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(54) Title: SYSTEMS, METHODS AND COMPOSITION OF USING RNASE III MUTANTS TO PRODUCE SRNA TO CONTROL HOST PATHOGEN INFECTION

(57) Abstract: The current invention includes systems, methods and compositions for the generation of sRNA molecules using select RNase III mutants. In one preferred embodiment, invention includes systems, methods and compositions for the generation of sRNA molecules using RNase III mutants to control a host pathogen through the production and diffusion of sRNA molecules that may initiate an RNAi pathway response directed to a host pathogen. Additional embodiments of the current invention include systems, methods and compositions for the DICER-independent generation of sRNA molecules using select RNase III mutants.