The construction of the new Patrick and Jill McCuan Center for Equine Studies is taking shape in full gallop. Turning off of Spring Road and driving through the beautiful stone entrance, a large, imposing structure welcomes the visitor. The entire red steel frame has been erected. As of the New Year, the two wings of 13 stalls each are completely enclosed, insulated sides and roof installed. Tongue-and-groove pine stalls are close to being finished in the south wing, complete with rubber mats.

The hay and shaving shed is complete giving us the ability to store ample hay. The shavings building will allow us the flexibility to have bulk and bagged shavings. All the run in sheds are completed with water and electricity available. The exterior of the sheds match the building’s attractive red and tan Otterbein colors.

The indoor arena has part of the roof installed. The steel beams present the visitor with the impression of strength and quiet beauty. The structure is beautifully and skillfully built with attention to detail.

The holding pond has been filling with water efficiently. The outdoor arena beside the pond beacons riders; its base awaits the final footing. Each visit and each progress meeting stimulates more excitement of the future potential of the equine center for Otterbein and for the equine community. We look forward to working together to take advantage of this great resource. Special thanks to Pat and Jill McCuan and all those supporting the expansion of our program. Please visit www.otterbein.edu/equine/ for more information or to get involved, visit www.otterbein.edu/Giving.

Alum Works with Canines

Equine Health Technology major Tracy Marsh (’97) assists Tessa in the new underwater treadmill for canines, recently donated to The Ohio State University Veterinary Teaching Hospital. Tracy is currently getting certified in canine rehabilitation.

Happy New Year
A little over two years ago, having retired from state service, I started taking riding lessons at Otterbein. I had never been around horses, although my parents bought me a cowgirl outfit when I was six years old, and I rode a broomstick pony whenever I wore it.

I had heard a lot about horses when I worked in the Ohio Legislature. My former boss, House Minority Leader, Corwin Nixon, was the longtime President of the U.S. Trotting Association. One of Otterbein’s annual equine awards is named in honor of his daughter, Karen, an OC graduate.

It was the story of Barbaro, however, that inspired me. Barbaro, of course, was the Kentucky Derby winner who regretfully had to be euthanized due to laminitis secondary to the fracture he sustained in the Preakness. His valiant fight for life gave me the resolve to learn to ride. My husband’s admiration for Dr. Calderone when they both served on the Board of Trustees convinced me—Otterbein was the place to learn.

The experience has surpassed all of my expectations. Under the watchful and trained eye of Lucy Cryan, an Otterbein treasure, I have not only learned to ride but I have fallen in love with a wonderful horse, Voodoo. Some of you know him as a chronic malcontent—the horse who greets you with pinned ears and a little nip. However, his grumpiness belies an incredibly well trained demeanor which never puts his rider at risk. His selection as “2008 OC Horse of the Year” is an indication of his cherished status. We partied at the barn this year on his 21st birthday!

Riding Voodoo has also opened up a whole new world to me, filled with truly amazing animals and wonderful and compassionate people. At the top of the list is the barn staff, with whom I have worked as a volunteer. I decided to volunteer to gain more experience around horses. From cleaning buckets to mucking stalls and grooming horses, I have certainly realized that goal, but I have also developed strong friendships that immeasurably enrich my life.

As the Otterbein Equine Department marks another milestone with the opening of the McCuan Center next year, I will be rooting it on, knowing deep down that no one has benefited more from this program than me. The magic of Voodoo endures. …
During this past summer I had an amazing internship at the Gluck Equine Research Center at the University of Kentucky in Lexington Kentucky. I worked under the supervision of Dr. Peter Timoney, OIE Designated World Expert on Equine Viral Arteritis (EVA). EVA is a contagious viral disease that is transmitted through direct or indirect contact of infective respiratory secretions and semen. Affected animals can be asymptomatic or have a fever, depression, conjunctivitis, dependent edema, and some pregnant mares will abort. Currently there is evidence of infection in members of the family Equidae including horses, donkeys, mules and zebras. There is serological evidence of EVA infection in countries throughout the world, an important factor when importing or exporting semen and/or stallions, due to the potential severe economic repercussions if certain testing and management requirements are not adhered to.

During my first few weeks I was trained to test blood and semen samples for evidence of EVA infection and/or for the carrier state (a stallion that sheds virus in his semen). Also during that time I learned about different cell lines and how to culture the cells we used in the semen and blood testing.

Once I was adept at the basic lab techniques and procedures, I was given two publishable projects to work on. In one project we are trying to find out how the virus affects the fetus of a pregnant mare, and it was my job to make ground tissue suspensions of placenta, lung, tissue, spleen, liver and thymus samples from aborted fetuses and then carry out testing to determine if there was virus present in each tissue and if so, how much. The results were very insightful and have allowed us to create management techniques that can be implemented on farms to help reduce transmission of the virus, which could cause more abortions and a significant economic loss.

The other project I worked on was surveying the U.S. camelid population for evidence of EVA infection by testing alpaca and llama blood. We are still trying to gather more samples, and more research in this area is certainly needed. Findings could affect how veterinarians, breeders and owners manage camelids and equids that reside on the same property in the future. I was given the absolute privilege to present my findings thus far at the Second International Workshop on EVA held October 13th-15th in Lexington, KY with the top scientists in the field from around the world in attendance. All went well and I have been invited back to work in Dr. Timoney’s lab this summer to continue the abortive fetal tissue project and build upon the camelid project.

So how would I sum up my summer? In six little words . . . blood, semen, and cells! Oh, my!

It was really an amazing summer and I cannot thank Dr. Timoney enough for inviting me in, having the willingness and patience to train me, helping me to get a better idea of the goals I need to set to achieve a challenging yet extremely interesting and satisfying career in equine research, in which I can take part in improving the health and welfare of horses.

More information about the Gluck Equine Research Center can be found at this web site  http://www.ca.uky.edu/gluck/index.htm
This past quarter, my junior and senior students in the Equine Nutrition class took their learning outside the classroom and used it to better the health of one of our school horses, Scooter. Scooter is an 11 year old Quarter Horse gelding, who has always been on the "fleshy side". He began having intermittent laminitic episode recently and, of course, due to his age and body condition, Equine Metabolic Syndrome (EMS) was on the top of the differential diagnoses list. (For more about EMS, please refer to the EMS article below.)

Coincidentally, our class had just covered how to feed horses with specific health issues. When I mentioned Scooter's case to the class, they were very excited to apply their new knowledge to a "real-life" situation. After testing Scooter's blood glucose : insulin ratio, we found out that he was, in-fact, insulin resistant. My students were able to develop an overview of Scooter's dietary needs with his restrictions in mind. He would need a diet that provided him enough digestible energy to meet his metabolic needs, but one that delivered this energy in a high fat / high fiber form, as simple carbohydrates and starches could exacerbate his problem.

The students examined several different feed brands and types, including pelleted feeds and complete feeds. In order to determine which feed would work best for Scooter, the students used a forage analysis of the Otterbein College Equine Facility's hay and calculated a dietary ration for each feed based upon these values. Not only did they take into account the nutrition for the horse, but they also looked at affordability and sustainability. When the students made their final decision, the equine department respected their hard work and began feeding the diet to Scooter.

### About Equine Metabolic Syndrome (EMS):

**What is EMS?**

A better understanding of this metabolic condition is just emerging. However, insulin resistance is the root of the problem. Horses with EMS do not have proper insulin responses to increases in blood glucose levels after a meal. Because of this, blood glucose levels remain elevated in the blood, as well as increase levels of insulin.

**What predisposes a horse to EMS?**

Obesity appears to be related to horses having EMS. This may be due to increased cortisol or hormone levels produced by the excess fat, and leading to insulin interference. Diets high in starch and sugar are also thought to predispose horses to the condition, due to the significant spikes that occur in blood glucose and insulin after such a meal.

**What are the clinical signs?**

Episodic mild laminitis in middle-aged, obese horses. At times, the lameness may be so minimal that knowledgeable horse owners may miss the signs.

**How is EMS diagnosed?**

At this time, glucose-intolerance testing is suggested, however, according to some veterinarians the only truly effective test cannot be performed in the field. The "euglycemic hyperinsulinemic clamp" is a complicated, time-consuming method of testing that can be relatively expensive and not practical in many cases.

**How can EMS be prevented?**

DIET and EXCERCISE!! Keeping horses at an optimal body condition, where their ribs can be easily felt, but not seen, is critical. Nutritional needs must be met according to age, life stage and exercise, while keeping them at optimal body condition. Ask your veterinarian or equine nutritionist if you have any questions on how to develop such a diet for your own horses. Remember, "An ounce of prevention is worth a pound of cure!"
Otterbein Students are the Best Therapy?

Back in September of 2007, the last United States horse slaughterhouse was closed down. To some this is a great triumph but to others this is a terrifying reality. Although no more horses will be slaughtered in the U.S., there is only one option left for those owners who cannot afford to keep their horses or the euthanasia costs: shipping their horses over the border to Canada or Mexico for slaughter. In this process, horses must endure long, cramped trailer rides with no food or water, and in some cases suffer horrific, inhumane deaths.

There has been talk in Otterbein College’s Equine Science Department as to what to do about this issue. There does not seem to be an easy long term answer, so in the mean time, a group of students with compassionate hearts could think of only one thing to do: help out the local rescues that are overwhelmed with daily calls of owners no longer able to take care of their horses.

These students take at least one trip out a quarter to a horse rescue to volunteer for the day and help with various tasks like mucking stalls, cleaning water buckets, grooming, transferring hay bales, winterizing the barn and other farm maintenance. Some may think one day does not seem like much but to the owners of such rescues, it means more than one can imagine. Suzie Holycross of West Wind Stables Equine Rescue and Rehabilitation, Inc. in Bellefountaine, OH was greatly relieved after a group of eight came out November 1st saying, “It would have taken my husband and me more than six weeks to complete what we got done today.” Mary Jones of W.H.I.N.N.Y. Horse Rescue in Crooksville, OH was also very thankful for our help leaving us with this comment that has stayed with me ever since that day: “It is great for these horse to have people like you to volunteer and love on them so they can see not all humans are bad – that is the best therapy there is.”

Students Learn How to Apply Emergency Fracture Stabilization

Students in the Medical Bandaging Practicum pose with the ever-patient Patch, recipient of a Robert-Jones bandage with splints.
I have been involved with the Intercollegiate Horse Show Association since the mid 1980’s. But wow, has it changed! I competed on Otterbein’s Intercollegiate team, and it was a blast. We got to travel, horse show, and have fun with our friends. Most of our riders (all 8 of them) qualified for Regionals every year. The horses on the other hand were sometimes less than perfect. I showed many ponies, even “mediums”, and I swear one rider (Jamie was her name) drew a “small” fuzzy white pony. We jumped on horses that had never competed over fences, and if you made it around without falling off or refusing, you would get a good ribbon. I remember competing in a parking lot with cinders for footing, out in open fields, and rarely indoors. Even so, Intercollegiate riding, team camaraderie, and the Otterbein Equine Facility are what made my college experience so enjoyable.

Hopefully our current IHSA riders feel the same. Now we have over 25 riders, awesome horses, and soon a fancy new facility to compete out of. We ride against teams of over 100 riders with varsity status and all expenses paid. Our equition mounts often look as if they could do the job themselves. Our riders not only have to make it around the course, but they have to do it flawlessly. In order to qualify for Regionals, it often takes 2 or 3 years. Still, Otterbein remains competitive and our riders make friends that will last a lifetime. With only 2 more regular season competitions on our calendar, we already have a long list of regional qualifiers. We have been invited to a Holiday Tournament along with 25 top schools from around the country, and it just keeps getting better! Our group of freshmen is strong so our future is bright. With our new facility opening in the summer, we can take advantage of the “home field advantage” by hosting more shows and using our own horses. Yes, it has all changed, but I hope as the coach and leader of this amazing group, these students leave with similar enjoyable memories and many great friends just as I did.

Dressage Team News

The 2007-2008 show season was a tremendous success. Otterbein was once again represented at the Interscholastic Dressage Association Nationals Championship Horse Show hosted by Mt. Holyoke College. At Nationals Otterbein finished an impressive fifth place. This is a huge accomplishment considering that there are over 40 schools competing nationwide.

This year the Dressage team is continuing its winning ways. The fall season began with a two day show held at Otterbein Stables. Otterbein finished the weekend with a number of riders topping their divisions. Shortly after the Otterbein show the team traveled to the University of Findlay for another competition. Once again Otterbein had a successful weekend and is currently leading the region in terms of points. With a little luck and a lot of hard work the dressage team should make it to nationals again this year, an impressive 2nd year in a row.
Eventing Update

The Otterbein Event team had a very busy season last spring. Many first time eventers got to experience the thrill of cross country, while the seasoned riders continued their winning ways. The event team traveled across the Midwest as they competed at three United States Eventing Association events. Riders contested the tough courses at Winona Horse Trials, May Daze Horse Trials and Indiana Horse Trials.

After a summer away from school the event team typically takes the fall quarter off to concentrate on getting to know one another and honing their dressage skills. However, this year the Virginia Horse Trials offered at a Collegiate Challenge at their fall show, hosted on November 1 & 2. Seven horses and nine Otterbein Students made the long drive down to the Virginia Horse Center. The event was a huge success with 12 college teams competing against one another. The event allowed riders enrolled in a four year college to compete against one another regardless of the divisions they had entered. Hopefully these types of collegiate events continue to be sponsored.

With the holiday season among us it is hard to imagine that the spring horse trials will be here shortly. Until then we will continue to practice our skills and enjoy our wonderful school horses.

Introducing the Western Equestrian Club

A brand new club here at Otterbein College, this organization gathers students, staff and faculty together for western riding lessons and uses other western and/or horse themed activities to help build relationships (i.e. movie nights, service projects, etc). Members ride in Hilliard, OH at Sid Griffith Equestrian Center and are instructed by one of our very own alumni, Allison Applegett.

Hatrick Fondly Remembered

Jocelyn Pierce

Otterbein’s beloved Hatrick was euthanized on Monday, January 5, 2009 due to an irreparable pastern injury. The spunky bay thoroughbred will be greatly missed; he was a favorite among students. Otterbein was fortunate to have Hatrick, as he was a patient teacher and a celebrated friend.

Hatrick will be remembered for his colorful personality, his sweet and affectionate nature, and his dependability. I first met Hatrick when he came to Otterbein in December of 2005 as a donation from former student, Emily Boldon, class of 1994. I was privileged to spend the subsequent years competing with him at horse trials with Otterbein’s Eventing Team. Hatrick had an abundance of character and a lively sense of humor. His endearing antics were a daily ritual whether he was trying to take the brush out of my hand, or sticking his big lips around the straw in my Coke. Hatrick was always friendly and happy to see me, curious about what was going on and what we were going to do. His gentle nature and big kind eye is what made Hatrick so appealing to students. His quiet and easygoing temperament made him the perfect lesson horse and a trustworthy mount for any beginner. But Hatrick was no dud, his spirit and aptness for fun was always apparent at the stadium warm up at our events; as if he was eager to prove he had once been a racehorse. I am sincerely grateful for having known Hatrick and for being able to share many memories with him. Hatrick was an incredible contribution to Otterbein’s lesson program and has taught me, and I’m sure many other students, a great deal. Hatrick will be deeply missed, and never forgotten.
After years and years of study, hard work, and a bunch of fond memories I finally received a pink slip of paper in the mail that says I’m a Registered Veterinary Technician. While this silly piece of paper seems fairly anti-climatic, I’m enjoying all the benefits that it brings. Since April 2008 I have been working at the Cleveland Equine Clinic, a busy seven doctor equine practice in Cleveland, Ohio. I have been working primarily under Dr. Ron Genovese, who sees mostly lameness cases and specializes in ultrasonography and performance horses. For those of you who remember, Dr. Genovese along with Dr. Norm Rantanen are the two veterinarians who first developed tendon ultrasound. I really enjoy working here because it allows me to be a jack-of-all-trades and there are rarely two days in a row that are exactly the same. Some of my duties include taking digital radiographs, assisting in lameness exams, prepping for injections, giving treatments, in-patient prepping and assisting in surgery, and assisting in ultrasonography.

Once work is finally done, I’m on my way out to the barn to ride my horse, BZ who is also an Otterbein alumnus! We had a very fun and successful show season and even ran into some of our college friends at some of the shows. The little time that I have left I spend with my friends and family.