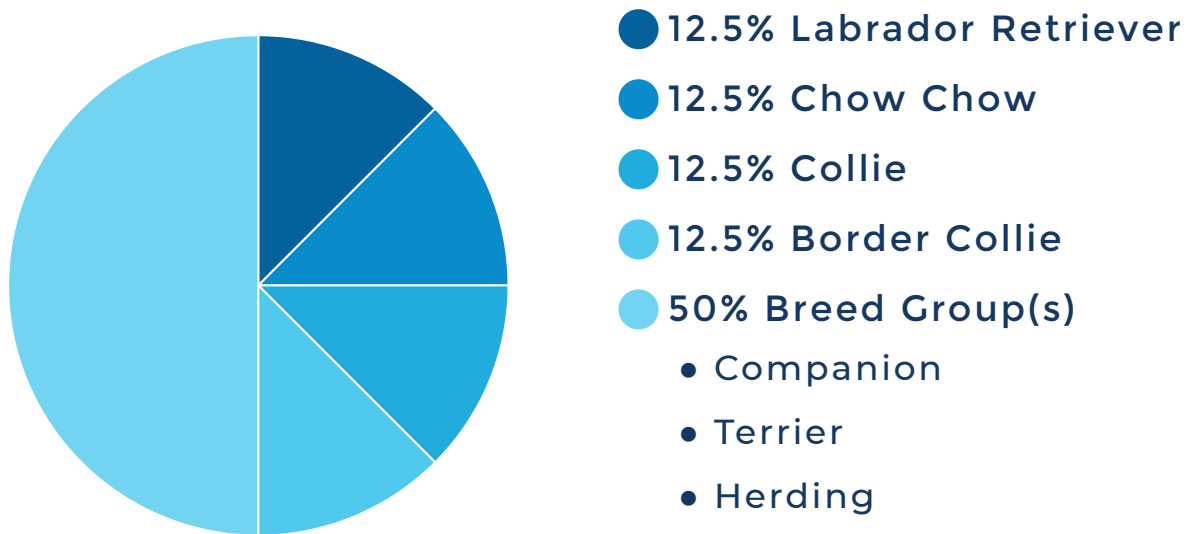


DISCOVER ALL  
**ABOUT CISCO**

The results are in! Let's take a look at what the DNA told us about Cisco's ancestry...

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# CISCO'S BREED BY PERCENTAGE



Exciting news, the results are in! Here's what makes Cisco so unique. Using the data generated from Cisco's DNA, our sophisticated computer algorithm performed over 17 million calculations! What you see here is Cisco's ancestry by percentage.

# LABRADOR RETRIEVER

## GENTLE AND TRUSTING.

- Usually happy-go-lucky, calm, or easygoing dogs, though some may be energetic.
- Usually friendly and are generally good family dogs.
- Labrador Retrievers enjoy dog sports such as agility, hunting, tracking, rally and competitive obedience; retrieving and swimming.
- Quite food motivated, which may make it easier to teach the Labrador Retriever to drop retrieved items not intended for play.

### ▶ Height

**21 - 24 in**

### ▶ Weight (show)

**55 - 66 lb**

### ▶ Weight (pet)

**49 - 77 lb**



## DID YOU KNOW?

Gentle and trusting, this popular breed can trace its roots to the coast of Newfoundland, Canada where, in the 17th century, they were known as the 'Lesser Newfoundland.' Labradors are thought to have descended from the now extinct 'St. John's Water Dog', and were initially trained to retrieve fishing nets from the cold waters of the North Atlantic. Tradition has it the Earl of Malmesbury first coined the name 'Labrador' in order to differentiate these dogs from their Newfoundland ancestors. It was English fishermen who originally brought the breed to England in the 19th century. There, they were much lauded for their retrieving skills. And much loved for their affectionate natures.

# CHOW CHOW

THESE NOBLE DOGS ARE ORIGINALLY FROM NORTHERN CHINA.

- Reputation as a loyal family dog.
- Reserved and wary with strangers.
- Independent spirit, but responds to reward-based obedience training.
- The Chow Chow was originally bred for various purposes including the guarding of people and/or property. Individual members of this breed will benefit from firm and dedicated training to temper this guarding tendency, and thus help to maintain safety as a household companion.

▶ Height

18 - 22 in

▶ Weight (show)

40 - 65 lb

▶ Weight (pet)

42 - 69 lb



## DID YOU KNOW?

Aloof and loyal, these noble dogs are originally from northern China (though some have argued they migrated there from Mongolia and elsewhere). In their native land, they are called Songshi Quan, which means 'puffy-lion dog'. It is thought the breed first appeared 2,000 years ago. They were mainly used for hunting and guarding sacred temples from evil entities. The East India Company brought them to England in 1781 and Queen Victoria received one as a gift in 1865. During the 1880s, more and more Chow Chows were imported in large numbers. Today, these puffy lions are the pride of many an owner's home.

# COLLIE

THESE SUPER INTELLIGENT DOGS ARE ORIGINALLY FROM SCOTLAND.

- Intelligent, obedient, active, and watchful dogs.
- Collies are eager to learn especially with reward-based training.
- Collies seem to enjoy dog sports such as agility, flyball, Frisbee, tracking, rally and competitive obedience.
- Although they are often good with children and are usually friendly, some Collies can be wary or reserved with strangers.

▶ Height

20 - 24 in

▶ Weight (show)

45 - 75 lb

▶ Weight (pet)

44 - 79 lb



## DID YOU KNOW?

These super intelligent dogs are originally from Scotland, where they were bred for centuries to be shepherds and guard dogs. The Collie is so smart they have been used for many other purposes too, including water rescue and being guide dogs. Many famous faces have owned one of these wonderful pets, including Queen Victoria, J.P. Morgan and Presidents Coolidge and Hoover. The Collie's reputation for bravery and loyalty was probably best immortalized by the release of the 1943 film, 'Lassie Come Home' - as well as the long-running TV series that followed. Fortunately, we don't need to be trapped inside a burning barn or down a well to know these dogs always have our best interests at heart.

# BORDER COLLIE

KEEN AND TENACIOUS.

- Very intelligent, obedient, active, energetic and watchful dogs.
- Eager to learn and respond well to reward-based training.
- Enjoy activities including agility, flyball, herding, retrieving, Frisbee, rally, and competitive obedience.
- May attempt to herd children and chase moving vehicles; the Border Collie stare may be perceived by other dogs as threatening.

▶ Height

18 - 21 in

▶ Weight (show)

33 - 44 lb

▶ Weight (pet)

31 - 53 lb



## DID YOU KNOW?

Keen and tenacious, the Border Collie has been many a shepherd's best friend. Their origins go back to the 1700s, when they guarded flocks in the Anglo-Scottish border region. Bred by Scottish and English shepherds specifically for their herding skills, they quickly developed an excellent reputation. Indeed, they were eventually brought over to the United States in the 1880s - where they played a key role in sheep ranching. A farmer named Adam Telfer is thought to be responsible for the modern breed, and every Collie today descended from his dog 'Old Hemp'. Many believe the Border Collie is the most intelligent dog on the world. For the many families who have one to love, they're certainly the smart choice of pet.

# BREED GROUPS CISCO IS MOST LIKELY RELATED TO

We tested Cisco's ancestry for specific pure breeds, going back three generations (or to the great-grandparents). Beyond this, today's technology can only identify down to the genetic "group" level (sporting, toy, guard, etc.). We know the breeds found in these groups and that Cisco may share genetic similarities with many of them. We've arranged these in order, with the most likely starting at the top. The breeds displayed are examples of breeds in each specific group. The full list for each can be found on the breeds we analyzed, click on the link below.

## COMPANION GROUP

This group consists of dogs typically bred for the specific purpose of human companionship, and many are popular pets because of their gentle nature. They became more common as the concept and luxury of dogs as pets prevailed.

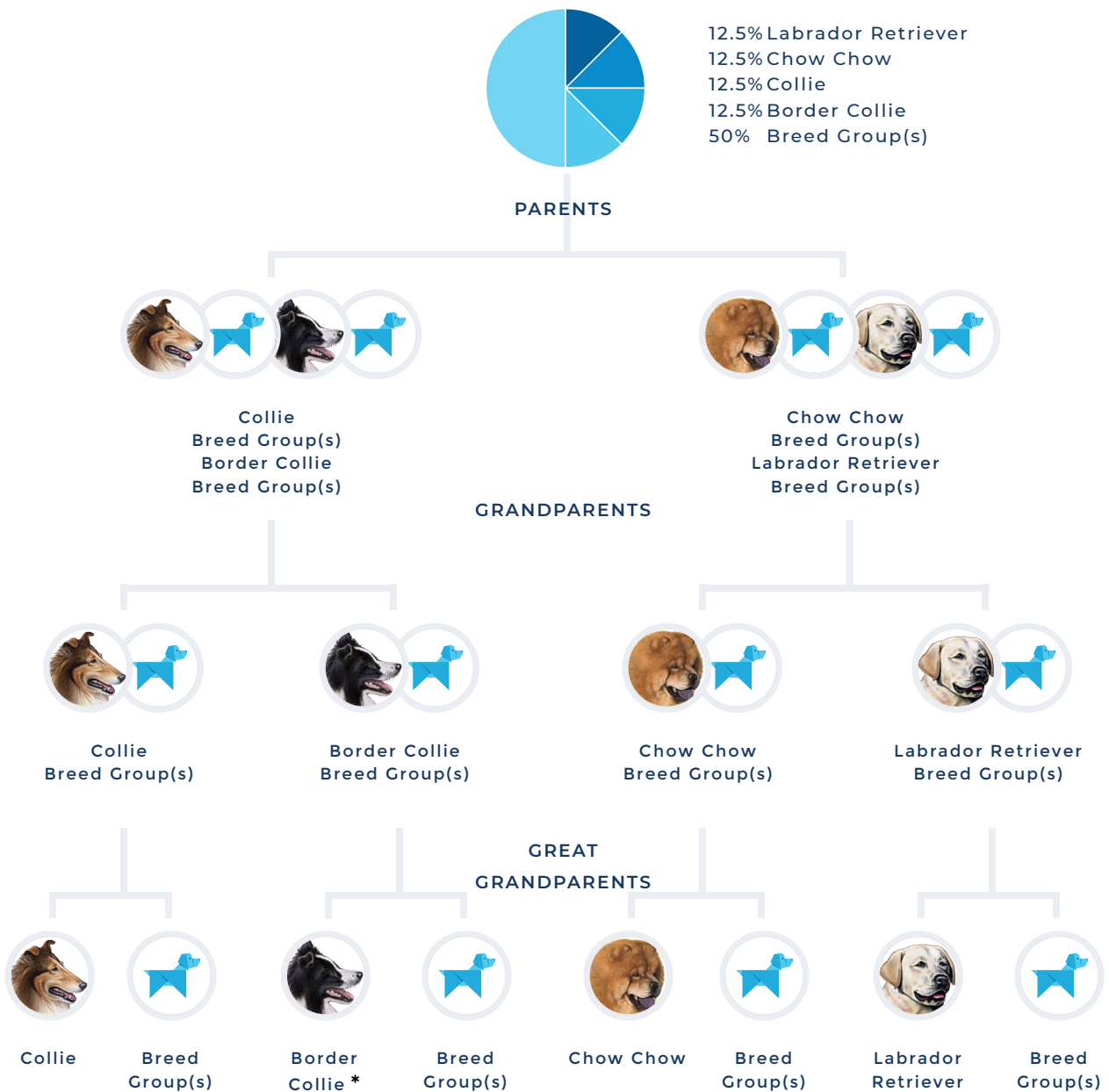
## TERRIER GROUP

The Terrier Group ancestors were bred to hunt and kill vermin. They are often characterized as feisty and energetic dogs whose sizes range from fairly small to much larger.

## HERDING GROUP

The herding group is a diverse category. These highly intelligent breeds were developed to guard and control the movement of livestock.

# CISCO'S FAMILY TREE



\* This particular ancestor's breed has been detected, however at a lesser contribution. This suggests the breed is likely present further back in the ancestry.



# CISCO'S HEALTH RESULTS

SAMPLE ID: T204706

We have tested Cisco's DNA for the following important genetic health conditions. The results can be seen below. For more detailed information on each of these diseases, please log into your account and review your comprehensive health results.

## MULTIDRUG SENSITIVITY (MDR1)



CLEAR

Cisco has no copies of the MDR1 mutation and should not be affected by the disorder due to this genetic cause.

## EXERCISE-INDUCED COLLAPSE (EIC)



CLEAR

Cisco has no copies of the EIC mutation and should not be affected by the disorder due to this genetic cause.

# CISCO'S TRAITS

SAMPLE ID: T204706

## Furnishings

Cisco does not carry any copies of the gene for 'furnishings' (which would give them a fuzzy beard and eyebrows). This means they probably have smooth, short facial hair. Did you know you can often get 'furnished' and 'unfurnished' dogs within the same breed?

## Ear Carriage Genotype: CT

A lot of factors can decide the shape of a dog's ear. But as far as we can tell, Cisco probably has 'base erect' ears. This means the base of the ear stands up, while the tip flops over. Did you know a dog that has one parent with floppy ears and one parent with upright ears can have this kind of ear? It's also common in breeds like the American Staffordshire Terrier and Russell Terrier.

## Coat Color Main Possibilities Genotype: ay/at E/e KB/KB,KB/kbr,kbr/ kbr l/wt

Cisco appears to be mostly dark in color (either black or brown) or has what looks like 'tiger' striping (this is called 'brindle'). Did you know black is one of the most common coat colors in mixed breed dogs, while brindle is common in many of the 'Guard' and 'Terrier' breeds, like the American Staffordshire Terrier and Chihuahua?

## Leg Length Genotype: DD

Cisco's legs should be relatively long in length, based on this marker (though there can be other genes that affect leg length). Did you know different dogs can have different leg lengths even if they are the same breed?

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## Tail Length Genotype: CC

Cisco likely was born with a long tail - although the exact length can vary from dog to dog. Long tails are sometimes known as 'coffee table clearers'. (If you've ever seen a long-tailed dog get excited near one, you'll know exactly why.)

# CISCO'S TRAITS CONTINUED

SAMPLE ID: T204706

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**Base Pigment Color**  
**Genotype: B/B**

Cisco carries the gene for the 'expression' of black pigment. This means that even though their overall coat color may not be black, they are still able to make black pigment. They will also likely have black around their eyes, a black nose, and may even have black pads on their feet.

---

**Coat Length and Type**  
**Genotype: GT CC**

Cisco's coat is probably on the short side. The exact length of a dog's coat is down to several factors so it can vary. Did you know some genes can even change how a short coat looks, including adding 'feathering', which results in longer hairs behind the ears, under the belly, and behind the legs?

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# IDEAL WEIGHT

SAMPLE ID: T204706

Based on our findings, we've calculated that Cisco's ideal, adult weight should be:

**32 lbs - 55 lbs**

We've factored everything we know about Cisco in predicting a healthy, adult weight. However environmental factors such as the nutrition of Cisco's mom during pregnancy and nursing, Cisco's nutrition during critical growth months, illness/parasites/ticks/fleas, and exercise levels can affect the actual weight of Cisco.

## CALCULATING WEIGHT

Our weight-predictive algorithm uses a combination of the following to calculate Cisco's ideal, adult weight:

- The published weight ranges of more than 200 purebred dogs.
- The observed weights of purebred dogs, each with an ideal Body Condition Score, from the Banfield® Pet Hospital database.
- Breeds the WISDOM PANEL™ test analysis has identified that reflect a dog's true heritage and genetic complexity.
- A genetic algorithm based on mixed-breed data that calculates the contribution of each set of chromosomal genetic markers.

## ENVIRONMENTAL EFFECTS ON WEIGHT

A dog's early life is very important in determining how they will grow and develop. They can fail to reach their ideal weight for a number of reasons, including the diet of their mother during pregnancy and nursing (as well as their own diet as puppies). Illness and disease can play a part too, as can having parasites like roundworms or fleas and ticks. For dogs who are adopted after they are fully-grown, it may be harder to find the historical background on these factors.

Maintaining a healthy weight is a key factor in Cisco having a long and healthy life.

# WISDOM<sup>TM</sup> PANEL



## STATEMENT OF AUTHENTICATION

Owner's Name: Rod Allrich

Dog's Name: Cisco

Sample Id: T204706

Date: November 17, 2019

This certifies the authenticity of Cisco's canine genetic background as determined, following the careful analysis of more than 1800 genetic markers, by the WISDOM PANEL<sup>TM</sup> Canine DNA Test. The purebred breed signature matches included in the analysis are those that were detected in the last three generations of Cisco's ancestry using the Wisdom Health proprietary breed detection algorithm.

