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(54) Title: COMPOSITIONS AND METHODS FOR MODULATING EXPRESSION OF GENES

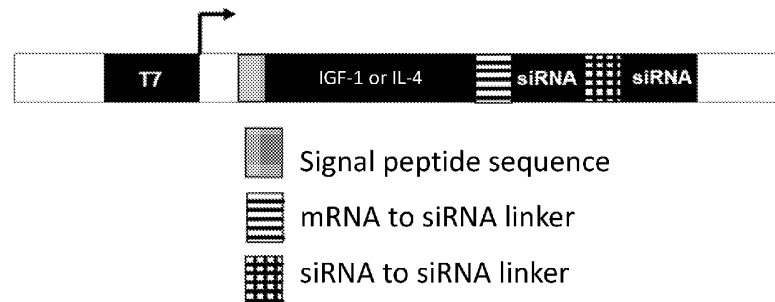


Figure 1

(57) Abstract: The present invention relates to compositions and methods for modulating expression of genes, comprising recombinant polynucleic acid or RNA constructs comprising a first RNA sequence encoding a gene of interest, and a second RNA sequence comprising at least two genetic elements that modulate expression of one or more target RNAs. The recombinant RNA constructs described herein induce an immune response in a human cell that is lower than the immune response induced by a corresponding recombinant RNA construct comprising the first RNA sequence encoding a gene of interest and a corresponding second RNA sequence comprising at most one of the at least two genetic elements. Also disclosed herein is the use of the compositions in treating diseases and in modulating expression of two or more genes.

[Continued on next page]

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