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(54) **METHOD FOR ENHANCING PROTECTIVE CELLULAR RESPONSES TO GENOTOXIC STRESS IN SKIN**

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(57) **ABSTRACT**

The present invention is directed to methods of using pro-NAD agents capable of enhancing the dermal and epidermal skin cell NAD content. These pro-NAD agents may be administered topically, orally, or parenterally to enhance DNA repair and other protective responses to DNA damage. The invention further relates to pharmaceutical compositions comprising pro-NAD agents that effectively elevate intracellular NAD content. Finally, the invention relates to the method of using the pro-NAD agents to treat disorders such as sunburn and other skin deterioration that results from DNA damage in skin cells.

11 Claims, 16 Drawing Sheets