Supporting Information

Wet adhesive hydrogels based on niobium carbide for experimental research of

oral mucosal impairment

Jiayuan Chen^{a, 1}, Junyu Ren^{b, 1}, Yingjie Wu^c, Narisu Hu^{b, *}, Fang Zhao^{d, *}, Lin Zhang^{a, *}

^a First Affiliated Hospital of Harbin Medical University, College of Stomatology,
Harbin Medical University, No. 143 Yiman Street, Nangang District, Harbin, 150001,
China.

^b Oral Implant Center, Second Affiliated Hospital of Harbin Medical University, Harbin Medical University, Harbin, Heilongjiang, China.

^c Key Laboratory of Microsystems and Microstructures Manufacturing (Ministry of Education), School of Medicine and Health, Harbin Institute of Technology, No. 92 XiDaZhi Street, Harbin, 150001, China.

^d Department of Dentistry, Second Affiliated Hospital of Harbin Medical University, Harbin Medical University, Harbin, Heilongjiang, China.

¹ These authors contributed equally to this work

*Corresponding authors

E-mails: <u>hmuhunarisu@163.com</u>; <u>dentistzhaofang@163.com</u>; <u>cczhlin@163.com</u>

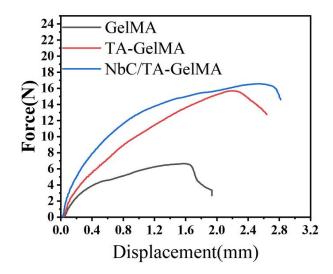


Fig. S1. Force-Displacement curves of different hydrogels.

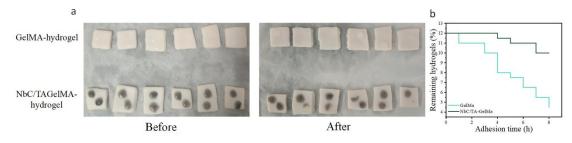


Fig. S2. The quantities of two hydrogels before and after stirring.

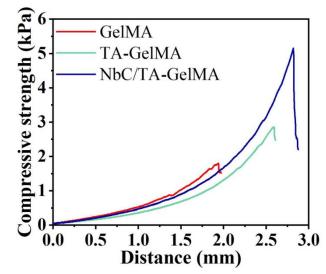


Fig. S3. Compressive strength-distance curves of GelMA, TA-GelMA, NbC/TA-GelMA hydrogels.

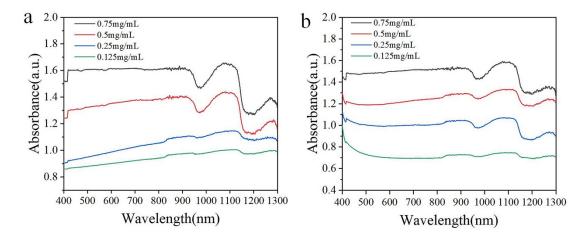


Fig. S4. Visible-NIR absorption spectra of (a) different concentrations of NbC and (b) NbC/TA-GelMA hydrogels with different concentrations of NbC.

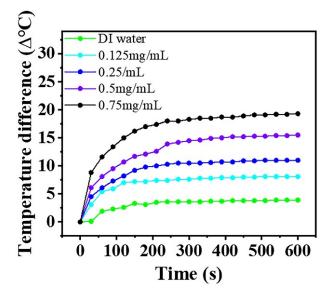


Fig. S5. Heating curves of different concentrations of NbC nanoparticles.

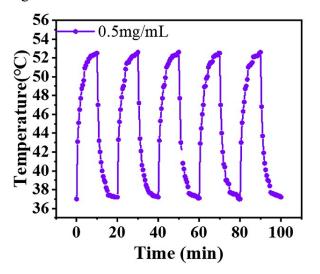


Fig. S6. Temperature cycling diagram of NbC nanoparticles at a concentration of 0.5 mg/mL.

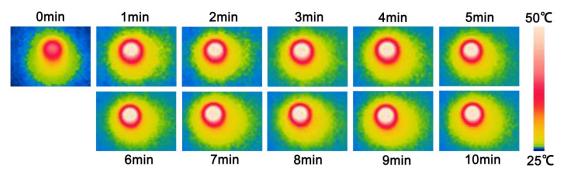


Fig. S7. NIR images of NbC/TA-GelMA hydrogels with 0.75 mg/mL concentration of NbC.

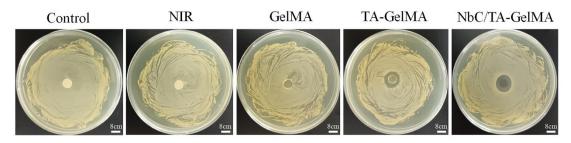


Fig. S8. Zone of inhibition assay of different groups.

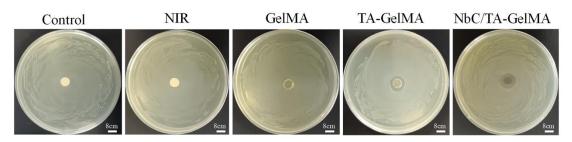


Fig. S9. Zone of inhibition assay of different groups.

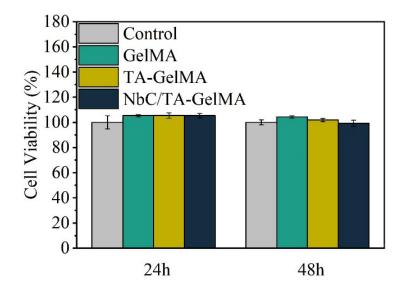


Fig. S10. Viability of HOK in each group.