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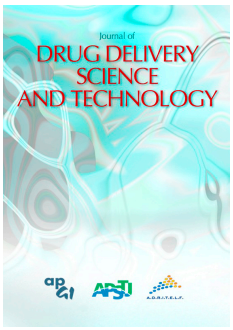

Folate-decorated and NIR-triggered nanoparticles loaded with platinum(IV)-prodrug plus 5-fluorouracil for targeted and chemo-photothermal combination therapy

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GRAPHICAL ABSTRACT

Title: Folate-decorated and NIR-triggered nanoparticles loaded with platinum(IV)-prodrug plus 5-fluorouracil for targeted and chemo-photothermal combination therapy

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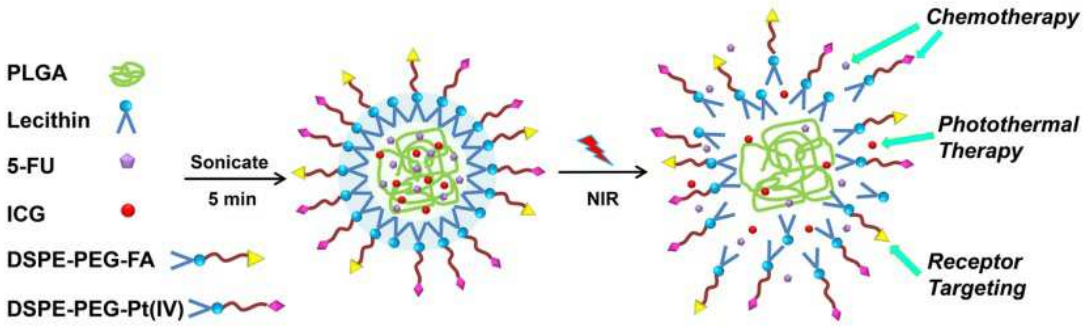

Folate-targeted and near-infrared(NIR)-triggered nanoparticles have been developed to enhance the tumor-targeting drug transportation and minimize the severe side effects along with the chemotherapy. By doping with indocyanine green (ICG), the PEGylated platinum(IV)-prodrug plus 5-fluorouracil co-loaded nanoparticles had nanosized spherical structure which was comprised of a poly(D,L-lactide-co-glycolide) (PLGA) core, a composite layer of soybean lecithin mixed with PEGylated phospholipid, and a folate-targeted ligand to actively recognize tumors. Upon laser irradiation, the nanoparticles showed enhanced receptor-mediated cellular uptake and highly effective chemo-photothermal combination therapy of ovarian cancer.