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- (54) **Title:** GENE EXPRESSION CONTROL USING GUANIDINE BASED GENE INDUCTION

(57) **Abstract:** The present invention provides process for gene expression control in genetically 5 engineered organisms using inducer compounds. The present invention further relates to genetic modifications of microbes for development of efficient gene control mechanism by using natural and/ or non-natural inducer compounds such as carbon compounds and/ or nitrogen compounds like sugars, sugar analogues, nucleotides, etc. The invention also describes the gene expression control and 10 tuning by application of unique, natural compound Guanidine, either alone or in combination with other inducer compounds, for efficient gene expression control.



WO 2025/057228 A1