This pill could make your dog (and maybe you) live longer

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Pill could make your dog live longer

* Scientists are trying an anti-aging drug in dogs and humans
* The Dog Aging Project says the drug may one day give dogs two to five more years of life

**(CNN)**See Momo.

See Momo run.

See Momo run faster, farther and with far more vigor, energy and youthfulness, his owners say, now that he's taking a drug meant for humans with cancer.

"It's been remarkable," Paola Anderson said as she watched Momo, her 13-year-old white Pomsky, run around the backyard, keeping up with dogs a third his age.

The drug is called rapamycin. After nearly a decade of research showing that it makes mice live up to 60% longer, scientists are trying it out as an anti-aging drug in dogs and humans.

[Rapamycin](https://www.acs.org/content/acs/en/molecule-of-the-week/archive/r/rapamycin.html) was discovered nearly 50 years ago in soil collected from Easter Island in the South Pacific and studied in a Canadian lab, and it's the most promising drug to fight aging that Arlan Richardson has ever seen.

A professor at the Reynolds Oklahoma Center on Aging, Richardson has been doing this kind of research for 40 years.

"It's the best bet we have," he said.

Now, scientists are moving forward and testing the drug in dogs.

Researchers at the University of Washington's Dog Aging Project gave rapamycin to 16 dogs and imaged their hearts.

"It started to function better. It started to look like a more youthful heart," said Matt Kaeberlein, co-director of the Dog Aging Project, who has presented this research at conferences but hasn't yet published it.

Those dogs took rapamycin for only 10 weeks. Here's what happened to Momo and his "brother," Sherman, who took it for much longer.



Sherman the Pomeranian

Sherman and Momo's story

For many years, Momo and Sherman were regular visitors to the Laguna Pet Spa in Laguna Hills, California, getting baths and haircuts.

Then, on Christmas Eve 2010, their owner dropped them off and never came back.

Anderson, who runs the spa, said she called the owner, but her phone had been disconnected.

Anderson was horrified but not shocked. This was during Southern California's housing loan crisis, and this owner wasn't the first to abandon a dog to her care.

But this was more than a foreclosure. Sherman was sick, very sick.

On Christmas Day, the tiny 8-year-old Pomeranian was vomiting and howling in pain. Anderson rushed him to the emergency room. It was an attack of acute pancreatitis.

Anderson nursed him back to health and became, in her words, "mom" to Sherman and Momo.

The dogs had another mom, too: Anderson's partner, Sarah Godfrey, who was then living in Northern California but moved a few years later to Laguna Hills to live with Anderson and "the boys."



Can dogs smell cancer?02:21

All was well until one day in May 2015, when Sherman fell over. He'd had a stroke.

"They gave him two weeks to live, unless he had surgery," Anderson remembers. Even with an operation, he had only a 20% chance of surviving.

Anderson and Godfrey were wary of surgery for a fragile dog who was already 13 years old; that's equivalent to 68 years old for a human being, according to the [American Kennel Club](http://www.akc.org/content/entertainment/articles/how-to-calculate-dog-years-to-human-years/).

Over the years, the couple had sought help from an herbalist for people problems, and now they desperately turned to him for help with their pooch problem. The herbalist did some research and came up with a possible treatment: rapamycin.

Excited but also skeptical, Anderson and Godfrey went online and ran across Kaeberlein and the Aging Dog Project, which was recruiting canine subjects for the rapamycin research.

They begged Kaeberlein to enroll Sherman, but the answer was no. Dogs had to be healthy and over 40 pounds. Sherman was neither.

The couple calculated their next step.

"We knew we could go to Mexico and get rapamycin or order it online, but we wanted to be guided by a veterinarian, by a professional," Anderson said.

That proved to tougher than they thought.

Five vets refused to prescribe the drug. Finally, a sixth vet agreed to prescribe rapamycin, but only after consulting with Kaeberlein to determine the best dose for Sherman.

By this point, a month after his stroke, Sherman was so weak, he had to be fed by hand and carried everywhere.

But rapamycin changed all that, Anderson and Godfrey said.

"The third day after taking rapamycin, he could eat on his own. By the seventh day, he was walking on his own," Anderson said.

Sixteen months later, the dog who had been given two months to live is still alive, and while clearly old, he's still active and able to run around the yard.

That got the moms thinking about Momo. He wasn't sick like Sherman, but at 13, he was getting old and achy and losing stamina. The couple decided to try rapamycin on him, too.

"Why not have your dog live longer if you can?" Godfrey said.

She said that within days of taking the drug, Momo was able to run for hours, whereas before, just a 30-minute walk would tire him out. On a hot summer day when CNN visited, he was able to keep up with Anderson's parents' dogs, who are 4 and 5 years old.

Anderson and Godfrey couldn't be happier.

"We call Sherman and Momo our rapamycin babies," Godfrey said.