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## **Supporting Information**

## Targeted treatment of gouty arthritis by biomineralized metallic nanozymes mediated oxidative stress mitigating nanotherapy

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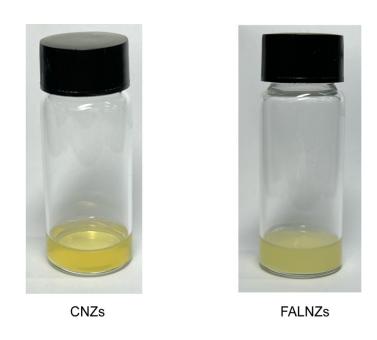


Figure S1- Photograph of CNZs and FALNZs formulation.

## FALNZs Concentration (μg/ml) TritonX Control 3.12 6.25 12.5 25 50 100

Figure S2- Representative image of hemolysis assay.

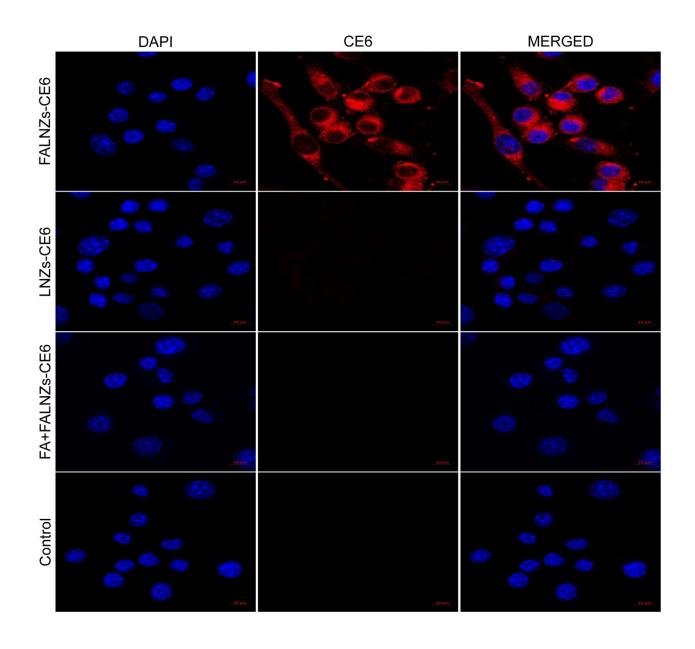


Figure S3- Intracellular uptake of FALNZs in RAW 264.7 cells.

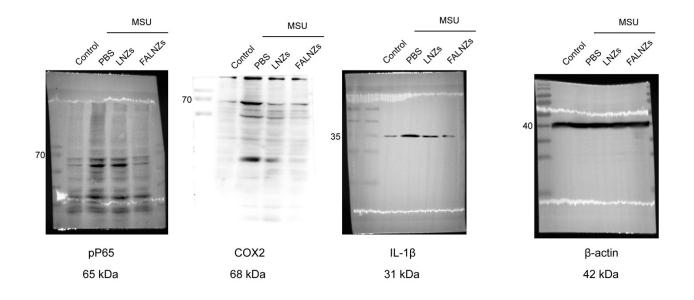
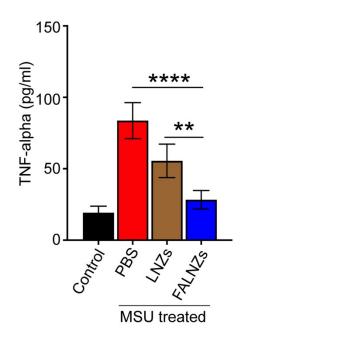


Figure S4- Western blot analysis of inflammatory proteins in RAW 264.7 cells.



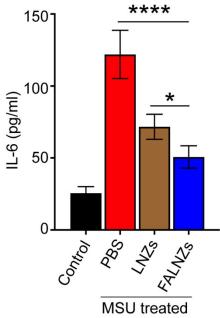


Figure S5- Proinflammatory cytokines TNF $\alpha$  and IL-6 from RAW 264.7 cell supernatant through ELISA.

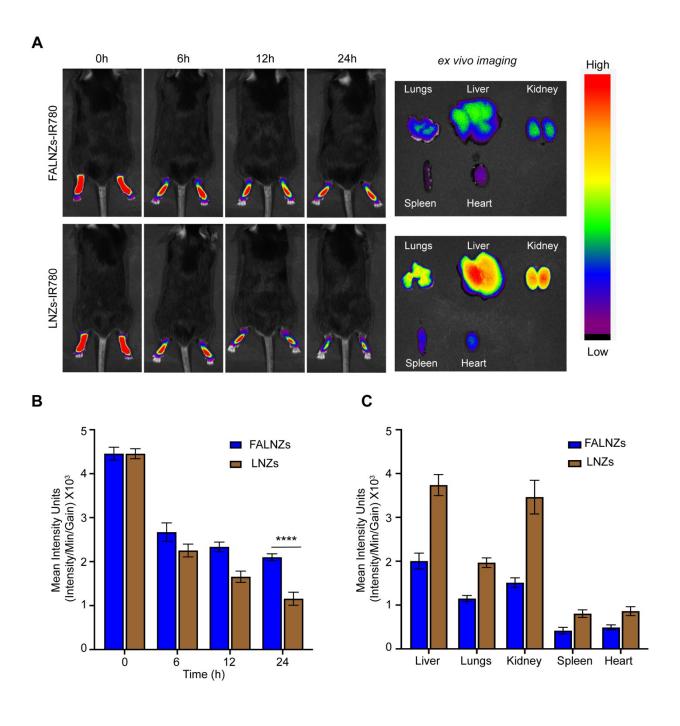


Figure S6-Biodistribution of FALNZs and LNZs in gouty arthritis mice. A) Representative images of FALNZs-IR780 and LNZs-IR780 injected mice and *ex vivo* images of organs. B) Quantitative analysis of fluorescence intensity in ankle. C) Quantitative analysis of fluorescence intensity in major organs.

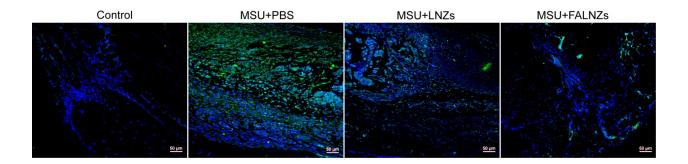


Figure S7- Immunofluorescence staining of M1 Macrophage (CD86) in the ankle tissue.