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Mandel et al.

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(54) **METHOD OF CONTROLLING L-DOPA PRODUCTION AND OF TREATING DOPAMINE DEFICIENCY**

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(58) **Field of Search** 424/93.6, 93.1, 424/93.2; 435/195, 320.1, 328; 514/44; 536/23.5

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(57) **ABSTRACT**

The present invention provides an effective approach to achieve the tightly modulated production of L-DOPA and/or dopamine at a preselected target location in the brain of a mammal by combining gene therapy approaches to supply a key enzyme in the synthesis of L-DOPA, and novel drug delivery modalities to administer a uniform level of a modulator of the activity of such key enzyme. The fine-tuned administration of the modulator establishes continuously uniform levels of modulator which in turn allow the effective modulation of L-DOPA and/or dopamine levels at a preselected target location in the brain of the mammal.

15 Claims, 2 Drawing Sheets