

## Brain healing after injury given a natural boost

June 19 2017, by Stephanie Plummer



We may be able to kick-start healing after a traumatic brain injury by boosting levels of a protein made naturally within the brain, according to new research conducted at the University of Adelaide.

Injecting a particular protein called <u>amyloid precursor protein</u> (APP) up to five hours post injury found that the <u>protein fragment</u> reached the brain, reduced inflammation, and prevented ongoing damage.

"Injected APP can amplify the body's natural levels to trigger a better healing process following <u>brain trauma</u>," says Stephanie Plummer, who conducted the research as part of her PhD.



Stephanie's studies also revealed that injecting the protein fragment leads to partial rescuing of physical abilities.

With trauma, the brain produces this protein to reduce cell injury and inflammation. Stephanie investigated the capacity of injecting a fragment of the protein to initiate the same response.

"Traumatic brain injury is very debilitating, and we don't currently have any treatments that lessen its impacts," Stephanie says.

"Injecting APP may one day provide a simple and effective therapy to limit brain damage and physical debilitation following a traumatic injury."

Stephanie's work to date has been using mice and rats. She and her colleagues plan to conduct more research to investigate the potential use of APP in humans.

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