



WINN FELINE FOUNDATION

For the Health and Well-being of All Cats

637 Wyckoff Ave., Suite 336, Wyckoff, NJ 07481 • www.winnfelinefoundation.org
Toll Free 888-9MEOWIN (888-963-6946) • Local Phone 201-275-0624 • Fax 877-933-0939

DERMATOPHYTE SUSCEPTIBILITY AND ASYMPTOMATIC CARRIER STATE IN PERSIAN CATS

PROJECT STUDY: Susceptibility to dermatophytes and asymptomatic carrier state in Persian cats.
Principal Investigators: Drs. Aline Rodrigues Hoffman, Dr. William Murphy; Texas A&M University
Interim progress report summary, MT16-015

Ringworm is a common fungal disease that causes great frustration for many cat owners. The Texas A&M Persian Ringworm Study aims to answer questions about how and why Persian cats develop chronic and severe ringworm more often than other breeds. The study is currently in the sample collection phase, and recruitment of Persians with and without ringworm will continue until March 2019 when all collected samples will be analyzed together.

It has long been suspected that ringworm in Persian cats has a genetic basis, but this has not been researched prior to this study. The main objective of this study is to search for a genetic mutation that may be predisposing at least some Persians to more severe disease. This study will use a technique referred to as “next generation sequencing” to examine all of the DNA from each cat in the study (DNA obtained via cheek swabs). The DNA from Persians with severe disease will be compared to those who never develop it or develop only mild disease even when exposed to ringworm. DNA from these groups of Persians will also be compared to DNA from other cat breeds. Thus far the principal investigators have obtained 32 samples from Persians with and without ringworm (11 have never had it, 10 have had it once and recovered easily, 11 have severe or chronic ringworm). Ideally they will obtain at least 8-10 more samples from Persians both who are severely affected and who have been exposed to ringworm but never developed it.

One particularly important group of Persians are those that develop a rare form of ringworm characterized by large, firm bumps in and under the skin. These bumps contain large amounts of the ringworm fungus and inflammation and are called ‘pseudomycetomas.’ Persians are essentially the only breed affected by this rare form of ringworm, and the study hopes to include several cats with this form as they would be most likely to have a potential genetic mutation. Thus far the investigators have obtained cheek swabs from 2 of these cats, but they also plan to obtain DNA from archived biopsy samples from Persians with this form of the disease (at least 4 have been pulled from the Texas A&M University archive). Additional cats with this form of the disease are being sought.

Another objective of the study is to investigate how often DNA of the ringworm fungus itself can be detected on the skin and hair of Persians with and without signs of ringworm. Skin swabs from each Persian are being collected for analysis of all the fungal DNA present (microbiome analysis). This type of analysis can provide information about how often healthy Persians have ringworm spores on their hair/coat, what other fungi are normally present on the skin, and whether the fungal populations on the skin are different between the different groups of Persians. Fungal culture is also being performed for each cat, and this sample is being obtained by brushing the hair coat with a toothbrush. Lastly, swabs of each cat’s environment (e.g., bedding) are being obtained when possible to analyze the fungal DNA in the environment.

637 Wyckoff Ave., Suite 336, Wyckoff, NJ 07481 • info@winnfelinefoundation.org
Phone 201.275.0624 • Fax 877.933.0939 • www.winnfelinefoundation.org

The Winn Feline Foundation is a non-profit organization [501(c)(3)] established by The Cat Fancier’s Association.
Member Combined Federal Campaign #10321



WINN FELINE FOUNDATION

For the Health and Well-being of All Cats

637 Wyckoff Ave., Suite 336, Wyckoff, NJ 07481 • www.winnfelinefoundation.org
Toll Free 888-9MEOWIN (888-963-6946) • Local Phone 201-275-0624 • Fax 877-933-0939

A veterinarian on the study team has been visiting catteries and cat shows and working with general practice veterinarians to obtain swabs from Persians, and is on the lookout for any additional samples. Please don't hesitate to contact PersianProject@cvm.tamu.edu with any questions/comments/concerns regarding the study or to request sample kits.

More information can be found at the study web page:

<http://vetmed.tamu.edu/vtpb/dermatopathology/research/persian-ringworm-study>

Summary prepared for Winn Feline Foundation © 2018

637 Wyckoff Ave., Suite 336, Wyckoff, NJ 07481 • info@winnfelinefoundation.org
Phone 201.275.0624 • Fax 877.933.0939 • www.winnfelinefoundation.org

The Winn Feline Foundation is a non-profit organization [501(c)(3)] established by The Cat Fancier's Association.
Member Combined Federal Campaign #10321
