NOVEMBER 2019

American Border Collie Association, Inc.

Newsletter

www.americanbordercollie.org

American Border Collie Association, Inc.
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Bruce Fogt - 2019 Hall of Fame Inductee

Mike Neary thanked everyone for attending the induction ceremony for Bruce Fogt. Mike shared that it was his honor to talk about an old friend and all his contributions to the working dog, the sport, and to the education of other working dog owners.

Mike said, "The ABCA has honored some outstanding inductees through the years in to the Hall of Fame. Many of the inductees are outstanding in 1 or 2 of the areas of criteria evaluated. The thing about Bruce is he is outstanding in all 3 areas; Breeder, Handler, Service."

"In 1981, Bruce quit his job in the Sydney, OH area and started training dogs professionally. He was the first one in the country to do so and to make his living solely off of training Border Collies. Keep in mind, this is a time period when there were no Novice, Pro-Novice, or Nursery Classes at trials, just Open. There were also very few home raised and trained dogs competitive in the open class…given the circumstances of the time period, the fact that a young man would bet on himself and strike out training and running American bred dogs speaks much about his fortitude". Mike shared that Bruce has won every major trial in the U.S., including the National Finals twice, Meeker and the Bluegrass Classic.

Mike went on to say that one of Bruce's greatest accomplishment through the years is the education he has provided to working Border Collie owners. Bruce published "The Working Border Collie" magazine from 1987-2015. This publication was the lifeline of communications for the community before the days of the internet and email. It was important in that it carried articles on training and handling dogs, livestock care trial results and announcements, and more. Bruce also helped in the education of dog owners with his book "Lessons From a Stockdog", published in 1996, still popular as an all-encompassing book on training working Border Collies.

Mike shared that Bruce has conducted hundreds of training, handling, and judging clinics through the years. He has also judged all the large trials in the country, USBCHA Finals, and the South African Finals.

Bruce has served on the Board of Directors for both the ABCA and USBCHA. He also has served on many committees for both organizations.

In 1988, Bruce worked with Purina to establish the Purina Award for the top dog each year. This program ran for many, many years and then became dormant. Bruce is serving on the committed to restart the program.

Mike concluded his comments by saying, "I can think of no one more deserving of induction into the ABCA Hall of Fame than Bruce Fogt."

Hall of Fame Nominations | **Due To ABCA by June 15, 2020**

Application forms available form the office or online at **www.americanbordercollie.org**

AMERICAN BORDER COLLIE ASSOCIATION

ANNUAL MEMBERSHIP MEETING
CARBONDALE, CO
SEPTEMBER 12, 2019

Minutes

Emil Luedecke welcomed everyone to Strang Ranch, Carbondale, CO and called the meeting to order.

Debbie Bailey presented proof of mailing of the notice for the Annual Meeting. Debbie stated 2,413 ballots mailed to eligible voters, 27 ballots returned undeliverable. Patricia L. Smith, CPA, tallied the ballots, reporting 376 validly cast ballots. This represents more than a quorum of 10% of eligible voters. The results of the election; 4 Directors were elected for 3 year terms; Tracee Treadwell (GA), Angie Coker-Sells (OK), Scott Glen (AB) and Joy Thayer (KS).

The minutes of the 2018 Annual Meeting were distributed to those in attendance. A motion was made by Peter Hall to approve the minutes as presented. Wendy Schmaltz made the second and the motion was approved.

Emil Luedecke gave the President's Report. Emil stated that ABCA registered more than 15,000 dogs in 2018. ABCA registered dog #470,000 in 2018. Transfers have increased as well.

The Board approved a total of $41,699 to help sponsor the National Sheepdog Finals and the National Cattledog Finals during 2018. The ABCA is the longest tenured and most dependable sponsor of both events. Funds have been allocated for livestock expenses, prize monies, and general support. The specific breakdown of these funds is contained in the financial report. The Board of Directors approved the expenditure of $4,500 to help with the live webcast of the 2018 National Sheepdog Finals.

In 2019, the Board approved the expenditure of $23,928 in promotional and educational funds to local and state organizations and individuals for working Border Collies events. This was an increase of $5,500 from 2018 and is a direct result of the promotional monies doubling from $1 to $2 per dog registered in 2018.

The 2018 Financial Statement was distributed and presented.

Emil reported that ABCA moved to a new office during the summer. The transition to a new mailing address, website and updated forms are complete.

Eileen Stein, President, ABCA Health & Education Foundation, provided an update on research for Early Adult Onset Deafness (EAOD). The mutation that causes EAOD has not been discovered yet. The scientific team working on the research project that ABCA HEF has been funding --- headed by Dr. Hannes Lohi at the University of Finland and Dr. James Mickelson at the University of Minnesota – has been working intensively to identify this causative mutation for the last three years, and has greatly narrowed the region in which it is expected to be found, but their work is still ongoing. (The ABCA HEF statement can be found in this newsletter).

Emil Luedecke announced the ABCA Hall of Fame 2019 is Bruce Fogt. Mike Neary gave the presentation and award to Bruce.

Emil Luedecke asked if anyone had comments or further business. Meeting adjourned.

Prize Monies Paid at the National Finals Each Year

**Handler must be a current American Border Collie Association Member to compete in the USBCHA Finals.*
Dogs must be ABCA registered to collect ABCA prize monies.

Sheep Finals - Nursery Top 30 Qualifying - $100 each
Open Top 50 1st Go Round - $100 each
Open Top 20 2nd Go Round - $100 each
Breeder of the Top ABCA registered Nursery and Open Dogs - $500 each

Cattle Finals - Nursery - 1st - $300, 2nd - $200
Open - 1st Go Round - 1st - $200, 2nd-4th - $100 each
Open - 2nd Go Round - 1st - $200, 2nd-4th - $100 each
Open Finals - 1st-$500, 2nd-$400, 3rd-$300, 4th-$200, 5th-10th-$100, 11th-20th-$50
Breeder of the Top ABCA registered Open and Nursery Dogs - $500 each

AMERICAN BORDER COLLIE ASSOCIATION, INC.
STATEMENTS OF REVENUES, EXPENSES, AND OTHER CHANGES IN NET ASSETS - MODIFIED CASH BASIS FOR THE YEAR ENDED
DECEMBER 31, 2018

REVENUES	**2018**
Annual Memberships	$ 31,211
Duplicates and corrections	7,011
Lifetime memberships	30,323
Registration fees	223,611
Transfer fees	29,508
Miscellaneous	1,603
Investment income	24,869
Total revenues	348,136
EXPENSES	
Program Services	
Prize monies awarded	16,050
Promotional support to members	16,403
Research support	2,000
Trials sponsorship	27,668
ABCA Health and Education Foundation support	25,000
Total program services	87,121
Supporting Services	
Advertising	100
Annual Meeting expenses	1,416
Bank fees	6,123
Computer expense, technical support, and web expense	4,623
Contract labor	-
Depreciation and amortization	439
File storage	1,250
Insurance and bonding	1,480
Investment fees	11,887
Office supplies	2,507
Postage and delivery	13,204
Printing and reproduction	7,032
Professional fees	4,200
Office Manager/Registrar fees	78,870
Telephone	2,158
Travel	4,417
Other office expenses	253
Total supporting services	139,995
Total expenses	227,116
OTHER INCOME (EXPENSE)	
Realized loss on investments	3,797
CHANGE IN NET ASSETS	124,817
NET ASSETS, BEGINNING OF YEAR	987,564
NET ASSETS, END OF YEAR	$ 1,112,381

Promotional Money Available through ABCA

Promotional money is available upon a request from any ABCA member to promote the working Border Collie in their area. Funding for these projects comes from a designated fund at the rate of $2 per dog registered. Funds are allocated to the state or province of the Breeder. Events often include trials, clinics, fun days, school projects, etc. A Promotional Money Request Form is available on the website or through the office. The request must be submitted to the office prior to the deadlines of February 15 and July 15 of each year. Following is the amount available as of November 2019.

STATE	AMOUNT AVAILABLE	STATE	AMOUNT AVAILABLE
AB	$ 508	NB	$ 94
AK	$ 319	NC	$ 1,232
AL	$ 2,480	ND	$ 495
AR	$ 1,186	NE	$ 1,529
AZ	$ 1,543	NH	$ 933
BC	$ 235	NJ	$ 1,661
CA	$ 1,325	NM	$ 913
CO	$ 1,171	NS	$ 16
CT	$ 689	NV	$ 1,070
DC	$ 2	NY	$ 567
DE	$ 92	OH	$ 4,720
FL	$ 1,029	OK	$ 1,057
GA	$ 970	ON	$ 1,229
HI	$ 4	OR	$ 1,411
IA	$ 1,414	PA	$ 3,098
ID	$ 569	PR	$ 38
IL	$ 524	QC	$ 1,164
IN	$ 3,849	RI	$ 175
KS	$ 3,187	SC	$ 1,697
KY	$ 567	SD	$ 382
LA	$ 4,383	SK	$ 479
MA	$ 1,275	TN	$ 1,647
MB	$ 318	TX	$ 4,597
MD	$ 309	UT	$ 991
ME	$ 1,490	VA	$ 1,925
MI	$ 2,924	VT	$ 403
MN	$ 517	WA	$ 1,124
MO	$ 1,434	WI	$ 368
MS	$ 628	WV	$ 2,370
MT	$ 876	WY	$ 1,064

Grant funds are also available from the ABCA. Grants are generally made for scientific research and educational projects, and grant monies are not allocated by state. A Grant Request Form is available on the website. The deadlines for grant requests are January 15 and June 15 each year.

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WE MOVED! OUR NEW ADDRESS:

P.O. Box 535 - Pine Mountain, GA 31822

Three time National Champion, Alice. Photo by Alta Pete.

Annual Memberships Due before January 1, 2020

Annual Memberships expire on December 31st of each calendar year. To be eligible to vote in the 2020 elections, your membership must be paid **prior** to January 1, 2020. Annual Membership fees are $15. Lifetime Memberships are $150.

Both Annual and Lifetime Memberships offer the same benefits.

Current State of Testing for Early Adult Onset Deafness

Photo by Denise Wall

The mutation that causes EAOD has not been discovered yet. The scientific team working on the research project that ABCA HEF has been funding --- headed by Dr. Hannes Lohi at the University of Finland and Dr. James Mickelson at the University of Minnesota -- has been working intensively to identify this causative mutation for the last three years, and has greatly narrowed the region in which it is expected to be found, but their work is still ongoing.

In the meantime, they have shared information with Genoscoper Laboratories in Europe, and Genoscoper's parent company Wisdom (Mars) in North America, to enable those testing labs to offer what is called a "marker test" for EAOD. A marker test is not a test for the causative mutation. Rather, it is a test for markers -- in this case a set of four markers -- that are so closely linked to one another in the dog's genetic material that they are always inherited together. There is good reason to believe that the not-yet-discovered causative mutation is also tightly linked to those markers, because so far all the dogs with EAOD that have been tested have carried two copies of the marker set. But the reverse of that is not true -- all the dogs that carry two copies of the marker set do not suffer from early adult deafness.

The ABCA HEF does not endorse this marker test, nor do we encourage people to test at this time, before the causative mutation is found. But at the same time, we are not telling people not to test. The test does have some significant benefits, especially for someone whose dogs have deafness somewhere in their pedigree and who must make a breeding decision in the immediate future or who is considering buying or beginning the training of a young dog with deafness in its pedigree. The presence of deafness in a pedigree greatly increases the chances that the marker set will be associated with a causative mutation. The decision whether to purchase the test at this stage is yours alone, but in making that decision here are some factors we think you should consider.

We believe the current data strongly suggest that a CLEAR result on the test means that the tested dog does not carry the causative mutation for EAOD.

However, we believe there is not enough evidence to conclude that a CARRIER result, or an AT RISK result, means that the tested dog does carry the causative mutation. Remember, this is not a test for the mutation itself, as the CEA test is. In the CEA test, an Affected result means that your dog is carrying two copies of the mutation that causes CEA, and will pass one copy on to its offspring. In the EAOD test, an At Risk result does not mean that your dog is carrying two copies of the mutation that causes early deafness. It only means that your dog is carrying two copies of a set of markers that do not cause EAOD but have been shown to be associated with some increased risk that the dog who carries them will have EAOD. How great is that increased risk? We have no idea. In fact, it is entirely possible, from the current state of our knowledge, that your At Risk dog is not carrying the causative mutation at all.

Based on statistics from dogs in the research database, estimates have been published that up to 35% of Border Collies may carry one copy of the marker set, and close to 8% may carry two copies. This is notably higher than would be expected based on the percentage of dogs that display EAOD. It may simply be that the marker set is frequently found without the causative mutation. However, it may also be that the sample groups used were not representative of the Border Collie population as a whole, but were skewed by the disproportionate inclusion of dogs already suspected of deafness. It could also be that expression of the causative mutation is affected by the actions of yet-to-be-discovered modifier genes which may, for example, act to delay the onset of deafness to an age where old-age deafness would be expected or beyond the lifetime of the dog.

But whether or not these prevalence figures are inaccurate to some extent, they illustrate the vital importance of not removing so-called Carrier dogs from breeding. **If this test were to cause breeders not to breed "Carrier" dogs, we would be removing 1/3 of our population from our gene pool, without regard to working ability, and in a situation where for all we know they may not be carrying the causative mutation at all.** That loss of good working lines and genetic diversity would be devastating, and is our biggest fear regarding use of the marker test. Carrier results from the currently available tests should not exclude dogs from being used for breeding. If your dog's test results come back "Carrier," we strongly recommend that you simply use the test to make sure the dog you breed him/her to is Clear. Do not just exclude your dog from breeding.

We have been asked whether the researchers have submitted their results for peer review and publication. The answer is that so far they have not. We have a written agreement with them that they will do so, but the agreement does not specify at what stage of the research this must be done. It is unlikely they will do it before the causal mutation itself is found, since that is what the project was designed to accomplish and that will be the culmination of their work.

We have also been asked why Genoscoper/Wisdom only offers this test as part of a panel of tests, rather than as a stand-alone, less expensive test. In all likelihood they are doing this (a) because it is better for their research goals, since this way they can test for the presence of many variants of interest across a large number of dogs and breeds, which can be very informative for researchers, and (b) because it is better for their marketing goals if people come to view them as a one-stop shop for all dog testing. Whatever we may think of this, ABCA HEF has no control over it. We do have assurance that the results of the study will be published once the causative mutation is found, and one of the purposes of insisting on that was so that other testing companies can develop and offer their own tests, and competition among them should bring prices down and offer dog owners a variety of options.

And we have been asked if Genoscoper/Wisdom will provide those who buy the test now with updated results at no additional cost, once the causative mutation has been found. This is a question we have asked several times, and never received an answer. This leads us to believe that they will not do so, which is a reason why dog owners who have no immediate need for testing might want to put off having their dogs tested for the present.

In addition to the Genoscoper/Wisdom test, an Australian testing company called Orivet is also offering a DNA marker test for EAOD. The test Orivet is offering is a stand-alone test for a single marker, one of the variants discussed in the 2012 PLOS publication by Yokoyama, et al. According to Dr. Lohi, this is not one of the four markers being used in the Genoscoper/Wisdom test, and it does not correlate well with their marker set. Dr. Lohi's team has found dogs that do not carry the marker set Genoscoper/Wisdom is using, but are heterozygous for the marker Orivet is using. Such a dog would be classified as Clear under the Genoscoper/Wisdom test, but as Carrier by the Orivet test. Again, neither the Orivet test nor the Genoscoper/Wisdom test is a test for the causative mutation for EAOD and, therefore, some At Risk or Carrier results may be false positives for EAOD.

Photo by Denise Wall

Understanding the Multi-Drug Resistant Gene Mutation in Border Collies

Have you heard of dogs having a "bad reaction" to Ivermectin or certain other drugs? This can be caused by drug interactions, but it's often caused by a mutation to the multi-drug resistance-1 (MDR1) gene. This mutation is called MDR1-1Δ, and in this article we want to lay out some important information you should know about it.

The MDR1 gene (also sometimes referred to as the ABCB1 gene) produces a protein that protects the brain from certain drugs and also aids in clearing these drugs from the body through organs such as the liver and kidneys. These include some drugs used to treat cancer, infections, pain, parasites, pre-anesthetic drugs and anti-diarrheal medication. Aside from the over-the-counter anti-diarrheal drug loperamide (Imodium), most of these drugs require a prescription.

The MDR1-1Δ mutation interferes with this important protective function. Like most single gene mutations, a dog can have one mutated MDR1 gene and one normal gene (heterozygote) or two mutated genes (homozygote). One copy of the gene is contributed by each parent. A dog who carries two copies of the mutation will not produce any of the protective protein, and it will pass one copy of the mutated gene to all of its offspring. A dog who carries one copy of the mutation will pass on a copy of the mutation to roughly half of its offspring. But in one very important respect, the dog who carries a single copy of the mutated MDR1 gene is different from the "carrier" dogs who are heterozygous for other most commonly known mutations, such as CEA, where a heterozygote is an unaffected carrier. The dog who is heterozygous for the MDR1-1Δ mutation may display symptoms of the disorder. Because each of the two genes separately produces the MDR1 protein, its normal gene will produce the protective protein, but the mutant gene will not. Depending on other regulating factors present in the body at the time, a "carrier" of the MDR1 gene mutation has the potential to produce only half or less of the normal MDR1 protein needed to protect its brain from certain drugs. As a result, these heterozygous dogs range from essentially normal to mildly affected to significantly affected, with the most being mildly affected.

Of the drugs causing neurotoxicity in dogs due to the MDR1-1Δ mutation, the avermectin class, which includes Ivermectin, has the most potential for toxicity. However, even dogs with the MDR1 mutation should be able to tolerate the low doses of avermectins in each of the commercial heartworm prevention preparations. For example, Heartgard contains 6 to 12mcg/kg of Ivermectin. In dogs having the MDR1-1Δ mutation, no toxicity was seen when these dogs were given 28 to 35.5 mcg/kg monthly for one year, so the safety margin should be wide enough in heartworm-only heartworm medicines. By comparison, dogs without the mutation should be able to tolerate oral dosages as high as 2,500 mcg/kg. However, if the concentration is high enough, all dogs will show neurotoxicity to Ivermectin. For more general information on the MDR1 mutation and gene test in dogs, go to: https://vcpl.vetmed.wsu.edu

A gene test for the MDR1-1Δ mutation became available for dogs around 2004. While many collies and collie type breeds have been shown to have a high frequency of the mutation, until the last few years no cases of confirmed purebred border collies had been found that were either heterozygous or homozygous for the MDR1-1 Δ mutation in the US. Recently, however, there have been some reports of working border collies with the mutation. The mutated MDR1 gene has been reported by DNA testing companies to be at less than 1% in the US, so it's fortunately still considered a rare mutation in purebred border collies. Therefore the presence of this mutation in the breed is at a stage where it can be more easily controlled than some mutations that affect a large portion of the gene pool. Most importantly, however, because even the heterozygous, "carrier" state of the MDR1 mutation has the potential to cause health problems from toxicity to drugs the MDR1 protein protects for, there is more concern for controlling the presence of this gene mutation in both the heterozygous and homozygous form. This low incidence in the breed and the fact that even heterozygotes can be affected cause the ABCA's Health & Education Foundation to suggest specific breeding recommendations for these dogs.

The ABCA registry does not prohibit breeding of dogs with genetic problems; however, breeding recommendations are made in some cases. These breeding recommendations are not simple, across-the-board advice but instead take into account such factors as the frequency of the mutation or problem in the breed, the seriousness of the problem, and the mode of inheritance. There is a fine balance between trying to keep a currently low-frequency mutation with potential to affect health even in the heterozygous state from spreading in the breed, and preserving important working lines that might have a higher frequency of the mutation than the rest of the gene pool. The goal is to try to strike and maintain a healthy balance.

In the case of MDR1, if a dog is heterozygous or homozygous for the mutation, the recommendation is not to breed the dog unless it is of the very most superior working ability, with other desirable attributes, and only to cross such a dog with dogs tested clear of the MDR1 mutation and also of very superior working ability. Even if you feel you must breed the dog, limit the number of times a heterozygote or homozygote is bred in order to prevent the rapid spread of the mutant gene throughout the population, such as can happen in the case of a popular sire. Be aware these crosses will produce more potentially affected heterozygotes – an average of 50% heterozygotes in a heterozygote-to-normal cross and 100% heterozygotes in a homozygote-to-normal cross. Obviously, then, breeding homozygotes is very problematic, in that it will increase the prevalence of heterozygotes in the breed, and all puppy buyers will need to be told that the pups could experience neurotoxicity when given certain drugs. It's advisable that the offspring of the heterozygote x normal crosses be tested to determine which ones are normal and which ones are heterozygotes. If the tested normal offspring are superior working dogs with the other desirable attributes, then the line has been cleared of the MDR1 mutation and, depending on other considerations, such as temperament, physical fitness for work, absence of other health problems, etc., can be safely used for breeding. The heterozygous offspring present a more involved management problem. These puppies should be placed with their new owners with full disclosure of the potential problems an MDR1 heterozygote might encounter. The new owners of these heterozygous offspring must be made aware of the importance of following the more stringent breeding guidelines outlined here in order to minimize the mutant gene, and heterozygotes sold to non-working homes should be registered with NB (non-breeding) status. Make sure the new owners are aware this situation is different from the usual carrier-to-clear breeding for a recessive gene mutation, in that heterozygotes and their heterozygous offspring may well experience symptoms of the disorder. In addition, because the MDR1 mutation is rare in our breed, it's important not to increase the frequency any more than necessary with the goal of preserving important genetics and maintaining a healthy gene pool. Controlling what happens with puppies once they leave the breeder can be very difficult. This is one reason selection criteria should be more targeted to producing and continuing the line with only MDR1 normal offspring..

There are undoubtedly many potentially harmful mutations in the breed that we don't yet know about and for which there are no DNA tests. This unfortunate truth is merely a fact of life in all living beings. Although we will never be able to rid the breed of all mutations causing disease, we can do our best to minimize and prevent spread throughout the breed of those causing significant harm that we do know about. Breeding recommendations tailored for the specific problems and breed can help keep the gene pool as healthy as possible.

WAYS THAT YOU CAN SUPPORT ABCA HEALTH & EDUCATION FOUNDATION

Gifts to the HEF are fully tax deductible. 100% of donations will support the activities, programs and grants of the HEF. None goes to paid fundraisers or salaries. You may make a gift online or by mail. Contact information below. A gift to the HEF may be made in memory of a family member or friend. The HEF will send a card to the recipient, letting them know of your thoughtful gift.

If you shop at Amazon, next time please go to www.smile.amazon.com and choose the ABCA Health & Education Foundation as your charitable organization. The AmazonSmile Foundation will donate 0.5% for every purchase. This is a loyalty program and there is no extra cost to us or to you. You'll have access to the same products, features, services and prices as on Amazon.com. The shopping experience is identical to Amazon.com with the added benefit that the AmazonSmile Foundation will donate 0.5% to our Foundation!

Please remember to log on to www.smile.amazon.com each time you shop at Amazon — it uses your same Amazon log in. And please choose the ABCA Health & Education Foundation as the organization you wish to support.

Finally, please tell all your friends and family. This is a wonderful way to support our mission at no extra cost to anyone.

Contact Eileen Stein, President, ABCA Health & Education Foundation, Inc
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