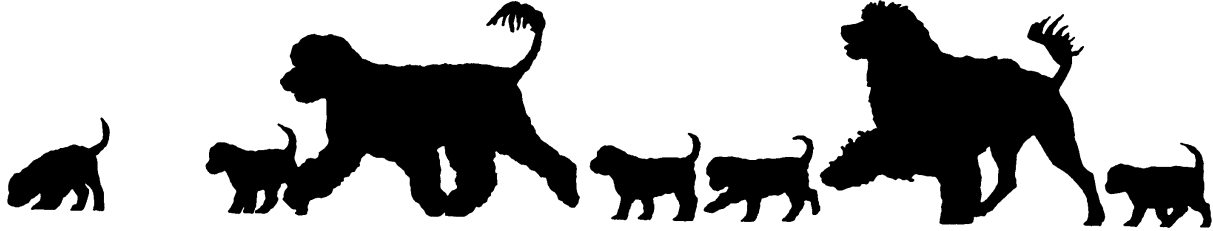


PORTUGUESE WATER DOG FOUNDATION, INC.



2008 YEAR END UPDATE

SIX NEW RESEARCH PROJECTS CO-SPONSORED WITH CHF

The six projects are listed below. Brief research summaries followed by the scientific abstracts are inside the newsletter.

#1087 - Quantification of Plasma c-Kit Protein and mRNA by ELISA and Real Time RT-PCR for Prediction of Canine Cutaneous Mast Cell Tumor Inferred Biological Behavior

#1096 - Toll-like Receptors in Dogs: Characterization of Cells Expressing them and their Role in IBD and Protein-Losing Enteropathy in Soft Coated Wheaten Terriers (Please note that the IBD study is being done in Wheatons because they have a much higher incidence of IBD than we do, however the results of the research may benefit us greatly.)

#1115 - Ontogeny of Putative Canine Hemangiosarcoma Stem Cells

#1131 - Genetic Background and the Angiogenic Phenotype in Cancer

#1135 - Investigation Into the Influence of 5-Lipoxygenase in Canine Neoplasia

#1139 - Immune Targeting of Canine Hemangiosarcoma Using a Canine Derived Single Chain Antibody Approach

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PWDF CELEBRATES 10 YEARS!

The Portuguese Water Dog Foundation (PWDF) is celebrating its tenth anniversary! The PWDF was started ten short years ago in response to the many Portuguese Water Dog fanciers who were concerned about the health issues that faced the PWD breed. The formation of the PWDF allowed for a greater expansion of fundraising efforts and nurturing of research relationships that continues to expand our knowledge of the health issues that effect our beloved breed. Joan Bendure called upon other long time PWD owners to see if they too were interested in the idea of forming a foundation that would spend time finding and funding research projects that would be beneficial to the PWD and would allow for tax deductible donations.

There were many that stepped forward to become founders of the PWDF by helping to establish the financial well-being of the Foundation. You will find their names listed in each Newsletter. The first PWDF board was

(Continued on page 4)

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New Research Projects Co-Sponsored with CHF

#1087 - Quantification of Plasma c-Kit Protein and mRNA by ELISA and Real Time RT-PCR for Prediction of Canine Cutaneous Mast Cell Tumor Inferred Biological Behavior

Kurt Zimmerman, DVM, PhD, DACVCP

Virginia-Maryland Regional College of Veterinary Medicine

Research Summary (PWDF): Mast cell tumors are one of the most common cancer diagnoses in dogs. Traditionally, the aggressiveness of the tumor and the long term prognosis is determined from a biopsy specimen. Because of this, multiple surgical procedures may need to be performed during treatment. This study hopes to evaluate a protein (c-Kit) that is measured in a blood sample and has been used in humans to detect this type of cancer. The hope is to find a less invasive method to detect mast cell tumors, predict prognosis, and monitor for disease recurrence.

Abstract (Researcher): Mast cell tumors are common in dogs and even with treatment the more aggressive tumors tend to reoccur and have reduced patient survival time. Currently, to judge tumor aggressiveness (grade) and expected patient prognosis a piece of the tumor must be surgically removed and examined by a pathologist. The purpose of this study is to show that the aggressiveness of the tumor and the expected patient prognosis can be determined by simply measuring the amount of a particular protein (c-Kit) in the blood. This protein is normally found within mast cells and has been identified in tumor tissue. Further, there is a relationship between mutations of this protein and the aggressiveness of the tumor. In humans, it has been shown that detection of c-Kit in the blood can be used to identify patients with mast cell cancer. Similarly, we believe that this protein will be detectable in the blood of dogs with mast cell tumors. By measuring its concentration, we will be able to identify patients with mast cell tumors, predict tumor aggressiveness and patient survivability. Such a tool will also help in preclinical disease detection, monitoring response to treatment and for disease reoccurrence.

#1096 - Toll-like Receptors in Dogs: Characterization of Cells Expressing them and their Role in IBD and Protein-Losing Enteropathy in Soft Coated Wheaten Terriers (Please note that the IBD study is being done in Wheatons because they have a much higher incidence of IBD than we do, however the results of the research may benefit us greatly.)

Iwan Burgener, DVM, DACVIM
University of Bern

Research Summary (PWDF): Inflammatory Bowel Disease (IBD) is a devastating disease that affects Portuguese

Water Dogs along with a variety of other breeds. It has been found in humans that suffer from IBD that their immune system reacts to the normal flora of bacteria in their intestinal tract. This study is evaluating receptors (Toll-like receptors) which are expressed on cells of the intestinal tract as well as cells of the immune system and their possible role in this disease. It has been found that in dogs with IBD, expression for genes for specific receptors (Toll-like receptors) are higher in comparison to normal dogs. This study plans on looking at these receptors in the intestinal biopsies of dogs with IBD as well as a similar intestinal disease, protein losing enteropathy (PLE), to see if there is increased inflammation in the intestinal tract in dogs as a result of an irregular interaction with the bacteria that are normal inhabitants there. The goal is to better understand this disease in order to find new therapies to manage dogs affected with IBD.

Abstract (Researcher): Toll-like receptors (TLRs) are sensing particles present on bacteria, fungi, viruses and parasites. The TLRs specialized to recognize bacteria are TLR2, 4, 5 and 9. These receptors are expressed on cells from the immune system, but also in the intestinal lining. Inflammatory bowel disease (IBD) is a common cause of chronic vomiting and diarrhea. Human patients suffering from IBD demonstrate reactivity to their own bacterial flora, and dysregulated expression of TLRs has been implicated in the pathogenesis. In canine IBD, the expression of genes for TLR2, 4 and 9 was significantly higher than in control dogs (ACORN Grant 803-A). It is currently not clear whether this is due to an upregulation of TLRs in the intestinal epithelium or recruitment of inflammatory cells, which warrants further investigations. The purpose of this study is to identify the cells expressing these receptors in intestinal biopsies and to determine their expression in dogs suffering from IBD and Soft Coated Wheaten Terriers with protein-losing enteropathy (PLE). If these receptors are upregulated, this may lead to increased inflammation through interaction with the normal bacterial flora in the gut. The understanding of the impact of TLRs on IBD and PLE could lead to new therapeutic approaches to often frustrating diseases.

#1115 - Ontogeny of Putative Canine Hemangiosarcoma Stem Cells

Leslie Sharkey, DVM, PhD, DACVP,
University of Minnesota

Research Summary (PWDF): In the past, hemangiosarcoma has been thought to be a cancer that arises from mature blood vessel cells. However, new evidence suggests that the origin of this cancer may be more complex than (Continued on page 3) originally thought. This study plans to investigate the possibility that hemangiosarcoma begins as a cancer cell

(Continued on page 3)

The Mid Year and Year End Updates are a publication of the Portuguese Water Dog Foundation, Inc.

P. O. Box 203

Parker Ford, PA 19457-0203

www.pwdfoundation.org

The mission of the Portuguese Water Dog Foundation

is to generate significant resources for funding research into genetic and other canine diseases to improve the life and health of all Portuguese Water Dogs.

(Continued from page 2)

that originates from a stem cell of blood/bone marrow origin. The plan is to compare cancer cells and blood/bone marrow stem cells. One way that will compare these cells is to study protein products that are produced from cancer cells and compare them to blood/bone marrow stem cells. Another way is to isolate the cancer cells and through tissue culture techniques, show diversity in the same way that blood/bone marrow stem cells are diverse. The goal of this study is to better understand this horrible cancer with the hope that better options for diagnosis and treatment can be found with a clearer picture of this disease.

Abstract (Researcher): Hemangiosarcoma is a common fatal cancer of dogs with poor response to current treatments. This likely reflects incomplete understanding of the cause and progression of the disease. In the past, hemangiosarcoma has been categorized as a tumor originating from blood vessels. New findings suggest that the origin of the tumor may be more complicated than originally thought. For this project, we will test the hypothesis that canine hemangiosarcoma originates from a cancer stem cell of blood/bone marrow origin that can develop into several different cell types depending on the local environment. In Aim 1, we will use canine hemangiosarcoma cells collected from spontaneous tumors in pet dogs that we have grown in tissue culture. We will show that these cells produce proteins that are similar to those produced by blood/bone marrow precursor cells, and that they can internalize microorganisms as do blood precursors cells. In Aim 2, we will show that cells collected directly from tumors in pet dogs produce the same proteins. In Aim 3, we will isolate cancer stem cells, or cells that are responsible for the growth of the tumors, and expose them to tissue culture conditions that encourage them to grow into both blood cells and blood vessel cells to show their developmental diversity. The results from this project will contribute to the understanding of the origin and progression of canine hemangiosarcoma, possibly leading to major revisions in strategies to treat the disease.

#1131 - Genetic Background and the Angiogenic Phenotype in Cancer

*Jaime Modiano, VMD, PhD
University of Minnesota*

Research Summary (PWDF): Recent work in Dr. Modiano's lab was the first to demonstrate that the genetic aspects of specific dog breeds can influence the profile of genes that are expressed by certain tumors. His work also suggests that the reason for certain breeds to be diagnosed with specific cancers more frequently may be more related to the how the tumors behave after they have been formed, not that they arise more frequently. Highlighted in this research is the high incidence of hemangiosarcoma in Portuguese Water Dogs. The goal of this project is to continue the work on specific gene profiles in the hemangiosarcoma that is seen in Portuguese Water Dogs in an effort to find and define new, more effective therapies for this devastating disease in our breed.

Abstract (Researcher): Certain dog breeds are prone to develop certain types of cancer; yet, there has been little progress to define genes or other factors that account for this risk. Our recent work on hemangiosarcoma is the first to clearly demonstrate that a dog's genetic background, defined by "breed," can influence the profile of genes that are expressed by tumors. Among other important implications, this implies that certain breeds are diagnosed with specific cancers more frequently than others because of the behavior of tumors after they arise, and not simply because they arise more frequently. Specifically, this may apply to the observed predisposition for hemangiosarcoma seen in Golden Retrievers, German Shepherd Dogs, and Portuguese Water Dogs. In addition, one-size-fits-all therapies may be inadequate to effectively treat this disease. This project will extend our observations on gene expression profiles in hemangiosarcoma from Golden Retrievers to German Shepherd Dogs and Portuguese Water Dogs, and it also will define how new targeted therapies may effectively control the disease in these and other dog breeds.

#1135 - Investigation Into the Influence of 5-Lipoxygenase in Canine Neoplasia

*Joseph Wakshlag
Cornell University*

Research Summary (PWDF): Recent evidence in humans and in dogs suggests that some of the newer generation anti-inflammatory drugs have the potential to slow the growth of certain cancers. Preliminary evidence has shown that by blocking the lipoxygenase pathway involved in inflammation, cancer cell growth diminishes. This study plans to evaluate the effect of inhibiting this pathway on several types of cancers (prostate carcinoma, pancreatic carcinoma, and osteosarcoma) including cancer cell growth and potential for spread to other areas of the body (metastasis).

Abstract (Researcher): Canine epithelial cancer and osteosarcoma have few successful treatment strategies that provide more than an average of 1 year remission of clinical disease. Recent evidence in humans suggests that some of the new generation anti-inflammatory drugs have the potential to drastically retard tumor growth. Preliminary evidence in our laboratory shows that blocking a traditional pathway of inflammation, known as the lipoxygenase (LOX) pathway, can diminish cancer cell growth. Additionally, these LOX inhibitors may help with pain relief associated with cancer. This study is designed to examine the consequence of LOX inhibition (chemical inhibition) and genetic ablation (genetic knock-out) in cell culture models of prostate carcinoma, pancreatic carcinoma and Osteosarcoma, all of which over-express the 5-lipoxygenase enzyme. The inhibition of this enzyme will be studied as it pertains to cell proliferation (overall cancer cell growth) and its ability to influence metastasis (cell movement studies). Overall, this study will determine whether inhibition of 5 lipoxygenase is a viable option for further clinical examination in a variety of cancer types.

(Continued on page 6)

UPDATES TO RESEARCH CO-SPONSORED WITH MORRIS ANIMAL FOUNDATION

D07CA-029 – Pharmacokinetics and Pharmacodynamics of Hydroxyzine in Healthy Dogs

Dr. Thierry Olivry
North Carolina State University

Objective: The goal of this study is to determine whether oral administration of the antihistamine hydroxyzine is absorbed into the dog's bloodstream and metabolized sufficiently to suppress allergic reactions. The results will help determine the optimal dose and frequency of this drug for treating atopic dermatitis in dogs.

UPDATE: Dr. Olivry's manuscript reports that he was able to determine an effective dose of hydroxyzine to cause maximum antihistamine effect in healthy dogs. A well-designed randomized clinical trial for dogs suffering from atopic dermatitis (AD) is now needed.

D07CA-034 – MicroRNA Expression Profiling of Canine Osteosarcoma

Dr. William Kisseberth
Ohio State University

Objective: By studying miRNA expression in osteosarcoma, the investigators hope to identify new molecular targets for therapy that will lead to better treatment of this disease.

UPDATE: The scientists now are in the process of collecting the needed osteosarcoma samples. In addition, they are redesigning a new assay that will be used to determine the expression of hundreds of canine microRNAs (regulators of protein production in cells) from a single sample. MicroRNAs play a major role in the most important and fundamental of all cellular processes, including the timing of cellular development, cell proliferation and differentiation, and tumor development. This new assay will significantly reduce the cost per sample to conduct the planned experiments. Joelle Fenger, DVM, joined the Kisseberth laboratory in July 2008 and is pursuing a combined PhD/Medical Oncology residency program in the Department of Veterinary Clinical Sciences. Dr. Kisseberth and Dr. Cheryl London will be her co-advisors. The experiments outlined in this proposal will form the core of Dr. Joelle Fenger's PhD thesis.

D06CA-065 – Reciprocal Relationship of PTEN and p21 in Canine Cancer

Dr. Jaime Modiano
University of Minnesota

Objective: Researchers will investigate two proteins whose interactions seem to inhibit the growth of hemangiosarcoma and melanoma tumors and this study will test targeted therapies to significantly improve the lives of affected dogs.

UPDATE: There has been a delay in progress with this study due to Dr. Modiano's transfer this winter from University of Colorado to University of Minnesota. Year two of this grant will be undertaken at Wisconsin. His lab is now established at the university and year two work is resuming.

Dr. Modiano will have a progress report to MAF in mid September. MAF would like to report that Dr. Modiano's transfer was one of the smoothest and quickest we have seen, so kudos to him. We sometimes experience a year's delay in progress when researchers transfer.

D06CA-050 – Comparison of 2 ACTH Stimulation Tests in Determining Adrenal Function in Critically Ill Dogs

Dr. Linda Martin
Auburn University

Objective: This study will compare the pituitary-adrenal function in critically ill dogs and use the information to determine the best way to diagnose this condition. An early detection test will help veterinarians to treat sick dogs more effectively.

UPDATE: The investigators have been successful in enrolling dogs into the study and collecting the data needed to better determine pituitary-adrenal function in critically ill dogs earlier than what is now possible. Samples will be assayed and data analysis will take place this fall. The scientists are hopeful that results of the data analysis will validate a new, early detection test allowing veterinarians to save more lives of critically ill dogs.

PWDF 10th Anniversary *(Continued from page 1)*

comprised of Joan Bendure, Bobbie Babbitt, Virginia Brown, Mary Harkins, Cathy Kalb, Carol Mattingley, Karen Miller, Maryanne Murray, Ginnie Santoli, Charles Schreiber, and Lana Woodburn. These first board members laid the foundation that future boards could follow through the PWDF's mission statement: *The mission of the Portuguese Water Dog Foundation is to generate significant resources for funding research of genetic and other canine diseases to improve the quality of life and health of our Portuguese Water Dog companions.*

Since those formative meetings the PWDF Board's focus has been finding and supporting research that is beneficial to the PWD. Over the years we have supported 27 different research projects with almost \$223,000 in support. Our support of the University Of Pennsylvania's Cardiomyopathy research of almost \$100,000 was instrumental in the development of the DNA Marker test for Juvenile Dilated Cardiomyopathy. The PWDF currently sponsors or has sponsored research on the various cancers that seem to afflict our breed with a

(Continued on page 6)

**The Portuguese Water Dog Foundation, Inc.
P.O. Box 203
Parker Ford, PA 19457-0203**

The Portuguese Water Dog Foundation, Inc. needs your help and support to fund research to improve the quality of life and health of our Portuguese Water Dogs. Your **tax-deductible** donation, **in any amount**, would be greatly appreciated. In addition to personal donations, a donation may be made in memory or honor of a friend or loved one, whether human or canine. Donors' names will be kept anonymous upon request.

Donor levels are: Deck Hand (up to \$49); **Sailor** (\$50 to \$99); **Boatswain** (\$100 to \$249); **First Mate** (\$250 to \$499) **Captain** (\$500 - \$999); **Commodore** (\$1000 or more)

Yes, I want to do my part to help Portuguese Water Dogs.

Enclosed is my donation, in the amount of \$ _____, payable to PWDF, Inc.

MAIL CHECKS TO: PWDF, Inc. - P.O. Box 203 - Parker Ford, PA 19457-0203

OR FAX CREDIT CARDS TO: 610 469-8661 (a secure number - 24/7)

OR ONLINE at www.pwdfoundation.org

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Thank you for your generosity and support of the Portuguese Water Dog Foundation, Inc

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Tear Here

Projects Co-Sponsored with AKC CHF (Continued from page 3)

#1139 - Immune Targeting of Canine Hemangiosarcoma Using a Canine Derived Single Chain Antibody Approach

*Nicola Mason, BVetMed, DACVIM, PhD,
University of Pennsylvania*

Research Summary (PWDF): Hemangiosarcoma is a devastating cancer affecting Portuguese Water Dogs. Despite aggressive surgery and treatment, survival times are very poor. Targeting cancer cells with the use of antibodies in an effort to activate the immune system, resulting in the immune system's attack of these cancer cells, has shown promise in human and animal research. The goal of this study is to use an antibody that targets hemangiosarcoma cells and helps to deliver a potent local treatment. Using this method to target tumors allows for more effective treatment with the potential for less systemic side effects. The goal of this study is to develop the first canine derived, tumor specific targeting approach for the treatment of hemangiosarcoma.


Abstract (Researcher): Canine hemangiosarcoma is a common and highly aggressive tumor of blood vessels that is oftentimes fatal. At diagnosis most dogs have evidence of metastatic diseases and despite chemotherapy, survival times rarely exceed 6 months. Novel approaches to the treatment of this disease are needed. The use of monoclonal antibodies and antibody fragments to directly target different tumors has shown promise in clinical trials in man. It is the aim of this proposal to use a novel canine synthetic antibody system to specifically target the tumor and deliver cytotoxic agents directly to both primary and metastatic lesions. Using advanced molecular techniques, we intend to recapitulate antibody responses that dogs with hemangiosarcoma may make against their own tumors and use these as a template to generate canine antibody fragments that specifically recognize tumor particles. Tumor-specific antibody fragments will be linked to an exotoxin and evaluated for their ability to kill canine hemangiosarcoma cells in vitro. Immune-mediated targeting of tumors allows for the direct delivery of cytotoxic agents to the tumor, thus decreasing side effects and increasing therapeutic efficacy. This work aims to develop the first canine-derived, tumor-specific targeting approach for the treatment of HSA and to provide proof-of-principal for this approach that can then be used to therapeutically target many other tumor types in this species in vivo.

PWDF 10th Anniversary (Continued from page 4)

higher incidence than the normal dog population, Progressive Retinal Atrophy, Addison's disease, Inflammatory Bowel Disease, Hip Dysplasia, and many other important areas of research.

The current Board Members of the PWDF look forward to the sustained presence of the Foundation as a major supporter of canine health research.

We hope through the continued generosity of our donors we will be able to carry on with our mission to improve the quality of life and health of our Portuguese Water Dog companions.



In Memory of...

In Honor of...

Looking for reasons (or excuses) to support the PWD Foundation and health research throughout the year? You can show your support and at the same time acknowledge a human or PWD friend or family member? Send a donation to honor that friend or a memorial donation in the memory of a departed friend. The PWD Foundation will send a nice card embossed with our logo acknowledging your generosity to the person or family you designate.

Commodore \$1,000+

Deb Bender/The Calimel Fund
Betty Anne Carlin in memory of Cortereal Duck Soup "Casey"
Roberta W. Knight in memory of Slippers
Jane & Art McEwen & the McEwen Family
Foundation in honor of the Calimel Fund
Roseknoll in memory of Roseknoll Oliver, Diva,
Dancer, Basil, Leggo, Aramis & Molly

Captain \$500-\$999

Jane & Stu Freeman
Erin & Steve Mayfield in loving memory of
Ch Novic's Amanda Francesca (Gracie's Mom)
John Northway in memory of Ann Northway
Portuguese Water Dog Club of the Twin Cities in
memory of those we have lost in 2007
Cari & Jeffrey Schnipper in honor of Friendship's Samson

First Mate \$250-\$499

Carol Asness in honor of Sahsa & Tootsie Asness (2 PWDs)
Aviator Kennel in honor of Ch Aviators Luck
Be A Lady for winning BIS 5/10/2008
In memory of Bogey for JDCM
Roberta Capuano & Tom Heffernan in honor of Jane Freeman
The Colorado Portuguese Water Dog Club in memory of their
member's dogs who crossed over the Rainbow Bridge in 2007;
Laura Van Dynes's "Duck", Donna Reif Sack's "Simon",
Mary Ewing's "Leo", Leila Vale's "Cota" & Diane Weis's "Jolie".
Verne Foster in memory of all the special dogs loved, lost and gone
too soon. (donation is the proceeds from the sale of artworks)

First Mate \$250-\$499 (cont'd)

Mark & Roberta Joiner in memory of Bucky
 Mark & Roberta Joiner in memory of Maggie Ashley
 Andrew & Laura McCullough Family Fund in memory of
 Stella & in honor of Sadie & Callie
 Michael McNamee Family
 Susan & Win Priem in memory of Polo
 Nancy L. Schlemmer as a Thank You to
 all those who love & protect this breed!
 Donna Shalala in memory of Cheka with the Henry J. Kaiser Foundation
 Abby Silva, "Chloe", "Tugboat", "Dory", "Pippi" & "Sailor".
 in honor of Riverside's 1st Litter!
 Gloria Sullivan wishing "Bailey" (Dacher's
 Hot Irish Cream) a Happy Birthday
 Janet Warnsdorfer

Boatswain \$100-\$249

Anonymous in memory of Ch Ilara Sardo ("Sardi")
 George Baker in memory of Ann Northway
 Stephen & Karen Begin in memory of all our fur kids waiting at the bridge
 Samuel Bell, Jr.
 Deb Bender & Jerry Feltenstein in memory of "Zico" Cutwater High Light
 Deb Bender in memory of Kalista's Life Is Good "LG"
 Steve & Bobbie Benninga in memory of Boss & B.J.
 Karen Berggren, Planato PWDs in honor of the PWD PSG
 Douglas & Barbara Bloom in memory of Maude
 Mary Jo Burgess
 All of Catalina's friends in the Twin Cities in memory of Catalina
 The Colorado Portuguese Water Dog Club in honor of & as a
 Thank You to Leila Vale, our Foundation President & Martha
 Thomas, our founding President & The Past Presidents Fund
 Julia D. Cox
 Phyllis Crane & Howard Talesnick in honor of our new puppy Archie
 Libby Devlin in memory of Harper Dickerson
 David & Gail Diehl
 Robin Dobbs wishing a Happy Birthday to Yaquina Bay Daniel Mr. Brisket
 Roslyn Eskind & John Brown in memory of
 Bedford's Tasha Yar, AWD 'Motes'
 Verne Foster in memory of Sadie-a truly gentle soul
 Richard Garber - CnSand Puppy Pledge
 Karen & Ed Giles - Senecan PWDs
 Vicki & Ken Goldberg in honor of Blue & Maggie
 Fran & Bill Granger in honor of Cisco & Molly B
 Francis C. Grant III in memory of Scout
 Kathy Groschupf & Frank Baucom in memory of
 "Ben" Ch Amarinhar Benquisto OA OAJ NAP NJP NF CWDX SROM
 Richard & Mimi Gunner in memory Ann Northway
 Melinda Reid Hatton
 Jerry & Sue Hensley in memory of Ann Northway
 Joseph A. Horgan as a Thank You
 Linda & Krista Hunt in memory of
 Kalista Adventure to Neptune CDX RE MX MXJ CWDX SROM
 Linda & Krista Hunt in honor of Kalista's Irresistibly Tandy RN JWD
 Ann Jackson & Ferncliff PWDs in memory of Rudi, Ch Yelsek Sea Shanty
 Al & Betty Johnson
 Corinne Kaufmann & Von Winikon PWDs
 In memory of Cully, Dinah & Lovey, my dear PWDs
 Kenneth & Patricia Krushell - CnSand Puppy Pledge
 Haven & Alan Lane as a Thank You to the Foundation for
 all its' wonderful work on behalf of our dogs!
 Jean Lejeune in memory of Ch Northwind's Jackson
 Mary R. Lynn in honor of Brinkley
 Bob Macko and David Caplan in memory of Stella
 McCormick Barstow LLP in memory of our friend & client, Ann Northway
 Sharon & Patrick McHale - CnSand Puppy Pledge
 Claire McLean in honor of Dutch/Am/Int/Lux./Mex Ch Deewal Intrepid
 Nemo's new family in honor of Nemo

Boatswain \$100-\$249 (cont'd)

Bill & Linda Northway in memory of Ann Northway
 Wendy & Richard Penley in honor of Gillian Goldschmidt- Belouro Kennels
 PWDCTC with thanks to Lauren McDermott
 for judging our August '08 Water Trials
 Pat & Arvid Qvigstad in memory of Agnes J. Vanek
 Sharon Reisdorf in memory of "Rudi" Ch Yelsik Sea Shanty
 Linda & Laurie Reineman in memory of "Ollie"
 Denis & Kelly Reppert as a Thank You to Carol Mattingley &
 Ann Bowley for giving us the wonderful gift of Mikey
 Rio & Mandy Lifeboat in honor of the PWD PSG
 Joy, Alex, Monica, Isla & Soli
 Sandy & Al Sauter in memory of Coze Agua Marinha "Sailor"
 In memory of Seven from all of her friends
 Lorelei & Michael Sowa - CnSand Puppy Pledge
 Susan Straight & Elona Meyer in memory of "Margo"
 Barbara Strauss
 Patti & John Sutko in memory of Ann Northway
 Kerri Swenson - CnSand Puppy Pledge
 Tom & Peggy Weissenborn in memory of
 Intl Ch Tradewinds Baron Marin de Grande
 Lisa Wiley in honor of the PWD PSG
 Friends of Sue Zgol and Mike Ihrig in memory of Ch MACH Tradewind's
 Lunar Eclipse TD, RN, FN, CWDX, GROM, CGC "Yeager"
 Geri Zuckerman-Seadream PWDs in memory of Ann Northway

Sailor \$50-\$99

Rae Lynn Ambach in memory of Estee & Cutter
 Alisa Anderson in honor of Josie
 Debby & Ed Appel
 Karen Kirby Ash in memory of 'Starr' Ch Schrimshaw's Black Stardust NA
 Aspencoves Revolution
 In loving memory of "Cruzer" Ch Timber Oak's Cruzin to
 Lymryk. Lots of Love, Randi, Rolf, Ruby and Henry Astrom
 Leon Ayson & Roxanna Adams
 John & Geri Azevedo in memory of
 Ch Roughrider Naiade DeTrian'A CD NAJ RAE CGC
 Michaela & Bruce Bancroft in honor of Zep & Aero
 James & Sharon Barrett
 Bica & Glory say Thank You to Sandy Overton & Jim Smith
 Eliot Brown & Mary Sama in memory of Maya
 Gail Budde in memory of Ann Northway, a very
 dear friend who will always be in my heart
 Bob Candage in honor of the PWD PSG
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 Sid & Norma Cox in memory of Ann Northway
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 Michele & Greg Dabal in honor of Benhill's Cody Jet
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 Meg Defore in honor of the PWD PSG
 Lucia B. Dudley in honor of "Diego"
 Lucia Dudley in memory of "Seven"
 Roslyn Eskind & John Brown in memory of Olympia Do Vale Negro
 Sharon Field
 Dorothy & Ordean Finkelson in memory of Kalista Adventure
 to Neptune, CWDX, CDX, RE, MX, MXJ; Call name: Neptune
 Vanessa & Charles Foster wishing Stillhouse
 Captain Navio' a Happy Birthday!
 Gillian & Frank Goldschmidt in honor of Hunter Kennel
 Antonio Goncalves in memory of Skipper Eadie from Topside Kennel
 Steven & Mary Goodman in honor of the PWD PSG
 Ronald Gricius
 Nancy & Paul Gwyn
 Laurie Hardman in honor of the PWD PSG
 Lee & Susan Haygood in honor of the PWD PSG
 Linda Hinkle in honor of the PWD PSG
 Silke Hirtz-Schmidt in honor of the PWD PSG

Sailor \$50-\$99 (cont'd)

Jennifer Hruska in memory of Porto de Agua de Castille (Artie)
 Steve Hult & Mary-Lou McCutcheon in memory of Paco Joe
 Linda & Krista Hunt in memory of
 'Ben' CH Amarinhar Benquisto OA OAJ NAP NJP NF CWDX SROM
 Nadine Hunter/Cortereal PWDs
 Scott & Liz Kantor
 Ralph & Karla Klumpp in honor of Abby
 Joyce & Robert Knox wishing a 2nd Happy Birthday to
 Daisy (our new love in a fur coat)
 Joyce & Robert Knox in memory of Scuba (all sixteen years)
 Bobbe Kurtz in memory of INT BIS CA & AM Ch Starviews Windstar
 Joyce & Dorin Ladd in memory of Ann Northway
 Randy & Kathy Latham in honor of the PWD PSG
 Tom & Judy Leather in honor of Max-A-Million & Miss Margaret
 Pam & Joel Marcus in loving memory of Ann Northway
 Stephanie McKeone in memory of Stella
 Dorathy McManus in memory of Ch Sumpwam's Neptuno "Luther"
 Maggie Megaw & Steve Monas in memory of Maggie's Mom
 Judith Miller & Richard Corman in honor of Huck Finn
 L. Ann Moore
 In memory of a great mother - - - Love, Otter
 Linda Nielsen as a Thank You to Jodi Whetzel
 Ethel & Antonie Paap in memory of Ann Northway
 Carol & Mike Pleskoff in memory of Ben. May Ben's
 memory serve as a blessing, Fondly, Carol & Mike
 Carol & Michael Pleskoff in honor of Janis
 Watts, who bred our two wonderful boys.
 Carol & Mike Pleskoff in memory of Kodie
 Joyce Polak & Barbara Williams in memory of
 Timber Oaks Cruzin to Lymryk - "Cruzer"
 Bill & Marlene Rebello
 Alan & Sharon Reisdorf in honor of Guga & Franny
 R.J. Riley in memory of Nancy Ann Northway
 Rio Salgado Portuguese Water Dog Club in memory of
 "Ben" Ch Amarinhar Benquisto OA OAJ NAP NJP NF CWDX SROM
 Rio Salgado Portuguese Water Dog Club in memory of
 Legado Letrado A Kodie, RA
 Ellen E. Rivers in memory of Windruff's Skipjack of Eleri
 Stan & Milarie Rude in memory of Argos
 Jodell & Mike Ryan in memory of Ann Northway
 Charles & Marge Schreiber in memory of Pat McLaughlin
 Lynne Schwartz in honor of Laynie Dratch's Bat Mitzvah
 Heather Shilo in honor of the PWD PSG
 Lynne Spangenberg in memory of Ann Northway (and her love of PWDs)
 The Stahl Family
 Karen Stiff-Carroll in memory of Valentino Alves
 Cindy Tanenbaum & Ezra Simon
 Tabby Thompson in honor of the PWD PSG
 The Taber Family in memory of AKC/UKC Ch KPort Ruff Sport
 of CnSand AWD NA CGC TDI AOM BROM (aka 'Rugby')
 The Waterhouse Animal Hospital in memory of Ann Northway
 Curly, Catie and the Wolcoveick Family in memory of Faro
 Elena Winsburg in honor of "Tinker" & "Jonah"
 Carl & Donna Wiuiff in memory of Ann Northway
 Kim H. Zinszer
 Zohar Portuguese Water Dogs in honor of the PWD PSG

DECK HAND up to \$49

Anonymous in honor of the PWD PSG
 Sylvie Abadie in honor of the PWD PSG
 Rita Araujo in memory of AKC/UKC Ch. KPort Ruff Sport
 of CnSand AWD NA CGC TDI AOM BROM "Rugby"

Benita Bottom-Svitchen in honor of Siena
 Maxine Brainer
 Terry Brunks in memory of Mustafa, Gemela & Slugger
 Roslyn Eskind & John Brown in honor of the PWD PSG
 Sherry and Aaron in memory of Maude
 Miriam & Kal Goren in memory of Ch Hunters Alegria CD CDX "Maude"
 Miriam & Kal Goren in memory of Olimpia Do Vale Negro
 Miriam & Kal Goren in memory of Shadow
 Miriam & Kal Goren in memory of Morris Shulman
 Meg Harper in honor of Annie & Bentley
 Kelly Hetherington in honor of Aroona,
 who shows me how to live everyday!
 Highwood Portuguese Water Dogs in honor of the PWD PSG
 Linda K. & Krista K. Hunt in memory of
 Ch Neocles Eeve of Hope JWD
 Linda K. & Krista K. Hunt in memory of
 'Lina' Seaport Santa Catalina Island NA OAP OAJ NJP AWD
 Linda K. & Krista K. Hunt in memory of
 'Shrimp' loved and missed by Peg Thomas
 Linda K. & Krista K. Hunt in memory of
 'Tina' Northwind's Rosa's Cantina OA NAP NAJ
 Linda K. & Krista K. Hunt in memory of
 'Uly' Ch Neocles Ulysses JWD loved & missed by Helen Berg
 Carolyn & Dan Iraggi in memory of
 "Rosie" Ch Scrimshaw's Rose of Northstar
 Marion & Ted Jennings
 Shirley & Wellman Jue in memory of Ann Northway
 Bob & Evelyn Kern in honor of Willy & Fred
 Matt, Katie & Caroline Kramer in memory of LG
 Matt, Katie & Caroline Kramer in memory of Shrimpy
 Barbara Lachney in honor of the PWD PSG
 Nancy Leon in memory of Ann Northway
 Suzanne Malick in honor of the PWD PSG
 Carol Mattingley & Ann Bowley in memory of Skipper
 Lyle & Jerry Mon Pere in memory of Ann Northway
 L. Ann Moore
 Norm & Jan Mosher in honor of Lulu
 Judy Murray in memory of Pat McLaughlin
 Charlotte Paul in memory of Peri
 The Paulick Family in honor of Misty Rose Paulick (The best PWD ever!!)
 Peggy Ann & Steve Perkins in memory of Ann Northway
 Carol & Michael Pleskoff in memory of Ann Northway
 Mike & Kristi Portugue & Moby & Ocea in memory of
 Kalista's Life is Good, call name "LG"
 Jan & Lee Reinert in memory of Metanoia Knollcrest Bruxa WWD "Sadie"
 Virginia Santoli in honor of the PWD PSG
 Barbara Schmit in memory of Ann Northway
 Charles & Marge Schreiber in memory of Ch Neocles Eeve of Hope JWD
 Charles & Marge Schreiber in memory of Seven
 Charles & Marge Schreiber in memory of Skipper
 Charles & Marge Schreiber in memory of
 'Starr' Ch Schrimshaw's Black Stardust NA
 Kathleen Skeels
 Patricia Snyder in honor of the PWD PSG
 Suzanne Steele in honor of the PWD PSG
 James & Kersten Terry in memory of Duke (Nautiques Tatoonie Duke)
 Peg Thomas in memory of Catalina
 Peg Thomas in memory of Eve
 Betty Trainor in honor of the PWD PSG
 Janis Watts in memory of Ann Northway
 Janis Watts - Legado Portuguese Water Dogs in honor of the PWD PSG
 In honor of Terry Cardillino for making the COURIER accessible
 Melanee Williams in honor of the PWD PSG
 Carol Zenas