Message from the Dean

In the past six months many good things have taken place at the School and I shall use my column to share some of them with you.

In November, the School held the first Annual Leadership Dinner at the Academy of Natural Sciences. This was an opportunity for us to recognize and thank our many alumni/se and friends who, each year, so generously contribute in support of our programs and student aid.

During the evening Mr. Leonard King presented a check on behalf of the The American Goldcup Committee. We have had the very good fortune to be the beneficiary of this event for the past four years. Mrs. John Landan also presented a check on behalf of the Committee for An Evening at Old Saratoga.

This is a group of the School's most devoted friends who hold a wonderful weekend of parties, trackside luncheons, a glittering gala, and carriage drives through Saratoga Springs each August. The School has been the beneficiary of this event for the past eight years during which time they have contributed a great deal of money to programs and purchase of equipment at NBC.

The great significance of these two generous gifts is that they complete the funding for the new $3 million Almira and Hardie Scott Sports Medicine Building at New Bolton Center. In addition to those mentioned above we are extraordinarily grateful to Herb and Ellen Moelis, Roy and Gretchen Jackson, Betty Moran, Allaire DuPont, and the 85 other donors who have so generously helped to make construction of this building a reality. I anticipate that we will have a ground breaking ceremony in the Spring and hope that it will be available for occupancy by January 15, 2001 and a decision regarding the building's location will be made at that time.

I am pleased to see the recognition our faculty is receiving for their research, especially research on infectious diseases. In a collaborative study, Dr. Roz Eisenberg has produced a landmark paper showing the three dimensional structure of a herpes simplex viral surface protein in complex with one of its cell receptors; the study will revolutionize understanding of the way herpes virus enters cells. Recognition of leishmaniasis as a disease found in foxes in the U.S. and Canada has brought the spotlight on Drs. Phillip Scott and Jay Farrell, both professors of parasitology, for their long standing leadership in the field of Leishmania research. Assistant Professor of Parasitology Dr. Chris Hunter has been broadly recognized for his work on toxoplasmosis, and more recently, a newly appointed virologist, Dr. Ron Harry, has received wide publicity for his collaborative study identifying four amino acids critical to the movement of Ebola virus from cell to cell. We know little about this dreaded virus and Dr. Harry's findings are immensely important to the field. In October, Dr. Ralph Brinster, Richard King Mellon Professor of Reproductive Physiology, presented this year's Earle P. Charlton lecture at the Tufts University School of Medicine. The topic of his presentation was "Germ Line Stem Cell Modification". The presenters for this prestigious lecture series are chosen by the Scientific Affairs Committee of the Tufts University. Since its inception in 1975, this endowed lecture series has attracted many luminaries in science including eight Nobel prize winners. Bringing further distinction to the School, Dr. Erica Holzbaur, associate professor of biochemistry, has been awarded the Keith Porter Fellowship by the American Society of Cell Biology for her research on intracellular motors and prominence in the field of cell biology.

It is almost a year since the special species (exotics) clinic opened in the Small Animal Hospital. We now have two board certified clinicians in the service which has been very well received by our students and the public. In the near future we anticipate a grant from the Commonwealth to establish a program in comparative nephrology that will include a facility for hemodialysis. This will be used to prepare cats for renal transplant surgery and to care for animals that have acute and chronic renal disease.

Finally, I am delighted to tell you that Dr. Joan Hendricks, professor of medicine in the Department of Clinical Studies, Philadelphia, has been unanimously nominated for the Henry and Corrine R. Bower Chair in Small Animal Medicine. Joan richly deserves this distinction for her leadership in critical care medicine and her fundamental research on sleep. She will be the first woman to hold an endowed professorship in the School.

With best regards for a happy and successful new year.

Alan M. Kelly
The Gilbert S. Kahn Dean of Veterinary Medicine
Philip B. and Georgia E. Hofmann Professorship in Equine Medicine and Reproduction

Mr. Georgia Hofmann, an owner and breeder of Thoroughbred race horses, through her estate provided for the establishment of an endowed professorship at the University of Pennsylvania School of Veterinary Medicine. The Philip B. Hofmann and Georgia E. Professorship in Equine Medicine and Reproduction with special emphasis on equine studies is named in honor of Mrs. Hofmann, who died in November 1999 at the age of 91, and her husband, Philip B. Hofmann, who died in 1986.

Georgia and Philip Hofman, both avid horse enthusiasts, had a long standing relationship with Penn's School of Veterinary Medicine. In 1970 they established the Georgia and Philip Hofmann Research Center for Animal Reproduction at New Bolton Center, the School's large animal facility. Philip Hofmann served on the School's Board of Overseers and was chairman for a number of years.

Mrs. Hofmann bred and owned many outstanding race horses and producers, among them Gold Beauty, Louis Quatorze, Gold Stage, Maplejinsky, Dayjur, Royal Indy, Bankers Gold, and Sky Beauty. The latter, in 1993, became the eighth filly to win the Triple Tiara, the equivalent of the Triple Crown for fillies.

Mr. Hofmann competed in the show ring, at hunter trials, and in three-day events and stadium jumping. He was a moving force in American and international coaching competition and headed the first Johnson Park International Driving Show, held in New Brunswick, NJ in 1970. Mr. Hofmann organized the Liberty Run, a two-day coach trip from Wall Street to Independence Hall in 1973. The Four-in-Hand coach, carrying 2,000 pieces of mail, traveled along an old post route. The run was completed in 34 hours, with an overnight stop in Princeton, NJ. In 1974 he was the first American to represent this country in a world championship driving competition.

For many years Mr. Hofmann's two daughters, Judy and Carol Hofmann Richter and Carol Hofmann Thompson, have distinguished themselves in show horse competition as riders, teachers and trainers. Carol was on several U.S. Equestrian Teams as a members of the show jumping squad.

The School of Veterinary Medicine has appointed a search committee for the position of the Georgia E. and Philip B. Hofmann Professorship in Equine Medicine and Reproduction. It is expected that an appointment will be announced in a few months. This is the 18th endowed professorship at the School.

New Member of Board of Overseers

Ronald H. Menaker of Franklin Lakes, NJ has been appointed to the School's Board of Overseers. Mr. Menaker is a retired managing director and head of corporate services of J.P. Morgan and Co., Inc. and a past president and director of J.P. Morgan Services, Inc.

As head of Corporate Services Worldwide, Mr. Menaker had management responsibility for a $500 million budget and 1,100 employees, including a range of administrative and support functions for Morgan companies.

Mr. Menaker is the vice-chairman and past chairman of the NYU Downtown Hospital. He is a trustee of the New York University/Mount Sinai Medical Center. He is a director of the Atalanta Sosnoff Capital Corporation; a director of the American Kennel Club; a trustee and past president of the AKC Museum of the Dog; a trustee of the St. Hubert's Giralda Animal Welfare and Educational Center, and the show chairman of the Westminster Kennel Club.

Assistant Dean for Development Appointed

Mark A. Stuart joined the School as the assistant dean for development on January 2. He brings to the School 12 years of extensive experience with increasing responsibilities for fund raising. Prior to coming to Penn he served as assistant vice president for development at Gettysburg College, Gettysburg, PA. Mr. Stuart graduated from Albion College in Michigan and received a Masters degree from Western Maryland College.
2000 Annual Leadership Dinner

 Held at The Academy of Natural Sciences in Center City Philadelphia, the 2000 Annual Leadership Dinner recognized the School of Veterinary Medicine’s most generous donors, including alumni and individuals, and friends. More than 160 guests attended the dinner, including more than 30 current students who are the recipients of Opportunity Scholarships.

The Opportunity Scholarship Program is designed to foster scholarship and mentoring for students. Since the program’s inception in 1998, more than 35 Opportunity Scholarships have been awarded. The first-year students who are the recipients of the four-year scholarships are either matched up for mentoring with their donor or a faculty member. Recipients are selected based on their strong academic qualifications and financial need.

Matthew Kuhar, V'04, the recipient of The Jay Jasan Opportunity Scholarship, created in memory of Jay Jasan, V'93, who died in an airplane crash in 1998, addressed guests during the dinner’s program. According to Kuhar, “... I am most inspired by the type of person [Jay’s] friends and family remember in him and hope to be able to emulate his personal qualities of humour, generosity and a respectful compassion for nature throughout my future endeavors in veterinary medicine.” The scholarship has been funded by Jay’s father, James Jasan, classmates of Jay, and other donors.

Dr. Ralph L. Brinster, V'60, The Richard King Mellon Professor of Reproductive Physiology, gave a presentation on germ line modification. His research has focused on the mechanisms regulating the proliferation and differentiation of the mammalian germ line and how these cells can be modified genetically. His approach to basic science has led to major advances in the understanding of developmental and reproductive biology.

Dr. Brinster graciously filled-in at the last minute for the original speaker, Dr. Peter Dodson, professor of veterinary anatomy and geology, who was going to speak on recent dinosaur discoveries. Fortunately, Dr. Dodson has fully-recovered from an accident that prevented him for speaking at the dinner. According to Dr. Dodson, “The School of Veterinary Medicine has for twenty-six years provided me with a wonderful base for pursuing my dinosaur studies, all the while teaching my students the intricacies and subtleties of veterinary gross anatomy.”
Scientists Pinpoint a Protein Critical to the Function of the Ebola Virus

By Steven Bradt

Scientists at the University of Pennsylvania's School of Veterinary Medicine have identified a sequence of just four amino acids in a key viral protein that may be critical to the spread of the Ebola virus. Their findings, reported in the Dec. 5 issue of the Proceedings of the National Academy of Sciences, offer the promise of future treatments for Ebola outbreaks that prove fatal for up to 90 percent of victims.

Ebola hemorrhagic fever is one of the most dangerous and ghastly viral diseases known to humans, but much about the underlying virus continues to elude researchers, said lead author Ronald N. Harty, Ph.D, assistant professor of microbiology. Like all viruses, Ebola requires a host in order to replicate, invading host cells and using them as factories to crank out countless copies of its own genetic material.

Harty's work indicates that after this newly created RNA is packaged into viral protein coats, the newborn viruses rely on the little-known VP40 protein to traverse the cell's membrane, exiting the cell by simply budding off from it. These viruses proceed to infect other host cells until the cumulative effect of this explosive viral proliferation overwhelms the body.

The function of VP40, found directly under the virus's external coat, had previously been unknown. Harty worked with the isolated protein and single mammalian cells to discover that a short segment of VP40 appears to be what enables Ebola to slip out of host cells. "This new understanding of the role VP40 plays in Ebola's replication cycle could be a critical first step in the development of new antiviral drugs to combat Ebola," said Harty.

"Now that we've identified this vital region of this key protein, we may have a target for new Ebola-fighting medications."

Because Ebola hemorrhagic fever occurs only in relatively small, sporadic outbreaks, Harty said antiviral drugs represent a logical approach to controlling the disease. There is currently no specific treatment other than the administration of intravenous fluids to combat severe dehydration.

Harty's findings implicate a proline-rich sequence of amino acids within VP40 as the key to its ability to bud efficiently from cell membranes. This segment of the protein — dubbed a PPxY motif because of its signature sequence of two prolines (P) and a tyrosine (Y) separated by any single amino acid — interacts physically and functionally with cell enzymes known as ubiquitin ligases. Such a virus-host interaction is thought to be crucial for the virus to escape from the cell.

One of just seven proteins produced by Ebola, VP40 was significantly impaired in its ability to exit mammalian cells by even the slightest mutations affecting the PPxY motif, Harty found.

"Motifs similar or identical to PPxY are also common in other viruses, including HIV and the virus responsible for rabies," Harty said. "In each case, they function in virus release from infected cells, and they may carry out this function by mediating interactions with host cell proteins."

Harty was joined in the research by Melissa E. Brown and Felicia P. Hayes at Penn and by Guangli Wang and Jon Huibregtse at the University of Texas at Austin. The work was funded by the University of Pennsylvania Research Foundation.

About Ebola hemorrhagic fever

World Health Organization statistics indicate that Ebola hemorrhagic fever has killed 793 of 1,100 known victims since it was first identified in Sudan and Zaire in 1976. Ebola is believed to originate in the jungles of Africa and Asia, although it's not known where, how or in what carrier species the virus lies dormant between outbreaks.

Ebola is transmitted through close contact with bodily fluids, such as mucus, saliva and blood. Ebola hemorrhagic fever can take days or weeks to incubate, manifesting itself only with the sudden onset of fever, weakness, muscle pain, headache and sore throat, followed by vomiting, diarrhea, rashes and reduced kidney and liver functions. Later, victims start to hemorrhage and bleed through the nose, mouth, eyes and other orifices. Blood and other bodily fluids also begin seeping through the skin, producing painful blisters.

The last major Ebola outbreak was in 1995 in Zaire, with as many as 300 lives lost; the most recent outbreak, in Uganda, killed more than 100 people several months ago. Because the virus typically kills its victims faster than it can spread, outbreaks have usually been extinguished before spreading very far.
Vaccination Guidelines for Dogs and Cats

Recently there has been much discussion about vaccination schedules for cats and dogs. Vaccinations are important as they protect the animals from infectious diseases. Owners and breeders should discuss vaccination strategies with their veterinarians; they can recommend the most effective regimen for their animal patients.

The purpose of vaccinations is to stimulate humoral and/or cellular immune responses and to generate an appropriate immune memory so that subsequent exposure of the animal to the infectious agent will not result in a disease state. In young animals, the presence of maternally derived, passive immunity may interfere with this process, as may other factors such as poor nutritional status, concurrent disease, and anesthesia. Because maternally derived antibodies may block an immune response to vaccines in very young puppies and kittens, a series of vaccines are given at appropriate intervals which should then result in active immunity against the vaccine antigens and the corresponding naturally found antigens.

Following are recommendations and vaccination schedules for cats and dogs developed by clinicians at VHUP.

At what age should one begin vaccinating puppies and kittens? There is no transfer of maternal antibodies through the placenta to the fetus, puppies and kittens are born with almost no antibodies; only a few (IgM) that may reduce allergic reactions and although titers drop significantly after 6 months, challenge with pathogenic forms of L. icterohemorrhagia and canicola one year after vaccination did not cause disease. Because of these recent developments we recommend this vaccine.

Lyme Disease (Borrelia) vaccines: As the pathogenesis of infections with Borrelia burgdorferi is still not clearly defined, this should not be a routine vaccination. Post-vaccinal Lyme-like syndrome has been described and it is possible that the same dog breeds that have had these types of reactions may also be the ones that have more serious disease after infection with the pathogenic strain. The vaccine also interferes with interpretation of titers possibly for years after vaccination.

Canine Vaccination Protocol at VHUP

* Puppies: If a dog needs to be vaccinated before 6 weeks of age and has no known history of ingestion of colostrum or known lack of colostrum or in case of high infectious disease risk (*), it may be given measles virus vaccine to overcome maternal protection against distemper and killed canine Parvovirus vaccine (killed CPV). Do not use live CPV at less than 5 weeks of age because of the potential damage to still dividing and developing myocytes.

Coronavirus Vaccines: Coronavirus only causes serious, fatal disease in puppies less than 5 weeks of age. However, puppies are generally protected through colostral antibodies until 8-12 weeks of age. Thus, it is probably of little value vaccinating puppies against coronavirus infections.

Leptospira vaccines: This vaccine presents a dilemma for several reasons: In more recent times, several dogs seemed to have had allergic type reactions to the Leptospira component in the multivalent vaccines. It has also been suggested that the duration of immunity after vaccination only lasts for about 8 months. Recently, a new Leptospira vaccine has become available that contains four different serovars: grippotyphosa, canicola, icterohemorrhagia, and pomona. The vaccine is now purified, which may reduce allergic reactions and although titers drop significantly after 6 months, challenge with pathogenic forms of L. icterohemorrhagia and canicola is likely to be sufficient in a puppy older than 14 weeks of age, when the maternal antibodies have dropped to undetectable levels.

Bordetella bronchiseptica vaccines: This is probably not a very effective vaccine, and there are not enough studies to document either short- or long-term efficacy. However, there are some kennels that require Bordetella vaccin-
than 8 weeks should be avoided. The exception is the rabies vaccine (adjuvanted killed virus), in which long-term immunity studies indicate efficacy of boosters after 1 year followed by triennially given boosters.

Only healthy animals should be vaccinated. For example, if an animal has an elevated body temperature that remains over 103°F on repeated measurements, its cellular immune system shuts down. Thus, the vaccine may not be efficacious, or worse, may cause disease. Animals with immunodeiciencies or receiving chemotherapy will also not respond appropriately to vaccination.

Vaccination sites: It should always be recorded where the vaccines were given, in case reactions are seen later. In cats and dogs, rabies vaccines should always be given in the right upper hind limb. In cats, FeLV vaccines are given in the left upper hind limb. The other vaccines may be given on the right or left side of the abdomen. We do not recommend giving vaccines between the shoulder blades because of the poor drainage of this site.

Pregnancy: It is best to vaccinate before pregnancy. If this is not possible or the opportunity was missed, it has been recommended that killed vaccines should be and could be safely used two weeks before the expected due date. Two weeks allow sufficient time for the production of antibodies, which can then be passed on to the offspring via colostral intake. However, because of the nature of killed vaccines, adverse, allergic type reactions are more likely.

Vaccine reactions: The owner should carefully observe any animal that has been vaccinated for the first half-hour after vaccination for signs of acute allergic reactions. In case of allergic reactions, contact the veterinarian or an emergency service immediately. If an animal has had a reaction before, the veterinarian should be informed. In cases where the veterinarian and the owner have opted not to vaccinate the animal, titers to the corresponding diseases may be measured, but it must be kept in mind that serum titers do not reflect the actual state of local immunity.

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**Feline Vaccination Protocol at VHUP**

**Kittens:** Protection through maternally derived antibodies lasts usually until 6-8 weeks of age, but against feline infectious peritonitis (FIP) only until 4-6 weeks of age. If colostrum-deprived, neonatal kittens under 4 weeks need to be vaccinated (*), use either killed vaccines or one half dose of the intranasal vaccine. In catteries with chronic upper respiratory tract infections, parenteral or intranasal FVR/FCV vaccinations can be started at 4-6 weeks in endemic catteries. Protection seems to be incomplete regardless of vaccine type.

**Intranasal versus Parenteral vaccines:** As the intranasal vaccines are modified live, they have the advantage that they elicit a much better, longer lasting immune response. Intranasal vaccines are also quicker in breaking through the maternally derived immunity and are not associated with fibrosarcomas. The disadvantage is that some cats will show mild signs of disease, which may upset the owner, but rarely require veterinary intervention.

**Feline Calicivirus:** Chronic ulcerative gingivostomatitis is a hypersensitivity reaction to persistent caliciviral carriage. Thus, we do not recommend boosting repeatedly, as it may lower the protective titer leading to prevention of clinical signs but not eliminating the virus.

**Rabies (#):** Currently, there are two different types of rabies vaccines available for use in cats. One is the previously marketed killed virus vaccine, which needs to be boosted one year after the initial vaccine and then only triennially. Recently, a recombinant virus vaccine has become available which provides protection by stimulating antibody response to some of the surface antigens of the rabies virus. In Pennsylvania, the law states that any cat that spends any time indoors must be vaccinated against rabies; i.e. farm cats that are always outdoors do not need to be vaccinated, although it is highly advisable to vaccinate them.

**Feline Leukemia Virus:** The decision to vaccinate against FeLV must be based on the cat's environment; if the cat is indoors, alone or with only one other cat, it is not worth to expose the cat to the potential side effects of a vaccine that does not offer 100% protection. However, if a cat is outdoors, unsupervised, most of the time and has contact to other outdoor cats, attends cat shows or is in a multi-cat household, the risk of getting infected with FeLV is much greater than that of adverse reactions. Even in a multi-cat household, it might be better in the long run, to carefully test every new addition to the cattery for FeLV infection, instead of vaccinating every cat. Because maternal antibodies against FeLV may be present only lasts one year. Thus, a yearly booster is required.

**Chlamydia Vaccines:** Due to the low prevalence of chlamydial respiratory disease, it should not be given as a routine vaccination.

**Feline infectious peritonitis:** As the pathogenesis of FIP is incompletely understood at this time, the efficacy of this vaccine cannot be clearly assessed. While it seems to be a safe vaccine, because of its questionable efficacy, we do not recommend this vaccine.

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**Feline Vaccination Protocol at VHUP**

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<th>First Adult Booster</th>
<th>Adult Boosters</th>
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Saratoga Benefit

Horse-drawn carriages dominated the streets of Saratoga, NY from August 3 through August 6 when A Weekend in Old Saratoga came to town for drives to the races, polo and to the gala on August 5. The gala, An Evening in Old Saratoga, was held at the Gideon Putnam Hotel and drew close to 300 people. The event, chaired by Mrs. John R. Landan, Jr. of Chester Springs, PA, was a benefit for New Bolton Center. This is the eighth year that A Weekend in Old Saratoga has raised funds for the Center, and more than $700,000 have been donated to the School so far. The 2000 contribution was for the new Almira and Hardie Scott Sports Medicine Building. Construction of the facility will start later in the spring.

A Weekend in Old Saratoga is dedicated to the advancement of coaching and pleasure driving in America. Mrs. Lawrence E. Ensor, Chadds Ford, PA is the chairman of A Weekend in Old Saratoga’s board of directors. Mrs. John R. Landan, Jr. is president of the organization and also the chairman of the An Evening in Old Saratoga gala committee. Mr. Gregory L. Landis, Wayne, PA and Mr. Gilbert v'H. Sheck, West Chester, PA are vice presidents. Mrs. Charles McWilliams, Unionville, PA serves as financial secretary and as chairman of the gala’s silent auction committee. Her husband, Mr. Charles P. McWilliams, is the treasurer and Ms. Suzanne Meyle of Devon, PA is the secretary. Members of the A Weekend in Old Saratoga presented a check to Dean Alan Kelly on November 11, 2000 at a dinner honoring donors to the School. Plans are being made for an exciting first weekend in August 2001 when A Weekend in Old Saratoga will once again come to town for its activities.

At the Saratoga Race Track are Irene Landan, Dean Kelly and Beverly Ensor with the blanket that was presented to the winner of the New Bolton Center Race.

Dr. Mara Honored

Dr. John L. (Jack) Mara, a renowned small animal nutrition expert, retired in November. Dr. Mara served as director for veterinary affairs at Hill’s Pet Nutrition, Inc. During his 21 years with the company he was instrumental in establishing clinical nutrition as a teaching topic in veterinary colleges. Penn’s School of Veterinary Medicine presented Dr. Mara with its Bellwether Medal. Following is the citation:

John L. Mara, D.V.M

The School of Veterinary Medicine of the University of Pennsylvania recognizes the achievements of Dr. John L. Mara during his years with Hill’s Pet Nutrition, Inc. which have so immensely contributed to our school and our profession.

Dr. Mara’s vision and leadership have been instrumental in advancing the field of small animal clinical nutrition. At the University of Pennsylvania this has included support from Hill’s for residencies in small animal clinical nutrition, veterinary dentistry, and small animal behavior, plus the initial funding for a faculty position in small animal clinical nutrition.

As the key creator of the college feeding program, Dr. Mara can take pride in knowing that he was responsible for the Hill’s Dean’s Scholarship at the University of Pennsylvania. To date 37 Hill’s Dean’s Scholarships of $2,500 have been awarded, eight of them named for Dr. Mara, and the current endowment in the program stands at over $550,000.

The University of Pennsylvania School of Veterinary Medicine has chosen the occasion of the retirement of Jack Mara to pay tribute to him and his myriad accomplishments by awarding him the Bellwether Medal for Distinguished Leadership. His legacy of achievements will be everlasting. They have and will continue to transform our profession. We celebrate his rich influence in education in nutrition and the promotion of humankind by advancing the stature of students in the veterinary profession.

John L. Mara, D.V.M

Saturday, November 4, 2000
The American Gold Cup

The 31st edition of the American Gold Cup September 14 to 17 had glorious weather, superb competitors and a wonderful crowd of spectators. Benefiting the School's New Bolton Center and the Small Animal Hospital, the event raised $80,000. The reception on Friday, September 15 honored Michael Matz. The 2001 edition will be held September 13 to 16, again at the Devon Show Grounds in Devon, PA. Mark your calendar and plan to come to this exciting event!

A young owner checks in her injured stuffed animal at the MASH tent.

SCAVMA had a booth.

Dog show winners.

"Expert" watchers at the Celebrity Dog show.

Beautiful hats — there will be a competition for splendid hats in 2001.

The American Gold Cup's Leonard King presented the check to Dr. Alan M. Kelly on November 11 during the School's Annual Leadership Dinner.

Dean Kelly, Mr. Michael Matz, who was honored during the Friday evening reception, Mrs. J. Maxwell Moran, Mr. Leonard King, and Mrs. Michael Matz.
Running Again
by Jeanie Robinson-Pownall

The Emergency Service at VHUP, the Veterinary Hospital of University of Pennsylvania, treats many animals with traumatic injuries. One of the most devastating can be an "HBC," or "hit by car." Veterinarians, nurses, and technicians rush to save the animal's life. The challenges are immense. Sometimes, the rehabilitation can be more complex and difficult than the initial treatment. Dr. Jeffrey S. Christiansen, a resident in small animal surgery, worked with rehabilitating a very special "HBC" patient who had been stabilized elsewhere.

Elsie, a one-year-old spayed female mixed-breed, was referred to VHUP by her local veterinarian, who treated her immediately following the accident. She exhibited weakness in all four legs and was unable to walk. After four days of conservative management, consisting of cage rest and the anti-inflammatory medication prednisone, Elsie's veterinarian referred her to VHUP for further evaluation and treatment.

Elsie presented at VHUP with her left pupil contracted, but with normal mental and other cranial nerve functions. She had no motor ability in the left front limb and no feeling below her elbow. The right front limb demonstrated motor ability with normal muscle tone and flexion. Both hind limbs demonstrated motor ability and increased muscle tone. Due to gradual improvement in the other three limbs, the owner elected to continue with conservative therapy including cage rest for two weeks, followed by passive range-of-motion exercises in her left front limb.

The possibility of severe self-mutilation was discussed. Self-mutilation frequently occurs in animals who have lost feeling to a particular area. Humans describe a feeling of numbness or pins-and-needles from the damaged nerves. When animals experience this feeling, they tend to chew the area, often quite severely.

At six weeks post-injury, Elsie had regained normal use in three limbs, but showed no change in her left front leg. Over the next six months Elsie's regime included splints, aggressive physical therapy to overcome muscle atrophy (including swimming every night, a privilege for which her owner traded masonry work on the swimming pool), and treatment of abrasions on the top of the foot from inappropriate weight-bearing. At eight months post-injury surgery was performed to fuse the carpal ("wrist") bones.

At ten months post-injury (eight weeks post-op), the bandage was removed. Elsie was encouraged to walk at a controlled gait to help her place the paw normally. After two weeks it was clear that she was knuckling over and would still bear normally 80% of the time, but would still experience this feeling, they tend to chew the area, often quite severely.

Update on Project: M.A.R.E.

Researchers at the School of Veterinary Medicine received funding from the Pennsylvania Department of Agriculture for a three-year study to identify the causes of abortion and pregnancy wastage in horses in Pennsylvania (Project M.A.R.E. — Monitoring Abortions and Reproductive Efficiency in Pennsylvania). The study is now in its final season. Dr. Patricia Sertich, assistant professor of reproduction, and Dr. Perry Habecker, assistant professor of pathology, are the chief investigators. The grant is underwriting the cost of necropsy, diagnostic tests, and associated costs — everything is provided free of charge to the mare owner.

Any horse breeders interested in participating in the project should call for a breeding management survey. Any Pennsylvania breeder with a mare that experiences pregnancy loss can have a complete diagnostic work-up to determine the cause of loss with all expenses paid by the Pennsylvania Department of Agriculture. Veterinarians who provide reproductive care for these breeding farms were also solicited to participate in Project: M.A.R.E. and receive information and materials to properly submit diagnostic specimens for determination of the cause of pregnancy loss in any aborting mares.

If you or someone you know would like to become enrolled in Project: M.A.R.E., please contact us. Results of the study will identify the causes of pregnancy wastage of mares in Pennsylvania. Once these causes are identified, we can develop research projects to help control the pregnancy loss. Please contact Patricia Sertich, V.M.D. at 610.444.5800 x 2229 or Perry Habecker V.M.D. at 610.444.5800 x 2385.

The swine teaching herd began in November, 1997 with reactivation of existing swine production facilities and the purchase of 60 sows from RPM Farms of Beaver Springs, PA by Drs. Pitcher and Parsons with the support of a University teaching budget. The herd functioned for two years, during which extensive teaching programs in swine production medicine, reproduction and neonatology were developed and student interest expanded exponentially. In addition, animal flow schemes were worked out which allow the herd to emulate one three times as large, thereby multiplying scarce teaching resources. Deterioration of the facilities forced deactivation one year ago and plans were implemented to construct the new building. Sixteen of the original sows, along with 26 of their progeny selected for high productivity, remain at New Bolton Center as a nucleus to populate the new facility when it is completed.

The new building is designed to both accommodate teaching needs and incorporate cutting edge swine husbandry technologies. A classroom will be located in the center of the barn from which many different phases of production can be easily observed, and lectures can be given with on-going swine production as the backdrop. Both novel animal-friendly housing systems and environmental-friendly automated feeding systems are also being imported from Europe. When the building is finished and occupied, it will not only be a teaching facility but will also serve as a building where Pennsylvania farmers can perhaps see their future. The facility aims to test the feasibility of new production systems that offer the opportunity for preeminent animal welfare, minimal environmental impact, and high productivity.

to keep it placed properly on her foot. In addition, the owner had to purchase a new boot every two weeks, as her vigorous lifestyle caused rapid breakdown of the rubber boot.

Dr. Christiansen was aware that Rob Sigafoos, the chief farrier at New Bolton Center, was successfully developing and building orthotics for horses. Mr. Sigafoos has refined production of these custom-made devices for over two years and they have helped countless horses with a variety of problems, including laminitis, hoof wall separation, and a host of orthopedic and musculoskeletal disorders in adults and foals. When Dr. Christiansen contacted Mr. Sigafoos about the idea of an orthotic for a canine patient, Rob responded enthusiastically and an appointment was set up at VHUP for Elsie so a mold could be made. Elsie was slightly sedated. She needed to hold still while her front leg was placed in a container full of dental alginate impression material, the same substance a dentist uses to take mouth impressions. "It's quick setting and pliable," explained Mr. Sigafoos. "It is also non-toxic." Once the material had set, Mr. Sigafoos very gently split the mold and now had a negative of Elsie's leg. He set the block of material back in the container, put a rod in negative space and poured plaster of Paris into the hollow. Once this set, he had Elsie's leg in plaster — he could return to New Bolton Center and fashion an orthotic from polyethylene that would fit Elsie. Her new footwear has Velcro® straps for ease in putting on and off, a non-skid sole, and vents to prevent moisture from accumulating within the brace.

When the new brace was placed, the dog was instantly able to run and play on it. It was approximately 50% larger than the rubber boot, but was light in weight. Repair or replacement could occur rapidly and easily with the test mold kept in stock. The owner was extremely pleased with the new boot and reported the dog was able to run as much as she wanted, and could even play and struggle well with their other dogs.

"Chris Curtin is to be given a lot of credit for his extensive physical therapy, including swimming and regular passive range-of-motion exercise, that contributed to her regaining function of the limb to the level of the elbow," relates Dr. Christiansen. "Early splinting of the leg below the elbow allowed her to use the leg, and prevented contracture of her shoulder and elbow which could have resulted in permanent loss of limb use." Elsie's rehabilitation is due to a true partnership between Chris Curtin the owner, Dr. Jeffrey Christiansen the veterinarian, Rob Sigafoos the farrier, and her own drive to recover.
Alumni Access to Penn Libraries

Did you know that many of the rich resources of the Penn Libraries are available for the use of alumni? Alumni who wish to consult materials in the Penn Libraries may do so upon presentation of a Penn Alumni Card. The charge for the card, which is valid for 10 years, is only $20.

Alumni Cards are issued at the PennCard Center, which is located in the Franklin Building at 3451 Walnut Street. In order to receive the card, alumni are asked to show a form of photo identification (a valid driver's license, passport, etc.) and complete an Alumni Card Request Form. It then takes only a few minutes to take a photo of the alumnus/alumna and for them to receive their Alumni Card. As an added convenience, alumni can also obtain an Alumni Card by mail. For more information or to download a request form, visit the "Obtaining a PennCard" web page at <www.upenn.edu/penncard/obtaining.html>.

Alumni Cards are non-transferable, and are valid for access to the Van Pelt Library and most, but not all, departmental and school libraries. When planning a visit to any of the libraries, it is advisable to check individual library access policies.

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Sharing shaggy dog stories

by Joan Capuzzi Giresi, '98

Never in his 40-some years of Main Line veterinary practice did Edward J. Scanlon imagine writing a book. No aspiring Herriot, he.

But triple-bypass surgery three years ago changed that. "It sort of woke me up to my own mortality," he recalls. "I wanted to put these experiences in writing so my children and grandchildren could read them someday."

"Someday" came fast, and Scanlon's four grown daughters persuaded him to publish the veterinary vignettes he scrawled in longhand at his York home. In his just-out Animal Patients (Camino Books), Scanlon recalls clients such as newspaper publisher Walter Annenberg and his Kerry blue terriers, the Barnes Foundation director's accident-prone Italian greyhound, Philadelphia Mayor Richardson Dilworth's toy poodle, and the watchdogs who guarded the madam of the "finest house" of prostitution in Philadelphia.

Although he treated mainly dogs and cats at his Narberth Animal Hospital, Scanlon, 82, was fascinated by the follies of "the two-legged animals on the other end of the leash."

"When we came out of school, we thought it would be a medical change of pet owners."

"When I was in practice, it was 'just a dog or a cat,'" he says. "But today, pets have become family members, and owners are willing to go all out to keep them healthy and happy."

An accidental author, Scanlon conveys "the unbreakable ties of perfect love and pleasure experienced by those of us who share our lives with pets."

Joan Capuzzi Giresi is a writer and a veterinarian in the Philadelphia area. This profile originally appeared in the October 15, 2000, issue of the Inquirer Magazine.

Join in the Celebration of 125 Years of Women at Penn

With less than a year to go, plans to celebrate 125 years of women at Penn on November 1-2, 2001, are progressing swiftly! The celebration will be a shared experience you won't want to miss. More than 2,000 women and their guests are expected on campus for a fabulous flurry of activities to include:

- A celebration of women authors to be held at the Penn Bookstore unveiling a customized poster honoring Penn women (alumnae and faculty) who have written books.
- Panel discussions featuring notable alumnae.
- Inauguration of the new Women's and Generational Walkway at the 38th St. bridge.
- Gala luncheon featuring internationally renowned Penn alumna and keynote speaker Andrea Mitchell.

Are you a Penn alumna or faculty member who has authored a book? A poster is being created to pay tribute to Penn's women authors to be unveiled during the celebration. Send your book, book cover or camera-ready art of your cover and spine to Angela Scott, University of Pennsylvania, Office of Alumni Relations, 3533 Locust Walk, Philadelphia, PA 19104-6226.

For more information, please contact Ms. Scott at (215) 898-7811 or via e-mail at <anscott@ben.dev.upenn.edu>. The submission deadline is January 31, 2001. Unfortunately, books and/or covers cannot be returned. Don't be left out — help showcase Penn women!
Class Notes

1950

The Wisconsin Veterinary Medical Association honored Graham M. Miller with a 50-year award at its annual meeting in October 2000. Dr. Miller has been a member of the WVMA since 1950. He practiced large animal medicine until he retired in 1975.

1968

H. Wesley Towers, Jr., the State Veterinarian of Delaware, received the National Assembly of Chief Livestock Health Officials' award for outstanding, dedicated service and leadership in regulatory veterinary medicine at the organization's annual meeting in Birmingham, Ala., on October 22, 2000. Dr. Towers is currently the president of the Northeast Animal Health Association and treasurer of the United States Animal Health Association.

1970

Lawrence J. Linnetz was elected president of the Association of Avian Veterinarians for the year 2001-02. Dr. Linnetz is currently president-elect and will take office at the Association's annual conference in August 2001.

Fred W. Quimby, professor in the Department of Biomedical Sciences at the College of Veterinary Medicine at Cornell University, is the co-editor of the recently published second edition of The Clinical Chemistry of Laboratory Animals.

1976

Brenda J. King was recognized in the Winter 2000 issue of ASPCA Animal Watch magazine. Dr. King was nominated by a client for the magazine's "Best Vets" contest for her act of compassion when she asked the client to make a donation to a shelter instead of charging him for performing euthanasia on his pet.

1985

Monique Y. Wells, who lives and works in Paris, has received quite a bit of media attention on both sides of the Atlantic for her cookbook, La Cuisine Noire Américaine, which was published in France and now has been published here as Food for the Soul. A book that was written for African Americans in Paris who wanted a taste of home while living abroad, it has stimulated a tremendous amount of interest in African American cuisine in France. For more information and for a couple of recipes, visit <www.parisfoodforthesoul.com>.

1987

James L. Bianco was named a "Best Vet" in the Winter 2000 issue of ASPCA Animal Watch magazine. According to the client who nominated him, "Dr. Bianco epitomizes the best qualities of the veterinary profession." Dr. Bianco encouraged the client to attend veterinary school even though she thought she was too old and has served as a role model.

1989

On October 15, 2000, the Sunday News of Lancaster, Pa., profiled Lauren Elizabeth West, who runs the White Oaks Veterinary Hospital in Manheim, Pa., with her husband, Ronald J. Lane. According to the article, Dr. West enjoys the diversity of her clients and "to have an Amish buggy drive down our driveway once in a while."

1993

Dean Alan Kelly received a letter of appreciation from a client of Adam G. Denish. According to the letter writer, "...I want to thank you and your institution for producing graduates like Dr. Adam Denish.... Adam is a credit to the profession and to your institution."

The Burlington County Times profiled John R. Price on October 31, 2000. Dr. Price is a house-call veterinarian in Moorestown, NJ. According to the article, "While some of the pet owners who use his services are senior citizens or have handicaps that make bringing their pets to a traditional veterinary office setting difficult, Price also caters to those who are short of time."

1995

Hubert-Jan Karreman married Emily Rebekah Zimmerman on November 10, 2000, in Huntington, Vt. Rebekah is the daughter of George F. Zimmerman, V76. Hue and Becky live in western Chester County and work in Lancaster County at their dairy veterinary practice, Penn Dutch Cow Care.

1998

Karen Sloan Phillips was elected vice president of the Western Pennsylvania Veterinary Medical Association.

Births

2000

Hillary Israeli, V'00, a son, Jacob, on September 9, 2000.

Deaths

1936


1937


1938

Howard M. Mershon died on May 20, 2000.

1952

Share news with your classmates about a new position or accomplishment, wedding or birth announcement, by sending your class note today! We accept pictures, too, featuring alumni gatherings, whether it’s from a wedding or mini-reunion. Be sure to identify everyone in the picture. Pictures will be returned only upon request. Send all your submissions to:

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For information on making a gift to the School of Veterinary Medicine:

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Visit <www2.vet.upenn.edu/Administration/StudentAffairs/alumni-transcripts.html>.

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Three alumni met recently to enjoy lunch at the Lambertville Station in Lambertville, NJ. From left to right, Maurice J. Smith, V'48, Cameron S. Wilson, V'48, and G. Robert Muller, V'49.

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**THE UNIVERSITY OF PENNSYLVANIA SCHOOL OF VETERINARY MEDICINE NO LONGER PRODUCES TRANSCRIPTS**

All requests for transcripts must be mailed to: University of Pennsylvania, Office of the University Registrar, Transcript Department, Room 221 Franklin Building, 3451 Walnut Street, Philadelphia, PA 19104. Telephone: 215.898.7511 or log-on to their site: <www.upenn.edu/registrar/trans.html>

Information required for transcript request: Name or name previously attended under, Student Identification Number (SS#), School attended, Dates attended, Degree received, Type of Transcripts (Official/Unofficial,) Mailing address where transcript will be sent, Day-time telephone number, Signature. There is a $5.00 cost per transcript. Normal processing time is 3-5 work days.
Open House

More than 7,000 people braved the cool, overcast, drizzly weather on Saturday, September 23 and attended the School's Open House held at New Bolton Center. The six-horse Percheron hitch was a big hit — other attractions included a US Department of Agriculture beagle, a group of fly-ball chasing dogs, llamas, 4-H youngsters and their animals, search and rescue dogs, herding dogs and a flock of sheep, and many exhibits from the School's clinics and research departments. The MASH tent was a great success and had to extend its hours. Many people took the buses to the dairy and toured the facility. The next Open House is planned for 2002.
The Chemosensory World of Pets

by Leslie J. Stein, Ph.D.

Cats and dogs are a source of comfort and companionship to many of us; there are currently over 72.6 million cats and 58.5 million dogs living in US households. Pets often are regarded as "part of the family," and owners go to great extent to keep their pets happy. Yet, even though humans are dedicated to our pets, we are also often perplexed by their behavior. Picky eating habits, odor production, and anti-social behavior are just a few of the problems that can frustrate even the most well-intentioned pet owner.

As is often the case, pet behavior can be better understood by considering the world from their point of view. The chemosensory world of pets, in particular, is in many ways different from ours, and reflects their differing evolutionary origins. Both dogs and cats are disposed to detect odors and tastes associated with meat. Cats are among the most committed meat eaters of all the carnivores, and their taste buds are particularly responsive to amino acids. On the other hand, research conducted at Monell in the 1970's by Dr. Gary Beauchamp demonstrated that cats can't even taste sweet sugars. And, because meat provides a plentiful source of sodium, cats have a poorly-developed sodium appetite and are relatively insensitive to salt. While dogs are also carnivorous, they ingest a wider range of foods and appear to have receptors sensitive to sweet carbohydrates. Dog taste buds are also responsive to amino acids, but the distribution of sensitivity differs from that of the cat.

When compared to humans, olfaction is particularly important to dogs and cats. Cats are solitary creatures. They use olfactory signals to mark territories and avoid surprise meetings, relying primarily on visual signals (the domestic cat has at least 9 facial expressions and 16 different tail and body postures) to communicate at close range. In contrast, dogs are social animals, and olfactory communication is important to their social nature. Dogs use olfactory information for individual recognition, to maintain affiliations, and to reduce competition.

Advanced technology is helping chemists to identify and synthesize the specific compounds that are used by marking behavior and for individual recognition purposes. This information could be useful in developing deterrents to urine marking behavior and specific antagonists or blockers for urine odor. It may even be possible to directly influence pet social behavior, including reducing antagonistic behavior in cohabiting pets, decreasing aggressive behavior in dogs or even increasing affection from aloof cats.

As in many other vertebrate species, pheromones are most likely involved in the reproductive behavior and territory marking of both cats and dogs. In certain species, some pheromones are detected with the vomeronasal organ. Cat owners are probably familiar with the facial response known as flehmen, consisting of an elevation of the upper lip and a slight opening of the mouth. This behavior, often seen in response to urine, is thought to facilitate transport of chemical stimuli, including, perhaps, pheromones, into the vomeronasal organ. Currently, almost nothing is known about the stimuli, physiology, or function of the vomeronasal organ in either cats or dogs, including whether this chemical sensory organ detects pheromones.

Olfaction plays an important role in food selection by both cats and dogs, but specific knowledge of this sensory system is still incomplete. Even less is known about the canine and feline taste systems. Pet owners spent $9.9 billion on dog and cat food in 1998, an expenditure that is likely to grow as more detailed information on pet sensory systems leads to the development of specialized dietary products. For example, studies in humans, many conducted at Monell, have revealed profound effects of aging on olfactory function, mediated in part by degenerative changes. Such changes are often accompanied by functional declines of dietary intake and nutritional status. Detailed information about olfactory capabilities of aging pets, and how the aging olfactory system interacts with other sensory systems, may permit new strategies to encourage good eating habits and maintain nutritional status in aging animals.

Similar information on the effects of illness, trauma, and various medications on pet chemosensory function will lead to the availability of specific approaches to encourage and maintain healthy eating habits. Identification of specific blockers to unpleasant tastes and identification of attractive flavors will facilitate administration of medication — a difficult and unpleasant task for both pet and owner — and may help to encourage eating behavior or nutritional supplementation in ill and recovering animals.

Advances in molecular biology are increasing knowledge of pet chemosensation in many ways. Olfactory receptor genes have been characterized from the dog, and are very similar to human olfactory receptor genes. Dogs, however, appear to have many more functional receptors than do humans. Interestingly, the number of olfactory receptor genes appears to be stable across breeds, regardless of whether the breed is specifically known for its olfactory acuity (for example, scent hounds) or not (sighthounds or toy breeds). Once genes for taste receptors are identified, this information may open the doors to developing in vitro (test tube) assays to test new flavors.

Information on individual differences in taste and olfactory sensitivity can explain differing effects of odors and tastes on pet behavior and nutritional status.
A Will to Live
by Ursula Wagener and Marvin Lazerson

On January 2, 1995, VHUP’s Dr. Dottie Brown saved our cat Rexina’s life. Rex had fallen from an icy tree, severing her spinal column. Dr. Brown managed to fuse the column, although the spinal cord itself was severely damaged, resulting in hind leg paralysis.

We were devastated by Rexina’s paralysis, but determined to help her live as fully as possible. We learned to express her bladder two to three times daily, able to do so with a minimum of fuss and even some humor. Using a sling under her belly, we learned to walk her around the neighborhood, sometimes for up to an hour as she explored her old haunts. Rex’s determination and will to live inspired us. She learned to crawl, using only her front legs, leaping off beds and down stairs whenever she felt like it.

Over the next six years, our family and friends wondered about this strange couple who insisted on caring for their physically challenged cat, while we reshaped our schedules to accommodate Rex’s needs. Often uncomfortable in Rexina’s handicapped presence, their presumption was that Rex was lucky to have us.

What we discovered was how lucky we were to have Rex. She helped us discover a group of wonderful animal lovers who lived in our house and shared in Rex’s care when we had to be away.

She also taught us how to respond to adversity, remaining as feisty during the years of disability as she had always been on four legs. She demanded food when she wanted it, crawled to the door when she thought it was time to go out-and-kept us out exploring as long as the mood hit her. Just as she had before the injury, she hissed and swiped with her claws when she did not want to be bothered and continued to terrorize the veterinarians and staff at the Chestnut Hill Cat Clinic.

Most of all Rex taught us to give love unconditionally, teaching us a love unconstrained by the contractual arrangements and negotiations that so shape human relationships. Rex was never going to “get better.” She was never going to be anybody else’s idea of the right cat. She challenged us to throw away old rules about when to “put the animal down,” a euphemism we came to hate.

Rexina gave us more than we could have ever imagined, an enthusiasm for living and giving, an optimism about the possibilities of each day, a joy in making every event a celebration and an ode to life. We loved her immeasurably, but the love she gave us in return was just as great. At age 14, Rex died on August 4, 2000 in the small animal clinic at the University of Munich, Germany. A large abdominal hernia required surgery and she never recovered from it. She was a once-in-a-lifetime occurrence—the cat who taught us about courage and how to live life more fully.

behavior. Studies using rodents at Monell and elsewhere have revealed prominent genetically-based strain differences in taste sensitivity, and it is likely that such differences also exist in dogs and cats. Increasing knowledge of differences in taste sensitivity and the effects of taste
mixtures on perception may help manufacturers come up with palatable foods that can be readily accepted by particular breeds. Genetically-determined differences in susceptibility to diet-induced obesity have been described in laboratory species and are most likely present in pet animals. In fact, obesity is currently the most common nutritional disease affecting dogs (and cats), with some breeds, such as Labrador retriever, terrier, spaniel, dachshund, basset hound, and beagle, among the most commonly affected.

Food and flavor preferences in humans are determined in large part by experience, and experience also influences the food preferences of pets. Our ability to understand our companion animals and the unique worlds they live in will increase as scientists continue to explore and decipher the chemical senses.

Dr. Stein is a Senior Research Associate at the Monell Chemical Senses Center in Philadelphia, where she edits Monell’s newsletter, The Monell Connection. This article is reprinted from the publication. The Monell Center is a nonprofit basic research institute dedicated exclusively to the study of taste, smell, and chemosensory irritation. Researchers at Monell work with scientists from government, industry and academia to explore the chemical senses at every level, from molecular to behavioral. Dr. Stein’s current research explores the role of experience in the development of taste preferences in children and adults.

Do species and strain differences—or aging—influence how chemosensory-mediated cephalic reflexes affect food metabolism and digestive function of pets?
Dr. Corinne Sweeney, associate professor of medicine, was the main speaker at the Association Vétérinaire Equine Française meeting in Paris, France. In November, Dr. Sweeney and Dr. Jill Beech, V’72, professor of medicine, participated in the Comparative Respiratory Society Symposium in Melbourne, Australia.

Dr. James Serpell, Marie A. Moore Associate Professor of Humanane Ethics and Animal Welfare, has been appointed interim chair of the section of medicine at VHIP.

Dr. Jennifer Baez, V’92, lecturer in oncology, Dr. Sally Blissett, lecturer in medicine, Dr. Susan Kimmel, instructor in medicine, and Dr. Erika DePupp, staff veterinarian in critical care, are now Diplomates of the American College of Veterinary Internal Medicine. Dr. Evelyn Ivey, lecturer in special species, passed American Board of Veterinary Practitioners certification exam.

Dr. Baez and Dr. Craig Clifford, resident in oncology, presented abstracts at the 20th Annual Veterinary Cancer Conference in Aslomat, CA in October.

Dr. Pamela Wilkins, assistant professor of medicine and reproduction, presented lectures and a research abstract at the International Veterinary Emergency and Critical Care meeting in Florida in September. Dr. Brett Dolente, lecturer in medicine, also presented a research abstract at that meeting.

Dr. Patricia Sertich, V’83, was promoted to associate professor of animal reproduction. In November Dr. Sertich conducted a "Just Stallion Handling" short course at New Bolton Center. She presented three talks at the Maryland Veterinary Medical Association Annual Fall meeting and was a panel member and a presenter at the Annual Conference of the Society for Theriogenology in San Antonio, TX in December.

Dr. Cynthia Ward, V’87, assistant professor of medicine, and Dr. Kathryn Michel, assistant professor of nutrition, received funding for research on the etiology of feline hyperthyroidism from Ralston Purina. Dr. Michel presented a day of continuing education for the Maine Veterinary Medical Association in October. Dr. Ward also received a grant from the Morris Animal Foundation, as did Dr. Robert Washabau, V’82, associate professor of medicine, for studies of megaeosophagus.

Dr. Silagoh Smith and Dr. Martin Lamb, lecturers in pathology, passed the board exams in September and are now Diplomates of the American College of Veterinary Pathologists. Dr. Sheldon Steinberg, V’59, professor of neurology, participated in a AVIAP meeting in Emilia Reggio, Italy in February, in the ESVN meeting in London in September and presented a lecture at the University of Hokkaido, Japan Veterinary School in October.

Dr. Steinberg is hosting and organizing the 15th annual meeting of the European Society & College of Veterinary Neurology. For the first time the group will be meeting outside of Europe and the meeting place will be on Penn's campus in Philadelphia in September 2001.

Dr. Meryl Littman, V’75, associate professor of medicine, gave a presentation at the Children’s Hospital in Buffalo, NY on "Protein-losing enteropathy in dogs" in September.

Dr. Cynthia Otto, assistant professor of critical care and emergency medicine, is the new editor of the Journal of Veterinary Emergency and Critical Care. Dr. Otto and Dr. Suzanne Donahue, intern in critical care and emergency medicine, together with co-investigators Marjory Brooks, D.V.M., DACVIM of Cornell, and Dr. Theresa Kieser, V’95, DACVECC, received the Veterinary Emergency And Critical Care Research Award for their work "Determination of the Mechanism of Hypercoagulability in Dogs with Protein-Losing Nephropathy."

Dr. James Orsini, associate professor of surgery, has been appointed president of the United Way of the Avon-Grove, Kennett and Unionville-Chadds Ford Area. Dr. Orsini is the director of the "First International Equine Conference on Laminitis and Diseases of the Foot" to be held in Palm Beach, FL in February.

Dr. Gail Smith, V’74, professor of surgery and chair, Department of Clinical Studies, Philadelphia, was an invited speaker and presented two papers at the Second Annual Canine Total Hip Replacement Symposium in San Diego, CA in June. He presented work on the use of a new porous material made of tantalum (Hedrocel®), which has the ability to promote bone ingrowth to fix prostheses to bone without the use of bone cement.

Dr. Virginia Reed, professor of medicine, spoke at the Wild West Veterinary Meeting in Reno, NV. She then was one of two speakers at the Continuing Education Equine Veterinary Symposium in Kona, Hawaii where she gave talks over four days. Dr. Reed traveled to Madrid with Dr. Olga Seco, lecturer in large animal ultrasound and cardiology, and they presented a two-day course in equine ultrasonography and cardiology, complete with wet labs. Finally Dr. Reed spoke at the ExpoVet meeting in Barcelona, also on equine ultrasonography and cardiology.

Dr. Reed organized the Equine Ultrasound Laboratory at the AAEP in San Antonio, TX in November. Most of New Bolton Center's Heart Station taught this lab with her, including Dr. Olga Seco, Dr. Matt Durham (fellow), Dr. Kristen Kline (fellow), Dr. Mary Durando (past fellow), Dr. Mary Beth Whitcomb (past fellow). Also participating were Dr. Ronald Genovese, V’64, and Dr. Jeevraj Grewal, V’98, in addition to two non Penn veterinarians.

Dr. Ron Hart, assistant professor of microbiology, presented a talk "The VP40 protein of Ebola virus possesses a late domain function and interacts with cellular WW-domains" at the 19th Annual Meeting of the American Society for Virology, Fort Collins, CO.

Bonnie Miller, staff dental hygienist at VHUP, gave a presentation titled: " Preventive Dentistry-A University Perspective," at the 14th annual Veterinary Dental Forum in September.

Dr. James Buchanan, Emeritus Professor of Cardiology, gave a presentation on "Cardiac Radiology in Fat Cats" at the American College of Veterinary Internal Medicine annual meeting in Seattle Washington in May. The paper also was published in the spring in Veterinary Radiology and Ultrasound Vol. 41, No. 4, 2000 pp 320-325 with co-author Annette Litster.

In September, Dr. Buchanan was made an honorary member of the European College of
Veterinarians as Secretary/Treasurer for the Jon Merz. health economics, made two presentations at Alabama, and is chair of the Transmissible ed suicide and euthanasia" at the Veterinary which began more than two years ago, and is 
gotracheitis. She was elected by the Board of Grove, CA in October. Co-authors on the ture supporting this work.

Davison gave two presentations at the presented a 

Methods for Cleaning SE Positive Layer Society of North America) Scientific Assembly with Monell Chemical Senses Center (Philadel­

Bronchitis Virus Infections in PA Poultry. Dr. Dr. Lilian Duda, V'90, staff veterinarian, interventions designed to control swine mal­
sor of poultry pathology, has been awarded Meeting in Chicago in November. Drs. Biery, 1 to combat multiple strains of the Porcine

Dr. Thomas D. Parsons, assistant professor of imaging of hypoxia usingI8F-EF5.

Thomas Hayes, as the University's representative on the sonographic characterization of tendon injuries in horses and magnetic resonance imaging calculations of the size of the extracel­
eral space in the brain. Dr. Biery gave two papers on canine hip dysplasia and was a par­
ticipant in a hip dysplasia forum. The meeting was opened by Dr. Wood, the association's president; Dr. Biery is the association's treasurer.

Dr. Dennis Keith, former lecturer in radiology, and Dr. Robert Mclear, lecturer in radiology, passed the oral boards in September swine health and production management, and Dr. Paul M. Pitcher, assistant professor of

Evans had a paper published in Cancer Research, "Detection of hypoxia in human squamous cell carcinoma by EF5 binding." Dr. Evans has been appointed for the year 2001 to the editorial board of Radiation Oncology Investigations. She was an invited speaker at the Gray laboratory of the Cancer Research Trust, Mount Vernon Hospital, Northwood, UK in July. Her topic was: Assessment of Hypoxia in Tumors: From Mice to Men.

Dr. Lisa Ziemer, V'98, who works in Dr. Evans' laboratory, was awarded a $5,000 grant from the Society of Nuclear Medicine to study Non-invasive positron emission tomographic imaging of hypoxia usingI8F-EF5.

Dr. Evelyn S. Ivey, lecturer in special species medicine, was an invited speaker at the Annual Avian, Reptile, and Small Mammal Medicine and Surgery Conference for the General Practitioner, San Diego County VMA, in October.

Dr. Paul M. Pitcher, assistant professor of swine health and production management, and Dr. Thomas D. Parsons, assistant professor of swine production medicine, were recently awarded two grants by the Pennsylvania Department of Agriculture. $49,980 was awarded to study gilt acclimatization programs for the swine industry. $58,946 was awarded via a subcontract arrangement with Monell Chemical Senses Center (Philadelphia) to organize and conduct on-farm trials of interventions designed to control swine mal­
odors. This grant extends collaboration between the University and Monell scientists which began more than two years ago, and is the third grant by the Department of Agriculture supporting this work.

Dr. Helen Aceto, lecturer in nutrition and health economics, made two presentations at the joint meeting of the American Dairy

Continued on page 21
**Animal Crackers**

**Bloat**

Gastric Dilatation-Volvulus, commonly called “Bloat,” is a leading cause of death in large and giant breed dogs. It is characterized by rapid accumulation of air in the stomach, malposition of the stomach, and shock.

A recently published study reports on non-diary risk factors for GDV. It showed that increasing age, having a first-degree relative with a history of GDV, having a faster speed of eating and having a raised feeding bowl were significantly associated with an increased risk of GDV. Eleven breeds were studied (akita, bloodhound, collie, great Dane, Irish setter, Irish wolfhound, Newfoundland, Rottweiler, Saint Bernard, standard poodle and Weimaraner).

On the basis of this study, the strongest recommendation to prevent GDV should be to not breed a dog with a first-degree relative that has had GDV. A genetic predisposition to GDV may operate through a particular body shape, personality or temperament that predisposes to GDV. In the study, there seemed to be no advantage to restricting water intake or exercise before or after eating. A significant risk factor for either large or giant breeds was raising the feeding bowl.

Gastropexy (surgical fixation of the stomach) has been shown to prevent a recurrence of GDV following an acute episode. Although there is no scientific evidence that gastropexy will prevent a first occurrence of GDV, it might be considered as a prophylactic.

Numerous recommendations for preventing GDV in dogs can be found in veterinary textbooks, lay publications and on the Internet. This new study shows that more than half of the cases of GDV were attributed to having a raised feeding bowl. The study was published in the *Journal of the American Veterinary Medical Association* 217:1492-1499 (November 2000).

**Rabies in Pennsylvania**

Rabies is an important public health problem. Mandatory vaccination of dogs has been effective. In Pennsylvania in 1994, 792 dogs were positive for rabies, but no dogs were reported positive in 1999 or the first half of 2000. However, in 1999, domestic animals positive for rabies included 22 cats, three cattle, two horses and one goat. In previous years, sheep, pigs, and domestic rabbits have been reported positive. Feral or free-roaming cats are a problem.

In Pennsylvania and the United States, rabies now is primarily a disease of mammalian wildlife. In 1999 in Pennsylvania, positive cases included 193 raccoons, 91 skunks, 22 foxes, 17 bats, four groundhogs and one beaver. In earlier years, it has been reported in squirrels but not in wild rabbits, mice or chipmunks. One deer was reported positive in early 2000.

Bats routinely enter human dwellings and are the primary reason that indoor cats should be vaccinated against rabies. A total of 24 human deaths (one in Pennsylvania) have been documented in the United States since 1980 and 21 of these deaths were associated with bat rabies.

Vaccination of dogs and cats is a must. Domestic animals positive for rabies included 22 cats, three cattle, two horses and one goat. In previous years, sheep, pigs, and domestic rabbits have been reported positive. Feral or free-roaming cats are a problem.

**Spinone Italiano**

The Spinone Italiano is now eligible to compete for championship points at American Kennel Club shows. It will be shown in the sporting group and may participate in all other AKC-sanctioned events including obedience, agility, tracking and hunting tests.

The Spinone is an ancient Italian breed descended from the griffon. It can be traced back to 500 B.C. It was bred for versatility and could perform any task required during the hunt, including tracking, pointing, retrieving and even bringing down quarry, whether on land (in mountains and forests) and in fast-running streams or marsh water. Following World War II, the breed went into a steep decline but it has come back and now has an active breed club and a web site (www.spinone.com) where information about the breed is available.

The Spinone is named for the pino — a thickly growing, seemingly impenetrable thorn bush — and has tough, close-fitting skin and rough, dense, dry hair only 1½ to 2½ inches long. Its height at the withers is 23 to 27 inches for males and 22 to 25 inches for females with weight ranging from 60 to 80 pounds. An unique characteristic is the topline which is two-segmented, sloping downward from the withers to the 11th thoracic vertebra, then rising gradually into the well-arched loin. Colors include solid white, white and orange, and chestnut brown. Disqualifications are any black in the coat and tri-color. Consult the breed standard for more details.

The Spinone is a sociable breed and can be a good family member as well as a methodical worker in the field. It may not be suitable for all households — the scruffy beard can drip water around the house and the bristly coat is shed every year. It has been described as sociable, docile, patient and easy to please, barking only for good reason. Look for this “new” breed at dog shows.

**BOOK REVIEW**


The cat is now the top pet in the United States numbering over 60 million. This book has the answer to most questions: where to find a cat, how to bring and cat or kitten into your life, keep it happy and healthy, and care for the older cat. Behavior problems, traveling with your cat and moving to a new home are covered. Cat myths are debunked, common household dangers are described and there's much more useful information.

**A few notes selected at random:**

"Every cat needs his own carrier. A sturdy carrier makes going to the veterinarian, traveling or moving safer and easier for your pet and offers you some options in times of disasters."

"A cat can't thrive on a diet of dog food, and fat is a major reason. Most dog food also lacks enough taurine to meet the needs of your cat."

"Cats love warm, dark hiding places, and a dryer full of freshly dried clothes is a favorite spot of many. Some cats have been killed after their owners have accidentally closed and turned on a dryer with a sleeping cat inside."

"Common sense dictates that no animal be left unattended with a small child."

"Cats are smarter than dogs. You can't get eight cats to pull a sled through the snow."

"Don't bother with worming medications sold at pet-supply stores: they may not treat the kind of parasites your cat has. Better you should have your veterinarian accurately diagnose and treat your cat than subject you pet to medication that doesn't fit the problem."
An Uncommon Disease in Foxhounds

Disease, once thought of as not occurring or being very rare in the United States, are suddenly being diagnosed. West Nile virus is one example, another is leishmaniasis, a parasitic infection. This spring researchers at the North Carolina State University College of Veterinary Medicine identified Leishmania infantum as the organism that caused severe illness in several hounds in a foxhound pack in New York state.

Leishmaniasis, a zoonotic disease, occurs in animals and humans and the Centers for Disease Control began investigating. Over 9,000 foxhounds have been tested nationwide and seropositive foxhounds were found in 21 states and in Ontario, Canada. The CDC is testing dogs of other breeds not associated with foxhounds and so far they have tested negative. Testing has also involved the people who handle the foxhounds, no positive tests have occurred.

The disease normally is transmitted by sand flies (Lutzomyia spp.) These tiny insects, which serve as a host during one stage of the parasite’s life cycle, are found in this country from Texas to New Jersey. In other areas of the world it has been found that dogs, humans, and rodents act as reservoirs for the organism and that the sand fly, when it takes a blood meal, spreads the disease.

“Species of the sand flies known to transmit Leishmania have not been identified in the areas investigated,” said Dr. Peter Schantz, a veterinarian at the Centers for Disease Control. “However, vector surveys are still limited.”

“Leishmaniasis is rarely seen in the U.S., and when it has been diagnosed in dogs they have usually been animals that were overseas for some time,” said Dr. Phillip Scott, professor of microbiology. “The occurrence of the disease in foxhound packs is of concern because it is clear that these animals have been infected in the U.S. Understanding how these dogs became infected is crucial for controlling the disease in dogs, and ensuring that there are no human cases.”

“Although direct transmission from an infected dog to humans has never been reported, it is speculated to be possible, and immunocompromised persons would be theoretically at greatest risk,” said Dr. Schantz.

Nobody knows how the foxhounds became infected. It is possible that an infected hound spread the disease to members of its pack and that it then spread to other packs. Foxhounds are not kept in individual kennels but in large pens where many animals live together. They have close contact. “It is known that in humans leishmaniasis can be transmitted through shared needles, blood transfusions and secretions,” said Dr. Schantz. “So when you have dogs living as closely together as the foxhounds, it might be not surprising for the infection to spread through direct transmission, without the assistance of the vector.”

Another contributing factor to the spread over a large geographic region is that foxhound packs are transported out of their area to meets where packs from different regions participate in the activities. As the animals run together, close contact is unavoidable.

The leishmania organisms are found world wide. The disease affects 12-15 million people in parts of Asia, Africa, the Mediterranean, and Central and South America. It takes two forms, cutaneous, where the victim has open sores which leave discolored scars, and visceral, which affects various organs, such as the spleen, liver and bone marrow. If left untreated, it is fatal. Most of the affected foxhounds suffer from both forms.

Leishmaniasis is difficult to cure in humans and is not treatable in dogs, though it can be managed so that the animal’s life is prolonged. The organism lives inside its host’s cells, specifically inside the macrophage, a cell type that circulates throughout the body. Drugs to treat leishmaniasis are toxic compounds. Because the disease affects people worldwide, efforts are underway to develop preventive measures, such as vaccines. But it is a slow process. Here at Penn researchers are studying how the immune system controls these parasites, and hope to contribute to the development of a vaccine for leishmaniasis. “Vaccines not only have to stimulate the response, but they have to induce the right immune response that will lead to protection,” said Dr. Scott. “Leishmaniasis has been studied by scientists for many years, not only because it is a human pathogen, but also because it has told us about how to get the right immune response.” Studies in Dr. Scott’s laboratory indicate that getting the right immune response may depend on the production of a host protein, called Interleukin-12.

Dog owners and breeders who contemplate importing a dog from overseas areas where the disease is common, should have the animals tested prior to importation. There is no state or federal requirement for this, but it is a sensible course. In recent years there have been a number of dogs imported which were later diagnosed with leishmaniasis.

Scholarships

The New Jersey Veterinary Foundation awarded the Robert Schommer Scholarship to Christina Fuocco, V01. Joanne Crane, V03, received the Richard Klemsner Loan, a forgiveable loan program that encourages graduates to return to New Jersey to practice. For every year the graduate works in New Jersey and belongs to the NJVMA, that portion of the loan is forgiven and converts into a grant. The Ch. Forfox Liz Claiborne, CDX scholarship and the Gundaker Foundation scholarship were awarded to Emily Kupprian, V03. Rachael Feigenbaum, V01, received the Barnstable County Agricultural Society scholarship and the Edward Banga Kelley and Eliza Kelley Foundation, Inc. scholarship. Amy Snedaker, V04, was awarded the Lake Region Kennel Club, Inc. scholarship. Darah Resh, V03, was the recipient of the Lalita Nash McKai Foundation scholarship. The French Benevolent Society of Philadelphia’s scholarship was awarded to Eric Lombardini, V01. The Coon Dog Scholarship Fund scholarship was awarded to Kate Johnson, V03, and The Westminster Kennel Foundation Scholarship was given to Christina Fuoco, V01. Aubrey Fecho Fitch, V03, received the Northwestern Connecticut Dog Club, Inc. scholarship and the Clifford R. Wright, Jr. Scholarship was given to Diane Gabriel, V01. Jennifer Marsden, V02, was awarded the Pet Products R&D scholarship. The William Goldman Foundation has given scholarships to Edward Cooper, V02, Melissa G. Geedey, V02, Heidi Phillips, V01, and Erin N. Mairs, V02.
Foal Sitting

We need your help. Do you have time to volunteer in the Spring (an average of one shift or more per week) and don’t mind getting dirty or hard work? Do you like horses and love foals? Are you curious about what cutting edge veterinary medicine is all about? Are you over 16? If so, come and join our neonatal intensive care team as a foal sitter.

Working in the NICU is like nothing you have ever done before. You will be working with critically ill newborn foals (and occasionally other newborns) that are being watched over by their anxious and attentive dams. You may be asked (after being instructed) to “sit” with the foals, insuring that a variety of patient lines (including intranasal oxygen lines, nasotracheal tubes, nasogastric feeding tubes, urinary catheters, and intravenous catheters) are not pulled out. Depending on the time of day you choose to work you will help with a variety of diagnostic and therapeutic procedures, which may include catheterization, radiography, and ultrasonography. During late night shifts you may be helping us while we work up emergencies or watch foal mares in our high-risk pregnancy program. Of course, there are more mundane chores as well, such as putting a dent in a mountain of laundry, restocking supplies or cleaning.

The work can be strenuous. There is a lot of lifting and kneeling. You have to be willing to get dirty — changing foal diapers, catching urine, etc. If you are assigned a foal who is hyperactive (as they can be as they recover from mild brain damage) you may go home black and blue and really feel your shift the next day. No matter how tired you are or how tedious some of the jobs may seem, it will all be worthwhile when you see your first foal progress from lying in a coma on a fleece lined mattress, to running and bucking at the side of its dam as it plays outside for the first time.

Who are foal sitters? They come from all walks of life. Many are college students who want to find out what veterinary medicine is all about. Others are nurses from human hospitals, looking for a change of pace. Still others are horsewomen and horsemens from the community who just feel good helping these little patients.

If you are interested email us at <foalsitters@vet.upenn.edu> or call the foal sitter hot line at 610-444-5800, ext. 2445.

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Rosettes & Ribbons

Continued from page 21

Science Association and the American Association of Animal Science in Baltimore, MD. One presentation was on the epidemiology of Salamonella in Pennsylvania dairy herds and the other was on the effects of rumenocentesis on health and productivity in dairy cows. Dr. Aceto just received a grant from the Pennsylvania Department of Agriculture to study the molecular epidemiology of antibiotic resistance in the dual-enterprise farm environment (i.e., swine/dairy or poultry/dairy). The research will focus on bacteria of concern to food safety, notably Salmonella.

Dr. David Galligan, V’81, associate professor of animal health economics, and Dr. Huybert Groenendaal, visiting research associate, presented a simulation model to study the epidemiological and economic consequences of Johne’s disease control programs at the 9th International Symposium of the International Society of Veterinary Epidemiology and Economics (ISVEE) in August. They also made a presentation at the Pennsylvania Agricultural Diagnostic System meeting at Penn State in October.

Dr. Zhengxia Dou, assistant professor of nutrition and animal health economics, gave two presentations at the joint meeting of the American Dairy Science Association and the American Association of Small Animal Science in Baltimore, MD. She also presented two papers at the annual meeting of the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America. Dr. Dou received two grants, one from the Environmental Protection Agency: Chesapeake Bay Program to study chemical amendments for reduced N and P losses from animal manure; the other from the Pennsylvania Department of Agriculture to study power plant fly ash materials as bedding amendments for estrained bacterial growth and reduced nutrient losses.

Dr. E. Neil Moore, professor of physiology in medicine, gave a seminar on “Electrophysiological Mechanisms Causing Cardiac Arrhythmias” to the biomedical engineering faculty and students at the New Jersey Institute of Technology in Newark, NJ in October. In November, Dr. Moore presented the keynote address at the Fall Symposium of the Society of Toxicology, held in Nutley, NJ.
The following gifts have been made to the Small Animal Hospital in memory of a special pet:

- Ms. Judith Adair in memory of "RUSTY"
- Ms. Marte Adrians in memory of "CINDY", "TEDDY", and "GROVER"
- Ms. Sue Zane Arztner in memory of "SAMANTHA"
- Mr. and Mrs. Chester Barnes in memory of "EBONY"
- Ms. Diana Barnes in memory of "EBONY"
- Mr. Robert Bashful in memory of "MOLSON"
- Dale M. Bowers in memory of "LUCY"
- Ms. Trudy Breed in memory of "JAUNE RUFFIAN"
- Ms. Cindy Caine in memory of "F.E." and "K.C."
- Nancy and Carmelo Bonomo in memory of "BANDIT"
- Ms. Barbara Bornter in memory of "GRANDMOTHER"
- Kathy Brown, V.M.D. in memory of "LUKE"
- Ms. Renee Buck in memory of "SAMANTHA"
- Ms. Angie Calabrese in memory of "SAMMIE"
- Ms. Grace Cee in memory of "BRANDY"
- B.E. Cloud in memory of "CAMBIRD"
- Mr. and Mrs. Arthur Cook in memory of "SOL AJAX"
- Ms. Deborah Danbrose in memory of "ROCKY"
- Ms. Lisa Davis in memory of "ITY BITY"
- Ms. Shari DePompeo in memory of "PEPPER" and "ALEX"
- Doris Do, V.M.D. in memory of "LUKE"
- Mr. Mumford E. and Mrs. Lynda S. Emmel in memory of "ABERCROMBIE"
- Ms. Barbara J. Frazan in memory of "PUDGY"
- Mr. and Mrs. Kevin F. Flynn in memory of "SAMMIE"
- Dr. and Mrs. Gerald Jaffe in memory of "CHARLIE"
- Mr. Barry Goldblatt in memory of "BUDU"
- Mr. George and Ms. Stephanie Graves in memory of "DICKENS"
- Ms. Anna D. Tilghman in memory of "CH. LIBERTY'S BLESSING"

The following gifts have been made to the Small Animal Hospital in honor of those listed:

- Mr. Roger M. Bennett in honor of Dr. Bill Bush
- Mr. and Mrs. Donald J. Weidle in honor of St. George Hunt, V.M.D.

The following have made gifts supporting Genetic Research in memory of a special pet:

- Ms. Helma Weeks in memory of "MARTIN"
- The following have made gifts supporting Junior Faculty Research in memory of a special pet:
  - Mr. Michael West in memory of "SPECKLES"
- The following have made gifts supporting Oncology Diagnostics in memory of a special pet:
  - Cdr. Diane C. Durban in memory of "MISTY"
- The following have made gifts supporting Neurology Research in memory of a special pet:
  - Ms. and Mr. Simon Lindsay in memory of "SCOOBY DOO"
- The following have made gifts supporting Oncology Research in memory of a special pet:
  - Ms. Catherine Cric in memory of "BLU"

The following gift was made to Friends of New Bolton Center in memory of "ARTHUR"

Dr. Eric Tulleners endowed honor

Mrs. Charles Becker
Dr. Stephen P. Dey
Amanda E. Fine, V.M.D.

The following gift was made to the Veterinary Annual Giving Fund in memory of Carol Gaudiosi:

- Ms. Judith Adair in memory of "RANGER"
- Ms. Carol Good in memory of "SADIE"
- Mr. and Mrs. Louis Colagreco in memory of "SALLY"
- Ms. Jennifer Conley in memory of "SANDY"
- Mr. and Mrs. Marshall C. McClean

The following gifts were made to Veterinary Annual Giving Fund in memory of Dr. Daniel M. Burnside, V.M.D.:

- Ms. Donna D. Haag
- Dr. Paul G. Mallonee
- Mr. and Mrs. Michael Moran
- Kristen A. Pest, V.M.D. & Nicholas Pest, Jr., V.M.D.
- Mrs. Marcia T. Renolds

The following gifts were made in memory of Carol Gaudiosi:

- Ms. Denise Pascucci in honor of "SALLY"
- Ms. Jane D. Rice in honor of "ROXY"
- Ms. Antoinette Armstrong in honor of "NATASHA"
- Ms. Sabrina Arztner in honor of "SHERPA"
- Ms. Cynthia Leonard in memory of Israel Magid

The following have made gifts supporting Oncology Research in memory of a special pet:

- Ms. Helma Weeks in memory of "MARTIN"
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Upcoming Events

January 2001
14 8:00-10:00 p.m.
Alumni Reception
North American Veterinary Conference
Grand Caribbean Ballroom
Caribe Royale, Orlando, FL
27 Annual Canine Symposium for Owners and Breeders
E.R. Marookian, V.M.D. Auditorium, Veterinary Hospital of the University of Pennsylvania
For more information, call Dr. Josephine Deubler at (215) 898-8862.
31 2001 Penn Annual Conference
Adam's Mark Hotel, Philadelphia, PA
2:00-4:00 p.m.
Veterinary Medical Alumni Society Executive Board Meeting
at 2001 Penn Annual Conference

February 2001
1 2001 Penn Annual Conference
Adam's Mark Hotel, Philadelphia, PA
12:00-2:00 p.m.
Pacesetter and Class Agent Luncheon at
2001 Penn Annual Conference
For more information, contact Sue Mullins at (215) 898-1481 or via e-mail at <smullins@vet.upenn.edu>.
12 7:30-10:00 p.m.
Class of 1976 25th Reunion
Western Veterinary Conference
MGM Grand Conference Center, Las Vegas, NV
For more information, contact Sue Mullins, V'76, at (724) 843-7912 or via e-mail at <smullins@vet.upenn.edu>.

March 2001
20 7:30 p.m.
Friends of New Bolton Center Lecture
"Horse Travel and the Importance of Vaccinations"
by Dr. Mark Donaldson
Woerner Amphitheater, George D. Widener Hospital for Large Animals
New Bolton Center, Kennett Square, PA
For more information and to make reservations, contact Patricia Hall at (610) 444-5800 x2500 or via e-mail at <phall@vet.upenn.edu>.
30 2:00-4:00 p.m.
Annual Feline Symposium for Owners and Breeders
E.R. Marookian, V.M.D. Auditorium, Veterinary Hospital of the University of Pennsylvania
For more information, call Dr. Josephine Deubler at (215) 898-8862.

April 2001
24 7:30 p.m.
Friends of New Bolton Center Lecture
"A Windy Horse is No Breeze: How New Bolton Center Can Help"
by Dr. Eric Parente
Woerner Amphitheater, George D. Widener Hospital for Large Animals
New Bolton Center, Kennett Square, PA
For more information and to make reservations, contact Patricia Hall at (610) 444-5800 x2500 or via e-mail at <phall@vet.upenn.edu>.

May 2001
18 2:30-4:30 p.m.
Veterinary Medical Alumni Society Executive Board Meeting
Philadelphia Campus
19-20 Alumni Weekend/Reunions for Classes ending in "1" or "6"
21 School of Veterinary Medicine Class of 2001 Commencement

July 2001
21-23 Alumni Reception (time and location to be announced)
American Veterinary Medical Association Convention
Boston, MA

August 2001
15-19 Alumni Reception (time and location to be announced)
Pennsylvania Veterinary Medical Association Meeting
The Hershey Lodge and Convention Center, Hershey, PA

September 2001
13-16 American Gold Cup
Devon Show Grounds, Devon, PA

For updated event listings, please visit the Alumni & Friends web site at <http://alumni.vet.upenn.edu>

Find the School on the internet at www.vet.upenn.edu

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