

This Protein May Offer Hope for Kidney-Challenged Cats

Almost 30% of senior cats suffer from this disease, but a promising therapy, based on this newly discovered protein, could help restore their health.

Reviewed by Dr. Arielle Walton

STORY AT-A-GLANCE

- Nearly 30% of senior cats suffer from chronic kidney disease, causing waste buildup in their bodies that leads to fatigue, weight loss, and increased thirst
- Scientists have discovered AIM protein, which helps the body's immune cells clear waste, but in cats, AIM often stays trapped and can't do its job
- Dr. Toru Miyazaki's research found that AIM injections helped mice recover from kidney disease and showed promise for treating kidney-challenged cats as well
- Early clinical trials reveal that AIM therapy can improve the health of cats with severe kidney disease, even those previously considered terminally ill
- While AIM therapy is not yet available, pet parents can help by providing kidney-friendly diets, fresh food, and scheduling regular veterinary checkups

As your cat ages, they could face health challenges, and one of the most common is kidney disease. Nearly 30% of cats over the age of 10 develop chronic kidney disease (CKD).¹ This condition makes it hard for your cat's kidneys to eliminate waste, leading to serious health problems over time. The waste buildup leads to fatigue, weight loss, and increased thirst in your cat. It's heartbreaking to watch.

Until recently, there wasn't much you could do besides manage the disease. But now, there's new hope thanks to an exciting discovery called AIM therapy.

What Is AIM Therapy?

AIM stands for "Apoptosis Inhibitor of Macrophage." A protein that acts as a marker, labeling waste in the body so that the macrophages, which are the body's natural cleaners, will know what to clean up. Otherwise, the waste will just remain in the body and accumulate.²

Most cats have AIM in their blood, but it's stuck to another molecule called Immunoglobulin M (IgM). "When various 'waste' substances, such as cellular debris, damaged proteins, or inflammatory molecules released by dead cells accumulate in the body (a process known as apoptosis), AIM separates from IgM and binds to the waste," Dr. Judy Morgan, a certified veterinary acupuncturist, chiropractitioner, and food therapist, said.³

In cats, a hereditary disorder causes the bond between AIM and IgM to be so strong that AIM can't break free, leaving waste piling up in the kidneys, causing damage.

How AIM Therapy Was Discovered

Aim was discovered in 1999 by Dr. Toru Miyazaki a scientist from the University of Tokyo. While working at the Basel Institute for Immunology in Switzerland and studying immune cells, particularly T cells, he discovered AIM.

"I learned that the new protein I had discovered had no connection to T cells, but appeared to prolong the life of macrophages (phagocytic immune cells that consume pathogens that have invaded peripheral tissue) in the body," he said.⁴

After much research, he realized AIM had another job — helping the body clean up waste. Miyazaki moved to the United States and began studying AIM's role in diseases like obesity and fatty liver. He found that mice without AIM gained more weight and developed health problems faster than normal mice.⁵

However, his real breakthrough came when he looked at kidney disease. In mice with kidney problems, injecting AIM helped them recover. After a conversation with a veterinarian, he saw that AIM could help mice and cats.

"I happened to have the opportunity to talk to a veterinarian. He told me, 'Almost all cats develop kidney disease. The rate of death from kidney disease in dogs is almost the same as in humans, but the rate in cats is remarkably high. While some cats do die of cancer, most of those cats also have kidney disease.'

If kidney disease develops because AIM is not functioning, it stands to reason that supplementing AIM should cure kidney disease. In the case of cats in which the disease has progressed because a large amount of waste has already built up in the kidneys, it is necessary to achieve a powerful waste clearance effect by injecting them with AIM," Miyazaki explained.⁶

Using AIM Therapy to Help Sick Cats

Testing AIM therapy on cats wasn't simple. Researchers have started animal trials and found that some of these cats improved when they gave AIM injections to cats with severe kidney disease.

Cats that were slowing down, barely eating, and close to giving up were able to bounce back with AIM therapy. According to Morgan, "The 'AIM' injection has shown promising results in ongoing clinical trials, exceeding expectations and even showing improvement in terminally ill cats."⁷

Although the therapy is still in trial phase, the early results are promising. And although this treatment isn't currently available yet, Miyazaki's team is working hard to make AIM injections available, possibly this year.⁸

What You Can Do Now to Help Your Sick Kitty

While waiting for AIM therapy to become available, you can still do things to help protect your cat's kidneys. Here are some reminders to help you:

- **Pay close attention to what your cat eats** — Cats with kidney disease need special diets that are lower in phosphorus and have balanced minerals. Consult your vet on which kidney-friendly foods are best for feeding your pet.
- **Don't rely on just kibble** — Fresh or wet foods often have better hydration benefits, which is crucial for kidney health. Feed your cat nutritionally balanced, species-appropriate meals to keep their kidneys well-functioning.
- **Bring your cat for regular vet checkups** — Ask your vet about early testing for kidney function, especially if your cat is over the age of 7. Simple blood and urine tests can catch problems early, giving you time to adjust your cat's diet or explore treatment options.

Even though AIM injections aren't available for everyone yet, staying informed can help you be ready when they are. Follow veterinary news or ask your vet if they're aware of upcoming therapies. Knowing that something promising is on the horizon can make it easier to face the daily care challenges of an aging cat.

Bringing New Hope to Your Cat's Life

Watching a beloved cat age and struggle with kidney disease can be heartbreaking. But thanks to AIM therapy, there's real hope for your feline family members. This discovery helps explain why so many cats suffer from CKD and gives researchers and pet parents a way to fight back.

AIM therapy may also open doors to treatments for other diseases, both for pets and humans. From extending the lives of endangered big cats to helping fight human diseases like Alzheimer's, the potential impact of AIM is enormous. It's a reminder that scientific discovery often starts in one area and ends up helping many.

Your cat depends on you to make the best decisions for their health. With AIM therapy on the way, combined with good nutrition and regular care, you can look forward to giving your feline friend more happy, healthy years by your side.

Sources and References

^{1,3,7,8} [Dr. Judy Morgan's Naturally Healthy Pets, AIM Therapy and Chronic Kidney Disease in Cats](#)

^{2,4,5,6} [Healthist, July 10, 2024](#).
