Our mission is to expedite the successful introduction of methods to non-surgically sterilize dogs and cats and to support the distribution and promotion of these products to humanely control cat and dog populations worldwide.
Letter from the Board Chair and President

Thank you for reading ACC&D’s 2012-13 biennial report; we certainly enjoyed creating it! This document summarizes two very busy, inspiring years in our journey to advance non-surgical fertility control for dogs and cats.

ACC&D’s 5th International Symposium was a highlight of 2013. We were particularly pleased to host a conference—a microcosm of the broader field of non-surgical sterilization—that convenes what many might consider “strange bedfellows.” Animal welfare advocates, veterinarians, public health experts, scientists, and pharmaceutical representatives all joined together in the spirit of collaboration and search of a common goal. The event was an opportunity to share innovative research taking place, much with support from the Michelson Grants in Reproductive Biology, and to learn about products currently being used in the field. Sessions also addressed challenging yet critical topics, including the ethical questions and cultural considerations surrounding the development and implementation of new technologies.

The past two years have afforded opportunities for ACC&D to lead initiatives on topics that are not solely focused on non-surgical sterilization; they certainly benefit the field, but they also have immediate and important applications to traditional surgical sterilization and animal welfare in its broadest definition. You can read more about our free-roaming cat population modeling and marking/identification work in the pages that follow. We are very grateful to the ASPCA and PetSmart Charities for providing financial support for these two initiatives in 2012-13; we’re also, of course, indebted to the experts who have volunteered their time and skills to move them forward!

One of ACC&D’s greatest challenges is patience. Progress can seem frustratingly slow when developing new fertility control technologies. The regulatory process can also take significant time, as was true for Zeuterin™ non-surgical sterilant for male dogs, which became commercially available in February 2014.

Yet even though advances take time, we maintain our commitment to non-surgical fertility control for cats and dogs. We know that it will greatly increase our capacity to humanely reduce numbers of unwanted animals; create more options for pet owners, veterinarians, and animal shelters; and help to create healthier, more humane communities. We are inspired by ACC&D’s accomplishments and progress in 2012-13; we hope that you, too, will be inspired reading this report. We look forward to sharing further advances in the next two years—and beyond!
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Science Advisor, ASPCA

* We are saddened by the passing of Dr. Hecht and Dr. Jöchle, both in 2013. They were extraordinary scientific advisors and champions for this field, and they are missed.
On June 20, 2013, 156 individuals from 16 countries and six continents convened in Portland, Oregon, and devoted three days to the development and use of non-surgical tools for humane management of pet and free-roaming cat and dog populations. Of particular note: over half of the speakers were new to an ACC&D symposium, reflecting the expansion and increasing diversity of this field.

Our 5th International Symposium brought together key stakeholders in the field of non-surgical sterilization. Attendees included researchers, academics, veterinarians, animal welfare professionals, wildlife biologists, public health experts, pharmaceutical industry representatives, journalists, government officials, and investors from the U.S. and abroad. The range of topics covered at the symposium matched the diversity of attendees. Sessions addressed the ethical considerations of non-surgical fertility control, the need and market for new options, products with near-term availability, progress toward new technologies, and work “in the field” with Zeuterin™, Suprelorin™, and GonaCon™.

Participants found the symposium both educational and inspirational. A majority of attendees completed a post-event survey and rated the symposium an average of 4.7/5 (5 being excellent) for overall quality. Most also reported that they left more hopeful about future progress and more interested in being involved in efforts to develop non-surgical options than before they arrived—uplifting feedback for us at ACC&D and for the field!

The day after the symposium Ark Sciences hosted a Zeuterin observation and training session at nearby Portland Animal Welfare (PAW) Team, an organization that has incorporated the non-surgical sterilant into its veterinary care services for pets of the city’s homeless residents. The outcome: 56 male dogs were zinc neutered, and 19 veterinary professionals were certified as Zeuterin providers.

ACC&D’s 5th Symposium was a resounding success thanks to expert speakers, dedicated participants, and developments taking place in this field. The fact that commercially feasible tools now exist, and some are on the market, reflects the progress made since ACC&D was founded, at which time no non-surgical products were commercially available. With awareness of our field developing and new products emerging, the world of non-surgical sterilization has never been a more exciting place to be, nor has it held such a great amount of hope for the animals whose lives we are striving to improve.

“I was incredibly impressed by the openness of debate, the quality of speakers and the range of issues addressed. ACC&D should be commended for the many aspects of work it is doing to promote the best application and coming together of ideas for nonsurgical sterilants and, ultimately, better animal welfare.”

~ Kate Atema, Program Director, Companion Animals, International Fund for Animal Welfare (IFAW)
ACC&D’s Think Tanks convene experts from diverse backgrounds to delve into topics that advance our mission. Three successful Scientific Think Tanks in prior years paved the way for these two meetings in 2012 and 2013.

Controlled release for depot and implant technologies, as it applies to developing non-surgical alternatives to sterilize cats and dogs:

In April 2012, with support from the Found Animals Foundation, ACC&D hosted a Think Tank on the application of depot and implant technologies to deliver contraceptive agents. While this may sound technical, the concept is quite simple: to deliver a contraceptive or sterilizing agent over an extended period of time with a single treatment—something benefitting both free-roaming animals who may be caught for treatment only once, and pets who could enjoy long-term contraception with only a single trip to the veterinarian.

Experts in drug delivery, precision manufacturing, FDA regulatory procedures, and dog and cat reproductive biology convened for three days of intensive discussion, brainstorming, and planning for the future. Technologies discussed included diffusion-controlled implants, erodible matrix implants, osmotic pumps, electrically-driven pumps, polymer-based microspheres, in situ forming implant systems, and even microchip-based delivery systems to permit precise control of dose timing. You can learn more about the Think Tank here.

Identifying & prioritizing marking methods for non-surgically sterilized cats and dogs:

Our fifth and most recent Think Tank took place in May 2013 in Phoenix, Arizona, and with generous support from PetSmart Charities. The topic: how to mark and identify non-surgically sterilized cats and dogs, particularly free-roaming populations. Trap-neuter-return (TNR) and Animal Birth Control (ABC) programs use ear tipping, ear notching, or tattooing to identify free-roaming cats and dogs as sterilized. Since many methods of marking are only humane if the animal is anesthetized (and non-surgical sterilants offer an advantage of not requiring anesthesia!), ACC&D is seeking a method of marking animals that is non-invasive as well as visible, permanent, and affordable. As we quickly learned, this is no small task!

We conducted several steps in advance of the Think Tank: we performed a review of literature, convened an ACC&D Marking Committee, and established an Inno-Centive Brainstorm Challenge to crowd source “out of the box” ideas from around the world. Two Challenge winners joined the Think Tank, as did experts from the AVMA, ASPCA, Humane Society International, Alley Cat Allies, and the fields of wildlife marking, veterinary pain management, and Radio-frequency identification, among others.

ACC&D’s “Identifying & prioritizing marking methods The Think Tank concluded with consensus that visible ear tags can be greatly enhanced by improved technology and creative use of materials. The assembly developed several recommendations regarding ear tag and study design, potential partners, and marking methods. Attendees possessed a firmer grasp on both the exciting possibilities in the field of non-surgical sterilization and the ways to maximize the value and impact of new technologies. Further details on this Think Tank can be found here.

Key Accomplishments

The Think Tank experience was one of the best 2 days I have ever spent in my professional career!

Dr. Sheilah Robertson, Associate Professor Health Program, Michigan State University College of Veterinary Medicine; former Assistant Director, Animal Welfare Division, American Veterinary Medical Association.
Many people and organizations within the animal welfare field seek to better understand the dynamics of free-roaming and community cat populations, and specifically the number of animals who must be sterilized to create a long-term reduction in population size. This, in turn, has critical implications for the success of trap-neuter-vaccinate-return (TNVR) programs. Add multi-year feline contraceptives to the caretaker “toolkit,” and required treatment numbers become even more complex.

ACC&D’s [free-roaming cat population monitoring and modeling flagship initiative](#), which emerged from a [Think Tank](#) held in 2011, aims to answer fundamental questions to advance effective and humane population management for community cats. The reality is that, to date, we really don’t know the details of how many cats must be treated, and in what timeframes, in order to have successful TNVR programs. While models have tried to answer these questions, they often don’t account for key variables such as immigration, abandonment, dispersal, and geographic diversity.

In 2013, ACC&D convened an expert group (names listed to the left) to develop a detailed computer simulation model for free-roaming cat populations using Vortex, a powerful program developed for endangered species conservation. Team members produced a guidance document summarizing key findings and their practical applications to managing free-roaming cat populations, as well as a complementary guide to counting and monitoring numbers of animals. You can download these documents here. We have also submitted the complete technical analysis for journal publication.

The model surpasses past efforts in its scope and level of detail, and it provides substantial insight into the most effective ways to manage free-roaming cats. It calls attention to several features that we in the field need to better understand in order to be more effective in our goals. Since ideas that led to its formation were first discussed in ACC&D’s Think Tank of 2011, the success of this project bodes well for productivity and innovation to be ignited during Think Tanks in the future.
In April 2013, ACC&D released *Contraception and Fertility Control in Dogs and Cats*. This 154-page e-book is available for [download](#) at no cost on ACC&D’s website.

This definitive reference guide to non-surgical methods and research to manage reproduction in cats and dogs was written by Katherine Moldave, MBA, who co-founded animal health consulting firm AlcheraBio, LLC, and serves as Scientific Advisor to ACC&D. Linda Rhodes, DVM, PhD (Chief Scientific Officer at Aratana Therapeutics, Inc., and ACC&D Board Vice Chair) served as primary reviewer and author of one chapter.

Nine months after release, as 2013 came to a close, the report had been downloaded by individuals in 66 countries and six continents! Feedback has been extremely positive. Offering the e-book free of charge has permitted us to reach out to and support U.S. and international communities with limited resources. We value the ability to do this, as we recognize that under-resourced and vulnerable communities could benefit tremendously from non-surgical options as a means to reduce unwanted pet populations and enhance animal welfare.

Tremendous thanks for this book go to PetSmart Charities, which provided funding to develop the text, and to the authors and many reviewers who provided input and guidance.

“I have just finished reading the Contraception & Fertility Control document written for ACC&D. It is absolutely outstanding and an incredible resource on so many fronts. Huge Way To Go!!! This document will be a resource for all of us for many years.”

Shirley D. Johnston, DVM, PhD, Director of Scientific Research, Found Animals’ Foundation
Zeuterin™ (also labeled as EsterilSol™ outside the U.S.) has the capacity to greatly increase numbers of male dogs neutered world-wide by making neutering less expensive, more accessible, and, in some contexts, more socially and culturally acceptable. We want to ensure that it reaches its full potential!

At the same time, we recognize that new products often yield questions and uncertainty. We’ve therefore worked to serve as an independent resource on this non-surgical sterilant for veterinarians, shelters, pet caretakers, and non-profits alike; we’ve also supported a study seeking to shed light on an important question: to what extent does sterilization, both surgical and non-surgical, influence male dog behavior?

In 2012 and 2013, we responded to inquiries about Zeuterin from across the globe and maintained an online database of product resources. We presented on Zeuterin, as well as on the broader field of non-surgical fertility control for dogs and cats, at 16 international, national, and regional conferences spanning animal welfare, animal health, veterinary medicine, animal sheltering, and animal population management.

ACC&D provided financial and strategic support for a Veterinarians Without Borders/Veterinarios Sin Fronteras study comparing the behavior of intact, free-roaming dogs with both castrated dogs and those neutered with EsterilSol. Fieldwork, which took place in an isolated city in Chile’s Patagonia region, launched in late 2011 and continued into mid-2012. During this time, the team gathered over 1,200 hours of video recordings of 118 free-roaming dogs; they used these videos to analyze 57 canine behaviors. The team also used GPS collars to evaluate dogs’ home ranges and tendencies to roam. The study was the first to provide objective information on the behavioral effects of neutering male dogs using Zeuterin/EsterilSol relative to both surgically sterilized and intact animals. It is also the first to formally analyze the behavior of male free-roaming dogs. Further details are available here.
Thank you, DONORS!

ACC&D extends our sincere gratitude to the foundations, organizations and individuals that provided $1,000 or more support during the 2012-2013 period:

$200,000 and above
American Society for the Prevention of Cruelty to Animals (ASPCA®)

$50,000 - $100,000
The Humane Society of the United States (HSUS)
Parsemus Foundation
Petco Foundation
PetSmart Charities
Regina Bauer Frankenberg Foundation

$10,000 - $49,999
Adam and Amber Tarshis Foundation
Best Friends Animal Society
Coalition for Pets & Public Safety
Eleanor Patterson Baker Trust
International Fund for Animal Welfare

$1,000 - $9,999
Alley Cat Allies
Aratana Therapeutics
Ark Sciences
Ms. Joyce Briggs
Edith J. Goode Residuary Trust
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Found Animals Foundation/Michelson Prize & Grants in Reproductive Biology
HEAL House Call Veterinarian
Kenneth A. Scott Charitable Trust
Dr. Kevin Morris
Morris Animal Foundation
Oregon Humane Society
Dr. Linda Rhodes
Dr. Bob Weedon
World Society for the Protection of Animals (WSPA)

ACC&D’s Council of Stakeholders share our vision and commitment to transforming animal health and welfare by advancing non-surgical fertility control options for cats and dogs. They provide integral core organization funding and are stewards of this field. We thank them for their ongoing support!
During the two-year period of 2012-13, ACC&D had revenue of $480,208, plus $225,000 in prior-year grants released from temporary restriction.* The combined total revenue was thus $705,208. Our 2012-13 expenses totaled $643,299.

For detailed financial information, including audit history, we invite you to contact us at info@acc-d.org.

**Total Revenue in 2012-13: $705,208**

- Foundation Grants 42%
- Nonprofit Grants 50%
- Individual Contributions - 3%
- Organizational Contributions - 1%
- Program (Symposium) Revenue - 3%

**Total Expenses in 2012-13: $643,299**

- Program Expenditures 77%
- Fundraising* - 10%
- Management and General Operating - 13%

*The Council of Stakeholder model involves a 3-year grant commitment. Several Council members contributed the entire 3-year donation in 2011; in total $225,000 was allocated to 2012 and 2013 operations.

*It was the most interesting, worldly, and inspiring conference I have ever attended*

Anne Bayer, Medical Director, Humane Alliance, on the 5th Annual International Symposium
At the close of 2013, ACC&D had 126 Organizational Partners from 27 U.S. states and 17 countries. We are honored that these animal welfare, animal health, and public health organizations that have made a public statement of support for ACC&D and our work to advance non-surgical sterilization.
