

# *INNOVATION to Save Lives*

*GonaCon study participant, Figment,  
watches for moving leaves to pounce  
upon in her outdoor enclosure*

*Advancing non-surgical fertility control so as to effectively and  
humanely reduce the number of unwanted cats and dogs.*

April, 2, 2016

Dear Fellow Visionary:

Right now is an especially exciting time for ACC&D as we wrap up our 2011-2015 five-year plan and embark on a vision for 2020. We have set some lofty goals and are excited to share them with you!

Our work over the past five years—our fifth and largest symposium, held in 2013; three scientific Think Tanks bringing together multidisciplinary experts to tackle challenges related to non-surgical fertility control; three new Flagship Initiatives including a prototype ear tag to identify dogs and cats sterilized without surgery—has made ACC&D an increasingly active player in advancing non-surgical sterilization.

While we continue to serve as a resource and connect key stakeholders, we have also launched a study of our own! Seeing the potential for a contraceptive vaccine called GonaCon to prevent countless litters of unwanted cats, and realizing that this resource was going to go untapped for cats unless we stepped up, we recently embarked on a study to determine the safety and efficacy of the product in a simulated free-roaming cat colony. Be sure to read more about our exciting study and other innovations to save lives in this report.

In addition to the launch of our GonaCon study, the past two years brought a new website to better provide you with resources now and in the future. We invite you to check it out if you haven't already!

Our accomplishments over the past five years forecast continued success in the next five! We intend to collaborate with strategic partners to bring both the ear tag and population modeling work to "the field," including a Think Tank to guide us and advance best practices on conducting field studies in an ethical manner. We also look forward to organizing a 6th International Symposium and the chance to do what we do best – bring stakeholders together to advance the field of non-surgical sterilization.

We're a small organization with a narrow niche, but our reach and capacity to vastly improve animal welfare and provide you with more options is significant. We hope you find this biennial report covering 2014-2015 inspiring and look forward to working with you to actualize our vision for 2020!



**Joyce Briggs**  
ACC&D President



**Elly Hiby, PhD**  
Chair, ACC&D  
Board of Directors  
ICAM Coalition Scientific  
Coordinator; Independent  
Animal Welfare Consultant





**Our sincere gratitude to our Board of Directors and Scientific Advisory Board, whose members have volunteered tremendous time, energy, and expertise to ACC&D's governance and projects:**

*Left to right – ACC&D Project Manager Valerie Benka, Linda, Gregory, Joyce, Amy, Kevin, Betsy M, Bob, Elly, John. Not pictured: Betsy S, Jed, Joanne, ACC&D Coordinator Susan Getty*

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**Stephen L. Zawistowski, PhD, CAAB** Senior Advisor Emeritus, ASPCA®; Adjunct Professor of Animal Behavior and Conservation, Hunter College



*Frangelico enjoys affection from Gregory Castle*



*Co-Investigator, Dr. Julie Levy, rewards a cat with Cheese Whiz*



*Study participant, Figment, uses volunteer Katie Frey to get a better view*

## *A New Tool for Cat Contraception*

As the quest for a single-treatment, permanent, non-surgical sterilant continues, ACC&D explores tools to meet the immediate need for more humane population control options for dogs and cats

GonaCon, an immunocontraceptive vaccine, was developed by the U.S. Department of Agriculture's National Wildlife Research Center (NWRC) as a non-lethal wildlife population control method. As a vaccine, GonaCon prompts the body to develop antibodies, in this case to Gonadotropin-releasing hormone, or GnRH. Without GnRH, animals don't produce estrogen, progesterone, or testosterone—all hormones necessary for reproduction.

A previous study by Dr. Julie Levy (University of Florida Maddie's Shelter Medicine Program) indicated the safety and efficacy of the vaccine in providing contraception in female cats for a median of 3+ years. A slight modification of the vaccine by NWRC prompted ACC&D to sponsor a small safety confirmation study in 2014, conducted by the world-renowned Center for Conservation and Research of Endangered Wildlife at the Cincinnati Zoo & Botanical Garden.

Similar to the results in Dr. Levy's study, the safety confirmation study demonstrated that the new formulation is effective and safe enough for ACC&D to sponsor a larger study, up to five years' duration, to evaluate the vaccine in the environment we see it having the greatest impact – a free-roaming cat colony!

The study kicked off in November 2015, and as was the case for the six cats in the safety confirmation study, all thirty-three cats in the current study will be placed in great homes at the study's end.

With the welfare of the cats a top priority, we designed a space to house the study participants. Thirty female and three male cats have access to a two-level indoor space with plenty of couches, cat trees, and cat beds from which to choose. There is also a large outdoor, enclosed yard with real trees to climb and plenty of surfaces on which to soak up the sun. With this home-like environment and the daily love and attention from volunteers and staff, we expect the cats to easily transition into their adoptive homes.



We are hopeful that GonaCon will serve as a valuable tool for Trap-Neuter-Return (TNR) programs struggling to spay large numbers of cats, as the injection can be given in “the field,” negating the need for transportation, anesthesia, and recovery space. We share this vision with the study’s funders, the **Morris Animal Foundation** and the **John T. and Jane A. Wiederhold Foundation**, as well as many individuals who have dedicated their time to the study, especially:

**Dr. Amy Fischer**, Principal Investigator;  
University of Illinois

**Dr. Kevin Morris**, Principal Investigator

**Dr. Julie Levy**, Co-Investigator

**Dr. Bob Weedon**, Attending Veterinarian

**Dr. Jodi Matheson**, Board-certified radiologist/  
ultrasonographer

**Dr. Robin Hadley**, Veterinarian

**Dr. Teri Kidd**, Veterinarian

**Dr. Duane Dust**, Veterinarian

**Dr. Susan Norris**, Veterinarian

**Dr. Linda Rhodes**, ACC&D Board member

**Kayla Myers**, Project Manager

**Sam Donzelli**, Volunteer Coordinator

**Naomi Guzman**, Enrichment Coordinator

And the many University of Illinois undergraduate students who are volunteering or interning with the study, providing enrichment and care for the cats!

We are truly grateful to have such support in advancing this critical tool!

*John T. & Jane A.*  
**WIEDERHOLD**  
*Foundation*



*Key GonaCon study personnel: (top row left to right) Dr. Julie Levy, Sam Donzelli, Alyssa Hannon, Dr. Bob Weedon (bottom row left to right) Dr. Amy Fischer, Kayla Myers*



# Free-Roaming Cat Population and Economic Modeling

## Gathering experts across disciplines to improve lives for cats

Humane management of free-roaming cats is a complex and vital undertaking. There are many examples of successful Trap-Neuter-Return (TNR) programs, but on the whole, there's a lot we don't know about how to make humane population management programs most efficient and effective both now and with future non-surgical contraceptives. As such, ACC&D has convened a Free-Roaming Cat Model Development Team to address the unknown and provide valuable answers to those working hard to help free-roaming cats. More information is published here.

Phase 1 of the Team's work modeled the population impacts of different management approaches. In November 2014, the results were published in PLOS ONE; the article, "Simulating Free-Roaming Cat Population Management Options in Open Demographic Environments," is available online at no cost. Our related Guidance Document translates model findings into guidelines for cat management programs, and our "how-to" guide to counting cats and monitoring population numbers to evaluate intervention impact, are free on our website. We presented this work at the National Council on Pet Population & Society of Animal Welfare Administrators 2015 Research Symposium and will present at The HSUS Animal Care Expo in 2016 in a session entitled, "Smart TNR: Tracking Success to Achieve Key Goals."

Phase 2 is now underway, incorporating the costs of different interventions into our model. We want to be able to answer such questions as, "If a contraceptive vaccine costs \$15 and lasts three years, how does that cost-effectiveness compare to surgery?" and "How can surgical sterilization and temporary contraception be combined to have the greatest population impact at the lowest cost?" The Team intends to publish further results upon completion; our aim, to provide a valuable tool for the TNR community.

We are grateful to the funders of this work:



### The ACC&D Free-Roaming Cat Model Development Team:

**Aaron Anderson, PhD**  
USDA APHIS National Wildlife Research Center

**Valerie Benka, MS, MPP**  
Alliance for Contraception in Cats & Dogs

**John Boone, PhD**  
Great Basin Bird Observatory

**Joyce Briggs, MS**  
Alliance for Contraception in Cats & Dogs

**Dennis Lawler, DVM, FNAP**  
Illinois State Museum, Pacific Marine Mammal Center Laguna Beach

**Julie Levy, DVM, PhD, DACVIM**  
Maddie's® Shelter Medicine Program, University of Florida College of Veterinary Medicine

**Philip Miller, PhD**  
IUCN/SSC Conservation Breeding Specialist Group

**Felicia Nutter, DVM, PhD, DACZM**  
Tufts University Cummings School of Veterinary Medicine

**Margaret Slater, DVM, PhD**  
ASPCA®

**Chris Sloomaker, PhD candidate**  
USDA APHIS National Wildlife Research Center

**Stephen L. Zawistowski, PhD, CAAB**  
ASPCA®, Hunter College

## Marking and Identification

How do we identify non-surgically sterilized animals?



When cats and dogs are sterilized using the traditional surgical method, they are put under general anesthesia. Particularly for free-roaming or feral animals, this permits veterinarians to tattoo or ear-tip the animal to visibly indicate spay/neuter status. One benefit of non-surgical

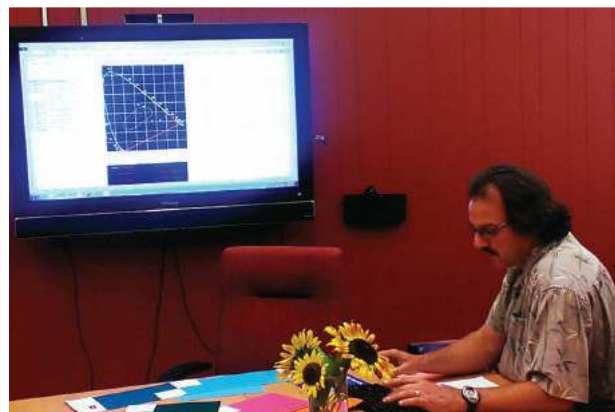
sterilization is that general anesthesia isn't required, though it leaves veterinarians unable to visibly mark animals as usual. ACC&D has been hard at work trying to solve this problem!

In 2014, following our Think Tank and extensive research on current methods used to mark animals (cats and dogs, as well as wildlife and those raised for food, we partnered with a multidisciplinary team from Cornell University—faculty and students from the College of Veterinary Medicine, College of Human Ecology Fiber Science and Apparel Design, and Electrical and Computer Engineering—to advance development of a “21st century” ear marker. We envision this ear marker proving useful not only by signifying animals treated non-surgically, but also by identifying dogs in rabies-endemic areas who have been vaccinated against the deadly virus, and by offering an alternative to ear tipping for free-roaming cats.

With support from Cornell University's David R. Atkinson Center for a Sustainable Future (ACSF), ACC&D and Cornell, plus volunteer experts on topics ranging from human vision to human body piercing to animal behavior, spent the 2014-15 school year evaluating fabric options, application methods, options for adding RFID, and strategies to best convey information about treatment through tag color and shape. The Cornell team conducted a small study with very closely monitored dogs during the summer of 2015, with excellent results; we soon plan to do the same with cats. The next phase will bring larger field studies to evaluate the tag's duration, comfort, and efficacy in a field setting, as well as to explore community acceptance of such a marker. The goal is to find a solution that is humane, cost-effective, and practical, and our team is well on its way!



Students and faculty from Cornell University working together across disciplines to create a 21st century ear tag (from left to right – Debashree Guruaribam, Yunfei Ma, Po-Jen Hsieh, Lorie Kim, Elizabeth Berliner, Eloise Cucui, Margaret Frey and Edwin Kan)



Volunteer, Dr. Karl Citek, Professor of Optometry, Pacific University College of Optometry, studies possible ear tag colors to minimize color confusion in the field



Ear tag prototypes.



Puppies in Romania trialing ear tags in Eloise Cucui's study

## Collaborating to Advance Non-Surgical Sterilization

ACC&D partners with International Cat Care on two projects with global distribution

One might call 2015 the “Year of the Cat” for ACC&D. Not only did we launch our study of the GonaCon contraceptive vaccine for free-roaming female cats, but we also partnered with International Cat Care (iCatCare), the International Society of Feline Medicine (ISFM), and the Journal of Feline Medicine and Surgery (JFMS) on two exciting feline-focused projects.

For over 50 years, iCatCare has been raising the standard of treatment and care provided to cats through partnerships with international veterinary organizations, providing expert resources for cat owners, and working on behalf of unowned cats. We were honored when iCatCare, a member of ACC&D’s Council of Stakeholders, invited us to organize the first-ever daylong gathering devoted entirely to non-surgical fertility control for cats. The event took place in conjunction with the 2015 ISFM European Congress in Porto, Portugal, and brought together experts on different approaches to and aspects of non-surgical fertility control. The session drew a large audience of feline veterinarians, researchers, and advocates from across Europe and beyond.

In concert with the European Congress, ACC&D served as guest editor for a Special Issue of JFMS, the flagship journal of the International Society of Feline Medicine and the American Association of Feline Practitioners. This Special Issue was also the first-ever to focus solely on nonsurgical fertility control for cats, and it covered the topics presented at the session in more depth and for a much broader audience. In fact, in the first three months, the journal was downloaded more than 1,000 times! The journal is available for download on the JFMS website, as are recordings of Congress sessions.



Dr. Amy Fischer serves as moderator for the 2015 ISFM European Congress in Porto, Portugal



Dr. Julie Levy highlights the findings of her GonaCon studies to Congress attendees





## A Resource for The Community

Committed to providing unbiased, scientifically-based information on non-surgical sterilization and fertility control

In 2014-2015, ACC&D continued to serve as an independent resource for information on non-surgical "tools" currently available or under development. Our new website allowed us to enhance our online resource library, and made navigating publications like our Product Profile and Position Papers even easier. We also continued to respond to inquiries from around the world, which speak to the tremendous need for new options for humane control of dog and cat populations.

Zeuterin, an injectable sterilant, commercially launched in

The logo for Zeuterin, featuring the word "Zeuterin" in a bold, blue, sans-serif font with a trademark symbol. A blue underline is positioned beneath the letters "euterin".

February 2014 alongside the 20th Anniversary of World Spay Day. As the only FDA-approved non-surgical option for male dogs in the United States, we have taken particular care to provide unbiased information for those interested in Zeuterin. Inspired by World Spay Day 2014, we launched a "Prizes for Pioneers!" contest to facilitate sharing best practices for use of Zeuterin by rescues, veterinary clinics and spay/neuter programs. We have published the results of this contest on our website as a guide for others seeking to use the product to neuter more dogs or dogs who would otherwise not be neutered. Be sure to take a look!

ACC&D also presented and/or exhibited at several national and international animal welfare conferences in 2014-2015, including The HSUS Animal Care Expo, Best Friends National Conference, International Companion Animal Management (ICAM) Coalition's 2nd International Conference on Dog Population Management, International Society of Feline Medicine's (ISFM) European Congress, North American Spay/Neuter Conference, Caribbean Animal Welfare Conference, and Global Development Symposium.



ACC&D staff at the 2015 Best Friends Animal Conference in Atlanta, GA



ACC&D Program Manager, Valerie Benka, at the HSUS Expo in New Orleans, 2015

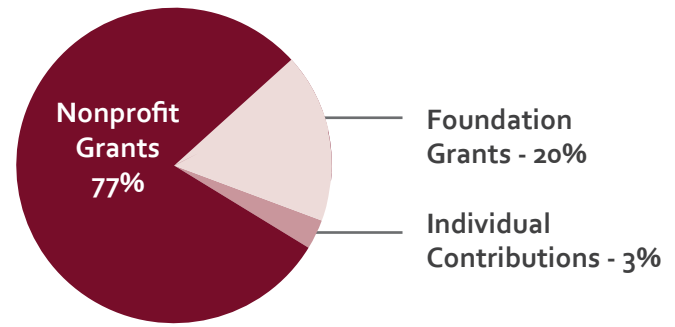


# Financials

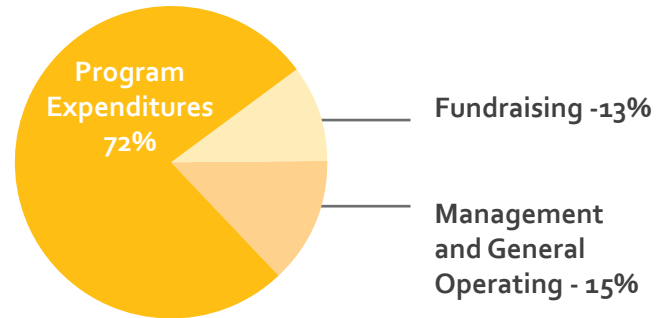
During the two-year period of 2014-15, ACC&D had \$654,945 in donations and \$229,545 in pledges for 2016 or 2017\*; totaling \$884,490 in revenue. Expenditures for 2014-15 were \$574,184.

\*The Council of Stakeholder model involves a 3-year grant commitment. That financial commitment is acknowledged in the period when it is pledged. For detailed financial information, including audit history, we invite you to contact us at [info@acc-d.org](mailto:info@acc-d.org).

## Total Revenue in 2014-15: \$884,490



## Total Expenses in 2014-15: \$574,184



## Thank you, volunteers!

As a small organization, ACC&D relies on the generosity of volunteers to accomplish our goals. We are truly grateful to our Board of Directors and Science Advisory Board for their commitment to our shared vision and leadership on projects, as well as to the following individuals for volunteering their time and expertise in myriad capacities:

- Dr. Camila L. Ackermann
- Dr. Aaron Anderson
- Dr. Maria Andersson
- Dr. Elizabeth Berliner
- Bruce Berning, Esq
- Kevin Brown
- David Buffington
- Dr. Karl Citek
- Tom Christal
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- Rosa Soto
- Cecilia Ocampo-Solis
- Alex Bahadri
- Alyssa Hannon
- Anna Hobson
- Katie Hobson
- Laura Olander
- Alexis Davidson
- Sam Donzelli
- Naomi Guzman

## 2014-15 Council of Stakeholders

The Council of Stakeholders includes those foundations and organizations who share our goal to advance non-surgical fertility control options for cats and dogs. Each Stakeholder commits to three years of funding, allowing our small organization to focus on our mission and impact. We are grateful to our long-term Stakeholders (the American Society for the Prevention of Cruelty to Animals, The Humane Society of the United States, Petco Foundation, PetSmart Charities, and the Regina Bauer Frankenberg Foundation) and to those who joined us in 2014 (Alley Cat Allies, Best Friends Animal Society, International Cat Care, and the International Fund for Animal Welfare).



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## Thank you, **DONORS!**

ACC&D extends our sincere gratitude to the foundations, organizations and individuals that provided \$1,000 or more in financial support during the 2014-2015 period:

*\$100,000 and above*  
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The John T. and Jane A. Wiederhold Foundation

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Dr. John Boone  
Erika Brunson / California Community Foundation  
Dr. Amy Fischer  
Marianne Hammerschmidt and Raymond Terry  
Dr. Kevin Morris  
Dr. Linda Rhodes  
Betsy Banks Saul



# ACC&D

Alliance for Contraception  
in CATS & DOGS

Photographs in this report were taken by Valerie Benka, Joyce Briggs, Eloise Cucui,  
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