Pursuing Excellence in Shelter Medicine Education 2014 - 2018 Proposal
Table of Contents

Letter from the Director ........................................... 3
Executive Summary ................................................... 5
  Shelter Medicine Education ............................... 6
Advanced Training .................................................... 8
Shelter Consultation ............................................... 10
Shelter Research ...................................................... 12
  Phase I & II Productivity ......................................... 14
Recognizing Maddie's Fund® ...................................... 16
Sustainability .......................................................... 19
Appendices
  Curriculum .......................................................... 22
  Publications ......................................................... 25
  Presentations ....................................................... 28
  Personnel ........................................................... 31
Request for Support .................................................. 35
Maddie’s® Shelter Medicine Program at the University of Florida was born in 2008, with a mere two faculty members, myself and Clinical Assistant Professor Dr. Cynda Crawford. We had created shared vision with Maddie’s Fund®. We envisioned a world where animals in shelters would have the best possible care, and where communities themselves would provide the safe harbor at-risk pets need.

How would we get there? By empowering the individuals whose profession, by its very definition, was dedicated to the health and welfare of animals. We would get there through the education of Shelter Medicine veterinarians. We were honored when Maddie’s Fund® decided to support the program here at UF and make educating shelter veterinarians not just a possibility, but a priority.

In our program's first year, 2008-2009, we taught our first courses and offered our first Maddie’s® Shelter Medicine Conference. In the 2009-2010 academic year we brought on our first student researchers, externs, and Shelter Medicine Residents. The next year, 2010-2011, we expanded our course offerings to include veterinary forensics and shelter animal behavior, one resident completed his program, and two UF veterinary students graduated with the first-ever Certificates in Shelter Medicine.

As the second phase of our program got underway, we brought on a new Shelter Medicine faculty member, Dr. Terry Spencer, whose shelter experience and background in education would be key in the development of our new Online Graduate Certificate in Shelter Medicine. We took on a complete redesign of the Shelter Medicine curriculum, streamlining and refining it to efficiently and effectively impart the skills and knowledge necessary for a veterinarian to successfully practice Shelter Medicine. Also in the 2011-2012 year, we brought on a third resident in shelter medicine and offered the nation's first course in Community Cat Management. That year, five graduating veterinary students earned Maddie’s® Certificate in Shelter Medicine.

In the 2012-2013 year, our first two Maddie’s® Residents completed their 3-year training programs and took their expertise out into the field to teach and to lead. We brought on our fifth and sixth residents as well as our first two Shelter Medicine Interns. Also in the first half of that year, we moved to new offices in the heart of the College, hosted the 5th Annual Maddie’s® Shelter Medicine Conference, and enrolled our first students in the new Online Graduate Certificate Program, bringing on additional adjunct faculty to lend their expertise in medicine and behavior. As the year came to a close, Maddie’s® Interns completed their programs, a third intern was admitted, and ten graduating seniors earned Maddie’s® Certificate in Shelter Medicine.
In the fall of 2013, we saw 31 practicing veterinarians and veterinary students earn Maddie’s® Online Graduate Certificate in Shelter Medicine. We have come such a long way in a short time. The faith and support of Maddie’s Fund® have empowered us to leverage Maddie’s® Shelter Medicine Program at the University of Florida to reach veterinary students at colleges across the country and veterinarians around the world. Even students at schools with no formal Shelter Medicine curriculum can prepare themselves to successfully and humanely practice the science and art of Shelter Medicine. This achievement cannot be overstated. Ten years ago veterinarians and students interested in helping animals in shelters scrambled to find hands-on opportunities and cobbled together their learning through workshops as best they could. Today, thanks to Maddie’s Fund®, we can offer a program that teaches the skills, shares the research, and ultimately empowers the veterinarian to be the animals' strongest advocate in the shelter and in the community.

But can we stop there? The future holds uncountable opportunities to improve the lives of shelter pets, and it is our fervent hope that Maddie’s Fund® will continue to support Maddie’s® Shelter Medicine Program in its educational efforts. Together there is much more we can — and must — do. Too many shelters are taking in too many animals, and too many of those animals aren't getting the care they need or the positive outcomes they deserve. We are not yet a country that can provide safe harbor for homeless and at-risk animals. We have more work to do.

With the support of Maddie’s Fund®, we can continue to be a force that helps fill the critical shortage of Shelter Medicine practitioners. We can grow the Online Graduate Certificate Program and offer further training to veterinarians around the world. We can continue to advance paradigm-shifting research and education for cat welfare. And we can continue to serve a leadership role in the developing veterinary specialty in Shelter Medicine, where we are proud to represent the vision of Maddie’s Fund®.

The veterinary profession holds unique skills and insights whose impact for homeless animals is far-reaching. Maddie’s Fund® has made a powerful investment in educating shelter veterinarians to help shelter pets, and it has been my immense honor to serve as Director of Maddie’s® Shelter Medicine Program at the University of Florida. I hope that, by partnering together, we can continue to leverage the passion of veterinarians to help revolutionize the status and well-being of companion animals. Maddie's brethren, if they could talk, would say thank you for everything Maddie has made possible. I look forward to continuing to work together to create a better future for companion animals.

Julie Levy, DVM, PhD, DACVIM
Program Director,
Maddie’s® Professor of Shelter Medicine
EXECUTIVE SUMMARY

Maddie’s Fund® has set the stage for a new future in animal sheltering through its support of academic Shelter Medicine at the University of Florida during Phases I and II of the program.

The expertise of shelter veterinarians is increasingly sought and acted upon, their medical perspectives at the core of keeping healthy animals healthy and treating those who need rehabilitation. Maddie’s® Shelter Medicine Program at the University of Florida yearns to press on in this important work. We’ve just cracked the door to improving shelter animal health and welfare via shelter medicine, but have more to accomplish to reach the full life-saving potential of integrating veterinary medicine into shelter systems.

Focusing our efforts on Shelter Medicine Education, our three faculty members will offer Maddie’s® Online Graduate Certificate in Shelter Medicine to veterinary students and veterinarians around the world. It is our goal to build the program into one that is sustainable and self-funding. Meanwhile, the on-campus program at UF will carry on in its new, streamlined format, certifying approximately 100 graduating students with Maddie’s® Professional Certificate in Shelter Medicine. We’ll also support eight veterinary students annually in externships to adoption guarantee shelters.

A bright future for Shelter Medicine depends on the leadership of skilled specialists, and those specialists will be trained through our ongoing residency and internship programs. We propose to train two additional interns and four additional residents. These trainees will participate in service learning through patient care, shelter consultation and response to disease outbreaks, cruelty cases, and disasters. They’ll gain hands-on experience while providing the assistance shelters need.

Our residency-trained experts will form the foundation of the new Specialty in Shelter Medicine, a designation that will finally signal the stature and distinctiveness of this unique area of practice. A decade-long campaign for specialty recognition is bringing to fruition a spark ignited by Maddie’s Fund® when it conceived the first Shelter Medicine residency.

Faculty researchers and student scholars will continue to investigate the issues that impact shelter animals’ lives, building the library of Shelter Medicine knowledge to bust common myths and develop lifesaving treatments. We’ll support two veterinary students each year as Maddie’s® Scholars, with faculty and advanced trainees leading shelter-based research projects.

The duration of Phase III is four years, with the proposed grant funding of $4.9 million in direct costs. Adding indirect costs, the total grant request is $5.4 million to continue Maddie’s® Shelter Medicine Program at the University of Florida’s College of Veterinary Medicine.

The University of Florida is the only college to have developed a Shelter Medicine enterprise with the potential to reach far beyond our institution’s walls, and we could not have done so without the vision and backing of Maddie’s Fund®. We hope that Maddie’s Fund® will continue to partner with UF as we mature. Together, we can inspire and empower veterinarians everywhere to serve shelter pets.
SHELTER MEDICINE EDUCATION

Education is the most powerful weapon which you can use to change the world. — Nelson Mandela

The gray cat named Judy languished at the shelter for ten months. She bit a potential adopter, struck out when anyone tried to interact in her cage, and fought with other cats in the group housing room. Managers resorted to restricting her handling to experienced staff only. If something didn’t change, the vision of Judy having a loving, happy home would be nothing more than a fantasy. No one had any solutions.

But the shelter’s part-time veterinarian was studying behavior and welfare in Maddie’s® Certificate in Shelter Medicine. Dr. Candie Corriher had learned how to diagnose conditions like Judy’s kennel stress and petting-induced aggression. More importantly, she had learned how to manage these conditions and provide treatment in a shelter.

Dr. Corriher took on Judy’s case, opening her Shelter Medicine toolbox to begin trying interventions. When prescription medication was unsuccessful, Dr. Corriher modified Judy’s environment, moving her to one of the shelter’s offices. She trained the office staffer so Judy’s petting-induced aggression could be managed.

The change transformed Judy completely. She lowered her guard, relaxed, and began to show affection. Within a week, she was her friendly, purring self again. And before another month had passed, one of the shelter’s visitors fell in love with Judy and adopted her... and took her home with an adoption packet customized to address Judy’s particular needs. That vision of Judy’s happy home could now become a reality.

Shelter Medicine training gave Dr. Corriher what no one else at the shelter could provide - the knowledge, skills, and tools to intercede with a life-changing treatment. Over the past six years, Maddie’s® Shelter Medicine Program has done the same for hundreds of veterinarians across the country, transforming how they learn to treat shelter pets.

Through state-of-the-art distance learning technology, a scattered collection of introductory options has been reshaped into a full interactive curriculum that empowers veterinarians to care for shelter animals and solve problems outside the surgery suite. They learn specialized approaches to prevent disease, treat medical conditions, and rehabilitate pets with behavioral challenges. Students examine real-life case examples, team up for group projects, and create critical treatment
protocols; all the while challenging each other to push beyond preconceived notions about helping shelter animals.

Maddie’s® Shelter Medicine Program has awarded 47 Certificates in Shelter Medicine, recognizing intensive study by the most dedicated veterinarians. Every veterinary student passing through the University of Florida has received Shelter Medicine training by our on-campus program, as have more than 90 online students representing 29 states and nine countries. Guided in their educational journeys by Dr. Terry Spencer, veterinary professionals from all walks are invested in this education: veterinary students, new veterinary graduates, practitioners from private practice, shelter veterinarians, and even faculty from other Colleges of Veterinary Medicine.

Never before has this kind of training been possible; robust online learning programs are uniquely capable of engaging students in critical thinking and problem-based learning despite limited resources. Moreover, the scalability of the digital learning environment makes course capacity virtually unlimited. The step that Maddie’s Fund® took in underwriting the development of online learning in Shelter Medicine was visionary, and the support of Maddie’s Fund® during the start-up stage has been critical.

Yet continued support from Maddie’s Fund® during the next phase of development is essential if the program is to be viable in the long term. We are just beginning to grow and establish demand; enrollment and resulting tuition revenues have not yet reached critical mass. The specialty of Shelter Medicine is just beginning to flourish, and demand for specialized training will increase as veterinarians pursue board certification in Shelter Medicine Practice. The flexibility and increasing compatibility of online learning uniquely accommodate working professionals, and veterinary students whose own colleges offer little in the way of Shelter Medicine education will also take advantage of the online format to complete the Certificate while pursuing their DVM degree.

Maddie’s Fund® and the University of Florida have made Shelter Medicine education possible at a scale previously unheard of. The continued support of Maddie’s Fund® will ensure that today’s practitioners and tomorrow’s leaders have the tools they need to give each shelter animal the care they deserve.
ADVANCED TRAINING

If your actions inspire others to dream more, learn more, do more and become more, you are a leader.

- John Quincy Adams

On a cold winter day in Texas, a gentle dog was rescued. She lay huddled beside her lifeless companion, freezing, emaciated, covered in fleas – too weak to even lift her head. This dog would require urgent care and intensive rehabilitation. She was destined for a large municipal agency. Could she hope to have a chance?

The organization’s statistics were sobering when Dr. Cate McManus joined the team in 2012. Twenty-eight thousand animals had come through the shelter’s doors the previous year; only one in four left the building alive. Dr. McManus had just completed the residency in Shelter Medicine when the agency’s new executive brought her on to transform policies, motivate staff, and save lives; an Operations Director equipped to lead.

Within two years, dramatic changes had swept the agency. All animals admitted to the shelter were vaccinated. The number of spay and neuter surgeries doubled. Animals received medical care seven days a week. Facilities were reconfigured, separating sick animals from healthy. Adoption, marketing, and transfer efforts kicked into high gear. Month after month, new records were set, and live release rates climbed by nearly 20 percentage points.

So when the debilitated dog showed up at the shelter in December of 2013, it was possible to save her. The new strategies of shelter leadership meant that they had space to house her, medical staff to treat her, and time to rehabilitate her. They named the dog Melissa.

Over weeks of care that would never have been possible in years past, Melissa’s life turned around. She healed, blossomed, and soon found a home. Melissa’s new favorite activity is watching tv with her family in the cozy warmth of the living room. “She is such a wonderful dog,” report Melissa’s adopters. “We love her.”

Shelter Medicine leaders are indispensable if we are to continue to improve the state of animal sheltering. Their insights help transform agencies and make room for miracles like Melissa. Not only does their expertise save lives, lead programs, and drive change; they are the ones who will guide students toward a career in Shelter Medicine and train the next generation of shelter veterinarians.

Leaders of all types are needed to fill these crucial roles, and the advanced training program at UF addresses that need. The one-year internship prepares veterinarians to practice exemplary Shelter Medicine, while the three-

Page 8
year residency develops specialists whose expertise drives the entire field forward. Through teaching, research, and shelter service, these veterinarians develop a critical understanding of matters vital for treating and saving shelter pets: epidemiology, facilities management, internal medicine, data analysis, surgery, behavior, disaster medicine, shelter policy, and more.

Nine veterinarians at Maddie’s® Shelter Medicine Program have pursued this intensive curriculum; three interns and six residents. Those who have already completed their studies have gone on to leadership positions around the country. Some manage shelter medical programs, providing hands-on care for shelter pets and guidance for shelter staff. Others have an impact at a larger scale, directing the operations of a massive municipal shelter or teaching Shelter Medicine as veterinary faculty.

These veterinarians are likely to become the world’s first formally-designated specialists in Shelter Medicine. The development of the new board specialty, in its final stages, is a direct result of the investment of Maddie’s Fund® in academic Shelter Medicine. From the beginning, Maddie’s Fund® has been the nation’s most visionary advocate of Shelter Medicine and its role in treating and saving shelter pets. The loss of the support of Maddie’s Fund® at this fragile landmark moment would be a devastating blow.

The renewed support of Maddie’s Fund® would make it possible to educate more leaders, “training the trainers” who will steer the specialty in the years to come. They will serve as consultants, directors, and researchers. In addition to four residents and two interns at the University of Florida, our program will extend advanced educational opportunities to residents and interns across the country, in private programs, and at other Colleges of Veterinary Medicine. This cadre of veterinary leaders will continue to build the capacity of animal shelters, so that we can save all healthy and treatable pets.
The municipal shelter in Hazard, Kentucky was in trouble. Serving four counties on an annual budget of $60,000, the shelter’s three employees could barely keep up with feeding the 9,000 animals that came through its doors each year. Vaccinations and veterinary care were out of the question. Rampant distemper had driven away rescue partners. Euthanasia and death climbed past 90%.

As in similar impoverished rural communities nationwide, the revolution in sheltering had yet to arrive. Tammy Noble, who had recently volunteered to manage the agency, was distraught. She was watching her dream disappear; the dream of leading the shelter to no-kill.

When Tammy learned about Maddie’s Shelter Medicine Program at the University of Florida, she couldn’t dial the phone fast enough. She explained the shelter’s plight to Dr. Cynda Crawford, who immediately developed an action plan to interrupt the vicious cycle of despair. Dr. Crawford tested hundreds of blood samples for antibody titers, enlisted a commercial laboratory to donate PCR testing, and arranged for vaccines to be shipped in to the resource-strapped agency.

At Dr. Crawford’s urging, the shelter tried treatment instead of euthanasia. In the end the distemper outbreak claimed more than 200, but the lives of 50 dogs were saved. One of the survivors was a pup named Betsy. After also recovering from multiple broken bones, Betsy found happiness with a Pennsylvania family.

But for even more animals, a transformation began. Resources for intake vaccination were found, and sanitation protocols were developed. Dr. Crawford reached out to rescue groups to rebuild trust and collaboration, and the shelter started an adoption transport program. The desperate call to Maddie’s Shelter Medicine Program had marked a watershed moment for the animals of Hazard.
Tammy Noble recognized that this was a new beginning.

"Y'all helped us and believed in us when we didn't believe in ourselves!! I am so fortunate to have you in our corner. You helped Hazard and me when everyone else treated us like we were horrible and bad cause our kids had distemper. I will never forget the support y'all gave us. If not for y'all I probably wouldn't be there now. You made me realize that the world of support is so much larger than Hazard KY!!"

The shelter still serves one of the bleakest regions of the country, but it now shines brightly as an inspiration to others – with a euthanasia rate that has plummeted to nine percent. Said board member Teresa Singleton, "It makes a big difference when I come down here and I look in the eyes of the dogs and I know they have a chance now."

Shelter managers like Tammy Noble depend on veterinarians with Shelter Medicine expertise to help understand and solve their agencies’ problems. Faculty veterinarians, advanced trainees, and veterinary students all contribute to this service learning opportunity, and over the past six years Maddie’s® Shelter Medicine Program has worked with 92 animal shelters and rescue organizations and provided disease outbreak response and surveillance in 71 cases.

Shelter consultations have fit the scale and scope of each organization, empowering every one to take its next step in the journey to save lives. We have made recommendations for environmental enrichment, driven the creation of “wellness rounds,” and helped institute new vaccination policies. We consider the shelter in context, evaluating community cat policies, local ordinances, and placement partnerships. Whether in a targeted-topic consultation, a comprehensive assessment, or a disease outbreak response, our consulting veterinarians have challenged shelters to move beyond the status quo. One agency is urged to embrace new research on adoption policies. Another learns to defy conventional depopulation in favor of quarantine and treatment. While recommending these systematic solutions, we advise on individual interventions to save treatable pets.

More than 130 veterinary students have participated in UF’s consultation service, and their training helps seed the country with more veterinarians attuned to the needs of shelter pets. Residents, interns, practicing shelter veterinarians, and consultants from myriad agencies have all come together with UF to provide assistance and learn new ways to guide agencies in their efforts to save lives.

As one of the few organizations providing consultative services to animal shelters, Maddie’s® Shelter Medicine Program is a critical resource for shelters and Shelter Medicine trainees across the nation. The continued support of Maddie’s Fund® will ensure that hundreds of thousands of shelter animals will have experts on their side – to aid during devastating setbacks and to assist through ambitious leaps forward. Veterinary students, interns, and residents will gain vital real-world experience. Whether they go on to volunteer as private practitioners or specialize in Shelter Medicine practice, they will be better equipped to contribute to lifesaving efforts in their communities. Theirs will be the helping hands that move agencies forward for shelter pets.
A wave of feline panleukopenia was slaying shelter cats across the Southeast. Devastating outbreaks of the virus drove shelter managers and veterinarians searching for help. When they learned that Maddie’s® Shelter Medicine Program had just been established at the University of Florida, they anxiously bombarded our brand-new program with questions.

In some cases, we already had answers. We had studied response to vaccination and parvo testing in cats, and were able to recommend one brand of canine parvo tests and modified live vaccines. We had shown that old vaccination recommendations left one in four kittens unprotected, triggering a change in national cat vaccination guidelines. But many questions remained unanswered.

The team quickly went to work to address the most urgent issues – to understand what kind of cats are at risk for panleukopenia and determine how they could be identified. Dr. Julie Levy was skeptical when a leading international veterinary association released recommendations for facing panleukopenia outbreaks: Use the canine antibody test on cats and euthanize all cats with negative results. Concerned for cats who might be wrongly euthanized, Dr. Levy designed a study to compare the recommended test with the gold standard laboratory test. Results confirmed her doubts – the canine antibody test was wildly inaccurate in shelter cats. If used as the guidelines suggested, mass euthanasia based on faulty results would surely follow.

When a new antibody test kit designed specifically for cats was released, Dr. Levy repeated the strategy and compared the new test to the gold standard. The results were crushing; the new test was hardly better than the other. The manufacturers were distraught to learn that if the test were used in shelters, more cats would be euthanized by mistake. They went back to the drawing board. The test was redeveloped. And exciting new information has just been released by colleagues in Germany: The improved test is now ready to be deployed in shelters – as an accurate tool to learn which cats are at risk in a panleukopenia outbreak.

Rigorous scientific research empowers shelter leaders to make better decisions that save more lives. When a disease outbreak erupts or a new policy is proposed, they know they need to act fast and act smart; their decisions can either save lives or exacerbate deadly situations. At Maddie’s® Shelter Medicine Program,
experienced researchers analyze shelter questions to develop evidence-based recommendations. Animals’ lives should not be subject to guessing games.

Trainees at every level work under these experienced faculty mentors at UF. They develop critical thinking skills and a scientific mindset – essential to any practitioner, but priceless for shelter veterinarians ready to challenge conventional wisdom. Fourteen veterinary students have undertaken mentored research projects over the past six years, and these scholars have learned first-hand what it takes to turn an investigation into a peer-reviewed publication – one that scientists and policymakers alike can value.

The issues our researchers have explored lead to important policy changes for shelter pets. Studies of pathogen prevalence and risk factors have driven recommendations for standard preventive treatments. Research conducted during disease outbreaks has shown that shelters can use individual risk assessments to save animals when disaster strikes. And investigation into discounted adoptions has busted the myth that lower fees mean less love. Since its inception, Maddie’s® Shelter Medicine Program has published 51 scientific publications and given 56 scientific poster and abstract presentations on dozens of shelter research topics.

Yet hundreds of questions remain, and if animal sheltering is to continue to make advances in treating shelter pets, we cannot let up in our pursuit of answers. As the veterinary specialty of Shelter Medicine is formalized and begins to grow, interest and need for quality research will only increase, and industry partners will embrace opportunities to work in this newly designated field.

The support of Maddie’s Fund® will make it possible to keep investigative momentum at this critical time. Our faculty and residents will examine urgent clinical issues. Veterinary students will harness their enthusiasm to serve shelter pets. Veterinarians and managers will be empowered. With continued research in Shelter Medicine, we will all be able to make better choices to prevent, treat, and manage problems in shelter health.
PHASE I & II PRODUCTIVITY

We all have dreams. But in order to make dreams come into reality, it takes an awful lot of determination, dedication, self-discipline, and effort. - Jesse Owens

SHELTER MEDICINE EDUCATION

47 Certificates in Shelter Medicine awarded
92 Online graduate certificate students
65 On-campus certificate students
9 Shelter Medicine courses
33 Students in Maddie’s® externships

ADVANCED TRAINING

Three-year residency program
  3 Completed
  3 Currently enrolled
One-year Internship program
  2 Completed
  1 Currently enrolled
Master’s Degree
  1 Completed
Visiting sabbatical scholar
  1 enrolled

CONTINUING EDUCATION

119 Lectures presented
10,984 Total attendance at conferences and seminars
6 Clinical training courses for shelter veterinarians
7 Textbook chapters authored
5 Shelter Medicine conferences
4 Veterinary forensics conferences
SHELTER CONSULTATION

18 Targeted-topic shelter consultations
14 Full-scope shelter consultations
370,900 Animals cared for by consultation clients annually

URGENT RESPONSE

71 Disease outbreak surveillance and response cases
9 Emergency shelter operations

SHELTER RESEARCH

23 Shelter research projects initiated
56 Scientific poster and abstract presentations
51 Articles published in veterinary journals
RECOGNIZING MADDIE’S FUND®

The support and commitment of Maddie’s Fund® to Shelter Medicine at the University of Florida has made possible our program’s achievements to date. We look forward to continued opportunities to acknowledge the vital role of Maddie’s Fund® in saving shelter pets’ lives.

The program shall be named Maddie’s® Shelter Medicine Program at the University of Florida for as long as the program is sponsored by Maddie’s Fund®.

Each of the academic positions and staff funded by the program are named for Maddie’s Fund®:

- Maddie’s® Professor of Shelter Medicine
- Maddie’s® Clinical Assistant Professor of Shelter Medicine
- Maddie’s® Shelter Medicine Resident
- Maddie’s® Shelter Medicine Intern
- Maddie’s® Shelter Medicine Program Coordinator
- Maddie’s® Shelter Medicine Education & Financial Services Manager
- Maddie’s® Media and Instructional Designer
- Maddie’s® Shelter Medicine Student Services Coordinator
- Maddie’s® Shelter Medicine Research Scholar

Training programs are named for Maddie’s Fund®:

- Maddie’s® Shelter Medicine Residency Program
- Maddie’s® Shelter Medicine Internship Program
- Maddie’s® Shelter Medicine Externship

Courses and the Certificate Program, while not permitted to be formally named for Maddie’s Fund® in the UF lexicon, will be referenced in materials and the website as Maddie’s® courses, Maddie’s® Certificate in Shelter Medicine, and Maddie’s® Online Graduate Certificate in Shelter Medicine.
Reports, presentations, and materials (print and electronic) created by faculty, residents, interns, students, and staff will continue to acknowledge the support of Maddie's Fund®, The Pet Rescue Foundation in underwriting Maddie’s® Shelter Medicine Program at the University of Florida. Materials will feature both the Maddie's Fund® logo and the University of Florida logo.

Publications describe author affiliations as Maddie’s® Shelter Medicine Program at the University of Florida.

Whenever possible, press coverage is sought for important events and discoveries made by the program. These media opportunities include a description of the role of Maddie's Fund® in the project. Press releases include a paragraph, “About Maddie's Fund” designated by Maddie’s Fund®.

ACKNOWLEDGEMENT

The following statement will appear on reports, presentations, and materials created by Maddie's® Shelter Medicine Program:

Maddie’s® Shelter Medicine Program is underwritten by a grant from Maddie's Fund®, The Pet Rescue Foundation (www.maddiesfund.org), helping to fund the creation of a no-kill nation.
ONGOING RECOGNITION OF THE ROLE OF MADDIE’S FUND®

We have recognized the development and continued support of this program by Maddie’s Fund®, through creation of a bronze plaque that is conspicuously displayed in the Dean’s reception suite where dignitaries, civic leaders, veterinary medicine educational leaders, alumni, and prospective donors gather for meetings. A similar plaque is prominently displayed in Maddie’s® Shelter Medicine Rounds Room and a virtual plaque is posted on the program’s website.

THE PLAQUE READS:

With gratitude to Maddie’s Fund®, the Pet Rescue Foundation, for the establishment of the Shelter Medicine Program at the University of Florida College of Veterinary Medicine to enhance the health and welfare of homeless animals through education, innovation, and advancement of the life-saving goals of sheltering programs.

A bright future for sheltered animals depends on new generations of veterinarians with specialized knowledge and skills to keep shelter pets healthy and treat those who are sick and injured. Maddie’s Fund® is building a future where all healthy and treatable shelter dogs and cats are guaranteed a loving home.
As we progress from a focus on program development to one of integration into the culture of the College of Veterinary Medicine, we continue to turn our attention to sustainability for the very special program that has been made possible by Maddie’s Fund®.

**Donor development and faculty endowment**
To sustain the momentum created by the Maddie’s Fund® investment in Maddie’s® Shelter Medicine Program at the UF, a strategic fundraising plan led by the College’s Development Office is underway. The most effective means to secure perpetual funding for personnel is via endowed positions. Several endowed positions already support Shelter Medicine or animal welfare faculty and residents at Mississippi State University, University of Pennsylvania, Cornell University, and North Carolina State University. We have identified 10 prospective donors with special interests in animal welfare and who have connections to our program. The Dean of the UF CVM has identified endowment of this position as a top priority.

**Service fees**
Both shelter consultation service fees and academic tuition fees will contribute to the program’s sustainability strategy. With an eye on leveraging service income to support operating costs for consultation and diagnostic services, shelter health assessment fee revenue will be used in part to sustain the service, which is essential for fulfillment of residency training requirements and enhancing life-saving opportunities for shelters. In our efforts to maintain a balance between generating income and meeting these training and service needs, we will continue to offer pro bono or steeply discounted services to agencies that may not otherwise have the resources to participate.

We are very excited about the unique role of the distance education program in expanding opportunities for Shelter Medicine training and how quickly it has gained support across the globe. Already, tuition generated from the online courses provides approximately 30% of the online program operating costs. We have developed a marketing plan to increase enrollments to the point that tuition will fund all costs of the online program with the exception of a single faculty member’s salary. To increase enrollment and move towards a self-sustaining
education program, we are expanding our course sharing to more colleges in order to foster increased opportunities for tuition revenue from non-UF students, such as partnerships with the Ohio State University and Texas A&M.

**College support and industry partnership**

The Shelter Medicine research program is currently the most secure component of Maddie’s® Shelter Medicine Program. The college provides a full-time research technician devoted solely to Shelter Medicine and 950 square feet of well-equipped Biosafety Level 2 laboratory research space. Research operating costs are largely supported by collaboration with grants from industry partners and animal health foundations. In addition, royalties from the UF canine influenza virus patent will be used to support veterinary student and resident research projects. The University of Florida, College of Veterinary Medicine supports the program by providing office space, physical assets, infrastructure, university-level administrative support, and indirect cost waivers valued at an estimated $140,000 annually.

To date, we have developed supplemental funding streams for all four of our core strategies. Together, these funds underwrite 21% of our total program expenses.
CURRICULUM

VEM 5061 Professional Elective
Introduction to Veterinary Disaster Response
This course introduces students to the basics of disaster response and builds a base for further development in responder training. Students receive training on Incident Command Systems (ICS), learn about the role of veterinarians in disaster response through first-hand accounts and case studies, and craft their own disaster response plan and ICS organizational chart. Students who complete the course will be added to a database of FEMA-trained basic-volunteer responders at the University of Florida College of Veterinary Medicine.

VEM 5320 Professional Certificate
VME 6810 Graduate Certificate
Shelter Animal Behavior and Welfare
This elective course introduces senior veterinary students to the application of veterinary behavior sciences in the environment of animal shelters. This course will teach the student about important aspects of behavior, enrichment, and welfare of pets in animal shelters and about how the behavioral health of dogs and cats in shelters is evaluated, managed, and treated. Upon successful completion of the course, the student will be able to recognize risk factors for behavioral problems and stress in cats and dogs in animal shelters. The student will recognize signs of anxiety, aggression, and fear and be able to develop preventive behavioral health care programs and treatment plans.

VEM 5321 Professional Certificate
VME 6810 Graduate Certificate
Integrating Veterinary Medicine with Shelter Systems
This course promotes an understanding and appreciation of the critical role played by veterinarians in protecting the health and welfare of sheltered dogs and cats. Students learn to use the Association of Shelter Veterinarians (ASV) Guidelines for Standards of Care in Animal Shelters as their guide to best practices in shelters. Students also learn about additional resources for reliable information of best practices and for recognizing and addressing common infectious diseases and behavioral problems. Additionally, students learn about issues related to animal homelessness, to identify examples of animal cruelty presented to animal shelters, and to understand the shelter veterinarian’s role in responding to such issues.

VEM 5322 Professional Elective
Introduction to Shelter Medicine
This elective course is offered to junior veterinary students and introduces health and welfare concepts in the sheltering of dogs and cats. The course discusses the impact of disease outbreaks, disease detection and control, preventive strategies to minimize disease, behavior problems, reduction of stress factors, animal cruelty and neglect, high-quality high-volume spay/neuter, and the role of veterinarians in protecting the health and welfare of animals in shelters.
Veterinarians are the professionals most likely to be asked to render expert opinions regarding suspected cruelty cases, and their involvement is critical to successful outcomes. The purpose of this elective course is to introduce junior veterinary students to the application of veterinary forensic sciences in crimes involving animals, including recognition of abuse, crime scene investigation, and interacting with the legal community. Upon successful completion of the course, the student will be able to identify, collect and analyze evidence related to crimes involving animals, interpret causes of injury or death, and properly document all findings in an appropriate legal report. The student will understand how to work with investigators and prosecutors and how to provide courtroom testimony.

This course uses a combination of lectures, discussions, and surgery clinics to cover the controversial topic of managing unowned free-roaming community cats during a week-long intensive elective course. Students gain an understanding of the impacts of community cats on public health, the environment, and cat welfare. Medico-legal issues associated with community cat management in Florida are discussed. Handling and surgical skills for both pediatric and adult cats undergoing spay and neuter surgery are developed in a clinical environment. Students develop competencies in safe and humane procedures for feral cat trapping, transportation, housing, feral cat anesthesia and monitoring, surgical site preparation, administration of injectable and topical medications, and high-quality high-volume feline castration and ovariohysterectomy.

Students learn to evaluate and modify protocols to enhance the physical health and well-being of sheltered dogs and cats as well as recognize and respond to common threats to physical health. The course explores important medical concepts related to population management, sanitation, facility design, animal housing, preventive healthcare, and best practices for diagnosing and managing infectious disease outbreaks common to the shelter setting. Students perform basic population data analyses, analyze the impact of various housing and sanitation strategies, and assess and create protocols maintaining healthy animals and rehabilitating treatable animals.

This elective clerkship is offered to Junior and Senior veterinary students by the Veterinary Community Outreach Program. Students accompany faculty and residents to the local animal shelter each week and learn how issues such as population management, housing, sanitation, stress management, and preventive Shelter Medicine affect the welfare and outcome of animals in shelters as they provide needed medical care to individual shelter pets. Students also perform spay, neuter, and other surgeries for pets belonging to local adoption-guarantee agencies and provide care for the pets of indigent pet owners.
VEM 5890 Professional Certificate
Consultations in Shelter Animal Medicine Clerkship
Students work with Shelter Medicine faculty and residents to perform and develop the ability to work with a client animal shelter. They systematically gather data, perform observations, communicate findings, and provide resources regarding management, medical and husbandry practices, and facility use at shelters. Students spend the first week of the clerkship with Shelter Medicine clinicians to analyze the shelter’s population data and protocols and the second week of the clerkship on-site during a shelter evaluation. Upon completion of the clerkship, students will be familiar with the procedures for planning a major shelter assessment and understand issues regarding confidentiality and open records requirements for public and private agencies. Students will be able to analyze and display data retrieved from major shelter software programs and to perform a detailed population management analysis including development of statistics for intake, disposition, length of stay, and adoption-driven capacity.

VEM 5892 Professional Certificate
Veterinary Externships
Students are encouraged to participate in elective externships during their clinical training. A special stipend ($1500) to support experience for exceptional students in adoption-guarantee shelters has been available for 4-8 students per year through Maddie’s® Externship Program. Students are also encouraged to participate in High Quality High Volume Spay-Neuter externships.

VEM 5912 Professional Elective
Supervised Research Special Project
Students explore as a group a topic of current controversy in animal sheltering. The course is self-paced and may consist of required readings, videos, online research, and in-shelter experience. Students are encouraged to collaborate and discuss the material with each other. The final project is a group PowerPoint presentation by the course participants to the faculty, students, and staff of the College of Veterinary Medicine.

VEM 5991 Professional Elective
Individualized Investigation
This elective research course is required for graduation with honors from the College of Veterinary Medicine. Students with an interest in Shelter Medicine are recruited to complete a research project on a topic of current importance in Shelter Medicine. Under the direction of a faculty member, students select a research topic, develop a research protocol, prepare a grant application, conduct the research, prepare a manuscript for publication, and present their findings at the college research day or at a national meeting. An average of two students will be selected to complete research projects each year, generally over the summer following the freshman year.
2008 American Association of Feline Practitioners feline retrovirus management guidelines. 
*Journal of Feline Medicine and Surgery, 2008*

2008 Feline retrovirus management guidelines. 
*Compendium of Continuing Education for Veterinarians, 2009*

*Journal of Feline Medicine and Surgery, 2013*

Animal Shelters: Managing Heartworm Disease in Resource Scarce Environments 
*Journal of Veterinary Parasitology, American Heartworm Society Special Issue, 2013*

Association of Wolbachia with heartworm disease in cats and dogs. 
*Journal of Veterinary Parasitology, 2010*

Canine H3N8 influenza virus infection in dogs and mice. 
*Journal of Veterinary Pathology, 2010*

Chronic disseminated *Mycobacterium xenopi* infection in a cat with idiopathic CD4+ T-lymphocytopenia. 
*Journal of Veterinary Internal Medicine, 2008*

Comparison of intratesticular injection of zinc gluconate versus surgical castration to sterilize male dogs. 
*American Journal of Veterinary Research, 2008*

Comparison of two assays for detection of antibodies against canine parvovirus and canine distemper virus in dogs admitted to a Florida animal shelter. 
*Journal of the American Veterinary Medical Association, 2012*

Contraceptive vaccines for the humane control of community cat populations. 
*American Journal of Reproductive Immunology, 2011*

Detection of protective antibody titers against feline panleukopenia virus, feline herpesvirus-1, and feline calicivirus in shelter cats using a point-of-care ELISA 
*Journal of Feline Medicine and Surgery, 2011*

Developmental uterine anomalies in cats and dogs undergoing elective ovariohysterectomy. 
*Journal of the American Veterinary Medical Association, 2010*

Diagnosing H3N8 CIV infection. 
*NAVC Clinician's Brief, 2011*

Diagnostic performance of the canine Influenza A Virus subtype H3N8 hemagglutination inhibition assay. 
*Journal of Veterinary Diagnostic Investigation, 2012*

Diagnostic, treatment, and prevention protocols for canine heartworm infection in animal sheltering agencies. 
*Journal of Veterinary Parasitology, 2011*
Diagnostic, treatment, and prevention protocols for feline heartworm infection in animal sheltering agencies. 
Journal of Veterinary Parasitology, 2011

Differentiation of feline immunodeficiency virus vaccination, infection, or vaccination and infection in cats. 
Journal of Veterinary Internal Medicine, 2008

Disease Information Fact Sheet: Feline Immunodeficiency Virus

Effect of high-impact targeted trap-neuter-return and adoption of community cats on shelter cat intake. 
The Veterinary Journal, submitted

Effects of anesthesia and surgery on serologic responses to vaccination in kittens. 
Journal of the American Veterinary Medical Association, 2008

Effects of maternally-derived antibodies on serologic responses to vaccination in kittens. 

Enteropathogens identified in cats entering a Florida animal shelter with normal feces or diarrhea. 
Journal of the American Veterinary Medical Association, 2012

Enteropathogens identified in dogs entering a Florida animal shelter with normal feces or diarrhea. 
Journal of the American Veterinary Medical Association, 2012

Evaluation of collars and microchips for visual and permanent identification of pet cats. 
Journal of the American Veterinary Medical Association, 2010

Evaluation of medetomidine, ketamine and buprenorphine for neutering feral cats. 

Feline non-repetitive mitochondrial DNA control region database for forensic evidence. 
Forensic Science International: Genetics, 2011

Impact of publicly sponsored neutering programs on animal population dynamics at animal shelters: the New Hampshire and Austin experiences. 

Infectious diseases in large-scale cat hoarding investigations. 
The Veterinary Journal, accepted

Infectious diseases of dogs and cats on Isabela Island, Galapagos. 
Journal of Veterinary Internal Medicine, 2008

Influenza A virus (H3N8) in dogs with respiratory disease, Florida. 
Emerging Infectious Diseases, 2008

Intracardiac foreign body in a dog. 
Journal of Veterinary Cardiology, 2009

Long-term fertility control in female cats with GonaCon™, a GnRH immunocontraceptive. 
Theriogenology, 2011

Outdoor cats: Identifying differences between stakeholder beliefs, perceived impacts, risk and management. 
Conservation Biology, 2013

Pit bull-type dog identification in animal shelters. 
Journal of the American Veterinary Medical Association, submitted
Prevalence of and exposure factors for seropositivity to H3N8 canine influenza virus in dogs with influenza-like illness in the United States.
   *Journal of the American Veterinary Medical Association, 2013*

Prevalence of Dirofilaria immitis, Ehrlichia canis, and Borrelia burgdorferi in pet dogs, racing greyhounds, and shelter dogs in Florida.
   *Veterinary Parasitology, 2010*

Prevalence of infectious diseases in cats and dogs rescued following Hurricane Katrina.
   *Journal of the American Veterinary Medical Association, 2011*

Prevalence of Infectious Diseases in Large-Scale Cat Hoarding Responses
   *The Veterinary Journal Feline Infectious Diseases Special Issue, 2014*

Prevalence of protective antibody titers for canine distemper virus and canine parvovirus in dogs entering a Florida animal shelter.
   *Journal of the American Veterinary Medical Association, 2010*

Prevalence of serum antibody titers against feline panleukopenia virus, feline herpesvirus 1, and feline calicivirus in cats entering a Florida animal shelter.
   *Journal of the American Veterinary Medical Association, 2012*

Prevalence of upper respiratory pathogens in four management models for unowned cats in the southeast United States.
   *The Veterinary Journal, submitted*

Renal disease in cats infected with feline immunodeficiency virus.
   *Journal of Veterinary Internal Medicine, 2012*

Serological evidence of H3N8 canine influenza-like virus circulation in USA dogs prior to 2004.
   *The Veterinary Journal, 2011*

Seroprevalences of feline leukemia virus and feline immunodeficiency virus in cats with abscesses or bite wounds and rate of veterinarian compliance with current guidelines for retrovirus testing.
   *Journal of the American Veterinary Medical Association, 2008*

Surveillance of feral cats for influenza A virus in North Central Florida.
   *Influenza and Other Respiratory Viruses, 2011*

Tail vaccination in cats—a pilot study
   *Journal of Feline Medicine and Surgery, 2013*

The Association of Shelter Veterinarians veterinary medical care guidelines for spay-neuter programs.
   *Journal of the American Veterinary Medical Association, 2008*

The effects of social training and other factors on adoption success of shelter dogs.
   *Applied Animal Behaviour Science, 2012*

Use of a commercially available relaxin test for detection of pregnancy in cats.
   *Journal of the American Veterinary Medical Association, 2010*

Use of visual and permanent identification for pets by veterinary clinics in the southeastern United States.
   *The Veterinary Journal, accepted*

What is your diagnosis? Synovial cysts in a cat.
   *Journal of the American Veterinary Medical Association, 2009*
PRESENTATIONS

A Whole New Ball Game: Putting the Cat Revolution into Practice
HSUS Animal Care Expo
Achieving Exceptional Disease Control in Crappy Digs
HSUS Animal Care Expo
Animal Sheltering During Disasters
Colorado Animal Welfare Conference
Animal Shelters: Managing Heartworm Disease in Resource Scarce Environments
American Heartworm Society’s (AHS) Triennial Symposium
Association of Shelter Veterinarians Pediatric Spay/Neuter Wet Lab
North American Veterinary Conference
Maddie’s Shelter Medicine Conference
Six Annual Conferences
Beyond Kennel Cough: Using PCR to Diagnose Respiratory Infections
University of Florida, Referral Veterinarian Day
Beyond the Box
ASPCAPro webinar
Beyond URI: Coping with Infectious Diseases Encountered in Large-Scale Cat Seizures
All About Cats, Florida Association of Animal Welfare Organizations
International Fund for Cat Welfare Veterinary Conference
Biosecurity and Zoonoses
University of Florida
Canine and Feline Parvovirus in Animal Shelters
Western States Veterinary Conference
Canine Distemper in Florida Shelters
SPCA of Central FL / OCAS
Canine Distemper: Why is this old plague still a threat to dogs in Florida?
South Florida Veterinary Medical Association
Canine Infectious Respiratory Disease
Petfinder Adoption Options
Canine Influenza in Shelters
Colorado Federation of Animal Welfare Associations
Canine Influenza Virus
Sixteen veterinary conferences and associations nationwide
Canine Influenza: Shelter Epidemics and Control Strategies
Midwest Veterinary Conference
Canine Respiratory Infections
VIN Shelter Medicine Workshop, VIN Online
Chemical Sterilization: Panel Session
International Symposium on Non-Surgical Contraceptive Methods of Pet Population Control
Community Cat Management
Twelve Animal Welfare Conferences and Communities, Including Florida, Michigan, Washington DC, Hong Kong, Belgrade, and more
Community Cat Management Intensive Course
University of Florida
Comparison of two screening tests for canine distemper virus and canine parvovirus antibodies in shelter dogs
Phi Zeta Research Day
Merck-Merial NIH Veterinary Scholars Symposium
Control of Community Cats
Western States Veterinary Conference
Counting Cats: Taming Shelter Statistics for Transparency and Strategy
All About Cats, Florida Association of Animal Welfare Organizations
Current Contraceptive Approaches for Feral Cats
International Symposium on Non-Surgical Contraceptive Methods of Pet Population Control
Deadly Diseases for Dogs and Cats in Shelters
South Florida Veterinary Medical Association
Diagnostic, treatment, and prevention protocols for feline heartworm infection in animal sheltering agencies
Phi Zeta Research Day
Merck-Merial NIH Veterinary Scholars Symposium
13th Triennial Symposium of the American Heartworm Society
Diagnostic, treatment, and prevention protocols for canine heartworm infection in animal sheltering agencies
Phi Zeta Research Day
Merck-Merial NIH Veterinary Scholars Symposium
13th Triennial Symposium of the American Heartworm Society
Disaster Sheltering of Companion Animals
Conference Co-Hosted with American Humane Association
Emergency Large-Scale Response
International Fund for Cat Welfare Veterinary Conference
Enteropathogens identified in cats entering a Florida animal shelter with normal feces or diarrhea
Merck-Merial NIH Veterinary Scholars Symposium
Enteropathogens identified in dogs entering a Florida animal shelter with normal feces or diarrhea
Merck-Merial NIH Veterinary Scholars Symposium
Exploring Veterinary Medicine
Florida 4-H Congress Workshop
Face to Face with Feral Freedom
Face to Face with Feral Freedom Conference
Feline Friendly Sheltering
North American Veterinary Conference
Feline Heartworm Masterclass
Southern European Veterinary Conference
Feline-Friendly Sheltering Workshop
Feline Forum
Feral Cat Control
American Public Health Association
Feral Freedom: Keeping Community Cats Out of Shelters
No More Homeless Pets Conference
Feral Freedom: New Solutions for Helping Feral Cats
HSUS Animal Care Expo
Forensics Veterinary Forensic Science: Key to Successful Cases
Confronting Cruelty: Bloodsport Investigations
Maddie's Veterinary Forensics Conference
GnRH Immocontraception for Humane Control of Community Cats
Baker Institute, Cornell University College of Veterinary Medicine
Gonacon and Field Trial Ethics
Alliance for Contraception in Cats & Dogs
H3N8 Canine Influenza Virus Epidemiology
Ramsey Lecture Series, Iowa State University College of Veterinary Medicine
H3N8 Canine Influenza Virus Transmission
2nd International Symposium on Neglected Influenza Viruses
Happy Endings for Abused Cats
International Fund for Cat Welfare Veterinary Conference
Handling Feral Cats in the Clinic
The SNIP Summit
Heartworm Management in Animal Shelters
American Heartworm Society's 13th Triennial Symposium
High-Quality, High-Volume Spay/Neuter
Southern European Veterinary Conference
High-Volume Trap-Neuter-Return for Community Cats
Cornell University College of Veterinary Medicine
How Shelter Medicine is Helping Create a No-Kill Nation
HSUS Animal Care Expo
Humane Control of Feral Cats
Southern European Veterinary Conference
ICS and Disaster Management: the Bushnell Incident
Florida State Agricultural Response Team Conference
State Emergency Center Operations Quarterly Meeting
Immocontraception for Humane Control of Feral Cats
University of Florida
Infection Control in Animal Shelters
Caribbean Animal Welfare Conference
Colorado Animal Welfare Conference
Infectious Diseases of Dogs in Mainpat, India
1st International Conference on Dog Population Management
Investigation and Management Strategies for Disease Outbreaks in Animal Shelters
Iowa State University College of Veterinary Medicine
Issues and Strategies for Controlling Canine Influenza
International Symposium on Neglected Influenza Viruses
Large-Scale Hoarding Intervention: When One Agency is Not Enough
North American Veterinary Conference
Maddie’s Shelter Medicine Conference Track
Best Friends No More Homeless Pets National Conference
Making the Case for a Paradigm Shift in Community Cat Management
Maddie's Institute Webcast
Management of Disease Outbreaks in Shelters
Midwest Veterinary Conference
Managing Cat Colonies
Outdoor Cat Conference
Managing Infectious Disease in Kittens in Breeding & Rescue Catteries
International Society of Feline Medicine World Cat Congress
Mathematical modeling of canine influenza virus transmission in shelter facilities
Phi Zeta Research Day
No-Frill No-Kill: a New Approach to Saving Cats?
All About Cats, Florida Association of Animal Welfare Organizations
Non-Surgical Contraception for Humane Dog and Cat Control
Southern European Veterinary Conference
Non-Surgical Sterilization
World Small Animal Veterinary Association
Operation Catnip Protocols
The SNIP Summit
Outbreak Intervention: Feline and Canine Outbreak Management
Southern European Veterinary Conference
Outbreak Response: Dermatophytosis
Southern European Veterinary Conference
Panel Session: Field Implementation of Non-Surgical Contraception
International Symposium on Non-Surgical Contraceptive Methods of Pet Population Control
Pediatric Spay/Neuter Wet Lab
PetSmart Charities Pediatric Spay/Neuter for Rescue Waggin’
Playing for Life
University of Florida
Population Management from the Inside Out: A Shelter Toolkit
University of Georgia Shelter Medicine Seminar
Population Management in Shelters
University of Florida
Preventing Disease Disasters in Shelters
Zagreb, Croatia
Prevalence and risk factors for FeLV, FIV, and heartworm infection in North American cats
American College of Veterinary Internal Medicine Forum
Prevalence of enteropathogens in four management models for unowned cats in the southeast United States
American College of Veterinary Internal Medicine Forum
Prevalence of upper respiratory pathogens in four management models for unowned cats in the southeast United States
American College of Veterinary Internal Medicine Forum
Prioritizing Resources for TNR
ASPCA Spay Neuter Anesthesia Round Table
Protecting Your Practice and Boarding Facility by Managing Canine Influenza
University of Florida, Referral Veterinarian Day
Protozoal Infections in Shelter Cats
University of Florida
Real-life disease disasters: Managing outbreaks that can shut down private practices
Atlantic Veterinary Conference
Respiratory Infections in Dogs in Shelters
Western States Veterinary Conference
Ringworm Management
Alachua County Humane Society
Hong Kong SPCA
Sanctuary Sickness: The Medical Investigation and Management of Large-Scale Dog and Cat Abuse
North American Veterinary Conference
Saving Community Cats
Cornell University College of Veterinary Medicine
Saving Community Cats
North American Veterinary Conference
Seminar in Veterinary Forensics
University of Florida
Shelter Consultation
University of Florida Student Chapter of the Association of Shelter Veterinarians
Shelter Consultation Institute
National Shelter Medicine Resident Training
Shelter Crowd Control: Keeping Community Cats Out of Shelters
Maddie’s Institute Webinar
Spay/Neuter by the Numbers
HSUS Animal Care Expo
Strategies to Control Feline URI
Alachua County Animal Services
Streptococcus zoopneumoniae: An Emerging Pathogen for Dogs and Cats in Shelters
Midwest Veterinary Conference
Surveillance for Influenza A Infections in Dogs
International Symposium on Neglected Influenza Viruses
Tail Vaccination in Cats: Balancing Disease Protection and Cancer Treatment
University of Florida, Referral Veterinarian Day
Teaching and Learning in Veterinary Medical Education
University of Florida
Testing and Management of Feline Retroviral Infections
Florida Veterinary Medical Association Annual Conference
The Global Threat of Rabies
University of Florida
Things to Know about the H3N8 Dog Flu
Florida Veterinary Medical Association Annual Conference
Tipping Point 2013: Radically Rethinking our Response to Cats
HSUS Animal Care Expo
Urogenital Surprises During Feline and Canine Spays
The SNIP Summit
Use of antibody titers and quantitative PCR as risk assessment tools for management of an outbreak of canine distemper and parvovirus
American College of Veterinary Internal Medicine Forum
What’s New in Shelter Medicine
Hills Pet Nutrition Center
**PERSONNEL**

**Maddie’s® Professor of Shelter Medicine, Program Director**

Julie Levy, DVM, PhD, DACVIM
Dr. Levy’s duties include supervision of the residency, externships, and personnel, overseeing the Community Cat and Special Projects courses, supervision of the Shelter Consultation Clerkship, performing research, and delivering continuing education to veterinarians.

Dr. Levy’s research and clinical interests center on the health and welfare of animals in shelters, feline infectious diseases, humane alternatives for cat population control, and contraceptive vaccines for cats. She is the founder of Operation Catnip, which has helped veterinary students understand the complexities of the homeless cat issue while neutering more than 40,000 cats since 1998. Dr. Levy has published more than 100 journal articles and textbook chapters. She is the recipient of the Carl J. Norden-Pfizer Distinguished Teacher Award, Outstanding Woman Veterinarian of the Year, and the European Society of Feline Medicine Award for Outstanding Contributions in the Field of Feline Medicine.

**Maddie's® Clinical Assistant Professor of Shelter Medicine**

Cynda Crawford, DVM, PhD
Dr. Crawford’s duties include direction of the shelter consultation program (including disease management and shelter health assessments), coordinating the Shelter Medicine research program, course coordinator for the forensic and disaster medicine courses, instruction in most courses, supervision of the internship program, training residents, mentoring Certificate students, and delivering continuing education.

Dr. Crawford’s interests include diagnosis, treatment, management, and prevention of infectious diseases in dogs and cats in sheltering facilities. Her current focus is the diagnosis of viruses and bacteria that cause acute respiratory infections in dogs in shelters. Dr. Crawford’s accomplishments include discovery of canine influenza virus and evaluation of diagnostic assays. Dr. Crawford has published more than 50 journal articles and textbook chapters. She is the recipient of the Florida Association of Kennel Clubs Award for Outstanding Clinical Investigation and the Pfizer Award for Research Excellence.

**Maddie’s® Clinical Assistant Professor of Shelter Medicine**

Dr. Terry G. Spencer, DVM, MEd
Dr. Spencer is responsible for the development and deployment of the online Certificate Program, including curriculum and course development, oversight of instructional and media design, student recruitment and registration, grading and assessments, interactive participation with students and faculty inside and outside of courses, motivating students throughout the program, and tracking completion and graduation.

Dr. Spencer brings a unique background in both science education and veterinary medicine to the Maddie’s® Shelter Medicine Program at UF. Dr. Spencer has worked as an educator and veterinarian in both public and private practice in California and Florida. She has experience with managing disease outbreaks in shelters, conducting cruelty investigations, training volunteers to assist with disasters, providing testimony as an expert witness in criminal animal cruelty trials, working with victims of domestic violence and their pets, performing sterilization surgeries in high-volume shelters, developing standard operating procedures for busy animal shelters, and serving on advisory boards for the improvement of animal shelters.

**Maddie’s® Shelter Medicine Program Coordinator**

Rachel Michaud, BA, CAWA
Ms. Michaud’s duties include managing the outreach components of Maddie’s® Shelter Medicine Program (including course and consultation logistics, electronic newsletters, website development, and coordination of special events) and contributing to the program’s shelter consultations and research projects. The Coordinator organizes conferences and continuing education programs, strategic planning, and creation of instructional materials and program reports.

Having worked with or in animal shelters for more than thirteen years, Ms. Michaud’s background includes nonprofit shelter operations, management, and administration. She is committed to mission-based management and has directed the development of shelter programs including adoption, foster care, volunteer services, and low-cost spay and neuter. She is particularly interested in change management in animal welfare agencies and innovative, replicable lifesaving programs.
Maddie’s® Education and Financial Services Manager
Tricia Kyzar, BSBA, MAIB
Ms. Kyzar is responsible for managing the business and program support aspects of Maddie’s® Shelter Medicine Program and its sub-programs. The Education and Financial Services Manager works with the students, house officers, faculty, and other staff to promote efficient and effective operation of fiscal, educational, and facilities administration.

Ms. Kyzar comes to the program from Alachua County Animal Services where she assisted the new Director in implementing several new programs including reduced adoption fees, a grant-funded program to bring in laptops for field and veterinary personnel, and drafting edits for an overhaul of the County Animal Control Ordinance. Ms. Kyzar has a Master’s in International Business with a Minor in Urban and Regional Planning and 10 years of finance, accounting, and management experience. She has used these experiences to bring innovative ideas to organizational change and improvement.

Maddie’s® Media and Instructional Designer
Michael Crandall, BFA
Mr. Crandall is responsible for developing the online content for the Certificate programs. He translates content received from subject matter experts (faculty) into the interactive, web-based platform that is the instructional medium for the online program. The Media and Instructional Designer both develops multimedia components of the courses and programs the course delivery. He plays a key role in helping faculty translate their knowledge base into active learning strategies for graduate-level students.

Mr. Crandall is a graduate of Florida State University’s Film School and supports Maddie’s® Shelter Medicine Program in a variety of areas including the production and management of multimedia, website development, project coordination, and database management. He has worked with Maddie’s® Shelter Medicine Program on numerous projects over the past five years, including surveys on microchipping practices, research on visual dog breed identification, and large-scale rescue events.

Maddie’s® Student Services Coordinators
Dionne Banks, BS, MA; Ryan Alber, JD
The Student Services Coordinator engages veterinary students enrolled in the Maddie’s® Professional Certificate in Shelter Medicine and recruits new students. The Coordinator ensures that Certificate students are progressing through the curriculum and facilitates interaction with Shelter Medicine faculty through workshops, wetlabs, discussion groups, and field training.

Ms. Banks brings ten years of experience in higher education. She has worked with students as an instructor and mentor for the past four years. She received the University of Florida Outstanding Faculty Award in 2009. Dionne’s background in sociology and political science provides a strong foundational knowledge of the unique strengths and dynamics of non-profit organizations, as well as the potential for future research related to outcomes in communities and among veterinary students regarding Maddie’s® courses and programs.

Mr. Alber unique background in employee-client relationships in a Provincial government constituency office in Ontario, Canada and several law offices around the United States enables him to bring a strong focus in advocacy and proficiency to his Student Services Coordinator role. He is able to combine this with his technological ease to resolve registration, enrollment, funding, and course technology issues to ensure the Maddie’s® Shelter Medicine Program students are able to concentrate on their studies instead of administrative technical issues.

Maddie’s® Administrative Assistant
Matthew Parker
Mr. Parker is responsible for assisting the Education Director, Program Coordinator, Media and Instructional Designer, and Student Services Coordinators with maintaining and updating all digital communications including, webpages, social media pages, presentation files, and digital course content. Several digital media formats are used to communicate with local, national, and international students and prospective students, as well as keeping information about our program in front of the public and interested parties. Mr. Parker also assists the Director and Education and Financial Services Manager with a variety of data analysis tasks, and is instrumental in helping the program develop efficient methods of conducting their day to day tasks.

Mr. Parker brings more than seven years of experience in online database administration, WordPress, and other content management systems to the Maddie’s® team. His unique background has helped the Maddie’s® Shelter Medicine Program with website management and implementation of distance learning initiatives. Matt has also applied these experiences in a variety of field projects and education programs including data management and analysis during off-site cases, and assisting with educational courses and events on campus.
Maddie’s® Shelter Medicine Residents

Amie Burling, DVM
Staci Cannon, DVM
Katherine Polak, DVM

Dr. Burling is seeking a Masters in Public Health through the University of South Florida, and her specific interests include infectious disease control, disaster preparedness, veterinary education, and international medicine. Previously, Dr. Burling completed a small animal medicine and surgery internship in the Chicago suburbs, worked in general practice in Michigan, and helped to establish the first Humane Alliance model, high-quality high-volume spay/neuter clinic in Missouri. She graduated from the University of Missouri College of Veterinary Medicine.

Dr. Cannon earned a Bachelor of Science degree in Biochemistry and Molecular Biology from the University of Georgia in 2006. She graduated from the University of Georgia College of Veterinary Medicine in 2010 and completed an internship in small animal medicine and surgery at VCA South Shore Animal Hospital in Weymouth, Massachusetts. Dr. Cannon has previously worked for the Animal Rescue League of Boston along with several other shelters and feral cat organizations in Massachusetts. She has interests in preventative medicine, infectious disease, surgery, and population management, and is passionate about promoting the medical and emotional wellbeing of shelter animals. Dr. Cannon is also currently pursuing a Master of Public Health at UF.

Dr. Polak graduated Magna Cum Laude from Iowa State University’s College of Veterinary Medicine after earning a BS in cell and molecular biology and a minor in philosophy from Tulane University. While obtaining her DVM degree, Dr. Polak also completed an MPH from the University of Iowa and a Masters in Forensic Science at UF. Before arriving at UF, she completed a shelter medicine and surgery internship at Colorado State University. She is a member of Phi Zeta, Phi Kappa Phi, and Gamma Sigma Delta. Her interests include disaster preparedness and management, international shelter medicine, and feline internal medicine.

Maddie’s® Shelter Medicine Intern

Ken Sieranski, DVM

Dr. Sieranski graduated Cum Laude from the Texas A & M University College of Veterinary Medicine in 2013. Dr. Sieranski earned his Graduate Certificate in Shelter Medicine at the end of the fall 2013 semester. Prior to veterinary school, Dr. Sieranski obtained his Bachelor of Science degree in Animal Science from Purdue University in 2008. In the future, Dr. Sieranski hopes to work in a large municipal shelter, and he has a special interest in community cats. Other interests include shelter consulting, shelter design, and infectious disease control.

Shelter Medicine Research Technician

Sylvia Tucker, BS

Ms. Tucker conducts diagnostic testing in the laboratory for disease outbreak investigations and prevalence studies for shelter consultations. She also assists veterinary students with their research projects and provides support to Shelter Medicine resident and faculty research.

Ms. Tucker has a Bachelor of Science from Cornell University. With an extensive background in research, she has co-authored more than a dozen peer-reviewed publications. Her research projects have included effects of anesthesia and surgery on vaccine response, immunoglobulin concentrations and passive transfer of immunity to neonatal kittens, enteropathogens in shelter cats and dogs, long-term fertility control in female cats with an immunocontraceptive, Wolbachia, and heartworm disease.
AFFILIATED PERSONNEL

Associate Director, William R. Maples Center for Forensic Medicine
Jason H. Byrd, PhD, D-ABFE

Adjunct Clinical Associate Professor of Shelter Medicine and Behavior
Sheila D’Arpino, DVM, DACVB

Clinical Assistant Professor of Shelter Medicine
Brian DiGangi, DVM, MS, DABVP

Adjunct Clinical Associate Professor of Shelter Medicine
Brenda Griffin, DVM, MS, DACVIM

Merial Clinical Associate Professor of Shelter Medicine
Natalie Isaza, DVM

Adjunct Clinical Associate Professor in Veterinary Forensic Medicine
Rachel Touroo, DVM
Pursuing Excellence in Shelter Medicine Education