

Atkinson Center for a Sustainable Future Topical Lunch Summary report

TITLE: Make Your Mark: Identification for free-roaming dogs and cats to improve population control and community health

HOSTS: **Margaret Frey**, PhD, College of Human Ecology, Fiber Science and Apparel Design; **Edwin Kan**, PhD, College of Engineering, Electrical and Computer Engineering; **Elizabeth Berliner**, DVM, College of Veterinary Medicine, Maddie’s Shelter Medicine Program; **Joyce Briggs**, MS, Alliance for Contraception in Cats & Dogs; **Valerie Benka**, MS/MPP, Alliance for Contraception in Cats & Dogs

DATE: September 24, 2014

This Topical Lunch served as a “kickoff” for a 2014-15 project to develop and design a marker to identify dogs, with a focus on free-roaming animals sterilized without surgery and/or vaccinated against rabies. Target communities are predominantly in developing nations and areas where large numbers of free-roaming/stray dogs—and associated dog bites, rabies, and other zoonotic diseases—threaten human well-being. The initiative is multidisciplinary, with co-PIs hailing from the [College of Human Ecology](#), [College of Engineering](#), and [College of Veterinary Medicine](#). Students from each College are also participating in the project.

Joyce Briggs and Valerie Benka of the [Alliance for Contraception in Cats & Dogs](#) introduced the challenge and the project. They discussed the need for more effective and efficient canine rabies and population control strategies; presented on the methods currently used to mark companion animals, wildlife, and animals raised for food; reviewed research conducted over the past year; and spoke about possible future directions. (See below for PowerPoint slides.)

Following this brief presentation, Topical Lunch attendees engaged in animated discussion about what a marker or marking mechanism might entail, both in terms of visual elements and technological features—namely, RFID technology. Topics of discussion ranged from how to improve existing marking methods to truly revolutionary ideas such as causing the loss or color change of hair on a targeted area of the body. Dr. David Putnam, Associate Professor in the Department of Biomedical Engineering, offered this possibility based on current research being funded by the [Michelson Prize & Grants in Reproductive Biology](#), a program committed to advancing non-surgical fertility control for cats and dogs.

Organizers:

Last Name	First Name	NetID or email	Dept	College
Frey	Margaret	mfw24		Human Ecology
Kan	Edwin	eck5	HE-ADM	Engineering
Berliner	Elizabeth	eab35		VTMED
Briggs	Joyce	Joyce@acc-d.org		N/A
Benka	Valerie	valerie@acc-d.org		N/A

Participants:

Last Name	First Name	NetID or email	Dept	College
Appel	Leslie	lda3	CLSCI & SOS	
Boscia	Ted	tvb23	HE-ADM	
Cable	Christy	ewe-cable@earthlink.net	SOS	
Chambliss	Lauren	elc55	ACSF	
Coonrod	Scott	sac269	Baker Institute	VET
DiSalvo	Frank	fjd6	ACSF	
Guruaribam	Debashree	dg446		
Hsieh	Po-Jen			
Ma	Yunfei	ym274		
Maxian	Candace	cmm359		JGSM
Maza	Paul	psm26		VET
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Tang	Han	ht425		
Travis	Alex	agt32		ACSF
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Zhao	Diyang	dz276		

PowerPoint presentation slides:



ACSF Topical Lunch ♦ September 24, 2014

The Goal

Design and develop a marker to identify dogs with a focus on free-roaming animals who have been vaccinated against rabies and/ or sterilized without surgery. The marker must be safe, humane, effective, and accepted by the communities in which it's used. Future applications to cats, livestock, and wildlife.

The Team

Margaret Frey, College of Human Ecology, Fiber Science and Apparel Design

Edwin Kan, College of Engineering, Electrical and Computer Engineering

Elizabeth Berliner, College of Veterinary Medicine, Maddie's Shelter Medicine Program

Valerie Benka & Joyce Briggs, Alliance for Contraception in Cats & Dogs

Cornell students, interdisciplinary graduate/ professional and undergraduate team



The Need and Possibilities

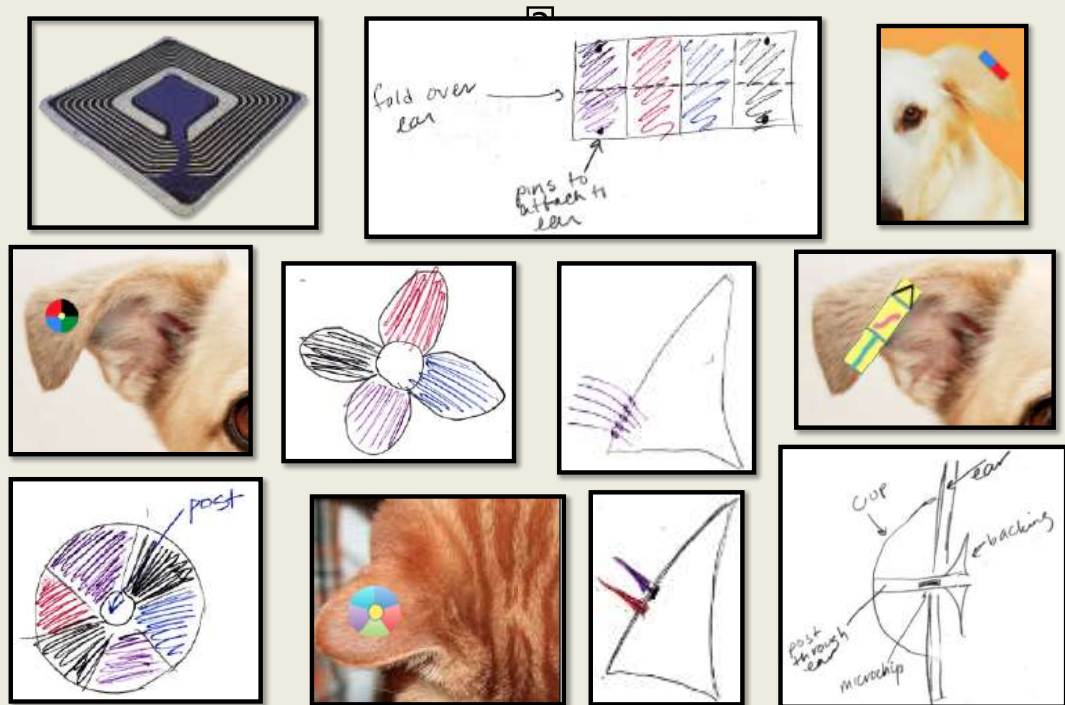


Photo credits: Karen Green, Valerie Benka, FAW, Bharatpur Nature Reserve, BBC

Current Animal Marking Methods



Looking to the Future...



Partners and Funders



Cornell University
David R. Atkinson Center
for a Sustainable Future



Cornell University
College of Human Ecology
Fiber Science & Apparel Design



Cornell University
College of Veterinary Medicine

ACC & D
Alliance for Contraception
in CATS & DOGS



Cornell University
College of Engineering