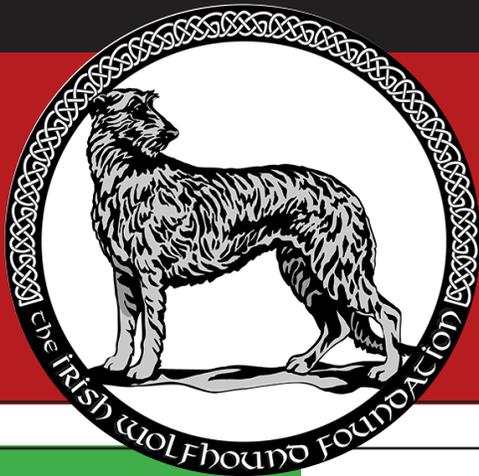


Irish Wolfhound Foundation



Focus

Winter 2021

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Focus

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Research Projects Funded and supported by the IWF for 2021.

Finding "the gene"

Osteosarcoma kills 20% of Irish Wolfhounds with no improvement in that statistic since 1966 when data became available. Finding "the genes" associated with osteosarcoma sounds great but many blood samples and dollars later no improvement has resulted for our hounds.

There may be such polygenic involvement that success is not possible- and what would be the practical application for "the genes"?

The first step in untangling the chaos of OSA genetics is to better understand the inheritance.

Accomplishments this year include "Heritability and genetic variance estimation of osteosarcoma in the Irish Wolfhound using deep pedigree information" (Using IWF data and the IWDB) was published in *Canine Medicine and Genetics*.

This paper verified osteosarcoma is an inherited cancer in the IW and does not appear as polygenic as feared. This is encouraging and suggests further genetic research in this area WILL be helpful.

A poster "Heritability of Osteosarcoma in the Irish Wolfhound" has been accepted by the Orthopedic Research Society and will be presented at their meeting in February and will then be available on the IWF website. The poster reports the high heritability of OSA in the IW (654).

"Genetic Basis of Early Onset Osteosarcoma in the Irish Wolfhound" is the first genetic study in osteosarcoma (OSA) to involve only IWs and a special subset of hounds. With improved technology and a very specific goal it is hoped this will be a step forward.

More than 10 young affected hounds have given DNA for the study. To optimize the success of this work recruitment of more young OSA affected dogs is needed. The more samples the better as they will not only need dogs for initial sequencing but also to

further evaluate candidate genetic variants.

More control dogs will also be needed to check any possible candidate gene in a larger population. Any hound 10 years or older without osteosarcoma qualifies as a control dog.

Part of this project includes the creation of a state of the art reference IW genome. The IWF also provided partial funding for this work which is nearing completion. It will be used for the above osteosarcoma study and then released to the research world.

This breed specific state of the art reference genome will maximize chances for success finding mutations associated with OSA in young IWs. An update on the progress of the genome creation is available on the IWF website.

All of these projects are led by Dr Susannah Sample at University of Wisconsin and supported and partially funded by the IWF. This progress is made possible by owner contributions and owner efforts to participate in studies with their hounds.

Before the limp and the lump

Cancer will not be eliminated-but what if a blood test could diagnose osteosarcoma before any clinical signs are present? And then, what if it could be treated? Estimates project a nearly 50% decrease in expression of the disease.

Two decades of work have gone into the "Shine On" project under the direction of Dr. Jaime Modiano at the University of Minnesota. They have a validated blood test (available only for research purposes at the present time) to detect hemangiosarcoma before it is clinically evident. They have treatment available that returns this blood test to negative which is tremendously exciting. A real decrease in hemangiosarcoma is possible in the near future because of this research.

Dr. Modiano is beginning validation for a blood test for osteosarcoma. The blood test looks for specific genes loaded into small

RESEARCH (Continued on page 2)

EXPANDED TAX BENEFITS FOR 2021 CHARITABLE DONATIONS

Individuals who do not itemize deductions – who take the standard deduction for 2021 taxes – may claim up to \$300 for cash contributions made to a qualifying charity during 2021. Married couples may take \$600.00 in deductions. The Irish Wolfhound Foundation, Inc. is a qualifying 501(c)(3) charity.

For 2021, there are also more generous rules for those who itemize. Please consult with your tax advisor or IRS Publication 526, Charitable Contributions.

For estate planning and direct charitable contribution purposes, the legal name is Irish Wolfhound Foundation, Inc. Checks should be payable to The Irish Wolfhound Foundation and sent in care of David Milne, IWF Treasurer, 150 Creek Road, Phillipsburg, NJ 08865, while online payments can be made via our website at <http://www.iwfoundation.org/help>.



IWF Heart Testing

The IWF sponsored heart clinics throughout the country this year with the help of local clubs, members and groups. Most were in conjunction with specialty shows.

Three of these, PVIWC, IWCA and IWADV, offered both electrocardiograms (EKGs) and echocardiograms (echos) and were held with Drs. Tyrrell and Rosenthal from CVCA. These clinics recorded a total of 107 EKGs and 83 echos on 100 dogs. In addition, clinics at the specialties at Northstar, GLIWA, RMIWA and NCIWA provided EKG and auscultation on 53 dogs. Some dogs were tested more than once, especially those that were older and affected.

Several dogs were tested more than once following the IWF guidelines of evaluating affected dogs every six months. At least one dog had an extra EKG in order to participate in a second study. There is value in multiple data points on single dogs. For one thing, IWH type cardiomyopathy is an adult onset disease so a dog that tests normal at 2 or 3 may not be normal at 5 or 6. Dogs that initially have arrhythmias found on an EKG may have normal echos but develop echo changes over time. Dogs being treated for disease need to be followed to determine response to treatment.

At clinics where echos were offered, all dogs with abnormal or equivocal findings on EKG or auscultation were offered echos to determine the significance of the findings. In addition many people opted to have echos done on normal dogs to fulfill requirements for OFA. Note that all dogs that had an echo also had an EKG. While some dogs with a abnormal EKG/Auscultation had normal echos, in general one does not find an IW with abnormal echo and normal EKG/auscultation.

Table 1: Results of Testing

Test	Total	Normal	AF	IW CM	VPCs	APCs	Other*
Echo/EKG	90	52	16	11	4	4	3
EKG only	133	123	1	N/A	5	4	

*Other: Ventricular tachycardia, equivocal atrial stenosis, equivocal valve disease

Not all findings are the same. Some dogs had a single premature atrial contraction (APC). While dogs with frequent APCs have a higher risk of going into atrial fibrillation (AF), a single APC may not be a problem. AF is an abnormal condition but dogs with lone AF may not need any treatment. They should, however, start to have regular echos to assure that they are not going into IWH type cardiomyopathy. IWs with VPCs seldom

present with an abnormal echo, but may have an increased risk for ventricular fibrillation and sudden death. These dogs were referred to a cardiologist for holter monitoring to determine the severity of the problem. Some dogs with VPCs may require treatment. Many IWs have mild valve disease, usually mitral valve, that has little effect on the dog's health.

It is important to realize that these were only dogs that came to be tested at specialties. This meant that most of the dogs were younger and healthier than is perhaps true for the general population. Table 2 shows that the older the dog gets, the more likely it is to have some sort of heart disease. This is particularly true for AF and IWH type cardiomyopathy.

Table 2: Age Breakdown of Tested Dogs

Age	Male	Female	Total	Normals	Affected	
<2		10	8	18	18	0
2-3 yrs		9	15	24	19	5
3-4 yrs		8	16	24	23	1
4-5 yrs		6	20	26	19	7
5-6 yrs		10	9	19	16	3
6-7 yrs		12	12	24	16	8
7-8 yrs		4	10	14	6	8
> 8		6	5	11	7	4
Totals		65	95	160	124	36

Additional testing was done by our outreach team, Mariellen Dentino, Frances Abrams, Melanie Mercer and Carole Silverthorne and by owners veterinarians. The results are not included in these statistics but were incorporated into the Life Cycle Study results.

Multiple people were involved in the testing at each location and we do not even know most of them. Special thanks are due to the clubs who provided facilities and facilitators to set up for clinics. Thanks are also due to the veterinarians who did the testing at a reduced rate. Research would not be possible without them. I also need to provide a special thanks to Mary O'Malley and Jennifer Johnson, who have made the on-line forms that make my life a whole lot easier.

If your club or a group of local wolfhound owners is interested in getting a clinic started to contribute to the Life Cycle Study please contact the Irish Wolfhound Foundation at IWFHealth@gmail.com.

Research (Continued from cover)

vesicles called exosomes. These can be isolated from serum and define the presence of a tumor or even changes that precede formation of a tumor.

If the tumor is found before the limp and the lump, the treatment successfully utilized in early hemangiosarcoma (or another agent) may stop that cancer. The blood test would then show the tumor markers are no longer present.

Since osteosarcoma and hemangiosarcoma are very different tumors the test to detect osteosarcoma is unique and the first step is to validate this test can actually detect osteosarcoma not clinically evident.

IWF commits support and funds

This project will require time and resources – lots of each

The IWF joined a consortium of 7 breeds pledging financial support and sample support for this project which the AKC Canine Health Foundation will oversee but not finance. Their process often requires a year before approval is granted. It could then be several months before recruitment starts and completion will vary from breed to breed.

The IWF has provided an additional \$50,000 to support a pilot program of 25

Irish Wolfhounds to move this research forward as quickly as possible. The funding is in place. The protocol is approved. The project is at the ACUC at the University of Minnesota moving through the necessary safeguards etc. Recruitment for this pilot project is to start Feb 2022.

Not for the faint of heart 25 hounds will be recruited for the pilot program.

Any healthy IW 4.5 years of age or older is eligible for this study.

If your dog has the exosomes detected or not there is a three year wait to see if / when osteosarcoma shows up.

There will be no treatment provided for a positive test.

This involves a little more than a simple blood draw. At entry each hound must be examined by a vet and certified tumor free by physical exam. Some vets charge for an exam and blood draw and some just charge for the blood draw to support the research. This bill is not covered by the study but the IWF will reimburse up to \$50.00 if requested by the owner. The blood needs to reach the University of Minnesota in a 24 hour window. There is a study coordinator to help arrange this.

The exosomes may not be constantly in the blood and 30% of the dogs will

RESEARCH (Continued on page 8)

Life Cycle II Follow Up for 2021

Better....but still need more.

Without a vigorous health data collection the health and well being of a breed depends on rumor and may reflect the loudest voices but not increasing problems. To be helpful this data cannot be based on a small number of hounds. The health data collection for North American Irish Wolfhounds (and any Canadian friends willing to help) is the Life Cycle II Study funded and maintained by the IWF.

The goal is current health information on 2000 Irish Wolfhounds.

As of October 2021 there are 788 hounds active in the data base and there are 1,207 total entry or follow up forms recorded.

Information from more hounds is needed to provide interpretable results.

There has been a much appreciated increase in participation. In 2016 the first year of data collection, only 42 owners responded. In 2021 432 owners have responded by October 15.

Overall health

53.5% of responding owners in 2021 reported their hound had no health problems in the past year.

This number was 58% in 2020. There is a steady drop in the percentage of hounds with no health problems reported from an average of 77% for 2016 to 2019. No conclusion is possible with these small numbers and some effect of the pandemic may also be present. Responses may be coming from a broader population and aging hounds. However, the trend is not as encouraging as hoped.

The females continue to appear healthier than the males.

Overall combined data 2016-2021 reveals 63% of those reported healthy hounds were female while only 36.6% were males.

In 2021 of the 53.5% healthy hounds, 65.1% were females and 33.7% were males.

This has not been corrected to reflect there are more females in the total data base.

The numbers are too small to conclude males are not as healthy as females but the trend continues

Specific Health Problems

Remember these are health problems owners and hounds are living with- no cause of death numbers.

Again in 2021 cardiac disease is number one and a slightly higher incidence appears in males (57.8% of reported cardiac disease.) This has been the most common health problem since 2016 and also reflects the effectiveness of treatment for heart disease.

This year pneumonia remains the number 2 reported health problem. Again there was a trend to more affected males (59.2%) This may also reflect the effectiveness of treatment as more hounds survive pneumonia.

Allergies remain the number 3 reported health problem.

A resounding 70.8% of reported allergy problems occurred in males. Numbers combined for 2016-2021 show males are 71.6% of total allergy cases- a marked difference from other health problems and unchanged as numbers increase.

Rear weakness continues in the 4 spot for reported health problems.

Again there was a trend toward more affected males (69% of reported for 2021). However if numbers are combined for rear weakness reported from 2016 to 2021 males contribute only 54.5% of all cases.

Cancer remains overall the number one killer of Irish Wolfhounds and the number 5 health problem owners and hounds live with.

The data collection separately lists types of cancer but if all cancer was lumped together it would be the number 2 health problem owners and hounds reported living with.

Osteosarcoma remains the number one cancer owners and hounds are living with.

Overall cancer cases from 2016-2021 show more females living with cancer (71% of total reported). Again this defies interpretation. Do they live longer with cancers? Are the numbers too small to show a trend? Is it more females in the data base? The incidence looks different as a health problem than in cause of death data.

Other health problems include in order of frequency reported :

- Arthritis
- Female reproductive problems
- Chronic diarrhea
- Bloat/torsion survivors
- Other infections.
- Difficulty with urination

Top Ten Causes of Death from 2016-2021

Overall combined cancer deaths were 36% of ALL reported deaths.

In 2000-2021 numbers this percentage is 36.6%. Mean age at death from all cancer was 8.25 years. This was improved from earlier (2000-2021) age at death from cancer (7.46 years) by increase in reported hemangiosarcoma which occurs in older hounds. So it cannot be assumed our hounds with cancer are living longer lives.

Osteosarcoma was responsible for 20.9% of all reported deaths 2016-2021. When data from 2000-2021 is examined 20% of reported deaths were osteosarcoma. No better. No worse. No sex difference.

Cardiomyopathy is in the number 2 slot for cause of death in data 2016-2021. It caused 12.3% of all deaths with no striking sex difference but slightly higher in males? Also stable with overall data from 2000-2021 showing 12.2% cardiac death.

Rear weakness forced owners to euthanize 10.5% of the hounds lost 2016-2021. This is stable compared with overall numbers from 2000-2021 (11.2%). Slight preponderance of males in this group.

Cancer- other. This includes hounds dying from known type of cancer that was not OSA, lymphoma or hemangiosarcoma which are listed individually.

Sudden death. This included all hounds with no known terminal illness found dead with no apparent cause. The average age was 7.9 years. ? Older than expected and could reflect increased

undiagnosed hemangiosarcoma.

Pneumonia with an increasing male preponderance (2.5% female COD and 6.8% male).

7.) Lymphoma and hemangiosarcoma with the same number of deaths but hounds die younger (6yrs) from lymphoma than hemangiosarcoma (8.08 yrs).

8.) Unknown COD. This includes dogs with health problem unable to be diagnosed after vet visits but leading to death.

9.) Trauma and other infections with the same number of deaths

10.) Bloat and kidney disease with the same number of deaths.

Top Six Causes of death for 2021

- Osteosarcoma
- Rear Weakness
- Cardiac
- Cancer- other
- Pneumonia
- Sudden death

Please help the hounds

It is not possible to keep our breed healthy if knowledge of health problems is based on rumor and anecdotal reports. It is not possible to pursue genetic tests for the future without accurate knowledge of health problems.

Look around your house... please enter ALL the hounds you see on your couches etc.. all ages are needed. Ask your friends to enter ALL their hounds.

If necessary skip the EKG and DNA.

The incidence of inherited heart disease increases with age in the Irish Wolfhound. Atrial fibrillation is usually the first sign and it is found on the EKG. Heart disease is very treatable. So there are many reasons the yearly EKG for the LCSII study benefits not only the breed but your individual hound. The DNA is a one time blood draw and this collection of DNA plus data makes the IW very attractive to researchers to benefit our hounds.

If you feel a yearly EKG is not possible or a blood sample will be difficult please consider **joining the study with your hound's health data only. Everybody can do this. Everyone is welcome. Every hound's data helps. Please help us reach the goal of 2000 participants.**

To enter your hound just go to the IW website IWFoundation.org

- Click research studies
- Click LifeCycle II Study
- Click study entry
- Enter your hound (hounds)
- Please help
- Thank you

A Few Interesting Things....

Seizure Study Update

The Seizure Study now has online entry and follow up available on the IWF website! This study was quiet for a time as lead investigator Dr Magi Casal was in Europe and then her lab was closed by COVID. She has continued to quietly sequence seizure dogs with available DNA and is submitting a grant request to the AKC Canine Health Foundation.

Dr Casal needs pedigree information and blood sample from as many hounds as possible to pursue genetic markers for seizures in Iws. ANY HOUND of ANY age and experiencing ANY type of seizure is eligible for this study.

Dr. Casal also requests study entry of relatives of hounds with seizures and deceased dogs with a history of seizures. Although there can be no DNA sample from the deceased dogs their information is valuable. Hounds 9 years or older who have never experienced seizures are needed as controls.

An overview of seizures in the IW is available on the IWF Seizure study site. Dr Casal has provided a recent update also available on the IWF Seizure Study site.

Please consider supporting this study.

IV bisphosphonates for osteosarcoma pain control

A study by Dr Tim Fan reported IV pamidronate was effective in decreasing pain in dogs with limb osteosarcoma. Twenty eight percent of the study dogs had a significant clinical response lasting greater than 4 months. Data was collected to record multiple tumor characteristics but unfortunately this did not predict which dogs will respond to bisphosphonates. This study showed pain relief even without radiation. NAISDS such as rimadyl or meloxicam were given to study dogs.

Pamidronate is an intravenous bisphosphonate- a type of IV Fosomax. If your hound has difficulty traveling or you feel conservative treatment may be in his/her best interest consider Fosomax (alendronate) to strengthen bone and improve pain. The oral absorption is difficult to predict but there are few side effects. The response rate for IV pamidronate of 28% seems close to that seen with Fosomax based on anecdotal reports and one unpublished study from Colorado State University.

More information is found on the IWF website.

Careful with those high calorie holiday treats

At the close of his recent review of canine hemangiosarcoma discussion, Dr Jaime Modiano faced persistent questions on the value of special diets and supplements to decrease canine cancer. Finally he explained the best diet to prevent canine cancer was the less calories diet. Obesity is a risk factor in canine cancer just as it is in humans.

It is estimated 40-50% of dogs in the United States are overweight or obese. A recent study published in Prevention Veterinary Medicine 2020 measured owner beliefs and behaviors associated with their dog's Body Condition Score (BCS). Over 3000 owners submitted validated questionnaires. Results revealed owners of overweight dogs felt their dogs were more vulnerable to becoming overweight (ie it's my metabolism). The majority felt everyone thought they over fed their dog. All owners of obese dogs consistently underestimated the Body Condition Score of their dog.

The study could not establish that attachment by owner to dog as measured by this set

of questions correlated with BCS. I.E.: it did not show you loved your dog more if he got more treats and was obese or that you loved him less if he was allowed to be obese. But more loved or not, the risk of multiple health problems increases for the obese dog.

Owners of overweight dogs recognized this as a problem and may respond to interventions by their vet. Authors recommended BCS be determined by owner and then by vet at routine office visits.

Benadryl may not be as effective

There is an increase in IWs reported with allergies.

A recent study published in Veterinary Dermatology compared the effects of diphenhydramine (Benadryl) and cetirizine (Zyrtec) for dogs with allergic dermatitis.

Type I antihistamines bind to histamine receptors in mast cells and the endothelium. Meds in this group include the long popular but sedating Benadryl and less sedating Claritin, Allegra Zyrtec etc. H1 anti histamines have been used in veterinary medicine for the prevention and treatment of hives, allergic rhinitis, angioedema, and atopic dermatitis etc.

Of interest- oral absorption on diphenhydramine is poor in dogs with less than 10% systemic availability.

This double blind crossover study investigated the effects of Benadryl and Zyrtec on immediate and late phase cutaneous reactions in 12 healthy dogs. Results suggest cetirizine more likely to prevent and treat canine cutaneous allergic reactions. Might consider exchanging that Benadryl for one of the more recent formulations Claritin or Zyrtec.

Irish Wolfhound Foundation – Rescue Grant Report

The reimbursement costs listed below are shared funds between the IWCA & the IWF.

Rescue Reimbursements from January 1, 2021 thru November 3, 2021

Date	IW	Amount	State
January 16, 2021	Male	\$654.40	AR
February 9, 2021	Female	\$1,618.88	CA
October 13, 2021	Male	\$825.02	WA

Total Reimbursements as of November 5, 2021 - \$3,098.30
Kathy Boyd has taken over the position of Rescue Coordinator for the Mid-South Club and would love to speak with any other res-

cue volunteers to learn how your rescue works. I asked her to send me a paragraph with her thoughts and contact information, that I have pasted below.

Hello fellow Irish Wolfhound rescue colleagues. This is Kathy Boyd and I am filling a new rescue role with IWRMS and would love to be more connected with any of you who are willing to do so. IWRMS covers 6 states and thus far this year we have gotten in 11 dogs. We are transitioning from the loss of our beloved Heather Burns and trying a committee structure for rescue. I would love to learn about policies, procedures, and structure, as well as incorporation status, liability insurance and all the underpinning that support what we really want to do, which is take care of our hounds in need. Please do reach out to me at either 919-800-7939 or kbbmsw@gmail.com. I would love to connect and share.

Jean A. Minnier – IWCA & IWF Rescue Chair



JAK Inhibitors

Submitted by Kathy Wilson

When a wolfhound starts scratching and licking and scratching some more, life can be miserable for everybody in the family---not just the IW. Not that long ago, treatment options were limited to steroids like prednisolone, with side effects of polyuria/polydipsia, or the powerful immunosuppressant cyclosporine, which often led to nausea and diarrhea. Antihistamines were usually ineffective in dogs. With the discovery of the Janus Kinase (JAK)-Signal pathways some twenty years ago, it was only a matter of time before a veterinary drug would make its way to the market. In 2014, the JAK-1 inhibitor brand name drug Apoquel (oclacitinib), manufactured by Zoetis, Inc. was introduced. Now it has been widely prescribed for dogs (but not cats) for several years.

So what do the JAK inhibitors do? The JAK Inhibitors travel along the Janus Kinase Signal Transducer Pathway and, basically, mediate cell-specific responses. Think of it this way. These drugs orchestrate the immune system to respond in a certain way. Apoquel inhibits, among the JAK-1 signaling that would normally occur when a cytokine binds to a receptor on the cell's surface. Among other things, Apoquel (oclacitinib) specifically blocks the IL -31 cytokine that is involved with triggering itch-

ing. So you can see why it's so effective in countering allergic responses in dogs.

JAK inhibitors are very different from the steroids of the past, and they go to work much more quickly—usually in 24 to 48 hours. They also wear off more quickly, too, which is why daily dosing is often required, especially at first. They can also be stopped without the tapering required with steroids.

Long term use seems to be safe, but monitoring for growth of neoplasias and bone marrow suppression is a good idea. If your IW is severely allergic, perhaps the trade-off of long term use vs. any associated risk is well worth it. Remember, like most other effective allergy treatments, this drug is a powerful immune suppressor.

Apoquel is definitely unsafe for all dogs under twelve months of age and for any dogs being bred. Since allergies are most likely at least somewhat heritable, it is questionable whether severely allergic dogs should be included in any breeding program. And if at all possible, consider consulting a veterinary dermatologist before placing your IW on a regimen of Apoquel to make sure it's appropriate for your wolfhound.

The Irish Wolfhound Foundation, Inc.

Treasurer's Report

10/18/21

\$234,309.26 General Endowment
\$30,194.72 Rescue Endowment
\$273,474.78 General Fund

\$537,978.76 Total Cash Assets

Disbursements - 07/20/21-10/18/21

\$9,001.19 Health Research
\$825.02 ..Rescue
\$194.85 General

\$10,021.06 Total Dispersements

Donations - 07/20/21-10/18/21

\$23,158.65 Donations via website (LGH)
\$2,311.86 General
(including Memberships & Amazon Smile)
\$30.00 Health Research
\$130.00 Rescue Endowment

\$25,630.51 Total Donations



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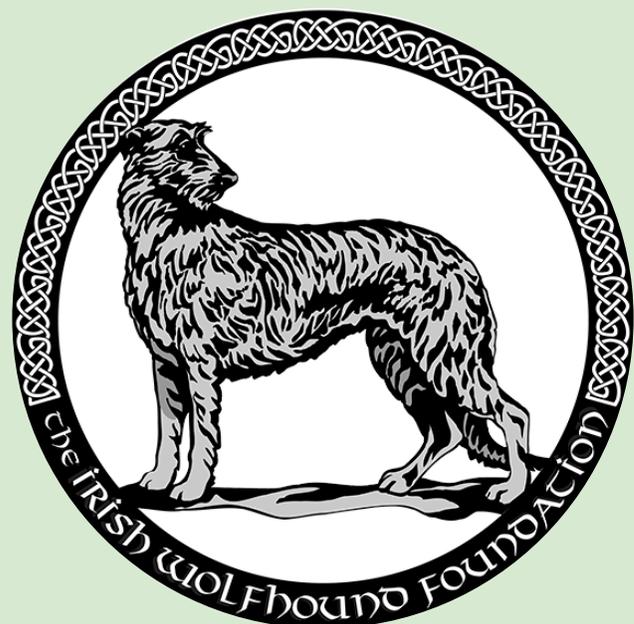
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*IMO Harp Phelan and
 IMO Heather Hanchett Burns*
Nancy O'Malley
Amanda Orwick
Mary Paiva
IMO Pheobe

Barbara Patterson
Cynthia Patterson
Jeanne Patterson
IHO Ilse Garriss, Binsrath
Kay Paz
Mary Perry
*For Toni and Greta and IMO
 Remington*
Karla Petermann
Shirley Pfarrer
Jeanie Pitzenberger
Ken and Cindy Pohl
Pat Powers
Marybeth Prusher
Carolyn Purvis
Ginger Quinn and Linda King
*IMO Libbie Bono and
 IMO Anne Tweer*
Erica Radach
Debra Redlinger
Beth Renstrom
Mary Richardson
Tasara Richardson
For Dipesa DeBartolo
Joe and Kathy Roland
IMO Wanda Roland
Cherry Rolle
Judi Roller
Sara Runciman
Mary Ann Russell
Mary Ryan
Deborah Sanders
Linda Savage
Julie Schaeffer
Alan and Jane Schluler
Linda Scho
Mary Sharkey-Christian
*IMO Cheryl Rice and
 IMO Ajax*
Debbie Sharpe
Mary Ellen Shriver
Mary Shurkey-Christian
Carole Silverthorne

Courtney Smith
Donna and David Smith
Kathleen Snieder
Linda Souza
IMO Janet Souza
Jennifer Speckert
Audrey and Dane St Clair
Richard Staudt
Kim Staman
Carol Steele
Cindy Steele
*IHO the IWF for Whiskey's
 Cardio Echo*
Shawna Stone
Cynthia Steele
Christine Strelova
IMO Tom Conroy
Sarah Sullivan
Lauren Swick
Sarah Takacs
Susan Tank
Virginia Thackston
**The Benevity Community
 Impact Fund**
Donna Tomson
Martha Ann Traylor
Irene Turner

*For all the Irish Wolfhounds
 I've known*
William Tyrrell
IMO Jill Bryson
Kathie Upton
Peter and Margaret Van Brunt
IMO Donna Brown's Mother
Joe and Melissa VanBiber
For Hector and Bonnie
Anne Varney
IMO Julie Hughes
Ian Velez
Maureen Walsh McGrath
IMO Karen Malone
Susan Walsh
Briget Wandruff
Maggie Weidinger
Kathy Welling
**Wells Fargo Foundational
 Matching Gifts Program Anne
 Williams**
Anne Williams
Susan Williams
Todd Wixsol
Zazzle Inc
Cathryn and Richard Zega
Kathy Zwiop



Change Service Requested



Research (Continued from page 2)

be asked for a repeat sample to verify negative or positive status. This will be random.

This part of the study must be blinded. The owner will not be notified if the test is positive or negative. This study is for all Irish Wolfhounds and for the future but will not be able to help your participating hound.

Each owner will be asked to provide simple follow up for 3 years to see if this blood test indeed predicts osteosarcoma before the limp and the lump.

The next step will be treatment with an established agent to see if the cancer can be stopped and the incidence of osteosarcoma decreased from its present level. No longer the number one killer of Irish Wolfhounds.

Irish Wolfhound cardiomyopathy remains the second or third leading cause of death for our hounds. IW heart disease is well described and prognosis is generally favorable.

It was alarming to see a paper describing a genetic polymorphism that may affect response to treatment for canine heart failure. It was even more alarming to read Irish Wolfhounds had 95% prevalence for this polymorphism on the ACE gene.

The study involved only 20 hounds. Drs. Josh Stern, Bill Tyrrell, and Steve Rosenthal will supervise a study to further investigate this finding.

Blood and DNA from over 100 hounds is already at UC Davis from the prior atrial fibrillation studies. Blood collected from 30 dogs at the 2021 Delaware Valley Specialty will also be used. All of these hounds have a cardiac phenotype (ie records of EKG/ Echo/ auscultation) available. Thank you to everyone who contributed.

First the ACE gene from these 130 hounds will be checked for the polymorphism to see if the prevalence is as high in a larger population. This is underway at UC Davis.

The incidence in hounds with any type of cardiac disease will be compared to that in normal hounds.

A study group with affected cardiac function and this polymorphism will be identified for investigation into the function of the ACE gene..

Previous studies in cavaliers with mitral valve disease show that when the ACE gene has this polymorphism the class of drugs called ACE inhibitors (enalapril/ lisinopril etc) are not as effective and another drug may also be required for optimal treatment.

The study will recruit 10-20 hounds with known abnormal echos for blood tests measuring the renin- angiotensin – aldosterone system followed by treatment with the study drug (one of the ACE- inhibitors) and then follow up blood tests. **The results could improve the treatment of heart failure for all hounds.**

The IWF will fund and support this study.

The IWF continues to fund and support **multiple cardiac clinics** as well as the **VPC Study and the Life Cycle II study. The IWF also sponsors research in the fields of allergy/ seizures / and tick borne disease that affects dogs via the IWF directed donor fund with the Canine Health Foundation.**

Studies requesting participants. Please consider.

Seizure study- any hound of any age that has had seizures or is related to a dog that had seizures is eligible to participate. Deceased dogs who had seizures are also invited to participate. Even without a blood test their information is helpful. This study also needs control dogs which are any hounds 9 or older who have not had a seizure. Entry is now online via the IWF website under Seizure Study.

VPC Study-any hound with no known heart disease and VPCs on screening EKG. Information and on line entry on the IWF website.

LifeCycle II study- ANY hound is invited to join this longitudinal health data collection. Yearly EKG and a one time DNA sample are requested but NOT required. Online entry is on the IWF Website.

Genetic Basis of Early onset Osteosarcoma- if you have or know of a dog 5 years or younger with osteosarcoma please consider participating in this study and help the heartbreak improve lives for future hounds. Please contact genetics@vetmed.wisc.edu They also need control dogs, any hound 10 years and older who does not have osteosarcoma.

Recurrent pneumonia Study- still recruiting any hound with recurrent pneumonia. Entry available on the IWF website. An update and online entry will be available in January.

Validation of blood test for pre clinical osteosarcoma. The funding from the 7 breed organizations is completed and the project is in the canine Health Foundation review process. It may be spring months before recruitment starts. Updates will be on the IWF and IWCA websites.

Pilot project for Irish Wolfhounds for Validation of a blood test for pre clinical osteosarcoma. Funding is secure. The protocol is completed and approved. It is now before the IACUC at the university of Minnesota. Recruitment is expected to start early February 2022 and will be via the University of Minnesota clinical research website. There will be updates on the IWF website.