Supporting Information

Tissue Adhesive Paint of Silk Micro-particles for Articular Surface Cartilage Regeneration

Jingwei Zhang[a,b †], Xianzhu Zhang[a,b †], Yi Hong[a,b], Qianbao Fu[a,b], Qiulin He[a,b], Asma Mechakra[a,b], Qiuwen Zhu [a,b], Feifei Zhou[a,b], Renjie Liang[a,b], Chenglin Li[a,b], Yejun Hu[a,b], Yiwei Zou[a,b], Shufang Zhang[a,b,d], HongWei Ouyang[a,b,c,d*]

a. Dr. Li Dak Sum & Yip Yio Chin Center for Stem Cells and Regenerative Medicine, and Department of Orthopedic Surgery of the Second Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China.

b. Zhejiang University-University of Edinburgh Institute, Zhejiang University School of Medicine, and Key Laboratory of Tissue Engineering and Regenerative Medicine of Zhejiang Province, Zhejiang University School of Medicine, Hangzhou, China.

c. Department of Sports Medicine, Zhejiang University School of Medicine, Hangzhou, China.

d. China Orthopedic Regenerative Medicine Group (CORMed), Hangzhou, China.

†These authors contributed equally to this work.

Corresponding author. E-mail: hwoy@zju.edu.cn;

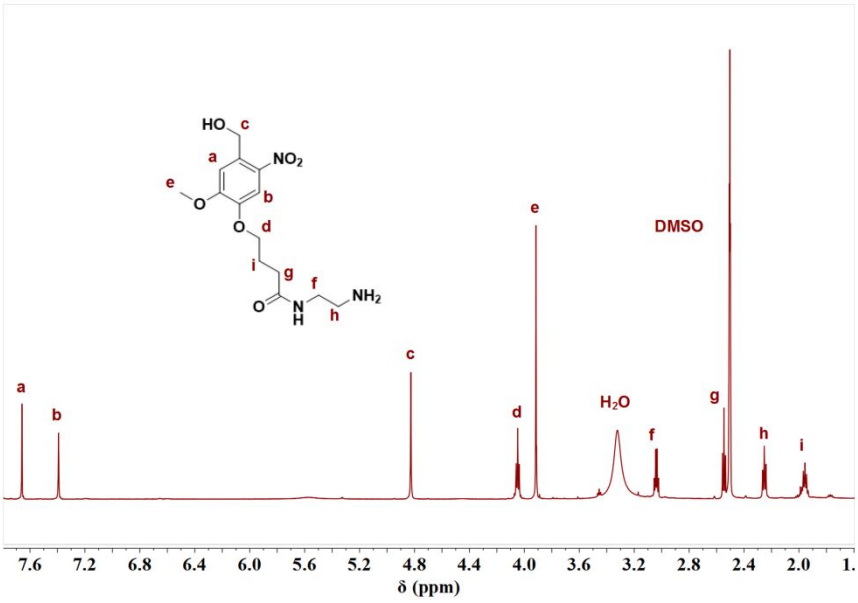

Figure S1. Structure characterization of NB by ^{1}H NMR (600MHZ)

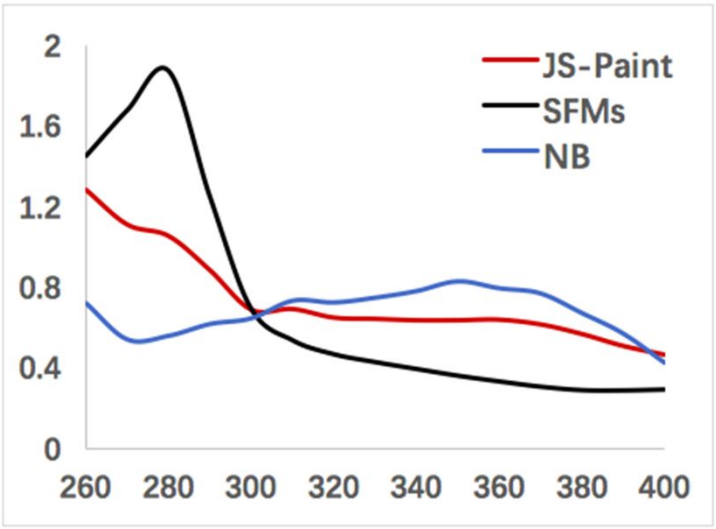

Figure S2. UV-vis spectrum of JS-Paint, SFMs and NB.

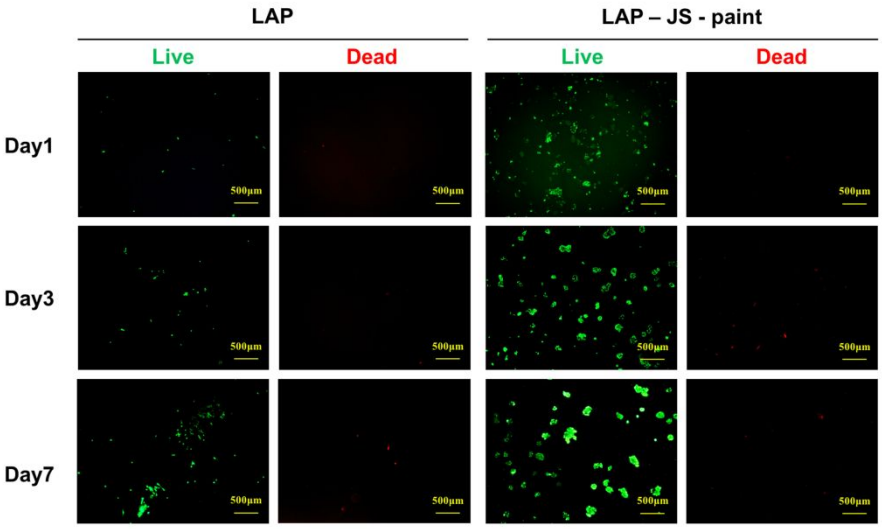

Figure S3 Representative Live/dead staining images of Rabbit MSC cells on LAP and LAP-JS-Paint on day 1, day 3, day 7 (Scale bar: 500 µm).

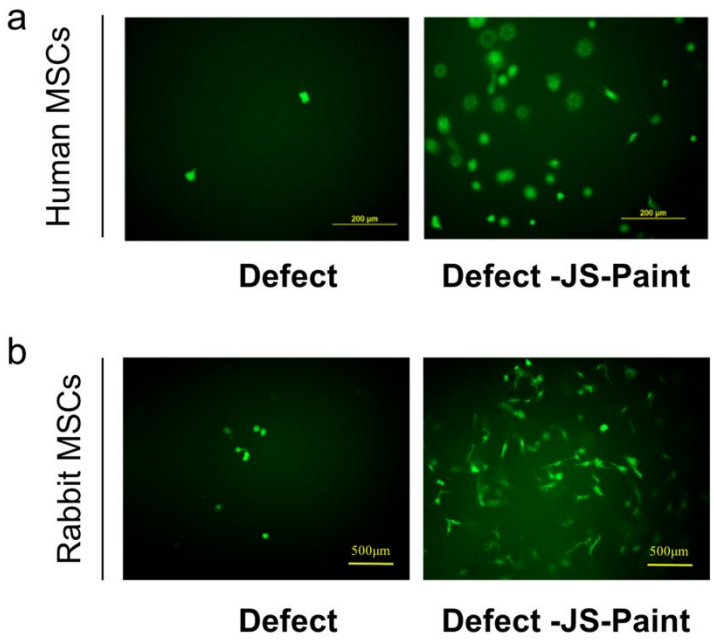

Figure S4 Live staining of (a) Human MSCs and (b)Rabbit MSCs attached on Defect and Defect-JS-Paint 8h after cell seeding.

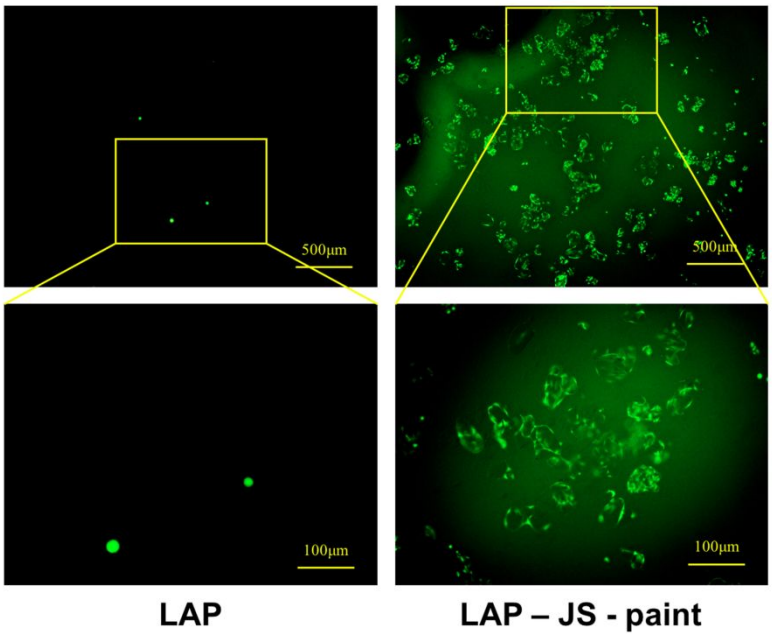

Figure S5. Live staining of cells showing cells migrated onto the LAP and LAP-JS-Paint on day 5.

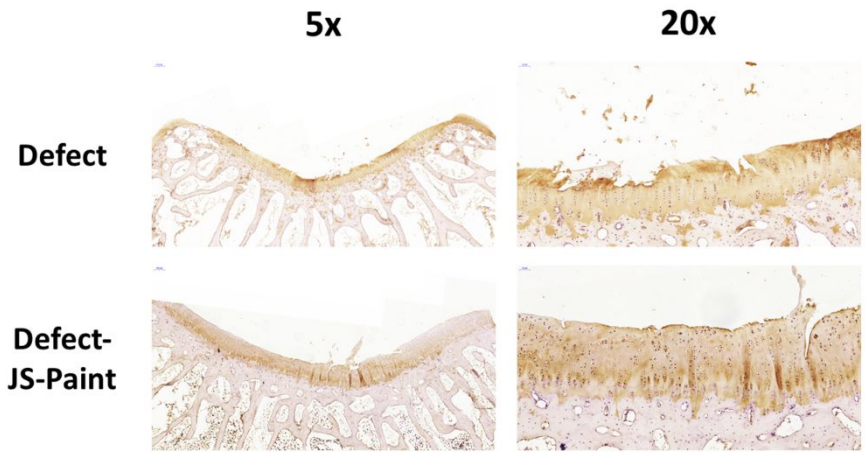

Figure S6. Immunohistochemistry images of type II collagen in the newly formed cartilage of Defect and Defect-JS-Paint groups.