

# New target for curbing brain cell damage during stroke

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## Video Byte

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# Abstract

Stroke is the leading cause of death worldwide. Scientists are finding that mitochondrial abnormalities play a central role in stroke. A recent study suggests that deactivating the protein SIAH2 could help mitochondria and the brain cells they power survive stroke in mice. Oxygen deprivation, which makes stroke fatal, activates SIAH2. Once activated, SIAH2 signals the breakdown of mitochondrial and cellular proteins key to survival. Aiming to curb this damage, researchers switched off the gene controlling SIAH2 formation in mouse neurons. and observed what happened after artificially inducing stroke. They found that without SIAH2, neurons suffered low damage during stroke. preserving the machinery that keeps mitochondria alive and well. Understanding how this switch operates in humans is crucial. as it could lead to drugs that target SIAH2 and help reduce the mortality of stroke.