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He et al.

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(54) **CO-ACTIVATION OF MTOR AND STAT3 PATHWAYS TO PROMOTE NEURONAL SURVIVAL AND REGENERATION**

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(58) **Field of Classification Search**
USPC 514/44; 536/24.5
See application file for complete search history.

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(57) **ABSTRACT**
Disclosed herein is a method of promoting sustained survival, sustained regeneration, in a lesioned mature neuron, sustained compensatory outgrowth in a neuron, or combinations thereof. The method comprises contacting the lesioned mature neuron with an effective amount of an inhibitor of PTEN and an effective amount of an inhibitor of SOCS3 to thereby promote survival and/or regeneration and/or compensatory outgrowth of the neuron. Therapeutic methods of treatment of a subject with a neuronal lesion by administration of a therapeutically effective amount of an inhibitor of PTEN and a therapeutically effective amount of
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