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(54) Title: TOPICAL PATCH FOR TARGETED siRNA NANOPLEX DELIVERY AND GENE THERAPIES: COMPOSITION, METHOD OF MAKING AND USE THEREOF

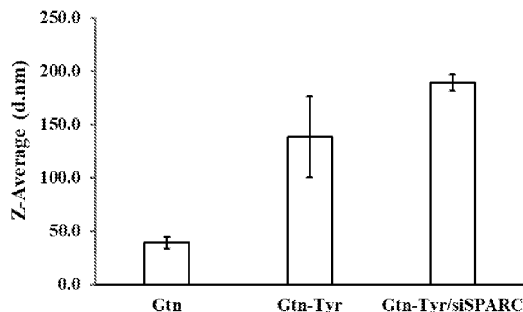


FIG. 3

(57) Abstract: Provided herein is a dissolvable microneedle patch comprising a tip portion, wherein the tip portion comprises a nanoplex formed from a positively charged biopolymer which incorporates a cell targeting moiety and a siRNA. In one embodiment, the positively charged biopolymer is formed from gelatin and tyramine, the cell targeting moiety is gelatin, and the siRNA is siSPARC. Also provided herein is the use of the dissolvable microneedle patch in therapy, specifically in the treatment of a skin condition or disorder, such as scarring (e.g. hypertrophic scarring), keloid formation, eczema, or hyperpigmentation.

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