



4-1-2008

Faculty Focus: Dr. David Nunamaker

Dr. David Nunamaker

Name: David M. Nunamaker, V'68

Birthplace: Germantown, Pennsylvania

Positions: Jacques Jenny Professor of Orthopaedic Surgery; Director, Richard S. Reynolds, Jr. Comparative Orthopaedic Research Laboratory

Research interests:

- Orthopaedic trauma, fracture repair and bone healing.
- Internal and external fixation devices; established two patents for external skeletal fixation.
- Worked with plate luting, a technique that predated the development of locking-compression plates.
- Researched bucked shins for 18+ years with more than \$1,000,000 in support from the USDA, NIH and private and industry funding. Through extensive research, developed a plan to prevent bucked shins, which could reduce the incidence from 70–90 percent to less than 5 percent. “This rationale includes a training regimen that adapts the third metacarpal bone to racing,” he explained.

Beginnings: Throughout high school, he worked for **Doris and John Emerson** (both V'54), who had a small and large animal practice in Buckingham, PA. After high school, Dr. Nunamaker pursued undergraduate pre-vet studies at the University of New Hampshire, fulfilling his requirements there after only two years, and afterward was accepted at Penn Vet. During his time as a student, he “changed his mind a million times between small animal and large animal medicine. I think everyone in my class thought I was going to be a bovine practitioner,” he remembered.

After graduating from Penn Vet, Dr. Nunamaker spent the first 13 years of his career in small animal orthopaedics here. “Paul Berg was the section chief of surgery in Philadelphia at the time, and he persuaded me to do an internship in small animal surgery—so Paul was my mentor and created the position for me.”

But things soon changed for the young graduate. “Jacques Jenny [an international pioneer of equine orthopaedic surgery] found out about my interests, and I started doing large animal orthopaedic surgery at New Bolton Center even though I was still in town [Philadelphia].” Dr. Jenny introduced Dr. Nunamaker to Stephen Perren, head of the Swiss AO Research Institute, and Nunamaker spent a year in Switzerland working on internal fixations using plates and screws. During his 13 years in small animal orthopaedics, Dr. Nunamaker performed more than 2,000 internal fixations.



Life at Penn: 1968–1981: Worked in small animal orthopaedics at Penn Vet in Philadelphia

1981–1994: Worked as a large animal clinician at NBC, mostly as an orthopaedic trauma surgeon; fundraised for 17 years to start Comparative Orthopaedic Research Laboratory

1994–2006: Chairman of the Department of Clinical Studies at NBC

Recent Publications:

Dallap Schaer, B. L., Ryan, C. T., Boston, R. C. and Nunamaker, D. M. “The Horse–Racetrack Interface: A Preliminary Study on the Effect of Shoeing on Impact Trauma Using a Novel Wireless Data Acquisition System,” *Equine Vet J* 38(7): 664–70, 2006.

Elce, Y. A., Southwood, L. L., Nutt, J. N. and Nunamaker, D. M. “Ex Vivo Comparison of a Novel Tapered-Sleeve and Traditional Full-Limb Transfixation Pin Cast for Distal Radial Fracture Stabilization in the Horse,” *Vet Comp Orthop Traumatol* 19: 93–97, 2006.

Sullivan, E. K., Klein, L. V., Richardson, D. W., Ross, M. W., Orsini, J. A. and Nunamaker, D. M. “Use of a Pool-Raft System for Recovery of Horses from General Anesthesia: 393 Horses (1984–2000),” *JAVMA* 221:1014–18, 2002.

Nunamaker, D. M. “On Bucked Shins,” Milne Lecture, *Proceedings of the 48th Annual Convention of the AAEP*, pp. 76–89, 2002.

What’s next: Retiring at the end of July 2008, Dr. Nunamaker plans to pursue his many interests and hobbies outside veterinary medicine. He and his wife, Ursula, live in southern Chester County, where he has raised Simmental beef cows from more than 25 years. Some of his hobbies include gardening, sports car racing and surf-fishing in Cape Hatteras with his wife and Chesapeake Bay retriever, Ally. 🐾