

Mutation rates may explain why plants can live much longer than animals

Scientists can't offer a simple, straightforward answer to why plants can get so much older than animals. But they have gathered a lot of intriguing evidence that may lead them to one. For one thing, the biology of aging is different in some important respects in animals and plants, as Howard Thomas of Aberswyth Aberystwyth University in Scotland Wales explained last year in the journal *New Phytologist*.

As we animals get older, things go wrong. For example, as our cells divide, their DNA sometimes mutates. This can cause the cells to malfunction or even turn cancerous. This burden of mutations only gets greater the older we get. We can try to fix this damage—repairing DNA, killing off defective cells, and so on—but that takes a lot of energy, energy that animals could otherwise use for other purposes, like reproducing.

Plants don't seem to have to deal with these challenges. Trees that are 4700 years old don't have more mutations in their cells than much younger plants. It's possible that they lack those mutations because a kind of evolutionary struggle taking in the tissues of old plants. If some cells suffer mutations, other cells that are in better shape will take over and continue to grow healthy tissue.

Read the full, original story: [Young Animals and Old, Old Plants](#)