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(54) Title: COMPOSITIONS AND METHODS OF TOPICAL APPLICATION AND TRANSDERMAL DELIVERY OF BOTULINUM TOXINS WITH REDUCED NON-TOXIN PROTEINS

(57) Abstract: This invention relates to novel compositions of botulinum toxin that can be applied topically for various therapeutic, aesthetic and/or cosmetic purposes. The compositions may include botulinum toxin complexes, wherein the amounts of hemagglutinin, non-toxin non-hemagglutinin and/or exogenous albumin are selectively and independently reduced compared to conventional commercially available botulinum toxin. The compositions may further contain molecules that are not native to botulinum toxin and that bind non-covalently to the botulinum toxin complexes, thereby acting as skin-tropic "adhesion molecules" to improve the ability of the toxin complexes to adhere to and to penetrate the skin epithelium. The compositions have an improved safety profile compared to existing botulinum-containing compositions that are injected subcutaneously. Methods for the use of such compositions are also contemplated by this invention.

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