Supplementary Information

A superstable homogeneous Lipiodol-hydrophilic chemodrugs formulation for treatment of hepatocellular carcinoma

Pan He^{1,2,#}, En Ren^{1,#}, Biaoqi Chen^{3,#}, Hu Chen^{1,#}, Hongwei Cheng¹, Xing Gao¹, Xiaoliu Liang¹, Hao Liu³, Jingdong Li⁵, Bo Li⁶, Aizheng Chen³, Chengchao Chu^{1,4}, Xiaoyuan Chen⁷, Jingsong Mao^{1,2,*}, Yang Zhang^{1,*}, Gang Liu^{1,*}

¹ State Key Laboratory of Molecular Vaccinology and Molecular Diagnostics, Center for Molecular Imaging and Translational Medicine, School of Public Health, Xiamen University, Xiamen 361102, China.

² Department of Radiology, Xiang'an Hospital of Xiamen University, School of Medicine, Xiamen University, Xiamen 361102, China.

³ Fujian Provincial Key Laboratory of Biochemical Technology, Institute of Biomaterials and Tissue Engineering, Huaqiao University, Xiamen 361021, China.

⁴ Amoy Hopeful Biotechnology Co., Ltd., Xiamen 361027, China.

⁵ Department of General Surgery, Institute of Hepatobiliary-Pancreatic-Intestinal Diseases, Affiliated Hospital of North Sichuan Medical College, Nanchong 637000, China.

⁶ Department of General Surgery (Hepatobiliary Surgery), The Affiliated Hospital of Southwest Medical University, Luzhou 646000, China.

⁷ Departments of Diagnostic Radiology, Chemical and Biomolecular Engineering, and Biomedical Engineering, Yong Loo Lin School of Medicine and Faculty of Engineering, National University of Singapore, Singapore, Singapore.

* Corresponding author. E-mail addresses: maojingsong163@163.com (J. Mao), zhangyang0823@xmu.edu.cn (Y. Zhang), gangliu.cmitm@xmu.edu.cn (G. Liu).

[#]P. He, E. Ren, B. Chen, and H. Chen contributed equally to this work.



Figure S1. Verification of the N1S1 orthotopic models *via* MRI, embolization of SHIFT&DOX and CT monitored embolic evaluation.

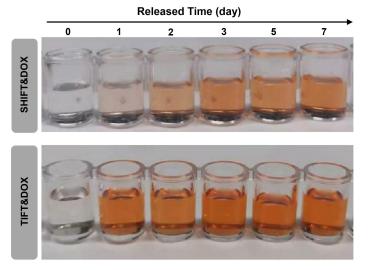


Figure S2. The colour photo of drugs release for freeDOX, nanoDOX within 7 days.

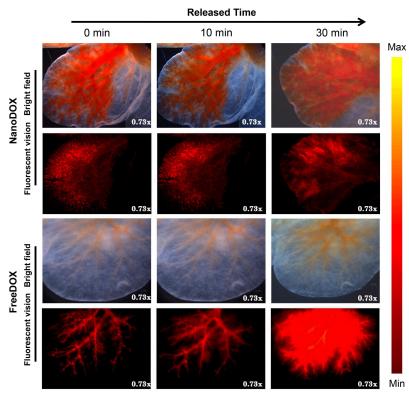


Figure S3. The typical fluorescence microscope images of pure water-soluble freeDOX and nanoDOX injection in the decellularized liver venous.

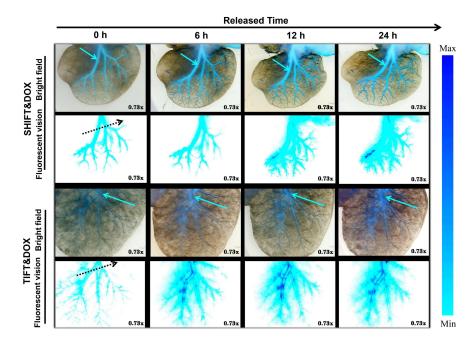


Figure S4. Representative SFM images with reverse phase (Adobe Photoshop CC 2019) of DOX released from SHIFT&DOX and TIFT&DOX of newly injected as well as samples stored for 6 h, 12 h, and 24 h.

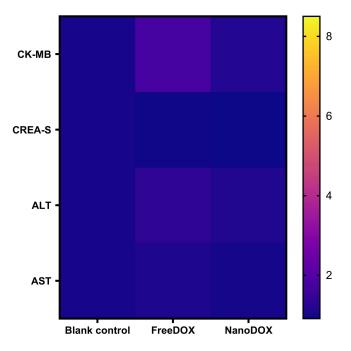


Figure S5. The biochemical analysis results of SD rat acute toxicity test on 3 days at the double doses (2 mg).

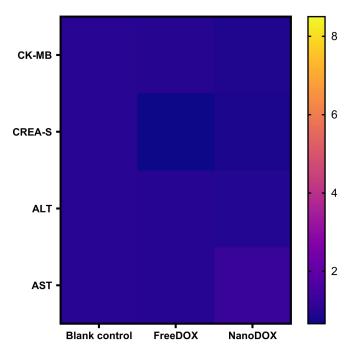


Figure S6. The biochemical analysis results of SD rat acute toxicity test on 7 days at the double doses (2 mg).

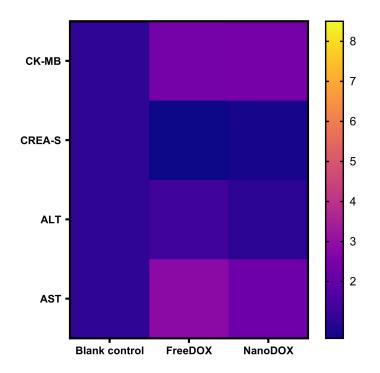


Figure S7. The biochemical analysis results of SD rat acute toxicity test on 3 days at the quadruple doses (4 mg).

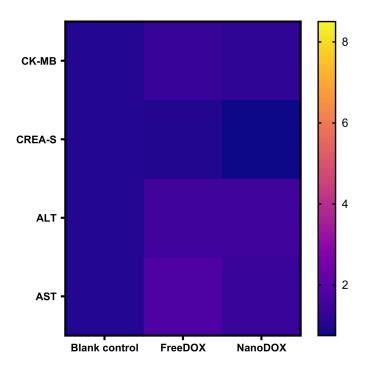


Figure S8. The biochemical analysis results of SD rat acute toxicity test on 7 days at the quadruple doses (4 mg).

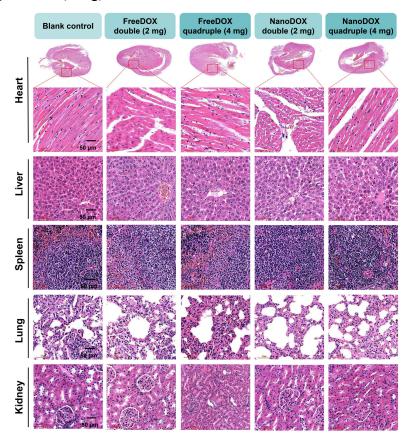


Figure S9. The H&E tissue staining of heart, liver, spleen, lung and kidney of SD rat acute toxicity test on 7 days after TACE.

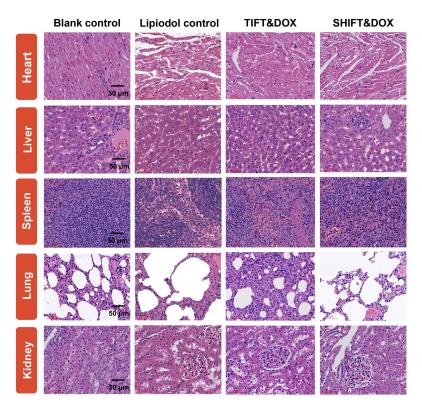


Figure S10. The H&E tissue staining of heart, liver, spleen, lung and kidney of the rabbit model on 10 days after TACE.

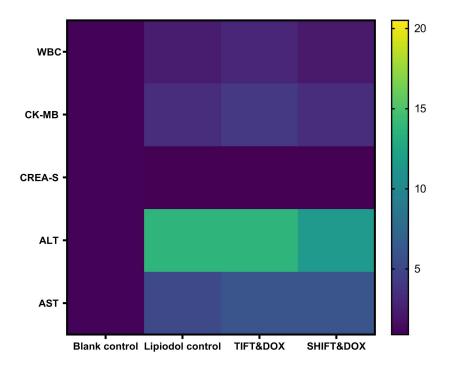


Figure S11. The blood cells and biochemical analysis results on 3 days after TACE.

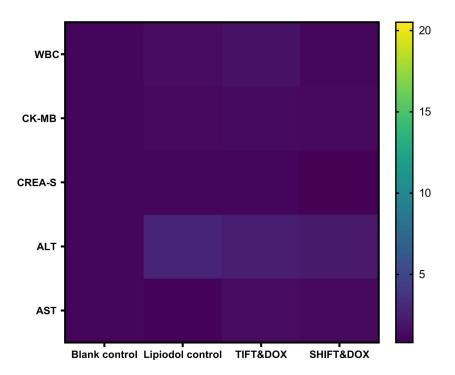


Figure S12. The blood cells and biochemical analysis results on 7 days after TACE.

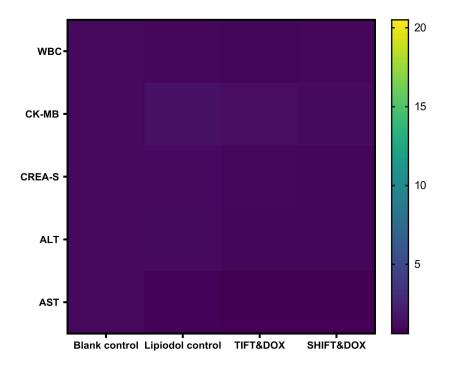


Figure S13. The blood cells and biochemical analysis results on 10 days after TACE.