



10-1-2007

## Penn Vet's Fight Against Laminitis

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Laminitis has existed since Roman times, yet it is still poorly understood and extremely difficult to prevent. Because it is extraordinarily painful, it often has a fatal outcome, as we saw in 2006 Kentucky Derby—winner Barbaro's case.

At New Bolton Center, efforts are being focused in three areas where Penn Vet can make a real difference in the fight against laminitis. First, we are carefully studying each patient we treat, and comparing the effectiveness of treatments. Second, we are teaching nurses and veterinarians to improve the healthcare system available to owners. Finally, we are seeking a cure for laminitis through basic laboratory research.

The process for conducting this research is being put into place. The Dean W. Richardson Endowed Chair, made possible through a generous gift from Mr. and Mrs. Roy Jackson, Barbaro's owners, is for a senior faculty member who will lead sophisticated investigations into the basic cell/molecular biology behind laminitis development. This scientist will be charged with identifying the molecular pathway critical to the condition, as well as where along that pathway we could intervene with new treatment modalities. These interventions could prevent laminitis from starting—or stop it before it does irre-

versible damage. A central focus of this research will be in stem cell biology. This is highly specialized work, and before it can begin, we must learn more about laminitis at very fundamental levels.

The first step in building the blocks of knowledge needed for this effort is the work led by **Dr. Hannah Galantino-Homer, V'93**. She is responsible for creating a laboratory model of laminitis, which will allow our researchers to move faster, make vital progress and set the stage for testing theories of causes and new treatments in the lab before taking them to the patient.

In addition to the growing Laminitis Research Fund and the Jacksons' generous pledge for the Richardson Chair, we already have received an additional million-dollar pledge to build infrastructure for laminitis research. Our goal is to fund a Laminitis Institute, and an international advisory committee.

Finally, this year Penn Vet will host the Fourth International Equine Conference on Laminitis and Diseases of the Foot, generously sponsored by the Spot Castle Fund and directed by **Dr. James Orsini**, associate professor of surgery. For more information, please see [www.laminitisconference.com](http://www.laminitisconference.com). 

### Barbaro Fund Allocation

Gifts made to the Barbaro Fund have improved equipment and services in the George D. Widener Hospital for Large Animals at New Bolton Center, helping all our patients in their times of need. Some uses of the Barbaro Fund this past year include:

1. **An improved surgery table in the general surgical suite**, replacing the original table installed in 1963. The general surgical suite is used by all species admitted to the Hospital.
2. **A new surgical light system for the general surgical suite.**
3. **A new raft for the C. Mahlon Kline pool recovery area**, assuring successful anesthetic recovery for orthopaedic patients.
4. **A new digital cool freezer in the Georgia and Philip Hofmann Center for Reproduction**, used for long-term preservation of valuable genetic materials of all species, including semen and embryos.
5. For the Hospital's clinical lab, **a new imaging system and a Midas III Stainer** for evaluating cytological specimens.
6. **The purchase of a Parker Vacuum**, which maintains cleanliness of wards and treatment areas in the Hofmann Center. 

### New initiative fights laminitis

**Hannah Galantino-Homer, V'93**, has been appointed senior research investigator of the newly created laminitis research initiative at Penn Vet, serving as a leading investigator in Penn Vet's laminitis research efforts.

Prior to her new appointment, Dr. Galantino-Homer was a lecturer and researcher in the Center for Animal Transgenesis and Germ Cell Research, located at Penn Vet's New Bolton Center, and she remains a diplomate of American College of Theriogenologists.

The new initiative will enhance equine disease research currently being done at Penn Vet, which is funded in part by donors to the Laminitis Research Fund. Laminitis, a debilitating and painful condition of the hoof, is a silent killer that affects horses around the globe. Both the American Association of Equine Practitioners and the United States Department of Agriculture list laminitis as the priority area for equine research and funding.

For more information on the Barbaro and Laminitis Research funds, please visit [www.vet.upenn.edu/barbaro](http://www.vet.upenn.edu/barbaro). 

