

Aging mice given blood plasma from young humans regain youthful attributes

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Credit: martha sexton/public domain

(Medical Xpress)—A team of researchers working at a company called [Alkahest](#) has reported at this year's Society for Neuroscience annual

meeting that injections of blood plasma from young human beings caused aging mice to regain some youthful attributes. Company representative Sakura Minami claimed that testing with mice given youthful human plasma led to improved cognition in middle-aged mice. She has also spoken to the media regarding the experiments and results conducted by the company.

Prior research has shown that if an older mouse physically shared a blood system with a younger, that the older mouse would become rejuvenated while the younger mouse would take on symptoms of aging. Other studies have shown that simply injecting older mice with younger mouse plasma also had rejuvenating effects. Now, in this new study, the researchers claim the same to be true for [blood plasma](#) from young humans.

The study consisted of injecting year old (middle-aged) mice with plasma from human teenagers. The mice were injected with the plasma twice a week for three weeks and were then subjected to tests (including a Barnes maze) that have been designed to test their mental abilities. Minami claims that the treated older mice scored close to young mice on the tests, suggesting they had undergone mental rejuvenation. She reported that the company had also studied portions of the brains of the treated [mice](#)—specifically the hippocampus, which is known to be involved in learning and memory—and found signs of neurogenesis.

She also claimed the team at Alkahest has identified some of the materials in human plasma that they believe are responsible for the rejuvenation—likely certain types of proteins—and that some seem to cross the blood-brain barrier while others work on other body parts. The goal for the company is to isolate such factors and then come up with a way to create them artificially for sale as anti-aging products. She also reported that the company has already begun trials testing the use of teen plasma for treating Alzheimer's patients.

Notably, the work by the team at Alkahest has not been witnessed by others outside the company, nor have the researchers published any papers describing their work—thus, the science community is not yet ready to embrace the findings, though other research groups have begun studies of their own.

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