

## Nano Aggregates Based on Polyaspartamide Graft Copolymers for pH-Controlled Release of Doxorubicin

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A series of biodegradable copolymers based on polyaspartamide (PASPAM) were synthesized by grafting hydrophilic O-(2-aminoethyl)-O'-methylpoly(ethylene glycol) (MPEG), hydrophobic cholic acid (CA), and pH-sensitive hydrazone (Hyd) segments on a PASPAM backbone. The hydrazone group was effectively cleaved to release doxorubicin (DOX) conjugated on PASPAM in an acidic environment. The chemical structure of the polymer and the degree of substitution of each graft segment were analyzed using FT-IR and <sup>1</sup>H-NMR spectroscopy