

Hibernation might provide Alzheimer's clues

By Carolyn Gregoire, Huffington Post

What does animal hibernation have to do with Alzheimer's? More than you might think. According to new research, the way that critters wake up from a long winter's rest could help scientists devise new treatments for dementia.

Research from Leicester University have isolated a cold-activated protein, RBM3, which helps restore brain activity of animals that are coming out of long hibernation periods. Though the protein also exists in humans, it's been found to be missing among Alzheimer's patients, whose brains also commonly have a reduced number of synapses.

Here's how it works: When animals go into hibernation, their number of brain synapses decreases so as to allow them to enter a prolonged state of inactivity. Then, the cold-activated protein RBM3 rebuilds the synapses when the animal wakes up, thereby restoring normal brain activity. The research believe that a drug that mimics the effect of this protein may have the potential to restore lost brain function among individuals suffering from neurodegenerative disorders.

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