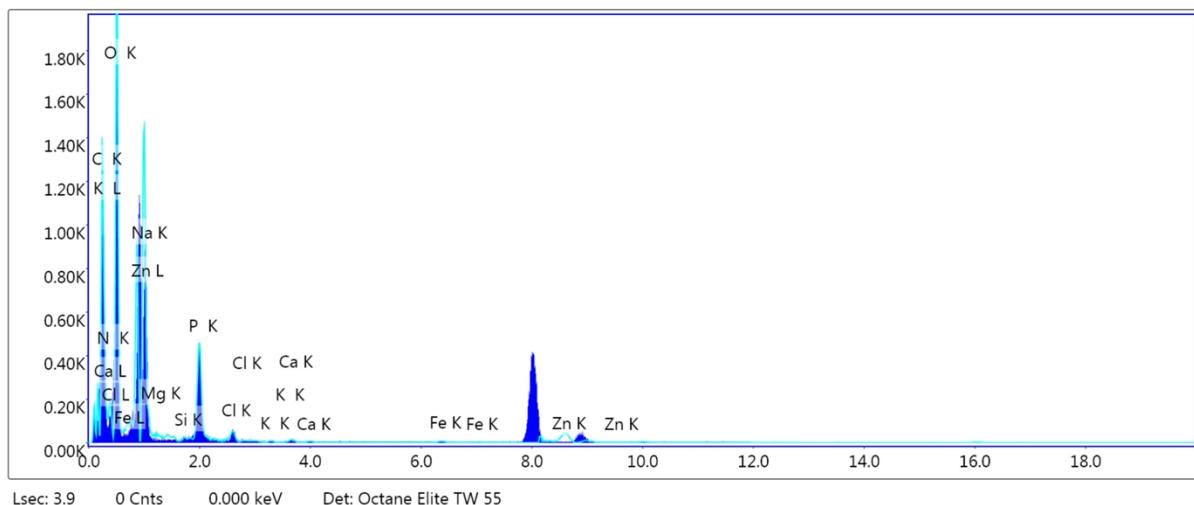


## Supporting Information

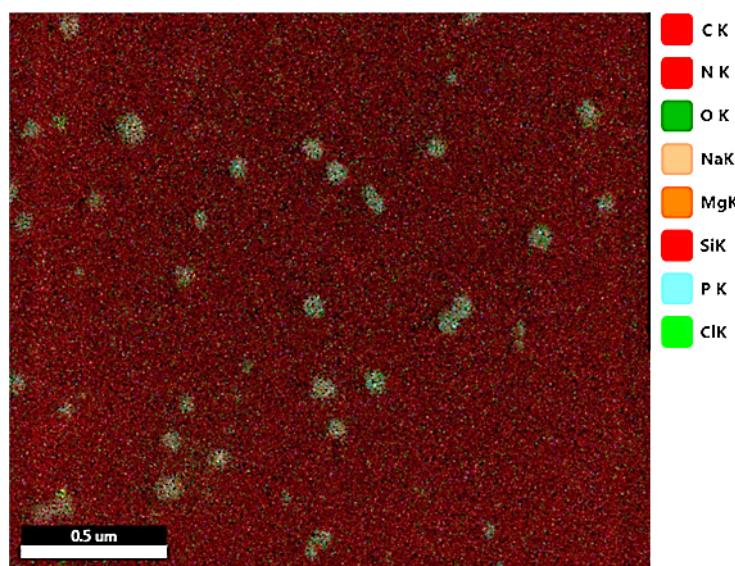
### Cancer Cell Membrane Camouflaged Nanobot Assemblies Augment Cancer Chemotherapy

Chinmay S. Rahane,<sup>1</sup> Govind P. Chate,<sup>1</sup> Shraddha Patil,<sup>1</sup> Mansi G. Gaware,<sup>1</sup> Ravindra. D. Wavhale,<sup>2</sup> Sanjay Goswami,<sup>3</sup> Yuvraj N. Patil,<sup>1</sup> Manoj B. Gawande<sup>4</sup> and Shashwat S. Banerjee<sup>1\*</sup>

a

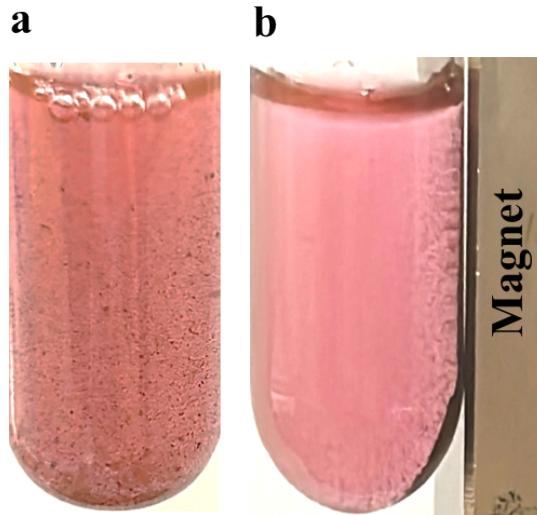


b



**Figure S1.** (a) STEM-energy dispersive X-ray spectrum (EDS) of  $\text{Fe}_3\text{O}_4$ -GSH-DOX-CCM showing presence of C, O and N. Also, presence of elements found in cell membrane such as Si,

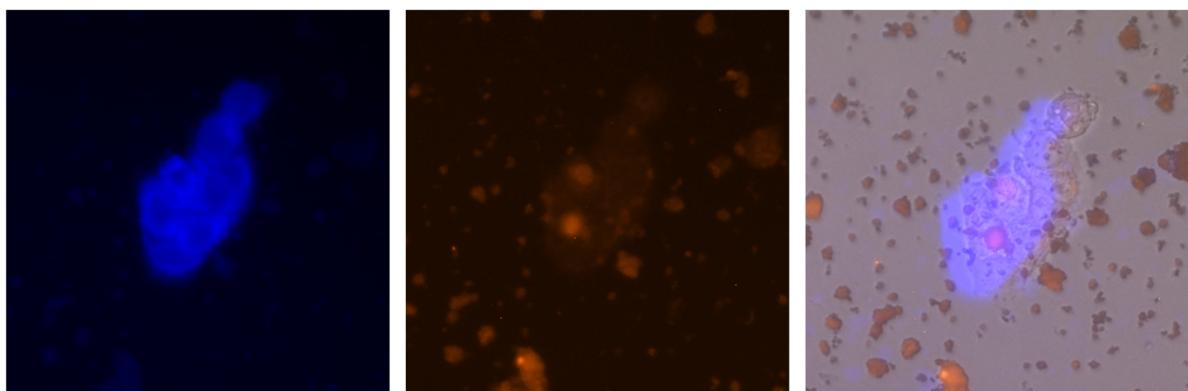
P, Mg, Cl, K, Ca and Zn were found localized on Fe<sub>3</sub>O<sub>4</sub>-GSH-DOX. (b) High angle annular dark-field scanning transmission electron microscopy (HAADF-STEM) image of Fe<sub>3</sub>O<sub>4</sub>-GSH-DOX-CCM with corresponding elemental maps.



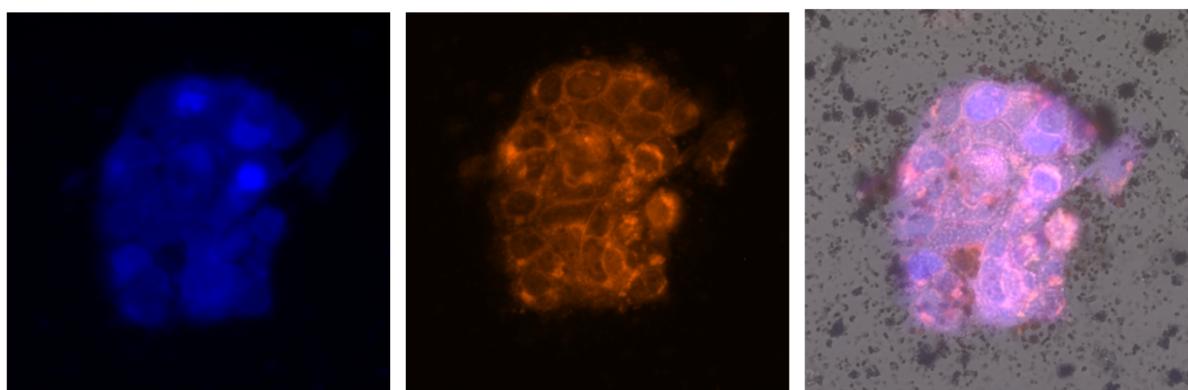
**Figure S2.** (a) Fe<sub>3</sub>O<sub>4</sub>-GSH-DOX-CCM nanobots with excellent dispersibility propelling in DMEM containing H<sub>2</sub>O<sub>2</sub>. (b) Fe<sub>3</sub>O<sub>4</sub>-GSH-DOX-CCM nanobots drawn to the sidewall of the vial from the solution under magnetic field.

**a**

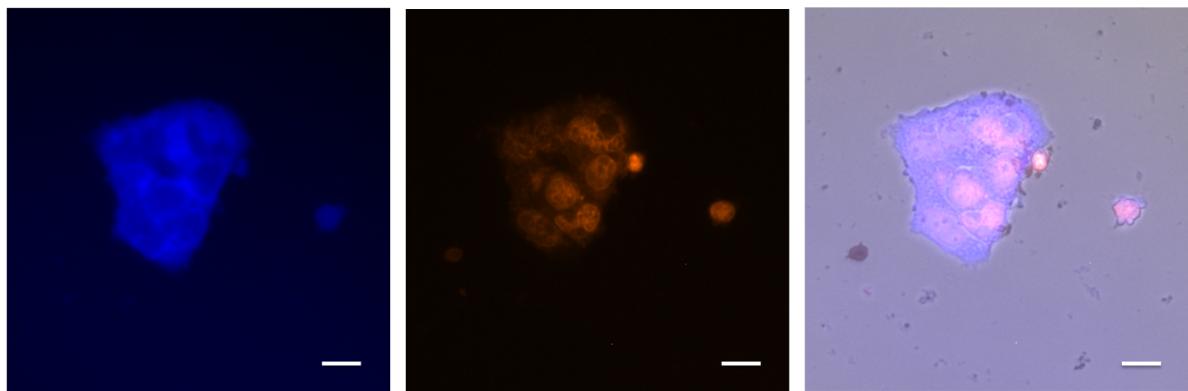
DOX



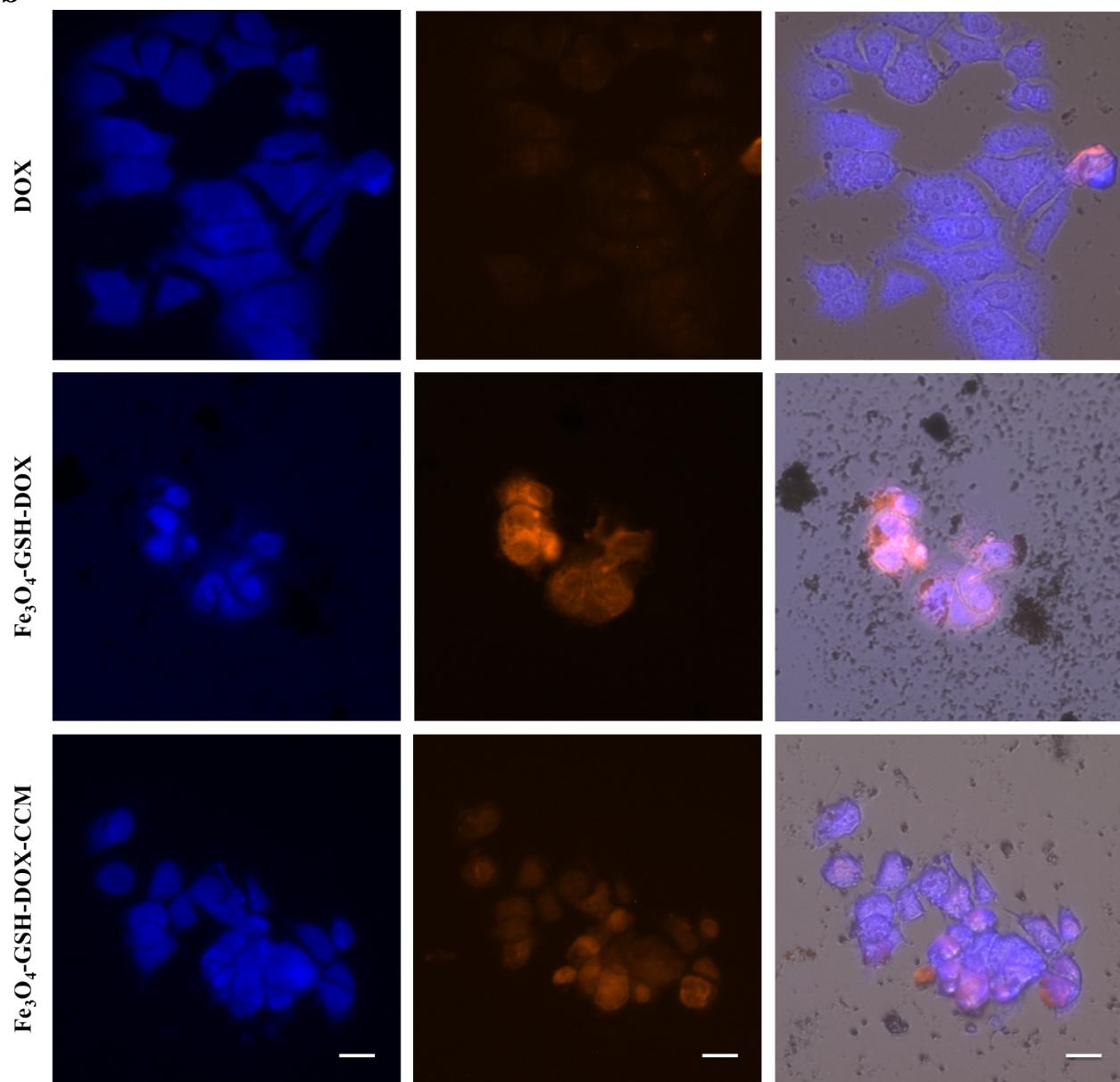
Fe<sub>3</sub>O<sub>4</sub>-GSH-DOX



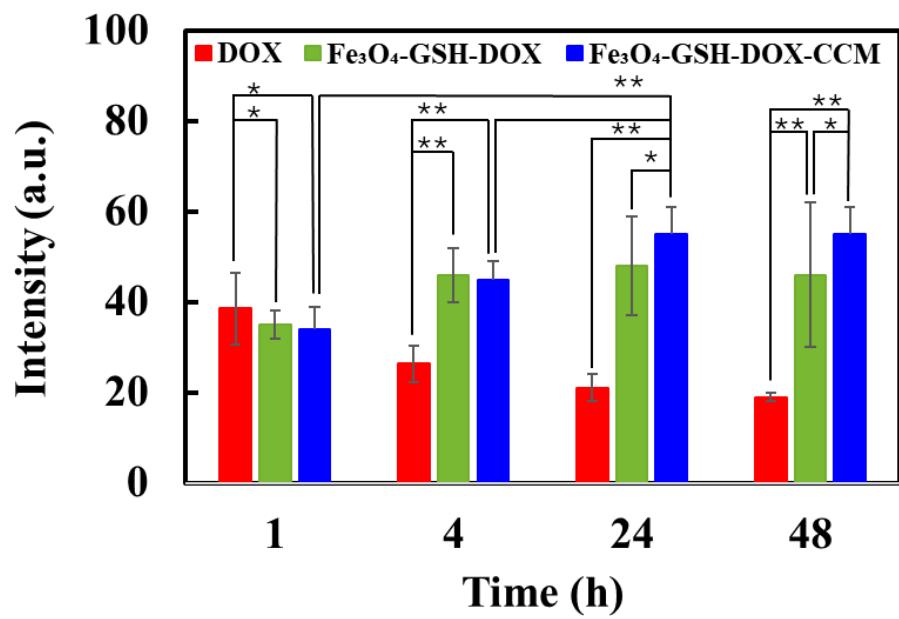
Fe<sub>3</sub>O<sub>4</sub>-GSH-CCM



**b**



**Figure S3.** Fluorescent images of MCF7 cells treated with free DOX, Fe<sub>3</sub>O<sub>4</sub>-GSH-DOX, Fe<sub>3</sub>O<sub>4</sub>-GSH-DOX-CCM and Fe<sub>3</sub>O<sub>4</sub>-GSH-DOX-CCM. (a) At 4 h, and (b) At 48 h. Scale bar = 10  $\mu$ m.



**Figure S4.** Fluorescence intensity of intracellular DOX accumulation in MCF7 cells upon treatment with free DOX, Fe<sub>3</sub>O<sub>4</sub>-GSH-DOX, Fe<sub>3</sub>O<sub>4</sub>-GSH-DOX-CCM. (\*\*P < 0.05; \*P > 0.05).

**Table 1.** EDS analysis of Fe<sub>3</sub>O<sub>4</sub>-GSH-DOX-CCM nanobot.

Element	Weight %	Atomic %
C K	83.79	91.27
N K	0.25	0.24
O K	6.08	4.97
NaK	0.00	0.00
MgK	0.36	0.19
SiK	0.48	0.22
P K	3.86	1.63
ClK	2.35	0.87
K K	0.12	0.04
CaK	0.14	0.05
FeK	0.22	0.05
ZnK	2.34	0.47