

Supporting Information

Surface Hydroxyl Groups Regulate the Osteogenic Differentiation of Mesenchymal Stem Cells on Titanium and Tantalum Metals

Mengfei Yu^{1,2,3,*}, Jiaying Gong^{1,*}, Ying Zhou¹, Lingqing Dong^{1,2,★}, Yihan Lin¹, Liang Ma⁴, Wenjian Weng^{1,2}, Kui Cheng^{1,2,★} & Huiming Wang^{1,2,3,★}

¹ The Affiliated Stomatologic Hospital, Zhejiang University, Hangzhou 310003, China.

² School of Materials Science and Engineering, State Key Laboratory of Silicon Materials, Cyrus Tang Center for Sensor Materials and Applications, Zhejiang University, Hangzhou 310027, China.

³ The First Affiliated Hospital of Medical College, Zhejiang University, Hangzhou 310003, China.

⁴ The State Key Laboratory of Fluid Power Transmission and Control, Zhejiang University, Hangzhou 310027, China.

* These authors contributed equally to this work.

★Correspondence and requests for materials should be addressed to: lingqingdong@zju.edu.cn (L. Dong), chengkui@zju.edu.cn (K. Cheng) and hmwang1960@hotmail.com (H. Wang).

Table S1. Primer sequences for real-time PCR.

| Gene | Primer sequences (5'-3') |
|-------------|---|
| Collagen I | F: TCCTGCCGATGTCGCTATC R: CAAGTCCGGTGTGACTCGTG |
| Runx2 | F: GCTTCTCCAACCCACGAATG R: GAACTGATAGGACGCTGACGA |
| OCN | F: AAAGCCCAGCGACTCT R: CTAAACGGTGGTGCCATAGAT |
| GAPDH | F: GGCACAGTCAAGGCTGAGAATG R: ATGGTGGTGAAGACGCCAGTA |

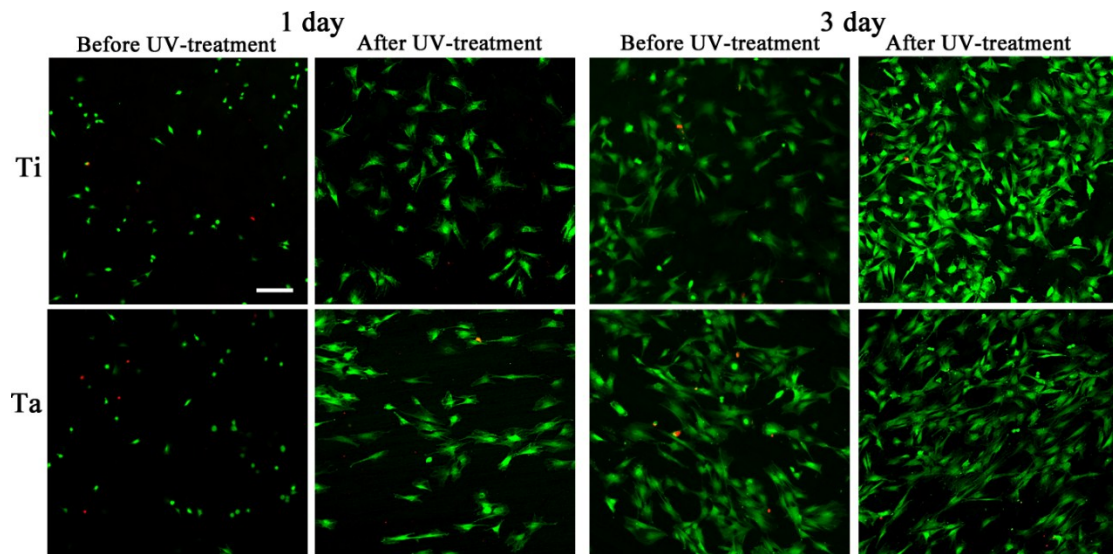


Figure S1. Viability of MSCs on Ti and Ta substrates (before and after UV treatment) after 1 day and 3 days of culture demonstrated by live-dead staining. All the images share one scale bar in the first image, 100 μm .