

Video: Watching what happens when a brain cell dies

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When neurons die, cellular garbage collectors mobilize in a highly choreographed procedure to dispose of the corpse and clear away debris. A failure to fully remove neurons can lead to neurodevelopmental



disorders early in life and declines in cognitive abilities later in life.

Yale researchers Eyiyemisi Damisah and Robert Hill from Jaime Grutzendler's neuroscience lab have for the first time captured images of this process at the level of a single neuron.

In the June 26 issue of the journal *Science Advances*, they show how specialized <u>brain cells</u> closely coordinate the removal of neuronal corpses and dendrites from the central nervous system.

More information: Eyiyemisi C. Damisah et al. Astrocytes and microglia play orchestrated roles and respect phagocytic territories during neuronal corpse removal in vivo, *Science Advances* (2020). <u>DOI:</u> 10.1126/sciadv.aba3239

Provided by Yale University

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