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(54) Title: DISULFIDE-LINKED POLYETHYLENEGLYCOL/PEPTIDE CONJUGATES FOR THE TRANSFECTION OF NUCLEIC ACIDS

(57) Abstract: The present invention is directed to an inventive polymeric carrier molecule according to generic formula (I) and variations thereof, which allows for efficient transfection of nucleic acids into cells *in vivo* and *in vitro*, a polymeric carrier cargo complex formed by a nucleic acid and the inventive polymeric carrier molecule, but also to methods of preparation of this inventive polymeric carrier molecule and of the inventive polymeric carrier cargo complex. The present invention also provides methods of application and use of this inventive polymeric carrier molecule and the inventive polymeric carrier cargo complex as a medicament, for the treatment of various diseases, and in the preparation of a pharmaceutical composition for the treatment of such diseases.