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METHODS TO ENHANCE AND CONFINE EXPRESSION OF GENES

ABSTRACT OF THE DISCLOSURE

The present invention provides a novel approach to gene therapy of restricted areas such as tumors. The methods introduced here comprise: (a) placing a gene of interest in a plasmid vector driven by a heat or light inducible promoter; (b) modifying this vector by including a tetracycline responsive fusion protein which acts as a transcriptional activator, thus permitting regulation of gene expression by varying the levels of drug and; (c) modifying this vector by including DNA sequences that reduce or eliminate expression of genes in normal bystander cells. Also provided are a set of vectors for both sustained and regulable expression. There is also presented novel vectors for the gene therapy treatment of local and metastatic breast, ovarian and prostate cancer.



