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(54) Title: LIPID NANOPARTICLES COMPRISING CODING RNA MOLECULES FOR USE IN GENE EDITING AND AS VACCINES AND THERAPEUTIC AGENTS

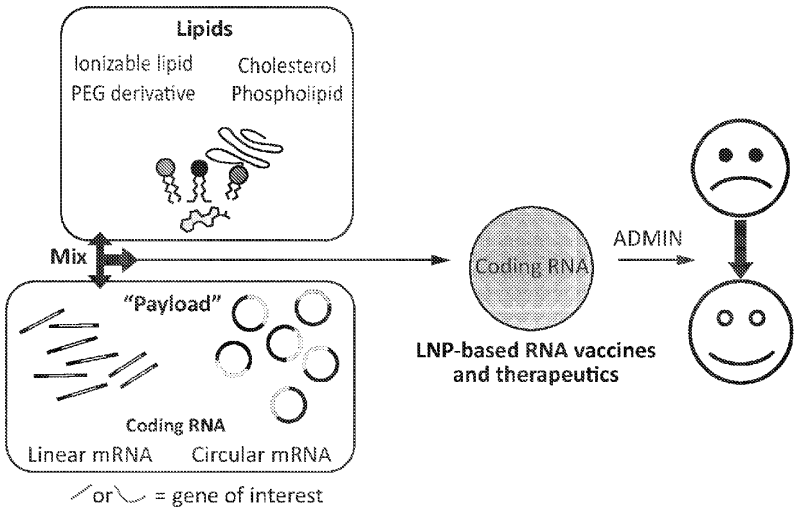


FIG. 1

(57) Abstract: The present disclosure describes improved LNP-based RNA vaccines, nucleobase editing systems, and therapeutics for use in treating and/or immunization against disease. In particular, the disclosure describes improved LNPs, including novel and improved ionizable lipids for making LNPs, that enhance the targeted delivery of LNP-based RNA vaccines and therapeutics based on linear and/or circular mRNAs. The improved LNPs protect linear and/or circular mRNA payloads from degradation and clearance while achieving targeted systemic or local delivery for use as enhanced vaccines and/or therapeutic agents.

[Continued on next page]

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