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(54) Title: METHODS FOR IDENTIFICATION AND SELECTION OF SELF-REPLICATING RNA MOLECULES FOR BIOMEDI-
CAL APPLICATIONS

Formulate an input srRNA composition with a non-viral delivery vehicle to generate a srRNA delivery
system having a formulated srRNA composition



Determine potency of the formulated srRNA
composition



Select the srRNA delivery system as suitable for a biomedical
application if the formulated srRNA composition retains at least about
25% potency relative to the potency of the unformulated input srRNA
composition

FIG. 1

(57) Abstract: The present disclosure generally relates to methods of identifying and/or selecting self-replicating RNA (srRNA) de-
livery systems suitable for biomedical applications. More particularly, the disclosure relates to methods of identifying and/or selecting
srRNA delivery systems using a combination of critical quality attributes for srRNA vaccines and biotherapeutics. Also provided are
srRNA compositions, formulations obtained by the methods of the disclosure, as well as methods for inducing a pharmacodynamic
effect in a subject in need thereof, as well as methods for preventing and/or treating various health conditions.

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