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Laurie Peek, DVM
Veterinary Program Director
Maddie's Fund
2223 Santa Clara Avenue, Suite B
Alameda, CA 94501

Dear Dr. Peek,

On behalf of the University of Pennsylvania's School of Veterinary Medicine, it is a personal pleasure to submit a proposal to you requesting support of our Shelter Animal Medicine (SAM) Program. A partnership between Penn Vet and Maddie's Fund for our first SAM resident would be a decisive step forward in expanding our program and helping more homeless animals in need.

The School's unique placement in Philadelphia, one of the nation's largest cities, allows the faculty, staff and students to effectively make a difference to the lives of thousands of the most needy animals each year. The SAM Program is designed to expose veterinary students to spay/neuter surgery and other routine shelter medical procedures, enabling them to develop their surgical techniques while familiarizing them with the issues associated with shelter medicine—an important aspect of urban veterinary care. The goal is to educate veterinary students about the importance of pet overpopulation, providing quality medical care in shelters, and to help guarantee a home for all healthy and treatable shelter animals.

The Shelter Animal Medicine Program was officially launched in July 2006 with the appointment of Michael Moyer, VMD as Director of the Shelter Animal Medicine. We have made significant progress in the first year since the program's inception. Now, shelter medicine is a "core" component of the veterinary curriculum. In addition to students spaying/neutering animals at the shelter, they also are performing other adoption-enhancing procedures. As of December 31, 2007, our students performed a total of more than 2,000 spay/neuter and other soft-tissue surgeries on PACCA animals.

We are now ready to expand the SAM Program by creating a Residency in Shelter Animal Medicine. The resident would have responsibilities in both clinical and research areas and would study the most pressing issues affecting shelter animal health. The enhanced training of our students and the increased capacity to support the community will be an immediate benefit, but the ability to develop new knowledge within the emerging field of shelter medicine is tremendous.

The following pages provide additional background about the SAM Program and information about the proposed residency. It would be wonderful to link the Maddie's Fund name with the University of Pennsylvania as the Maddie's Resident in Shelter Medicine at Penn Vet. Finally, under separate cover you will receive a request for support of externships for our veterinary students and in the future will send a proposal for research funding. We hope we can work with Maddie's Fund to build on Penn Vet's SAM Program to create an extraordinary way to impact the direction of veterinary medicine while helping the animals desperately needing our help. Should you have any questions or concerns, please call Elana Beck Arons in the development office at 215-898-4235 as she will gladly put you in touch with one of us.

Sincerely,



David E. Holt, B.V.Sc., Dipl., A.C.V.S.
Section Chief, Surgery
Professor of Surgery, Clinician Educator
Faculty Coordinator, Shelter Animal Medicine



Michael R. Moyer, V.M.D.
Rosenthal Director, Shelter Animal Medicine
Associate Adjunct Professor, Shelter Medicine

Enclosure



Shelter Animal Medicine Program Overview

Background

Homeless companion animal overpopulation is a very real problem in Philadelphia. The city is home to nearly 1.5 million people and more than 667,000 owned cats and dogs. It is estimated that nearly 300,000 stray and feral cats live on the city's streets.

The Philadelphia Animal Care and Control Association (PACCA, the city's contracted animal control shelter) and the Philadelphia Animal Welfare Society (PAWS, a donor-funded division of PACCA) receive the vast majority of unwanted and unloved animals in the region, approximately 30,000 yearly. From 2004 through the third quarter of 2007, the save rate for dogs and cats entering the shelter has increased from 11 to 60 percent, a significant accomplishment.

To help control the unnecessary euthanasia of potentially adoptable animals, the **University of Pennsylvania School of Veterinary Medicine** created its Shelter Animal Medicine (SAM) Program in partnership with PACCA/PAWS in 2006. The School's unique location in one of the nation's largest cities makes a substantial difference for tens of thousands of Philadelphia animals that need care the most. The School's core curriculum now includes mandatory courses in SAM. This collaborative program with PACCA/PAWS ensures that students are exposed to shelter issues and topics, including homeless animal management, the role of veterinarians in animal shelters, pet overpopulation, infectious disease control, behavior problems and evaluations, and animal cruelty, neglect and hoarding. In addition, students assist with adoption-enhancing procedures including physical examinations, wound care, laceration repairs, amputation, enucleation and lumpectomy. They also help treat common problems, including dermatitis, ear infections, and diarrhea. Most of these conditions are uncommon at the Matthew J. Ryan Veterinary Hospital at Penn, which does not usually function as a primary-care provider. By creating a primary care experience for our students at PACCA/PAWS, students are exposed to a variety of issues that complement the secondary and tertiary-care cases mostly seen at the Ryan Hospital.

Programmatic Goals

1. Improving the welfare of dogs and cats in Pennsylvania

In Philadelphia, Penn is uniquely positioned to leverage its surgical expertise by using spay/neuter as an effective tool against the pet overpopulation problem. In addition, we address the social and behavioral dimensions of pet overpopulation through our clinical behavioral medicine service.

2. Enhancing surgery teaching at Penn

For Penn, this program ensures that our students continue to receive the finest-quality surgical instruction, with more opportunities to master skills required for spays and neuters as well as exposure to surgeries they may not see at the Ryan Veterinary Hospital.

3. Increasing student awareness of shelter medicine

Veterinarians graduating from Penn are now educated about the major issues surrounding urban pet overpopulation, including spay/neuter, infectious disease and behavioral problems. The School expects our graduates will become leaders on these issues in their communities. A core teaching concept of the shelter medicine program is the importance of pro bono work in the practice of any veterinarian.

Program Impact on Curriculum

The program impacts the curriculum of every student at the School, from the addition of four hours added to the core curriculum for first-year students to elective lab courses held at PACCA/PAWS in the second or third year. All fourth-year students rotate through the shelter as a core part of their curriculum, and they provide supervised surgical spay/neuter services to owned and shelter pets.

As of January 2007, a Shelter Animal Medicine two-week elective rotation is offered to fourth-year students. This elective features components of shelter management, primary care, surgery and behavior. The rotation teaches students to consult with prospective and adoptive owners, diagnose and treat shelter and owned patients, participate in surgical spay/castration and most perhaps most importantly, work with the behavior residents to develop effective, meaningful interventions to facilitate successful adoptions or to prevent surrendering of animals to the shelter.

In addition, a senior spay/neuter experience as part of a core surgery rotation allows students to acquire more direct surgery experience, and an externship available in their senior year allows other areas of shelter animal medicine to be studied in depth.

Conclusion

Penn's comprehensive Shelter Animal Medicine Program has saved the lives of thousands of adoptable shelter companion animals in Philadelphia. In 2007, Penn Vet students sterilized more than 1,600 cats and dogs at PACCA/PAWS, an extraordinary increase from only 35 per month in 2004, prior to the collaboration with PACCA/PAWS. As a result of the higher number of spays/neuters, the percentage of homeless pets being saved has more than quadrupled, from 11 percent in 2004 to nearly 60 percent in 2007.

By partnering with the major players in animal welfare in Philadelphia and beyond, Penn has not only developed a model program for our students, we are a force behind the rescue of the lives of thousands of adopt companion animals.

A world-class Shelter Animal Medicine faculty, coupled with a partnership with PACCA/PAWS, has allowed us to provide the highest quality of education to future veterinarians, better preparing them to enter the profession and practice veterinary medicine, whether in private clinics or in shelters.

The Shelter Medicine Residency at the University of Pennsylvania

Overview and purpose

The Shelter Medicine Residency at Penn's School of Veterinary Medicine is designed to teach residents skills relevant to major problems in animal shelters, including infectious disease management, basic principles of epidemiology, management of behavioral problems associated with the shelter environment, shelter design as it relates to the prevention and management of disease and behavioral problems, and policy and legal issues that affect shelter veterinarians. Residents will gain experience in reviewing the scientific literature and other resources; developing and implementing a clinical research project; preparing a paper for publication; and writing and presenting continuing-education material for veterinarians and shelter professionals.

The three-year residency training program is designed to focus on population management and epidemiology, and to involve training in all core medicine disciplines, including endocrinology, gastroenterology, hematology, infectious disease, nephrology, nutrition, oncology, respiratory medicine, and critical care. The program places heavy emphasis on problem solving, understanding pathophysiology, and public health. Residents manage their own patients in consultation with faculty and assist with supervision and teaching of interns and veterinary students. Residents are given approximately 25 percent of the clinical training time for independent academic pursuits and anticipated specialty-board preparation. During this time, the candidate will be expected to identify the laboratory and research program they will join during their third year. One objective of this part of the residency program is to qualify candidates for specialty-board examination and certification, including, but not limited to, emergency critical care, veterinary forensic pathology, behavior, dermatology, and public health.

Justification

Shelter medicine is a rapidly developing specialty. Expectations for quality care of animals in shelters have greatly increased, and more animal shelters integrate veterinary care into routine management. Veterinarians trained specifically in shelter medicine are needed to promote the highest standards of care for shelter animals, serve as consultants, conduct research, and train others.

Many public and private shelters employ full-time veterinarians, while smaller facilities and rescue groups often obtain veterinary care through providers in the community. Veterinarians also act as shelter directors and provide leadership in the field of animal sheltering. To work effectively with shelters, veterinarians must be trained in principles of population medicine, infectious-disease management, and behavioral care of densely housed dogs and cats. Additional requirements include familiarity with shelter facility design, public health considerations, and legal and ethical issues affecting shelter animal care. Many of these skills are also applicable to breeding, boarding, and service-animal training facilities.

Several universities—including UC Davis, Cornell, Florida, Iowa, and Ohio—currently offer undergraduate veterinary student training in shelter medicine, and a textbook on shelter medicine recently was published (*Shelter Medicine for Veterinarians and Staff*, Blackwell Press: Iowa, 2004). Shelter medicine tracks are now included at several major

and numerous regional veterinary and shelter conferences, including the North American Veterinary Conference, Midwest Veterinary Conference, Western States Veterinary Conference, Humane Society of the United States Expo, and others. Introductory and intermediate courses in shelter medicine have been offered through the Veterinary Information Network.

Oversight

Internal guidance will be provided by the Shelter Medicine supervisory committee, a team of faculty and staff involved in direct supervision of the residents, including behavior medicine, small-animal epidemiology, outpatient care, the Center for the Interaction of Animals and Society, small-animal medicine, dermatology, ophthalmology, and surgery faculty. An external advisory board provides annual review of the program.

Selection Criteria and Certification Requirements

Minimum qualifications for acceptance to the residency are one year's practice or internship experience and demonstrated interest in shelter medicine. Candidates for the animal shelter residency will be chosen in conjunction with the Veterinary Match Program by the Shelter Medicine supervisory committee. The supervisory committee will be responsible for performing an initial six-month and then annual reviews to ensure that residents are making satisfactory progress toward completion of the program. Residents with poor performance will not be allowed to continue in the program. Shelter medicine residents will not have Emergency Service duty in the Ryan Veterinary Hospital, except to answer calls from shelters.

Specific requirements for certification of completion of the residency in shelter medicine are as follows:

1. Maintain a log of shelter visits, email and phone consultations;
2. Demonstrate competency in diagnosis, clinical management, and prevention of major infectious diseases of dogs and cats, including specific consultation on management of parvovirus, canine distemper virus, canine kennel cough, feline upper respiratory infection, feline panleukopenia, ringworm, sarcoptic mange, common diarrheal diseases of dogs and cats, and investigation of at least one outbreak of disease of unknown origin in a shelter animal;
3. Show competency in diagnosis, clinical management, and prevention of behavioral disorders associated with shelter relinquishment or dense housing of dogs and cats;
4. Gain familiarity with major theories and techniques regarding behavioral assessment of dogs and cats in shelters;
5. Understand theory and practice of basic epidemiology as it relates to small animals in shelters;
6. Demonstrate familiarity with federal and state laws and regulations affecting sheltered dogs and cats;
7. Show experience and knowledge in basic structural elements of a well-designed shelter, including noise and infection control, effective marketing of animals to the public, and staff workflow;
8. Prepare and deliver a minimum of three lectures or seminars per year to veterinary students, veterinarians, and/or shelter professionals;

9. Develop Web site content, including at least five infectious-disease profiles and five general management protocols;
10. Write and submit at least one grant proposal in an area of the resident's interest;
11. Attend a minimum of two scientific meetings;
12. Prepare and publish at least one case report on the shelter medicine Web site;
13. Write and submit for publication at least one first-authored paper: either a case report or novel pathogen characterization, outbreak investigation, or pre-planned prospective or clinical study; and
14. Tour a minimum of 20 shelters representing a spectrum of size, budget, and management philosophy.

Residency Mentoring

Faculty mentors will be assigned to the Shelter Animal Medicine resident. The mentor will be responsible for providing positive role models, motivation, accountability, consistent and reliable support, and direction concerning research projects, publications, progress toward board certification, and career goals. In addition to the residency mentor, Dr. David Holt will serve as residency program director and conduct six-month reviews of the residents.

Residency Evaluations

Evaluations will be performed at six-month intervals. Written critiques using objective criteria (e.g., professional ability, acceptance of responsibility, ability to work with others, progress toward personal development, and personal characteristics and appearance) will be provided to the resident at the six-month review. Progression to the second year of the residency will depend on the mutual agreement of resident and faculty.

Sample Schedule

FIRST YEAR

Shelter on-site work (Philadelphia)	24 weeks
Outside shelter consultation	4 weeks
Research/optional off site or additional VMTH rotations	4 weeks
Vacation	4 weeks

Ryan Hospital rotations

Small animal and outpatient medicine	4 weeks
Dermatology	2 weeks
Ophthalmology	2 weeks
Small animal surgery	2 weeks
Behavior service	2 weeks
Large animal herd health/reproduction	2 weeks
Emergency and critical care	2 weeks

SECOND AND THIRD YEARS

Research	8 weeks
Shelter on-site work (Philadelphia)	24 weeks
Outside shelter consultation	6 weeks
Vacation	4 weeks

Ryan Hospital rotations

Behavior	4 weeks
Elective rotations	6 weeks

Required Textbooks and Journals for Independent Study

Following are recommended publications relevant to the diagnosis, management, or treatment of common shelter infections and behavioral disorders; principles of disease diagnosis and management; principles of disinfection and prevention of disease spread; and principles of vaccination.

- Greene, C. E. (1998). *Infectious Diseases of the Dog and Cat*. Philadelphia: W. B. Saunders.
- Miller, L. and S. Zawistowski (2004). *Shelter Medicine for Veterinarians and Staff*. Ames, Iowa: Blackwell Publishing.
- Radostits, O. M. (2001). *Herd Health: Food Animal Production Medicine*. Philadelphia: W. B. Saunders Company (chs. 1–5).
- *Journal of the AVMA*
- *American Journal of Veterinary Research*
- *Journal of Veterinary Internal Medicine*
- *Journal of Hospital Infection*
- *Preventive Veterinary Medicine*
- *Journal of Applied Animal Welfare Science*
- Relevant articles and reviews from: *Compendium on Continuing Education for the Practicing Veterinarian*, *Journal of the American Animal Hospital Association*, *Veterinary Clinics of North America*
- *Animal Sheltering Magazine*

Overview of the Philadelphia Animal Care and Control Association (PACCA) also known as Philadelphia Animal Welfare Society (PAWS)

PAWS is dedicated to promoting public welfare and to saving the lives of Philadelphia's homeless, abandoned and unwanted animals. Each year, nearly 30,000 homeless animals are killed in the City of Philadelphia simply because they are unloved or unwanted. The majority of the city's homeless animals arrive at PAWS. PAWS is committed to returning Philadelphia to a model of compassion by leading Philadelphia in becoming a No Kill city, in which every healthy and treatable pet is guaranteed a home. This goal will be reached through aggressive, ever-expanding efforts to implement PAWS' core initiatives: comprehensive adoption programs, volunteer and foster programs, community spay and neuter programs, and shelter/rescue partner transfer programs.

PACCA/PAWS' Strengths and Recent Accomplishments

Since 2005, PAWS/PACCA's new administration has made landmark strides in improving lifesaving rates at the city-funded animal care and control shelter. These accomplishments demonstrate the effectiveness of the administration and its strategic plan, and indicate that a time when no animal in Philadelphia is needlessly killed is very much within reach.

Specific strategies and accomplishments achieved by PAWS/PACCA since 2005 include:

- Reducing the death rate by more than 40%. From 2002-2004, PACCA was killing nearly 90% (25,000 annually) of the total number of animals entering its doors. In 2006, PAWS/PACCA saved 12,000 (nearly 50%) of the total number of live animals received. PAWS/PACCA saved 7,000 more animals in 2006 compared to 2004. This is a level of achievement that takes most communities five years to accomplish. Indeed, 2007 saw a significant improvement in the rates from 2006 with nearly 60% of all animals entering PAWS/PACCA in 2007 leaving alive.
- Growing a volunteer base which now includes nearly 400 individuals, and building a regular schedule of on- and off-site adoption events to create dozens of opportunities each month to increase adoptions.
- Taking major steps to control the City's pet population by spaying or neutering *every* animal adopted from PAWS. From 2002-2004, PACCA sterilized an estimated average of 400 animals per year. In 2006, PAWS spayed or neutered a total of 6,445 animals, an increase of 6,045 animals over 2004.
- Establishing a landmark partnership with the University of Pennsylvania School of Veterinary Medicine. Through Penn Vet's Shelter Animal Medicine Program, veterinary students and an instructor travel to PAWS weekly to spay and neuter adoptable animals. A total of 2,800 shelter animals were sterilized as part of this innovative program.
- Soliciting increased private-sector funding, including PetSmart Charities, the American Society for the Prevention of Cruelty to Animals (ASPCA) and indi-

vidual and family foundations, to strengthen spay/neuter programs and other life-saving initiatives.

- Raising over \$250,000 toward the acquisition and establishment of a satellite adoption center.
- Reducing the monthly average of open animal control complaints by nearly 98%. In 2004, PACCA had an average of 380 open animal control complaints from constituents each month, without any response or activity by the agency. In 2006, the monthly average of open animal control complaints without activity was eight.

In less than two years, PAWS and PACCA has become a model animal control and sheltering program with extremely aggressive lifesaving goals. The commitment to its life-saving mission and to serving the citizens of Philadelphia is firmly grounded within the agency's culture—from the Board of Directors, to the Administration, to the front-line staff and personnel. Making compassion the centerpiece of Philadelphia's animal care, while promoting public health and safety, is the heart of PAWS' vision and mission.