This journal is © The Royal Society of Chemistry 2021

Thermally activated delayed fluorescent photosensitizer

photodynamic therapy of oral squamous cell carcinoma under low

laser intensity

Shiqi Hu^{1,#}, Bin Huang ^{2,#}, Yumei Pu³, Chengwan Xia³, Qian Zhang³, Sulong Guo², Yuxin Wang^{3,*},

Xiaofeng Huang^{1,*}

¹ Department of Oral Pathology, Nanjing Stomatology Hospital, Medical School of Nanjing

University, Nanjing, China

² College of Life Sciences and Chemistry, Jiangsu Key Laboratory of Biofunctional Molecule,

Jiangsu Second Normal University, Nanjing, China

³ Department of Oral and Maxillofacial Surgery, Nanjing Stomatology Hospital, Medical School of

Nanjing University, Nanjing, China

* CORRESPONDING AUTHOR

Xiaofeng Huang, Department of Oral Pathology, Nanjing Stomatology Hospital, Medical School

of Nanjing University, Nanjing, China

Email: hxf681008@sina.com

Yuxin Wang, Department of Oral and Maxillofacial Surgery, Nanjing Stomatology Hospital,

Medical School of Nanjing University, Nanjing, China

Email: wangyuxin0212@126.com

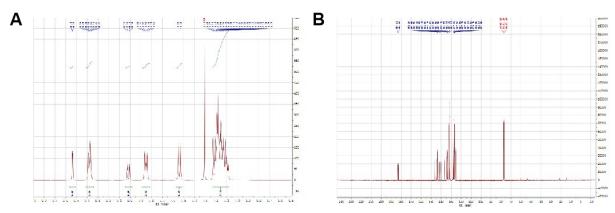


Figure S1. (A) $^1\mathrm{H}$ NMR and (B) $^{13}\mathrm{C}$ NMR spectrum of TPE-AQ

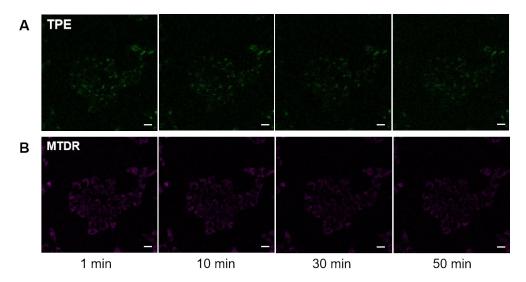


Figure S2. Fluorescence images of (A) TPE-AQ NPs and (B) MTDR stained with CAL27 cells after 1 min, 10 min, 30 min, and 50 min. Scale bars=20 μ m.

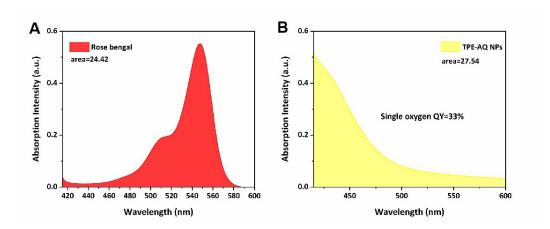


Figure S3. The absorption peak area of the (A) Rose bengal, (B) the TPE-AQ NPs dispersed in deionized water respectively. The ${}^{1}O_{2}$ quantum yields are calculated according to the following formulas:

Φsample=Φrose bengal × Ksample × Arose bengal/(Krose bengal × Asample) (1O_2 quantum yield Φrose bengal = 75% in water)

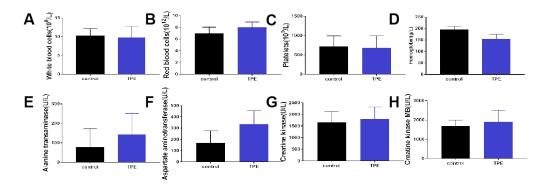


Figure S4. Changes in the amounts of (A) red blood cells, (B) white blood cells, (C) hemoglobin, (D) platelets, (E) alanine transaminase, (F) aspartate transaminase, (G) creatine kinase and (H) creatine kinase isoenzyme in the mice.