

Genipin-Cross-Linked Fucose-Chitosan/Heparin Nanoparticles for The Eradication of *Helicobacter pylori*

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Helicobacter pylori is a significant human pathogen that recognizes specific carbohydrate receptors, such as the fucose receptor, and produces the vacuolating cytotoxin, which induces inflammatory responses¹. We combined fucose-conjugated chitosan and genipin-cross-linking technologies in preparing genipin-cross-linked fucose-chitosan/heparin nanoparticles to encapsulate amoxicillin of targeting contact the microorganism. The nanoparticles effectively released amoxicillin in an *H. pylori* survival situation to inhibit *H. pylori* growth. The amoxicillin loaded nanoparticles was complete *H. pylori* clearance effect and reduced *H. pylori*-associated gastric inflammation in infected animal model.

Reference:

- 1) Madrid JF, Leis O, Díaz-Flores L, Sáez FJ, Hernández F. J Histochem Cytochem 1998;46:1311-1320.

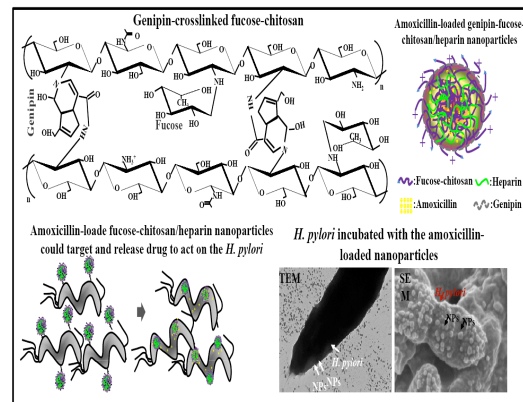


Figure: Strategy for eradicating *H. pylori* using the nanoparticles