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(54) Title: NUCLEIC ACID CONSTRUCTS FOR DELIVERING POLYNUCLEOTIDES INTO EXOSOMES

(57) Abstract: The invention delivers exogenous nucleotide sequences into exosomes using structural and regulatory characteristics identified in the miRNA molecules MIR21, pri-miR-21 and pre-miR-21. In particular, the invention relates to pre-miRNA for targeting an exogenous nucleotide sequence to an exosome, wherein the pre-miRNA comprises an exogenous nucleotide sequence and a stem-loop structure, wherein the stem comprises at least one wobble pair. The invention also provides nucleic acid cassettes, vectors and cells comprising the engineered pre-miRNA, methods of loading exosomes and the resulting loaded exosomes. The loaded exosomes can be used to deliver an exogenous nucleotide sequence to a target cell, for example in therapy.

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