

## HEALTH NEWS

# Feline Genetic Research Advances

ALTHOUGH MOST OF THE FELINE genome has been mapped, further definition of the feline genetic code and a better understanding of the genetic sequences are still needed. Advances in the study of the feline genome can help prevent disease and enable researchers to develop specific genetic tests, treatments and gene therapies for cats.

Scientists at North Carolina State University are conducting groundbreaking research by analyzing genetic alterations that occur in cats with sarcomas, malignant tumors that develop from connective tissue. Sarcomas can develop naturally or can be triggered by injections, such as routine vaccinations. The researchers are developing a genetic test that will differentiate between spontaneous and injection-site-associated sarcomas. The test will classify the cancer at an early stage and aid veterinarians in the selection of the best treatment. The research also offers a greater understanding of how this cancer develops.



Further advancements are on the horizon. The Cat Health Network, sponsored by the American Veterinary Medical Foundation, Morris Animal Foundation, Winn Feline Foundation and American Association of Feline Practitioners, was established to provide funding and support for

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feline health studies. Researchers sponsored by this organization have recently received access to varied types of feline DNA called SNPs (single nucleotide polymorphisms). The SNPs will help further define the feline genome and enable further progress in the study of genetic disease. Topics of research will include heart disease (hypertrophic cardiomyopathy), polycystic kidney disease, muscle disease, retinal disease and feline infectious peritonitis.

Feline genetic research developments are important to keep our feline companions happy and healthy in the future.

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*charter diplomates. She was on the board of the American Association of Feline Practitioners for six years. She has been a contributor to CAT FANCY since 1993 and has written three cat books.*



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## Joint Supplement Treats Bladder Inflammation

Feline idiopathic cystitis (FIC) is a condition in which a cat's bladder becomes inflamed without a known cause. Patients show a range of symptoms, including straining to urinate, passing small amounts of urine, bloody urine and urinating in inappropriate locations. Scientists believe that the condition is the result of a compromised or impaired bladder lining.

A large proportion of the urinary bladder's protective coating is made up of glycosaminoglycans (GAGs), which many of us might be familiar with as a supplement for joint health. GAGs are thought to prevent bacteria and crystals in the urine from attaching to the bladder wall and to protect the bladder from irritating substances in the urine.

A 2011 study conducted at the Chulalongkorn University in Bangkok, Thailand, evaluated the effects of an oral GAG on cats with FIC. Findings showed that GAGs were absorbed from the intestines and entered into the bloodstream with no detectable adverse effects. Cats that received GAG treatment had higher blood levels of GAGs, increased urine concentration of GAGs with ongoing treatment, a decrease in the amount of blood in their urine and less reported symptoms of urinary discomfort.

Additionally, a new patented formula, A-CYST, launched by ArthroDynamic Technologies Inc., is designed to temporarily replenish the GAG layer in the bladder and treat cystitis by temporarily coating the GAG-deficient protective layer of the bladder's lining. A veterinarian administers A-CYST through a catheter into the cat's bladder as a means of relieving urinary discomfort. We have used A-CYST for cystitis in our clinic and believe that it has beneficial effects.