



## Dog Genetics Spur Scientific Spat

*Researchers disagree over canine domestication.*

Scientists investigating the transformation of wolves into dogs are behaving a bit like the animals they study, as disputes roil among those using genetics to understand dog domestication.

In recent months, three international teams have published papers comparing the genomes of dogs and wolves. On some matters — such as the types of genetic changes that make the two differ — the researchers are more or less in agreement. Yet the teams have all arrived at wildly different conclusions about the timing, location and basis for the reinvention of ferocious wolves as placid pooches. “It’s a sexy field,” says Greger Larson, an archaeogeneticist at the University of Durham, UK. He has won a £950,000 (US\$1.5-million) grant to study dog domestication starting in October. “You’ve got a lot of big personalities, a lot of money, and people who want to get their *Nature* paper first.”

In January, Erik Axelsson and Kerstin Lindblad-Toh, geneticists at Uppsala University in Sweden, and their colleagues reported in *Nature*<sup>1</sup> that genes involved in the breaking down of starch seemed to set domestic dogs apart from wild wolves. In the paper and in media interviews, the researchers argued that dog domestication was catalysed by the dawn of agriculture around 10,000 years ago in the Middle East, as wolves began to loiter around human settlements and rubbish heaps (see *Nature*<http://doi.org/mv4>; 2013).

But Larson, who has worked with Lindblad-Toh on other projects, says that their claim is dubious. He notes that bones that look similar to those of domestic dogs predate the Neolithic revolution by at least several thousand years, so domestication must have occurred before then. “Why waste space [in a paper] saying something that is patently untrue?” he says. *More at link:* <http://www.nature.com/news/dog-genetics-spur-scientific-spat-1.13227>

## Golden Retriever Cancer Study

*Golden Retriever Cancer Study Receives Grant from Foundations*

Matthew Breen, a professor of genomics at North Carolina State University, is a member of a collaborative, multi-institutional team that received a \$1.1 million grant from the AKC Canine Health Foundation (CHF) and the Golden Retriever Foundation (GRF) to improve detection and treatment of certain cancers in Golden Retrievers.

Other team members are Jaime Modiano of the University of Minnesota and Kerstin Lindblad-Toh of the Broad Institute of MIT and Harvard. The scientists have collaborated on significant canine cancer studies for several years and the funding will support continued investigation.

The title of the funded study is “Developing Markers to Diagnose and Guide Cancer Treatment in Golden Retrievers Based on Newly Discovered Heritable and Acquired Mutations.”

“This new award provides us with a terrific opportunity to build on our established collaboration and accelerate our work aimed at understanding the genetic mechanisms associated with the top two cancers in Golden Retrievers,” says Dr. Breen. “The broader involvement of the Golden Retriever community is testimony to the key role that dog owners and breeders continue to play in the research effort. In addition this new award will allow us to now extend the discoveries we have made in Golden Retrievers to numerous other breeds”

In making the joint grant, the foundations noted the team’s previous “ground breaking” discoveries related to lymphoma and hemangiosarcoma (a tumor of cells that line blood vessels). The cancers are major health problems in Golden Retrievers, causing both suffering and premature death.

“This grant is an exciting step forward in the field of cancer research for dogs,” said Shila Nordone, AKC-CHF’s chief scientific officer. “While the study will primarily focus on Golden Retrievers, the project emphasizes a better understanding of the mechanism of how cancer begins and spreads, resulting in research that will be applicable across all breeds of dogs.”

Dr. Nordone also noted that the results of the investigation —like all canine cancer research—will have a One Health application and will assist oncologists who study the development and spread of human cancers. Dr. Breen and his colleagues previously identified regions of the Golden Retriever genome that contain genetic heritable risk factors for lymphoma and hemangiosarcoma and identified the somatic mutations in tumors that occur in both cancers, some of which are linked to duration of remission when treated with standard of care.

The researchers believe that their findings indicate a few heritable genetic factors account for as much as 50% of the risk for these cancers. These inherited risk factors and tumor mutations point to pathways that have been implicated in the development of lymphoma and hemangiosarcoma. A better understanding of the process will help in the creation of targeted therapies.

Through the joint CHF-GRF funding, the investigators will identify precise mutations for the heritable genetic risk factors and will validate markers or mutations that can be used to determine risk at the heritable loci in a large independent population of Golden Retrievers from the U.S. and from Europe.

According to the announcement, the ultimate goal is to develop robust risk prediction tools and an accompanying DNA test. As with most genetic-based studies, data are expected to be transferable across breeds, enabling the future search for cancer risk factors in all dogs to be rapid and focused.

The CHF-GRF simultaneously announced funding a study involving researchers from the University of Missouri, Colorado State, and Texas A&M who will investigate changes in lymphoma cells to develop biomarkers of each class of lymphoma, and in turn, identify new therapy targets for affected Golden Retrievers.

*Source: <http://www.cvm.ncsu.edu/news/2013-06-11-Grant-from-Canine-Foundations-Support-Golden-Retriever-Cancer-Study.html>*

**NOTE:** A complete list of active and enrolling clinical trials at the University of Minnesota Clinical Investigation Center can be found at this link: <http://www.cvm.umn.edu/cic/current/oncology/home.html>

## **HSUS Files Suit Against USDA to Stop Horse Slaughter**

Following USDA's announcement late last week to issue an inspection permit to a New Mexico equine slaughter plant, animal rights organizations have filed suit against the agency and asked for an immediate injunction. HSUS and various organizations are suing under the National Environmental Protection Act, alleging the agency failed to conduct an environmental review before authorizing horse slaughterhouses to operate. The plaintiffs are represented in the case by Schiff Hardin, LLP and attorneys within The HSUS' Animal Protection Litigation section.

Aside from the New Mexico plant, FSIS said it expects requests for inspection from two more plants in Iowa and Missouri in the future.

Congress previously blocked equine slaughter by removing funding for meat inspections. Without inspections, horse meat could not be marketed or sold legally.

Proponents of horse slaughter say the lack of horse processing in the US for the last seven years has exacerbated the suffering of horses, increased the number of needless and wasteful deaths, and has caused more abandonment, neglect, pain and misery for horses nation-wide.

Earlier HSUS filed a petition with USDA's Food Safety and Inspection Service and the U.S. Food and Drug Administration to declare horsemeat unfit for human consumption. USDA denied that petition stating, "After carefully considering the issues raised in the petition and the supplemental statement, the Agency finds no merit in the assertion that all meat and meat food products from a horse without a proven lifetime history of all substances administered to it are adulterated under the FMIA. FSIS has concluded that its existing authority under the FMIA and implementing regulations, which include requirements for the disposition of livestock suspected of having biological residues, along with the Agency's National Residue Program (NRP), will allow the Agency to ensure that carcasses and horsemeat products that bear the mark of inspection are safe for human food." *Sources: Farm Progress, United Horsemen, Food Safety and Inspection Service [www.fsis.gov](http://www.fsis.gov)*

## **Ohio Prepares for Implementation of Exotic Animal Ban**

COLUMBUS July 4, 2013 — The state's \$2.9 million exotic-animal containment facility in Reynoldsburg hasn't been used much in the four months since it opened, with five alligators and two black bears briefly calling it home.

But business is expected to pick up in six months when Ohio's exotic-animals law takes full effect on Jan. 1.

Ohio Agriculture Director David Daniels said the state is ready. "We've learned a lot. We've had to go out and make pickups [of animals]," he said. "Every time that we go through one of these, we learn something new. The seven animals were kept briefly at the Dangerous Wild Animal Temporary Holding Facility before they were moved to out-of-state sanctuaries. Most were relinquished by owners who said they could no longer keep them, but one alligator was seized during a drug raid in Guernsey County.

The exotic-animals law, enacted last year, bans private owners from acquiring, selling, and breeding restricted species in Ohio as of Jan. 1. On the restricted list: lions, tigers, bears, elephants, certain monkeys, rhinos, alligators, crocodiles, anacondas and pythons longer than 12 feet, certain vipers, and all venomous snakes.

Thus far, private owners have registered 361 animals, mostly primates, tigers, bears, and alligators. The law still could be put on hold as a result of a lawsuit pending in the 6th U.S. District Court of Appeals in Cincinnati.

*Source: Toledo Blade*

# Animal “Rights” Gets Yale Platform

If you look at the animal rights movement, two trends are apparent: consolidation and incest. The consolidation is apparent in how HSUS has brought other animal rights groups under its corporate arms, such as the Fund for Animals and the Doris Day Animal League. But less visible is the revolving-door nature of the business.

Very few people in the movement seem to stay at one group, with folks like PETA co-founder Ingrid Newkirk being an exception. HSUS CEO Wayne Pacelle was at the anti-hunting Fund for Animals before HSUS; HSUS VP Paul Shaprio was at Compassion Over Killing before HSUS; and HSUS food policy director Matt Prescott was at PETA before HSUS. Other folks have more movement; Carter Dillard (**remember him?**) was at COK, then HSUS, and now he’s at the Animal Legal Defense Fund (ALDF).

What’s our point? It’s that while animal rights groups may have different tactics—PETA is the street-theater group, HSUS is the moderate-seeming group, ALDF is the lawyer group—they all have the same *goal* in mind: Animal rights. With that in mind, it’s interesting to see Yale University, Wayne Pacelle’s alma mater, hosting a **“personhood beyond the human “conference** in December. The conference is put on by the Nonhuman Rights Project, whose executive director is Natalie Prosin—a former HSUS employee. Prosin has not only worked for HSUS but also the D.C. law firm Meyer, Glitzenstein, and Crystal. You might remember MGC from the federal racketeering lawsuit that also names HSUS and two of its in-house lawyers as defendants.

The point of the Nonhuman Rights Project is to gain legal “rights” for animals. What does that mean? Animal *welfare* laws provide for well-being and protection of animals but don’t assign them legal “rights” (like free speech, assembly, etc.). But consider the practical aspects of overthrowing the legal system by giving personhood to animals.

In 2011 PETA filed a federal lawsuit against SeaWorld under the 13<sup>th</sup> Amendment of the U.S. Constitution for supposedly “enslaving” killer whales at its theme park. NHP was an *amicus curiae* in the SeaWorld suit. The suit failed, but it sought to bring *animals* under the Constitution’s legal protections, a radical departure from the Founders’ intent. (Recall that the preamble begins with “We the People” and not “We the Animals”...)

The Humane Society of the United States has dreamed in fundraising material of achieving legal rights for animals. “The critical goal,” HSUS explains, is “getting litigation into a format where someone with ready access to the judicial system is representing the animal and its interests and *only* the animal and its interests.”

There’s been a system like that in Zurich, where an “animal lawyer” has “represented” animals—such as pursuing criminal charges against a fisherman for taking too long to reel in a fish. Think it can’t happen here in the U.S.? Interestingly, the Yale conference will be going on after a legislative session in Connecticut that saw one lawmaker push for animals to have legal “advocates” in the courtroom.

If you’d like a more high-minded analysis of the legal implications of giving rights to animals, read [this piece](http://tinyurl.com/md67u5t) <http://tinyurl.com/md67u5t> by federal judge Richard Posner. In the meantime, Yale’s budding legal minds should be wary of animal rights activists’ attempts to turn the U.S. into a kangaroo court.

*Humane Watch, June 11, 2013*

North Carolina Responsible Animal Owners Alliance, Inc. (NCRAOA) is a statewide organization of animal owners and professionals dedicated to animal welfare, responsible animal ownership, and maintaining the rights of responsible citizens to breed and own animals. NCRAOA, a 501(c)3 organization, provides education and information to the public and supports reasonable and humane animal welfare laws. Permission granted to copy and distribute NCRAOA News and Views in its entirety as is.

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