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Development of a theranostic prodrug for colon cancer therapy by combining ligand-targeted delivery and enzyme-stimulated activation

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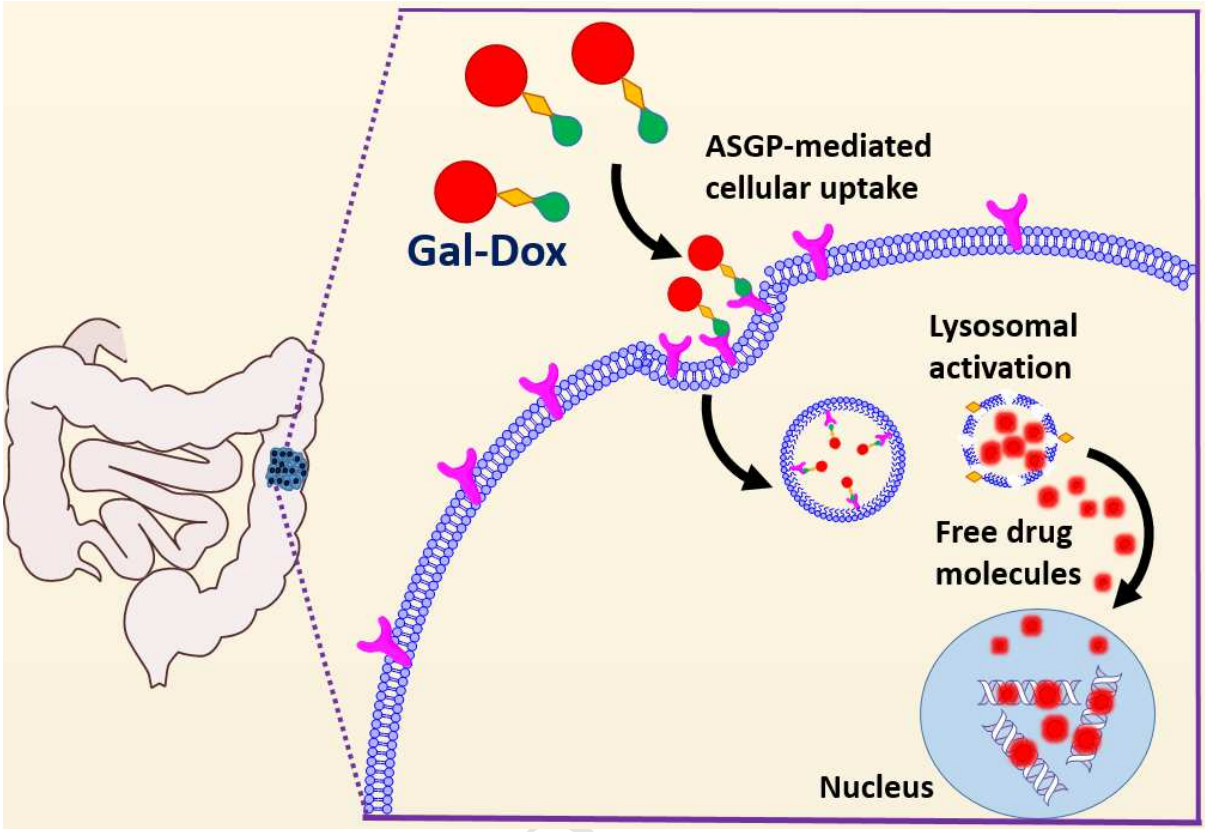
Graphical Abstract



Herein, we developed a small molecule-based theranostic system, **Gal-Dox**, which is preferentially taken up by colon cancer cells through receptor-mediated endocytosis. After cancer-specific activation, the active drug **Dox** (doxorubicin) is released with a fluorescence turn-on response, allowing both drug localization and site of action to be monitored. The therapeutic potency of **Gal-Dox** was also monitored, both *in vivo* and *ex vivo*, thus illustrating the potential of **Gal-Dox** as a colorectal cancer theranostic with great specificity.

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