

2023 Update
Using the Antagene Histiocytic Sarcoma Index Mate Selection (HSIMS) Tool
The English version is back!

Julie Jackson

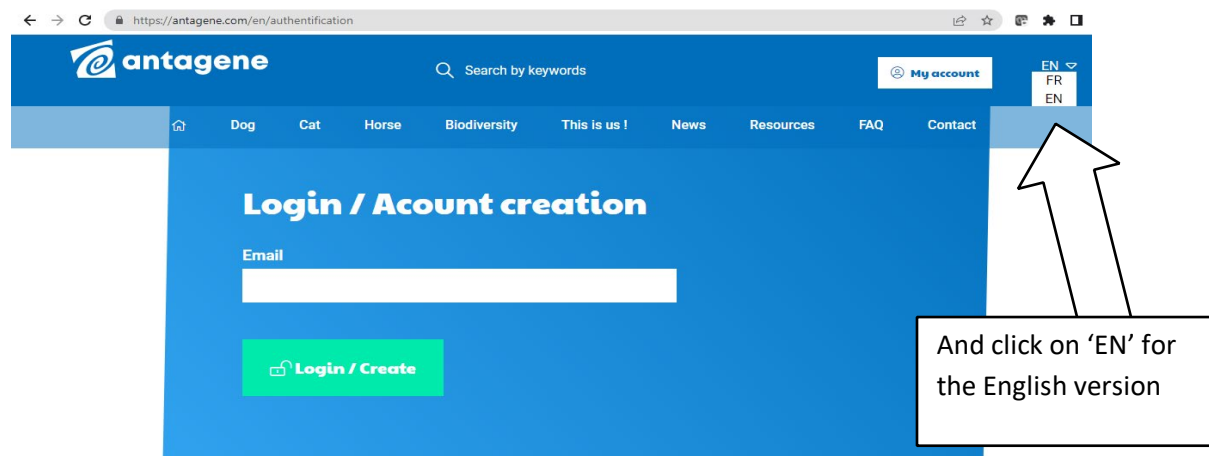
The Antagene Histo Risk Test was developed based on nine different markers on five chromosomes that have been found to have a link to histiocytic sarcoma in the Bernese Mountain Dog. Weighting of those nine marker values provides three different results: A – four times less likely to develop histio, B – neither more nor less likely to develop histio, and C – four times more likely to develop histio. Removing all B's and C's from the gene pool would undoubtedly do tremendous harm to the diversity of the gene pool, and the advice had been to avoid breeding a C to another C. But with the new HSIMS tool, even a C x C breeding might be an option.

Combining two copies of nine genes provides about 20,000 different results, so Antagene has developed a tool that can assist breeders. If two dogs are good breeding candidates for a bitch, this test can be used to determine which would give the best chance at a high percentage of A and B puppies. It is one trait in the complex determination of choosing an ideal mate.

HSIMS allows a breeder whose dog has been tested and listed in the HSIMS database to do 'test matings' of prospective mates who have also been tested and listed in the HSIMS database, to learn the statistical results of the puppies for the Histiocytic Sarcoma genetic risk test. It will show the percentage of A's, B's, and C's for those 20,000 possible results. This test is free and available to anyone who has tested their dog for the Antagene HS Risk Test.

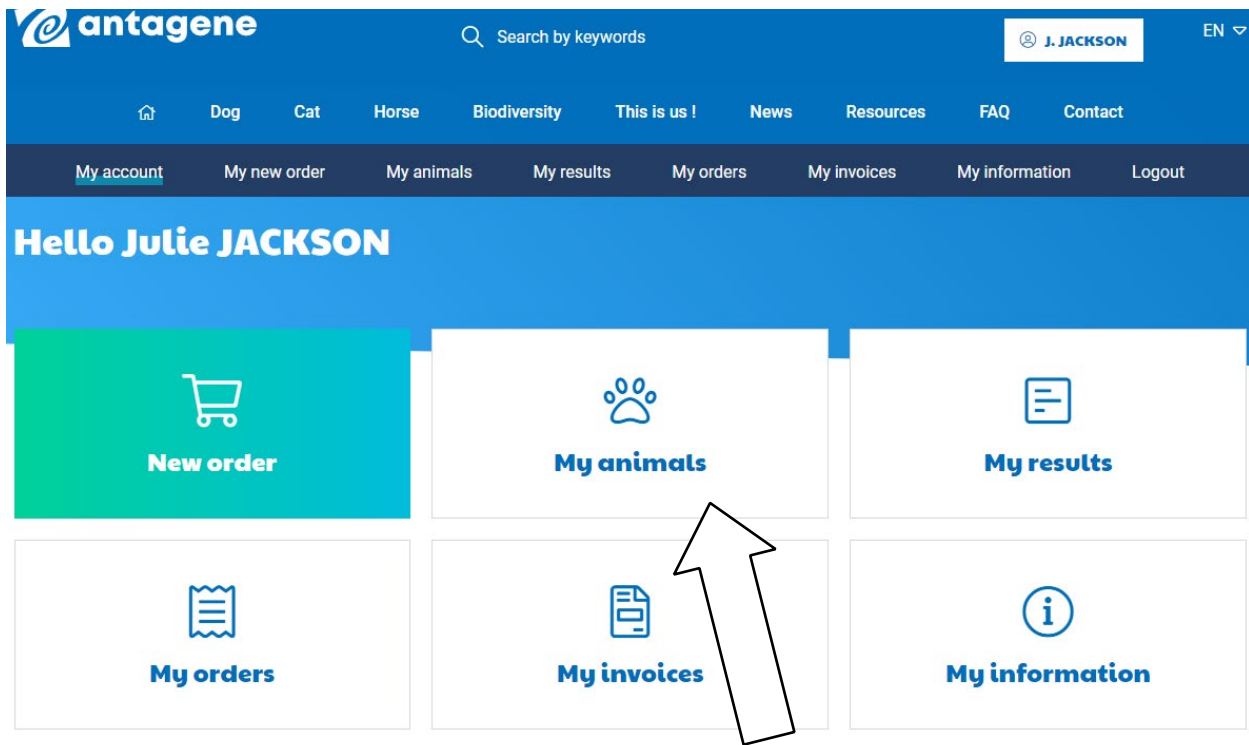
To use the tool, begin by logging into your Antagene account to access your tested dogs:

<https://antagene.com/en/authentication>

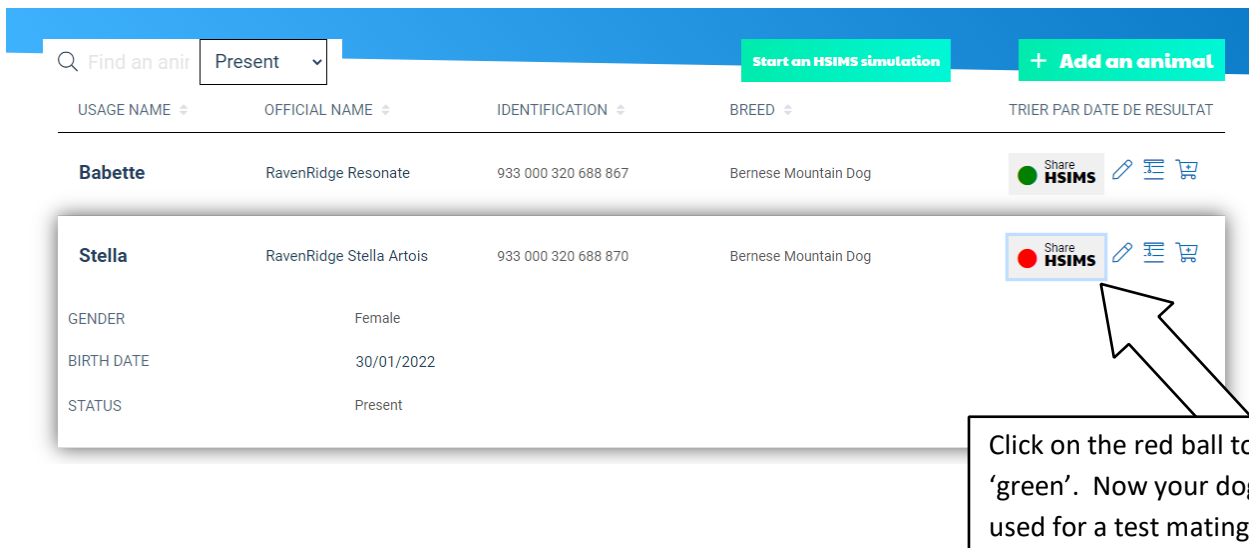


And click on 'EN' for the English version

Then click on 'My Animals' for the list of your dogs tested:



Then select the dog you want to do the test mating with, and make sure they've got the green light!



Then click on the HSIMS tab and select the dogs you own, those that you would like to add to the HSIMS database. **NOTE: It's important that ALL dogs be entered into the breeding pool, even if not a breeding dog!! The HSIMS results are much more accurate than the A/B/C indexes, and much information can be gained by relatives being used for "test matings", beyond the famous show dog! Please green light ALL your dogs that have been tested, as we can gain a lot of knowledge on pedigrees.**

You can now see your pool of dogs in the HSIMS tool. Only you, the person that submitted the original test, can 'see' the index of your dogs—this is not shared in the HSIMS tool. To view the index, click on 'view analysis reports'.

Stella RavenRidge Stella Artois 933 000 320 688 870 Bernese Mountain Dog

Share HSIMS View analysis reports

GENDER Female

BIRTH DATE 30/01/2022

STATUS Present

Then click on the download icon, and the original genetic report, that was originally emailed to you, will download.

Stella RavenRidge Stella Artois 933 000 320 688 870 Bernese Mountain Dog

Share HSIMS

Results for this animal

PRODUCT	N° D'ANALYSE	DATE	Download
Histiocytic Sarcoma	T00536409	2022-04-21	

You're now ready to do test matings!

The HSIMS is a tool for the mating selection using the HS index of the parents. It calculates, for the next generation, in percentages, the distribution of A, B and C indexes for a specific mating, considering all of the HS genotypes possible in the next generation. Thus, the HSIMS test result is strictly specific to each couple considered. Its use requires the individual HS test of the sire and the dam.

To select the dogs for a test mating, click on the 'Start an HSIMS simulation'

Find an animal [Start an HSIMS simulation](#) [+ Add an animal](#)

USAGE NAME	OFFICIAL NAME	IDENTIFICATION	BREED	TRIER PAR DATE DE RESULTAT
Babette	RavenRidge Resonate	933 000 320 688 867	Bernese Mo	
Stella	RavenRidge Stella Artois	933 000 320 688 870	Bernese Mountain	

SEX: Female
 BIRTH DATE: 30/01/2022
 STATUS: Present

Results for this animal

PRODUCT	N° D'ANALYSE	DATE
Histiocytic Sarcoma	T00536409	2022-04-21

and select the mate of interest. The dogs will be shown below in the selected mating portion of the page. This probability outcome is the predicted distribution of A, B, and C indexes of the progeny of the specific mating pair. And here's the predicted results:

The wedding simulation

[Choose another pair](#)

<input checked="" type="checkbox"/> Female	<input checked="" type="checkbox"/> Male
RavenRidge Stella Artois Birth: 30/01/2022	Ravenridge O'mio Amore Birth: 19/09/2015
Stella Not authenticated	Luigi II Not authenticated
Owner : JACKSON Julie	Owner : JACKSON Julie

Index	Percentage
Index A	32%
Index B	49%
Index C	19%

Try additional test matings to see what sort of differences there might be in various matings. And do remember, this is only one aspect of the breeding choices.

Breeders are cautioned that A x A matings are not always going to be the best solution. A's can produce C's just as C's may produce A's. A breeding program approach that uses only A x A matings or selects only A mates for their dogs without using the HSIMS tool for predicted outcome probabilities may not be making the lowest risk breedings. HSIMS calculated outcome probabilities may be used to help breeders choose lower risk matings and gradually reduce the HS risk.

