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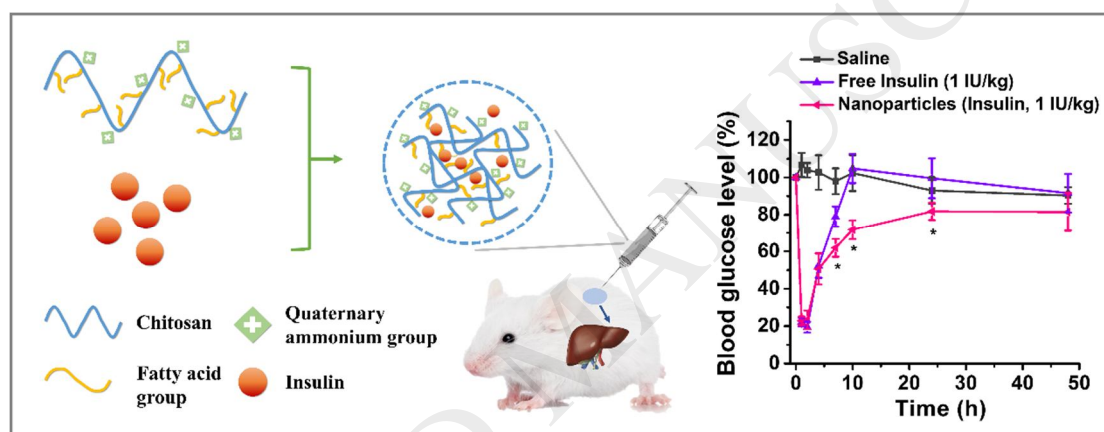
Fatty acid and quaternary ammonium modified chitosan nanoparticles for insulin delivery

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Graphical abstract



Highlights

- Fatty acid and quaternary ammonium groups were randomly conjugated to chitosan.
- The fatty acid groups increased stability of insulin-loaded nanoparticles.
- Surface hydrophobicity of nanoparticles increased with polymer hydrophobicity.
- Nanoparticles with higher surface hydrophobicity had higher hepatocyte absorption.
- Nanoparticles with higher surface hydrophobicity had better antidiabetic efficacy.

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