

Lessons Learned from the 2nd AAEP Foundation's Equine Laminitis Research Workshop

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In two short days, presentations and discussions of varied topics ranged from inflammation, vascular, endothelial dysfunction, insulin resistance to biomechanics and chronic pain management. What we learned is that there is much information being generated on the topic of *LAMINITIS* and all the various pieces of the puzzle serve as the template for the answers to the many questions that loom surrounding this disease. The "World Café" posed a special opportunity to delve into 10 important questions that guides a plan for future funding needs and a timetable to accomplish our vision "To Conquer Laminitis by 2020!" The 2004 AAEP and 2007 Havemeyer Foundation meetings served as the initial springboard to a diversity of topics and the 2009 workshop represents the most comprehensive coverage on laminitis research and related subjects of the equine foot. While the progress has been great, we still have a long, long way to go. Our goal to eradicate laminitis by 2020 parallels modern medicine's approach to the conquering of human ailments such as cancer and cardiovascular disease. It is indeed a complex endeavor that requires great patience as well as endless hard work over an extended period.

As I pause to summarize our current progress and what we learned during the 2nd Laminitis Research Workshop, we continually develop and refine our vision for the future. By focusing on laminitis, many insights and developments continue to occur that improve our abilities to deal with all aspects of the equine foot and with this - improved equine care. Doing this sets precedents and methods of research, treatment and compassionate care that serve as an example for human and veterinary medicine for all species. We nevertheless wrestle with some fundamental questions about the disease....is laminitis a metabolic derangement relating to insulin resistance or pars intermedia dysfunction?...an inflammatory condition?...nutritional problem?...vascular and endothelial dysfunction?...biomechanical failure of the suspensory apparatus of the distal phalanx?...a genetic flaw that predisposes some horses to be at an increased risk for the disease vs. others? It is clear that more research is essential in order to be able to isolate and define the precise pathophysiology of laminitis before we can conquer it. But that doesn't mean research alone is the answer because research requires funding and with funding comes the requirement for increased public awareness to stimulate the important support for research. Numerous research results and clinical protocols are providing valuable insights and new developments in our field and therefore great reason for optimism and with this we can build on recent growth with ever increasing momentum. It just requires a tightly knit group of dedicated people working together toward our common goal. We have the ever increasing talent pool, we have the vision and we are enlisting the support organizations to coordinate all global efforts.

There are precedents for what I am calling for here. President John F. Kennedy in the 1960's challenged our nation to land a man on the moon within a decade and for many considered an impossible task; President Richard Nixon officially declared war on cancer and with this opened the floodgates for increased funding for cancer research; and finally don't forget that polio was a deadly and incurable disease before the 1950's!

So this years Equine Laminitis Research Workshop was a jam packed series of summaries about: *The Pathophysiology and Treatment of Pain* by Tony Yaksh; the 2004 AAEP and 2007 Havemeyer meeting by Nat White and James Belknap; and a comprehensive plenary session

on the *Overview of What We Know about the Pathophysiology of Laminitis* by Susan Eades. Three sets of abstract presentations on Inflammation, Vascular/Endothelial Dysfunction, Insulin Resistance, and Biomechanical/Chronic/Pain Management rounded out the scheduled presentations. All these topics accordingly enhanced our exposure to so much exciting and useful information and galvanized the topic at hand in formulating evermore effective preventions, treatments and understanding of the disease.

The World Cafe breakout sessions posed a series of important questions focusing on laminitis research funding, and key recommendations on our next steps. The questions that were considered and addressed by the workshop attendees included:

- What time is it with regard to laminitis research?
- How do we unravel the mystery of laminitis by 2020?
- What is the most critical laminitis research that needs to be done and what would it cost?
- What is the most lingering laminitis research question(s) that need to be addressed and how much would it/they cost?
- How do we best research mechanical/overload laminitis and what would it cost?
- How do we best approach chronic laminitis research and what would it cost?
- How do we optimize the use of The Laminitis Discovery Database?
- What experimental laminitis therapies should receive priority for evaluation and how should these studies be approached?
- What strategy and approach should be used to develop a productive multi-year collaborative multidisciplinary laminitis research project?
- How do we - facilitate large-scale, collaborative, multi-institutional epidemiologic or clinical trials of horses with naturally acquired laminitis?

Several other important questions that were raised and responded to by the workshop participants were:

- How much is it going to take to cure this disease by 2010?
- How much money is needed annually to promote effective collaboration? The numbers reported were annually for 10 research laboratories.
- How do we work together to optimize the use of limited resources for laminitis research?

Unmistakably we are making fine progress but there remains much to do to reach our target goal of 2020. The next huge step is to develop a comprehensive global strategic plan for research so there can be a balanced program that will ultimately be the most successful. This approach sets the appropriate stage for our research spirit to soar and with this come enormous progress. We should never lose site of our goal as we become immersed in our work – this should be our guiding light for every decision. And as a final point, a contagious positive attitude leads to the greatest rewards for all.

So let's roll up our symbolic sleeves and get to work to educate the general public about laminitis research and prove to assorted funding agencies about the significance and worth in investing in our vision "To Conquer Laminitis" by 2020 - it is time to seize the moment!