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Title: Synthesis and characterization of poly(propylene imine)-dendrimer-grafted gold nanoparticles as nanocarriers of doxorubicin

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**Synthesis and characterization of poly(propylene imine)-dendrimer-grafted gold nanoparticles as nanocarriers of doxorubicin**

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Graphical abstract

### Highlights

- Gold/PPI dendrimer nanoparticles are synthesized via homogeneous catalytic process.
- Hybrid nanoparticles are utilized as anti-cancer drug nanocarriers.
- Effect of bioconjugation with folic acid on drug release behavior is investigated.
- Drug release kinetics from nanostructures is investigated by mathematical modeling.

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