

THE ALBINO GENE MUTATION IN THE DOBERMAN BREEDING POPULATION PRIOR TO, AND SINCE, THE ESTABLISHMENT OF THE Z-REGISTRY

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THE INVISIBLE FLAW

Oculocutaneous albinism in the Doberman is caused by a genetic mutation, commonly known as the “albino gene”. The responsible gene was definitively identified by researchers in 2013 and a DNA test developed which is now commercially available. Normal color Dobermans may test either Clear or Carrier (possessing one copy of the recessive gene), while white (albino) Dobermans will carry two copies of the mutated gene. Prior to this genetic discovery, the scope of our knowledge was the scientifically reasoned belief that the condition represented albinism and was of genetic origin.

The causative, spontaneous genetic mutation for oculocutaneous albinism occurred in a single Doberman some number of generations before the appearance of the phenotypically white Doberman Padula's Queen Shebah, known as “Shebah”. (It did not spontaneously occur, out of trillions of possible genetic mutations, identically and at the exact same time in Shebah's sire, Rasputin VI, and dam, Dynamo Humm.)

Based on scientific knowledge of genetics and populations, it is known that this mutation most likely occurred five or more generations prior to the birth of Shebah, or of the first white Doberman if not Shebah. It occurred in a single Doberman of normal coat color and thus was completely undetectable. When this normal color Doberman,

possessing the genetic mutation capable of producing white Dobermans, was bred to other dogs, the first normal color Carrier offspring were produced.

These Carrier offspring, also normal in phenotypic (appearance) coat color thus undetectably carrying this deleterious gene, were themselves then bred an unknown number of times to other dogs, producing yet more Carrier offspring of normal coat color.

Invisible and unknown, this process continued over numerous generations of Dobermans and for many years, to possibly decades, prior to Shebah's birth. A truly unknown number of albino gene Carrier Dobermans were produced and bred and were present and undetected in the breeding pool during this period of time.

DISCOVERY

Then came the day. After an unknown number of normal color, albino gene Carrier Dobermans had been produced over many years to decades—after they had already populated the gene pool to an unknown degree—two Carrier dogs were, unknowingly, bred to each other and the first white puppy was whelped.

Here is the single most crucial piece of information regarding the albino gene in Dobermans:

In order for Shebah (who we will call the first white Doberman at this point; though this may be erroneous) to have been born, the dog in which the genetic mutation originally spontaneously

occurred must appear on both sides of the pedigree at some point, behind Shebah. This fact should be read, and re-read, until the implications are thoroughly understood.

A Carrier sire (Rasputin VI) must have been bred to a Carrier dam (Dynamo Humm) in order to produce Shebah. Each of these Carrier dogs had to descend from a Carrier dog, and each of those Carriers had to descend from a Carrier, and so on all the way back to the dog in which the spontaneous mutation developed.

This means that some number of generations behind Shebah and well before Shebah's parents, there is a dog which appears on both sides of Shebah's pedigree which is the dog in which the original mutation occurred. This dog is the beginning of generations of normal color albino gene Carrier dogs that passed the gene down generation after generation, undetected in the breeding pool, until they ultimately produced Rasputin VI and Dynamo Humm, that produced Shebah.

Any dog today which descends from this “unknown” dog—any dog with this dog in its pedigree even one time in the past, no matter how far back, is capable of carrying the recessive albino gene mutation today.

The Z-Registry was developed and began with Shebah's parents, their offspring and future pedigrees. The Registry did not, does not and cannot identify or address the countless number of normal color albino gene Carrier dogs

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**PADULA'S QUEEN SHEBAH
4-GENERATION PEDIGREE**

Rasputin VI	Hunt Club's Road Hog	CH Kay Hill's Takeswon To Nowon	CH Kay Hill's the Wizard Witch		
			CH Rubigold's Harmony of Kay Hill		
		Virginia's First Lady	CH Belmont's Red Lancer		
			Hi Amp's Lady Hannah		
	Black Magic Of New Stock	Duke Shannon	Saxon Intripid Rebel		
			Sally Ann Of Lynnstone		
		Sally Ann Of Lynnstone	Zebco V Rengaw		
			Fancy The Fance With The Wance		
			Goliath Steve's Pride	Midnight Baron Male	Carrier's Black Baron
					Patton's Shadow Of Knossos
Lady Samatha XVIII	Fabulous Fosdick Of Muse				
	Lady Lucinda II				
Dynamo Humm	Bennet's Monique	Czar V. Baskerville	Sinbad Black Bonfire		
			Golden Dawn Margo		
		Balwin's Sadie Jane	Wing's Rusted Tin		
	Union Hill's V Ginger				

(Courtesy of <http://www.pedigreedatabase.com/>)

produced over an unknown number of years to decades prior to Shebah's birth.

For this reason, we now know that the Z-Registry, which served us well as the only tool we had until the scientific discovery of the genetic mutation, does not and cannot protect the Doberman gene pool from the presence of normal color albino gene Carrier dogs. The Z-Registry does not identify all normal color Carrier dogs that were produced and were themselves used for breeding,

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passing the gene on to their offspring, because it did not exist during the years this took place. In fact, the Z-Registry does not identify any of the normal color albino Carrier Dogs that were produced over an unknown number of generations prior to Shebah's parents, because the Registry did not exist. And we have no idea what number of such Carrier dogs were produced, and were used for breeding, during those years.

Consider this visual: on a piece of paper, draw a very large "V". At the bottom apex of that V, make a dot. This dot represents the Doberman in which the original albino genetic mutation occurred. Now move approximately 3/4 of the way up from that dot to the top of the side lines and pick a point Anywhere within that V, and draw another dot. This second dot represents Shebah's parents. Now, extend the original larger V lines upward even further, and extend two lines parallel with them upward from the second dot. The area within that second, much smaller triangle, represents the portion of our gene pool today "protected" by the Z-Registry. A partial subset, only, of the larger breeding pool. The rest of the larger area outside of it, represents the portion of our gene pool today in which the recessive albino mutation can still be present.

This is not merely a "hole" in the Z-Registry or notion thereof. This is barn doors being fully wide open for many, many years of ongoing breeding, only being closed down to one smaller opening after herds of horses had already left the barn and were out propagating.

Believing, or asserting, that the Z-Registry can protect us completely from albino Dobermans or assure no albino gene Carrier dogs in our Doberman breeding pool today is akin to skimming the surface of a pond with a

hand held net, catching a handful of fish and proclaiming the pond to be empty of all fish. It is ignorant. It has no basis in fact whatsoever. It is akin to claiming, today, that the Earth is flat. It is wholly, completely, delusional. As such, it greatly disserves the breed.

WHO'S YOUR DADDY?

Let's review pedigrees—the devil's in the details. Who's in your dog's pedigree?

- The albino mutation occurred in a single dog, most likely five or more generations before Shebah was born. It was present in the Doberman breeding pool, undetected, until the birth of the first phenotypically white Doberman.
- The dog in which the genetic mutation originally spontaneously occurred must appear on both sides of the pedigree at some point, behind Shebah.
- Any dog that descends from the dog in which the albino mutation originally occurred, no matter how many generations distant, is capable of being a Carrier of the recessive gene.

A review of Shebah's pedigree identifies the first dogs that appear on both sides of her pedigree, as follows:

1. 5 generations behind Shebah on the sire's side, and 6 generations behind Shebah on the dam's side, the first dog in common is: Singenwald's Prince Kuhio.
2. 5 and 6 generations behind Shebah on the sire's side, and 7 generations behind Shebah on the dam's side, the second dog in common, and one which appears from here on back quite a large number of times, is: Dobe Acres Cinnamon.
3. 6 generations behind Shebah on both the sire's and the dam's side, the next dog in common, is:

“...THE Z-REGISTRY CAME A LONG TIME AFTER

THE DOBERMAN ALBINO GENE SHIP HAD SAILED,
DIRECTLY INTO OUR BREEDING POOL.”

Patton's Ponder of Torn (sire of Dobe Acres Cinnamon).

4. 6 generations behind Shebah on both the sire's and the dam's side, the next dog in common is: Cunningham's Saracennette (dam of Dobe Acres Cinnamon).
5. Beginning from the 6th generation behind Shebah and back, of course, appear Kuhio's sire, Ravensberg's Bert and dam, Singenwald's Jelissa, and then, again, behind Dobe Acres Cinnamon each time, his sire and dam.
6. In the 7th generation behind Shebah on the sire's side, and further back on the dam's side, is: Delegate vd Elbe (behind Kuhio).
7. In the 8th generation behind Shebah, on both the sire and the dam's side of the pedigree, often multiple times, appear: Dictator v Glenhuegel, Emporer of Marienland, Alcor v Millsdod, Dow's Illena of Marienland along with multiple Damasyn, RanchoDobes, Mikadobes and other recognized dogs.
8. In the 9th generation behind Shebah, on both the sire and the dam's side of the pedigree, appear: Domossi of Marienland, Westphalia's Uranus, Favoriet V. Franzhof, Blank vd Domstadt

Recall, the mutation arose in a single dog which appears at some point back on both sides of Shebah's pedigree.

Any dog that descends from this dog—not just Z-Registry dogs, but any dog that descends from the original dog in which the mutation occurred, generations before institution of the Z-Registry—may carry the recessive gene.

If Shebah was the very first “white” Doberman ever born, then it is more likely, though in no way guaranteed, that the original mutation occurred closer to her, i.e. 5-7 or so generations behind rather than further back. However, Shebah's official, printed (not in handwriting) pedigree reads:

“Shebah was the first white Doberman that was not put to sleep.”

It is folly to conclude this statement appears on her pedigree for no reason. The logical conclusion that can be drawn is that other white Doberman puppies were born prior to Shebah, that were in fact put to sleep. If this is the case, without knowledge of how many such puppies and more importantly, for how many generations this may have occurred prior to the appearance of Shebah, it is completely possible that the original spontaneous mutation occurred 8 or more generations behind Shebah.



Read the names of the dogs that appear in common on both sides of Shebah's pedigree, from 5 to 9 generations back. These dogs are present in the pedigrees of a large number of today's Dobermans. Are any of them, or any others that appear on both sides of Shebah's pedigree, in yours?

The original mutation occurred in one of them or in another dog not listed here for the sake of length, that appears on both sides of Shebah's pedigree.

That normal color, albino gene carrier dog in which the original mutation occurred and which was used for breeding, is not included in the Z-registry. It cannot have been included in the Z-registry, because the Z-registry did not exist when the mutation occurred. Nor are multiple generations of this dog's normal color, albino gene carrier offspring included in the Z-registry.

The Z-Registry had not even been thought of when the dog in which

the mutation occurred was born, used for breeding, and died: it took some unknown number of generations of Carrier dogs being unknowingly bred, for two such Carrier dogs to actually be bred to each other and produce the first “white” offspring. Awareness of the need for such a thing as the Z-Registry came a long time after the Doberman albino gene ship had sailed, directly into our breeding pool. Transmitting the recessive mutation undetected from one generation to the next, well before Shebah was born.

CONCLUSION

Based on all of the above facts, if we wish to comprehensively protect our gene pool today from any possible albino gene Carriers, we will:

1. Acknowledge irrefutable scientific knowledge;
2. Employ the gift of this irrefutable scientific knowledge by testing our dogs—at least, those descending from dogs appearing on both sides of Shebah's pedigree prior to her parents, i.e. prior to establishment of the Z-Registry;
3. Thus addressing the entirety of today's Doberman breeding pool, not just a portion of it; and
4. Use the results of those tests to work toward a reality where we can know for certain that our gene pool is completely free of the deleterious albino gene.

Who will continue to attempt to deny facts, to insistently stick their heads in the sand, to inexcusably support the continued possible presence of albino Carriers in our non-Z Registry breeding pool?

Who will proceed forward based on facts and reality to provide the sound stewardship needed to insure the comprehensive absence of any albino Carriers in our breeding pool: a shared objective we now unfortunately know the Z-Registry by itself cannot accomplish? ■