Therapeutics & Vaccines

Ph-Responsive Polymer–Antibiotic Conjugate For Enhanced Antimicrobial Efficacy

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Inventors: Shaoqin Gong, Mingzhou Ye

The Invention

Provided herein are polymer-drug conjugates with enhanced antibacterial efficacy. These conjugates include a polymer comprising a plurality of masked cationic functional groups and an antibiotic drug linked to the cationic polymer by a pH-sensitive linker. The masked cationic functional groups may be converted in aqueous solution to free cationic functional groups faster at a pH below 7 than a pH above 7. The cationic functional groups may be masked as either an uncharged functional group or by an ion pair with a neighboring anionic functional group attached to the polymer. The pH-sensitive linker releases the drug faster in aqueous solution at or below a pre-determined pH value selected from a range of 4.5 to 7 than a pH value above 7.

Additional Information

For More Information About the Inventors

- Shaoqin Gong

Tech Fields

- Therapeutics & Vaccines : Anti-infectives (antibacterials, antifungals, antivirals)

For current licensing status, please contact Rafael Diaz at rdiaz@warf.org or 608-960-9847