

Depressed people may produce too much of a damaging neuroprotein

Post-mortem analysis of brain tissue has shown that the dendrites that relay messages between neurons are more shrivelled in people with severe depression than in people without the condition. This atrophy could be behind some of the symptoms of depression, such as the inability to feel pleasure. As a result, drugs that help repair the neuronal connections, like ketamine, are under investigation.

But how this shrinkage occurs has remained a mystery, limiting researchers' ability to find ways of stopping it.

Ronald Duman at Yale University wondered whether a protein called REDD1, which was recently shown to reduce myelin, the fatty material that protects neurons, was the key.

To find out, his team bred rats unable to produce REDD1 and exposed them to a prolonged period of unpredictable stress. In normal rats, this stress resulted in depressive-like behaviour and brain shrinkage, but Duman's rats were unaffected.

Read the full, original story: [Protein that shrinks depressed brains identified](#)