

There's something in elderly blood that hurts our brains. Is this protein the culprit?

Something in elderly blood is bad for brains. Plasma from old mice or humans worsens cognition and biological indicators of brain health, when infused into young mice. Conversely, plasma from young mice (or humans) rejuvenates old brains.

Much of this research has come from neurobiologist Tony Wyss-Coray's group at Stanford University, which is pursuing what constituents of blood might be responsible.

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"We reasoned that the most obvious way plasma would interact with the brain is through blood vessels," Wyss-Coray says. "So, we looked at proteins that change with age and had something to do with the vasculature." One protein that becomes more abundant with age, VCAM1, stood out, and the team showed that it appears to play a pivotal role in the effects of aged blood on the brain. Biological and cognitive measures alike indicated that blocking VCAM1 not only prevents old plasma from damaging young mouse brains but can even reverse deficits in old mice.

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The main caveat, of course, is that whether the findings in mice lead to effective human therapies remains to be seen, but there are reasons for optimism. Human plasma was also used in the mice.

**Read full, original post:** [Thwarting a Protein Reverses Brain Decline in Aged Mice](#)