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(54) Title: IN VIVO POLYNUCLEOTIDE DELIVERY CONJUGATES HAVING ENZYME SENSITIVE LINKAGES

(57) Abstract: The present invention is directed compositions for delivery of RNA interference (RNAi) polynucleotides to cells in vivo. The compositions comprise amphipathic membrane active polyamines reversibly modified with enzyme cleavable dipeptide-amidobenzyl-carbonate masking agents. Modification masks membrane activity of the polymer while reversibility provides physiological responsiveness. The reversibly modified polyamines (dynamic polyconjugate or DPC) are further covalently linked to an RNAi polynucleotide or co-administered with a targeted RNAi polynucleotide-targeting molecule conjugate.

