

Trojan-Like Internalization of Anatase Titanium Dioxide Nanoparticles by Human Osteoblast Cells

A. R. Ribeiro^{1,2,3*}, S. Gemini-Piperni^{1,2*}, R. Travassos¹, L. Lemgruber^{1,4}, R. Carvalho¹, A. L. Rossi⁵, M. Farina⁶, K. Anselme⁷, T. Shokhufar^{2,8}, R. Shahbazian-Yassar^{2,9}, R. Borojevic^{2,10}, L. A. Rocha^{2,11}, J. Werckmann^{1,2}, J.M. Granjeiro^{1, 2,12}

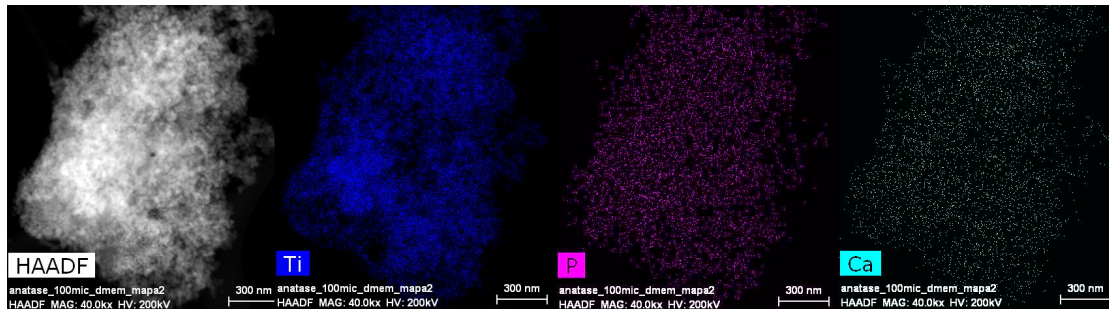


Figure S1: Anatase bio-complexes formation in medium culture without serum and albumin stabilization (100 µg/ml anatase): Dark-field STEM image showing where the corresponding elemental maps were obtained; STEM/EDS Ti-K map; STEM/EDS P-K map, STEM/EDS Ca-K map;

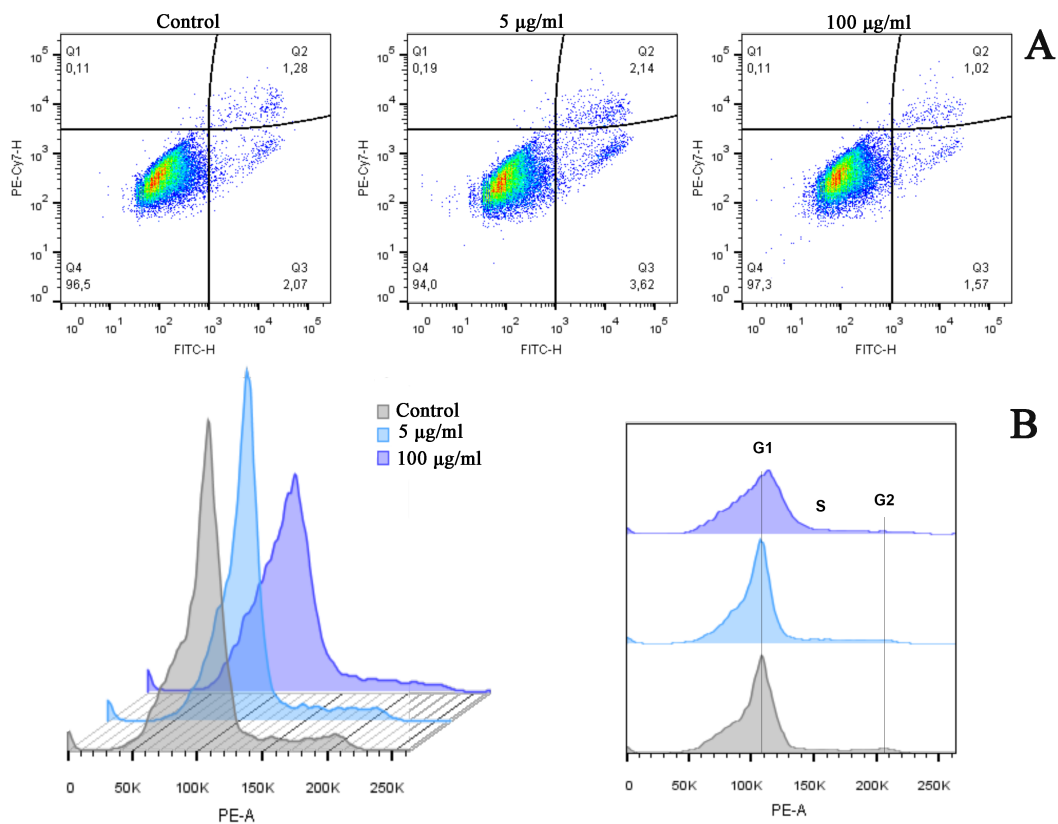


Figure S2: Bone cell viability and cell cycle analysis after exposure to anatase nanoparticles: (A) Dose-dependent effect of anatase on cell apoptosis using flow

cytometry after staining with annexin V / PI; (B) cell cycle analysis.