



SUPPLEMENTARY SCHEME 1, SYNTHESIS OF DOTA-DOX-LNP. 1. DSPE-PEG₂₀₀₀-maleimide was reacted with the monoamidoethanethiol derivative of DOTA and the product purified by SEC. 2. The DOTA-LNP was activated with EDC/sulfo-NHS in PBS and reacted with a 2-fold excess of Dox-HCl and the product repurified by SEC. Two closely migrating peaks at 16 and 18 min were combined (**Fig. S4**).