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(54) Title: BIODEGRADABLE CROSS-LINKED CATIONIC MULTI-BLOCK COPOLYMERS FOR GENE DELIVERY AND METHODS OF MAKING THEREOF

(57) Abstract: A biodegradable cross-linked cationic multi-block copolymer of linear polyethylenimine (LPEI) wherein the LPEI blocks is linked together by hydrophilic linkers with a biodegradable disulfide bond and methods of making thereof. The biodegradable cross-linked cationic multi-block copolymer may also contain pendant functional moieties which are preferably receptor ligands, membrane permeating agents, endosomolytic agents, nuclear localization sequences, pH sensitive endosomolytic peptides, chromogenic or fluorescent dyes.

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