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Use of an MK2 Inhibitor to Enhance Nerve Regeneration

A novel therapeutic minimizes long-term damage and enhances functional recovery after spinal cord injury by eliminating scar formation from secondary injury.

New cases of spinal injury affect 28-50 per one million people in the United States. Spinal cord injuries affect mobility and sensation, but can also lead to a lack of vital functions such as muscle control and often lead to other serious morbidity. While the initial trauma results in tissue damage and some loss of function, it is often the secondary response to the injury that causes long term functional loss.

Researchers at Purdue University have developed a therapeutic that eliminates scarring from secondary injury and also enhances neurite outgrowth to improve recovery after spinal cord injury. The new therapeutic, MK2i, inhibits MAPKAP kinase II (MK2) activation. MK2 is responsible for regulating various cytokines that are contributors of secondary injury. This therapeutic down regulates the formation of scar tissue thus reducing secondary injury and minimizing long term damage.

Advantages:

-Eliminates scarring from secondary response to spinal cord injury

-Minimizes long term damage and functional loss

-Enhances neurite outgrowth to improve recovery from spinal cord injury

TRL: 4

Intellectual Property:

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