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(54) Title: ENABLING THE USE OF LONG DSRNA FOR GENE TARGETING IN MAMMALIAN AND OTHER SELECTED ANIMAL CELLS

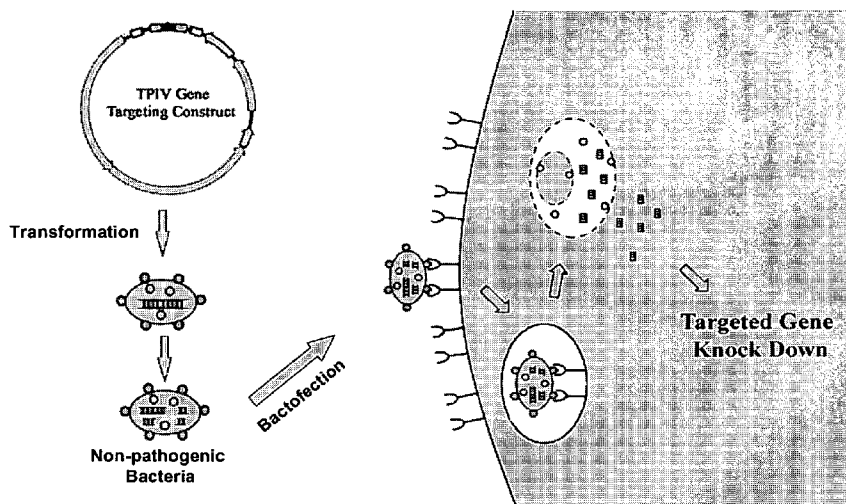


Figure 1

(57) Abstract: The present invention provides a method of enabling the use of long dsRNA for gene silencing in mammalian cells through bacteria, preferably non-pathogenic or therapeutic strains of bacteria. DNA that encodes long double-strand RNAs are transformed into bacteria and processed in the bacterial cells into a mixture of smaller RNA duplexes and then released into the cytoplasm of the target cells, resulting in modulation of gene expression in the target cells. The methods overcome the incompatibility between long strong dsRNA and mammalian cells by eliminating, or mitigating, the non-specific innate immune response. The eukaryotic cells can be mammalian cells or avian cells. The gene of interest can be a mammalian, avian, bacterial, eukaryotic, or viral gene.

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