Supplementary Materials of

**CuS-NiS2 nanomaterials for MRI guided phototherapy of** [**gastric**](javascript:;)[**carcinoma**](javascript:;) **via triggering mitochondria-mediated apoptosis and MLKL/CAPG-mediated necroptosis**

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**Supplementary Figure. S1** Cytotoxicity of CuS-NiS2. (A) AGS and MKN-45 (B) cells were stimulated with 0.05 to 0.5 mg/mL of CuS–NiS2 for 4 h, and cell viability was tested by CCK-8 assay.

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**Supplementary Figure. S2** *in vivo* toxicity of CuS-NiS2. (A) The body growth curves of mice of each group after the treatment in the following 14 days. (B, C) H&E staining of livers (B) and kidneys (C) from each group were measured 15d after the combination of CuS-NiS2 and NIR laser treatment.

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**Supplementary Figure. S3** Correlation analysis between MLKL and CAPG. Data of gene expression profile obtained from the GSE57083 DataSet including 627 cell lines tested by AstraZeneca, and the analysis indicate that CAPG exists strong positive correlation with MLKL.

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**Supplementary Figure. S4** knock down of MLKL with shRNAs. (A, B) qPCR and Western blotting showing the Mrna (A) and protein (B) levels of MLKL after knock down of MLKL in AGS and MKN-45 cells. \*\**P* < 0.01vs scramble (control).