Animal Health Foundation

FALL 2006

SEARCHING FOR THE CAUSES, CURE AND PREVENTION OF LAMINITIS

Dr. Donald Walsh pauses outside the U.S. Department of Agriculture in 2005.

Seeking research in equine forage and laminitis

AHF knocks on doors in Washington

Dr. Donald Walsh admits he had low expectations in February 2005, when he walked in the front door of the U.S. Department of Agriculture and told a security guard trying to keep out terrorists that the agency needed to study grass laminitis.

Whether it was Walsh's hutzpah, or the simple kindness of the guard, at the end of the day, Walsh found success in a city where many get handed failure.

Walsh had been wrestling for years with the knowledge that the federal government funded forage research for cows, sheep, hogs and many more species, but no agency was studying how the content of grass and hay was affecting horses, despite the long-standing link between grass and laminitis.

But, it wasn't on his mind on that sunny, cold Sunday afternoon in February as Don and Diana Walsh toured a museum on the Washington Mall after wrapping up a trip to Virginia to give a lecture on laminitis.

When they walked out of the museum, they were looking straight at a sparkling building marked United States Department of Agriculture. The building was closed. The Walshes were leaving Monday for St. Louis, but they went back to the USDA before departing.

When the guard asked Walsh for a name to buzz, Walsh hemmed and hawed, looked at the marquis and chose the Agricultural Research Service. That prompted a less patient employee to say, "It's not even in the building; it's in Beltsville" in Maryland.

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For the love of a lost horse

Shamus
Concord, Mass.

Sapphire
Hidden Hills, Calif.

Owners across the country hold events to benefit foundation

Each horse who has lost a battle with laminitis has a special story to tell, but those stories all end the same way — the horse leaves behind a devastated owner who wants to fight back against the disease.

Those owners increasingly are turning to the Animal Health Foundation as an outlet for their emotions.

In the past few years, the foundation has worked to broaden its reach across the country through lectures, networking and an improved web site. Since AHF was created in 1984, it has relied largely on its St. Louis base to raise money for research, and consequently, St. Louisans have been given a front-row seat to the results.

Becoming more nationalized allows the rest of the country to be a part of the foundation's work. Not only are grieving horse owners finding the information helpful, but they in turn are giving back by raising funds.

Since March 2000, Sarah Goos in Concord, Mass., has been dealing with the loss of her precious Shamus, a hunter she describes as "the horse of a lifetime" for her.

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Timmy Kees holds a print of Secretariat (a victim of laminitis), which was given to Kees by the foundation in thanks for his help.

Wildwood City Council member David Sewell visits the AHF booth at the Wildwood Days festival in September.

Fundraisers | From Page 1

Shown under the name Way Cool Junior, Shamus was brought along by Goos in the adult hunter division. He also was shown by professionals in green conformation, winning top titles and competing at Madison Square Garden.

Retired and carefree at 16, Shamus developed laminitis. Six weeks into the ordeal, Goos decided to put him down rather than continue the "torture" of watching him suffer.

"I never want to see another horse go through what he went through, and, afterward, I vowed to raise money for laminitis research," Goos said.

Goos researched several organizations before choosing to support AHF, saying: "If anyone is going to cure laminitis, it's going to be the Animal Health Foundation."

She hosted a weekend clinic in December 2005 at her Shadyside Farm, with Timmy Kees as the clinician. He had modeled Shamus for Goos during his show years. Kees has 25 years' experience on the "A" show circuit and has trained seven winners of the top equitation finals. He is an "R" rated judge and is based in Westport, Conn., with partners Leslie Burr Howard and Chris Cawley.

Kees donated his time for the clinic. He gave seven semi-private lessons per day, and auditors were welcome for free. A cocktail party was held afterward and open to all those interested in laminitis. Walsh spoke at the event and showed the foundation's DVD on the disease. All the money collected from the weekend was donated to the Animal Health Foundation.

Memorial wall for victims

AHF has set up an online memorial wall for horses who have lost their battle with laminitis. For details, go to **www.ahf-laminitis.org**

West Coast fundraiser

On the opposite coast, Nedra Johnson of Hidden Hills, Calif., was coping with the loss of Sapphire.

In May 2002, Sapphire was an unwanted yearling heading to animal control officials when Johnson stepped forward and said she would take her. The previously unhaltered mare allowed Johnson to walk her two miles in the rain to get to her new home. Sapphire became the light of the barn, full of spirit and play, an ambassador who loved to be around people and the first to greet everyone over the fence.

Following a long illness that she survived, Sapphire lost her life to laminitis in October 2005. Five veterinarians worked on the case. Through it all, the horse never lost her courage or enthusiasm, Johnson said. Sapphire continued to whinny to visitors from her lying down position. The day she died, once again, it rained.

Johnson came across the AHF web site as she was searching for more information and decided to support the group. She helped children from her barn — Sapphire's biggest fans — put together an event in the mare's honor, the Sapphire Memorial Children's Show, held June 4, with a volunteer judge who also lost a childhood horse to founder.

The show featured a poster of great horses who had succumbed to the disease, and Johnson included a copy of AHF's DVD in each exhibitor's packet, while also having AHF literature on hand. All proceeds were donated to the foundation.

Johnson already has set a date for a second benefit show in 2007 and hopes to exceed this year's donations.

St. Louis support continues

In St. Louis, there continues to be strong support, as well, including the generosity of Wildwood official David Sewell, who is donating his councilman's salary of $2,000 annually to the foundation. Sewell owns a laminitis survivor named Snowball, who went through a difficult case, but the 22-year-old Arab-Thoroughbred cross pulled through and now is doing well.

In addition, longtime supporters Boo Wright and Tracey Gentry Ryan continue to raise money for the foundation with their respective horse show series.

Every penny is appreciated by Walsh, who says he's humbled and inspired by the assistance the foundation has been receiving.

"It will take all of us working together to fund good research to conquer laminitis," Walsh said.

If anyone is interested in holding an AHF fundraiser, please contact the foundation at 636-451-4009.

ANIMAL HEALTH FOUNDATION

3615 BASSETT ROAD • PACIFIC, MISSOURI 63069
636-451-4009
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November 27, 2006

Dear Animal Health Foundation Friend,

Although he was a patient at one of the country's most prestigious veterinary hospitals, and he was being attended by highly qualified veterinarians and farriers, it could NOT be prevented: the 2006 Kentucky Derby winner Barbaro, recovering from a fractured rear leg, developed laminitis in the opposite foot. Although they knew it was likely to happen, it couldn't be prevented — Barbaro has been further disabled by LAMINITIS.

Until we understand this disease, it will continue to cripple and hurt our horses. As you know, laminitis is a terrible disease and nothing is more painful or debilitating to our equine friends.

Because the foundation's Board of Directors pays all expenses, all public contributions go directly to research being done by leading scientists in the field. Much has been accomplished; we are closer than ever to winning the battle with this disease, but there is more to be done.

In a renewed effort to push for a victory over laminitis, ***we ask you for a contribution at year's end. 100% of your gift to AHF will go to laminitis research.*** Won't you help us in this important task? Every little bit helps. We hope you will join us in our dedication to eliminate this painful affliction of our horses.

Yours sincerely,

Donald M. Walsh, DVM, President
AHF Tax-Exempt ID #: 43-1303952

I want to help the Animal Health Foundation's effort to free the horse of laminitis. Enclosed is my tax-deductible donation:

( ) $25 ( ) $50 ( ) $100 ( ) 250 ( ) $500 ( ) other _____

NAME _____
ADDRESS _____
CITY, STATE, ZIP _____

Please charge my MC/Visa account number _____
Signature _____ Expiration date _____

Finding A Cure For Laminitis
Find out how YOU can help free the horse of this disease
www.ahf-laminitis.org

Animal Health Foundation
3615 Bassett Road
Pacific, MO 63069

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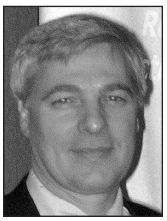
Rather than show Walsh the door, the guard picked up a telephone directory and called the Beltsville office, talking to the secretary for Steve Kappes, who is deputy administrator of animal production and protection. The secretary said she would have Kappes return Walsh's call as soon as possible.



Kappes

The Walshes got only as far as the sidewalk before the cell phone rang, and Kappes said he'd look into it. A few days later, he called back with the name of Jim Strickland.

Strickland is research leader of an ARS lab at the University of Kentucky, the only lab in the country designated to do equine research. It is set up to analyze horses from the genome level all the way out to the field.

Strickland's team had recognized the same lack of current equine forage data that had been bothering Walsh. They were planning studies to develop new forages and to analyze grass preferences by horses.

Laminitis research had not been on the agenda. After Walsh made a presentation to the lab in April 2005, Strickland saw laminitis as a good fit and said the lab would include it, but he cautioned that his resources were limited.

The laminitis studies are being overseen by Strickland and Dr. Brett Kirch, an experienced equine veterinarian with a strong backgound in forage and livestock. One project underway is a greenhouse study of the accumulation of nonstructural carbohydrates in stressed plants. A second project set to start will look at cytokines produced by fat cells. These cytokines may act as markers in the blood to predict which horses will develop laminitis when exposed to grass; the cytokines also may function to predict the ability of the horse to recover.

In the meantime, Walsh has been working with contacts in Washington to try to get Congress to include funding in future budgets for more extensive laminitis research.

Stay tuned for updates of "Dr. Walsh Goes to Washington."

Updates on research funded by the foundation

Dr. Chris Pollitt

Head of the Australian Equine Laminitis Research Unit at the University of Queensland

Dr. Chris Pollitt continues to build on his work with laminin-5, the key molecule responsible for attaching the inner hoof wall to the coffin bone. In 2005, Pollitt reported on how laminin-5 affects the normal enzymatic remodeling of the hoof wall that allows it to grown down past the stationary coffin bone; laminitis occurs when these enzymes go out of control. Pollitt said that, during the development phase of laminitis, laminin-5 is cleaved into fragments, and these fragments are extremely potent activators of key enzymes. In 2006, Pollitt and his team of scientists continued to investigate this process and how the findings can be used practically in the field. While their research can't be released before it is presented, Pollitt says it may lead to a long-awaited breakthrough: "We are on the threshold of developing preventive and treatment strategies for laminitis."

Dr. Philip Johnson

Professor of equine medicine and surgery at the University of Missouri-Columbia

Dr. Johnson is studying how external forces on a hoof, such as excessive weight bearing, affect the functions of specific cells. His research topic has become more high profile in light of Barbaro's development of laminitis in his "good" hind foot. Johnson continues to explore methods to study laminitis without working on live horses and, to that end, has developed the cultivation of equine skin cells from healthy horses and investigated their response to bacterial toxins implicated as a cause of laminitis. Johnson also is investigating the biochemical processes — important in the regulation of blood sugar — that go on in the horse's fat and liver tissues; preliminary results indicate clear differences between laminitic, obese and normal (lean) horses.

Kathryn Watts

Agricultural researcher and crop consultant in Center, Colo.

Kathryn Watts has continued to study how various elements affect the sugar content of hay and grass, as well as the most accurate way to test that sugar content. Proper sample selection and handling make test results more trustworthy, she says. After sending several grass samples to a lab under different shipping conditions, Watts found that, the less ideal the shipping, the lower the sugar content appeared to be, thus giving horse owners a false sense of security in their forage. Watts emphasizes that the sugar content of grass hay is not related to color, texture, amount of stem or age of the haystack. The only reliable gauge is to get hay tested.

For a more detailed summary of this laminitis research, go to www.ahf-laminitis.org.