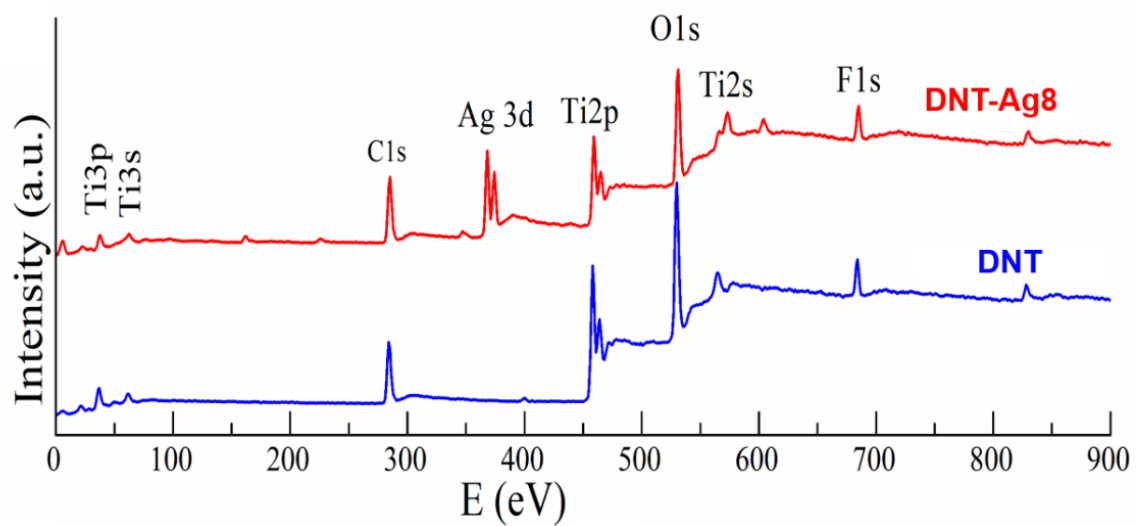


**Fig. S6.** EDS mapping images of the DNT and DNT-Ag8 [Ti (yellow), O (green), F (blue), C (red) and Ag (purple)].

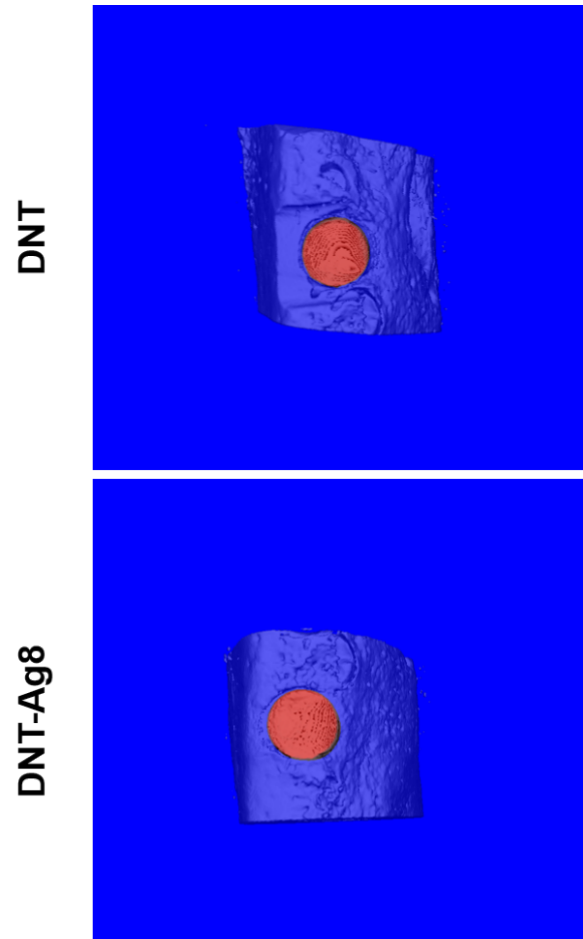




**Fig. S7.** The full-scale XPS patterns for DNT and DNT-Ag8 samples.



**Fig. S8.** Micro-CT 3D reconstruction perspective view on the top of the implant at 12 weeks after implantation.



**Table S1.** The chemical compositions of the DNT and DNT-Ag8 by EDS.

%	Ti	O	F	C	Ag
DNT	71.0	22.6	4.9	1.5	0
DNT-Ag8	67.6	24.3	7.8	0	0.3