

**CENTER FOR ANIMAL WELFARE SCIENCE (CAWS) UPDATE**  
**FALL, 2016**

**HIGHLIGHTS FROM THE DIRECTOR**

CAWS members had a very productive spring and early Fall, 2016. First, the CAWS 2016 symposium was again well attended. Over 140 participants attended from diverse organizations, including USDA APHIS, Michigan State University, University of Illinois, University of Notre Dame, Cargill, Elanco, Zoetis, Indiana Council for Animal Welfare, the Pet Food Institute, Belstra Milling and many others. Ten CAWS students presented posters. All were recognized for their contributions. CAWS members who organized and led the poster session were **Jiqin Ni** (Steering Committee), **Brianna Gaskill** and **Audrey Ruple**. CAWS members continue to have their work well represented in the media. **Bill Muir's** work on genetics associated with animal welfare struck a chord with those concerned about the implications of genetic engineering of animals used for food production and impacts of genetic selection for fast growth. His work in these areas which has been ongoing for two decades received significant media coverage from diverse outlets. Likewise, **Maggie O'Haire's** research on human-animal interactions, continues to generate high media and funder interest. Research conducted by **Dr. Nicole Widmar** on consumer perceptions of animal welfare and corporate social responsibility was also picked up by several ag media sites. Read on to learn more about the impactful work of our members and how well it is resonating publicly.

The first CAWS RFP was released in March, 2016. Six applications were received and three were funded. Congratulations to the inaugural recipients, **Drs. Marisa Erasmus, Jiqin Ni and Nicole Widmar!** We are excited to offer another opportunity for seed funding in 2017 and hope to see even more applications.

CAWS students continue to shine. The high quality of their work was well represented at the May symposium and at various national conferences at which they presented. See highlights on the Center's website. Happy holidays and read on for more details about our work!



## CAWS Activities and Events

The first awardees of the CAWS RFPs were announced in June 2016. Six applications were received. Recipients of the 2016 awards were

**Dr. Marisa Erasmus**, Animal Sciences, “Effect of Probiotics on Social Stress-Associated Injurious Pecking Behavior in Laying Hens”

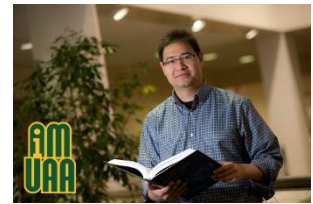
**Dr. Nicole Widmar**, Agricultural Economics, “Understanding Consumer Perceptions of Dairy Cattle Welfare: Interdisciplinary Approaches to Informing Markets, Technology Adoption, and Food Markets”

**Dr. Jiqin Ni**, Agricultural and Biological Engineering, “Analysis of sound and activity levels as non-invasive measures of turkey well-being”

External reviewers evaluated the proposals; those reviewers were Todd Callaway (Agricultural Research Service-USDA), Margaret Gruen (North Carolina State University), Joleen Hadrich (Colorado State University), Lisa House (University of Florida), Anna Kate Shoveller (University of Guelph), Yvonne Thaxton (University of Arkansas), and Hongwei Xin (Iowa State University).

**Look for information in mid-December about the 2017 RFP process.**

CAWS co-sponsored Dr. Raymond Anthony, University of Alaska Anchorage, “Am I really responsible for ensuring a sustainable food future?” as part of the Purdue Lectures in Ethics, Policy, and Science series.



As part of the same lecture series, CAWS also co-sponsored Dr. Gary Varner, Professor of Philosophy at Texas A&M University who spoke on the topic “Ethics and Animal Companions”.



Fei Fei Yan (Animal Sciences), Graduate Student of CAWS member, Heng-Wei Cheng, was recognized as the 2016 Featherston Outstanding PhD Student.

**Dr. Amy Bauer (Comparative Pathobiology)**, postdoctoral scholar with Dr. Croney, won a Best Poster award from the Association for Veterinary Epidemiology and Preventive Medicine in the Foodborne Agents category for her poster based on her thesis research directed by CAWS member, George Moore. The poster was entitled “The role of species richness in infectious disease studies: A preliminary inquiry based on *Coxiella burnetii*.”



Dr. Maggie O’Haire received the first Early Career Scholar Award from the International Society for Anthrozoology at their conference in Barcelona. The award is for outstanding scholarly achievement in the field of human-animal interaction.

## Grants

**Dr. Alan Beck** received a grant from George Mason University focusing on extending digital scholarship through a port of the PressForward publishing platform in the amount of \$10,000.

**Dr. Candace Croney** received a grant from the World Pet Association focusing on “Establishing Voluntary Care Standards for Commercial Dog Breeding in Indiana” in the amount of \$20,000.

**Dr. Brianna Gaskill** received a grant from Charles River Laboratories focusing on “Effects of Cage Space on Mouse Behavior” in the amount of \$9,978,

**Dr. Brianna Gaskill** received a grant from the American Association for Lab Animal Science Development focusing on “An Efficient and Effective Protocol for Playfully Handling Rats” in the amount of \$21,000.

**Dr. Maggie O’Haire** received a grant from Elanco Animal Health for “Celebrating the Bond: An Empirical Evaluation of Psychosocial Outcomes from Canine Companionship” in the amount of \$639,718.

## CAWS Members in the Media

**Dr. Alan Beck** is co-author of two publications cited in the Medscape article “Are Dogs an Anxious Child’s Best Friend?”, by Laurie E. Scudder and Anna M. Gadomski 1/13/2016. <http://www.medscape.com/viewarticle/856822>

**Dr. Alan Beck** is in The Punch article “Interacting with pets can lower blood pressure”, by Olufemi Oboye 2/5/2016. [www.punchng.com/interacting-with-pets-can-lower-blood-pressure/](http://www.punchng.com/interacting-with-pets-can-lower-blood-pressure/)

**Dr. Alan Beck** is in the Pacific Standard article “Are pets really good for us?” by Rick Paulas 2/10/2016. The article is also republished in The Weed under the title “Are pets really good for people?” 2/17/2016.

**Dr. Alan Beck** is in the Parent Herald article “How your pets can make your life better”, by Mark Oliver Rondobio 2/18/2016. <http://www.parentherald.com/articles/21382/20160218/pets-make-life-better.htm>

**Dr. Alan Beck** is in the Lincoln Journal Start article “Making magic: The awesome power of therapy dogs”, by Erin Andersen 2/27/2016. [http://journalstar.com/lifestyles/faith-and-values/making-magic-the-awesome-power-of-therapy-dogs/article\\_cedc73c-d045-53a7-b815-b01e38a8bcla.html](http://journalstar.com/lifestyles/faith-and-values/making-magic-the-awesome-power-of-therapy-dogs/article_cedc73c-d045-53a7-b815-b01e38a8bcla.html)

**Dr. Alan Beck** is in The Star press article “Inspector Stumbles upon Wolfdog Kennel”, by Seth Slabaugh. May 16, 2016. <http://www.thestarpress.com/story/news/local/2016/05/15/inspector-stumbles-upon-wolfdog-kennel/84142028/>

**Dr. Candace Croney** is in the Canadian Cattlemen article “Pointing people in the direction of simple science”, by Brenda Schoepp, 1/14/2016. <http://www.canadiancattlemen.ca/2016/01/14/pointing-people-in-the-direction-of-simple-science>

**Dr. Candace Croney** is in the Purdue Agriculture News article “Strong Interest in Purdue Forum on Well-Being of Dogs”, by Keith Robinson, May 16, 2016. [www.purdue.edu/newsroom/releases/2016/Q2/strong-interest-in-purdue-forum-on-well-being-of-dogs.html](http://www.purdue.edu/newsroom/releases/2016/Q2/strong-interest-in-purdue-forum-on-well-being-of-dogs.html)

**Dr. Candace Croney** is in the Journal and Courier article “Dog Breeders Learn Lessons about Care”, by Meghan Holden, May 23, 2016 and the jconline article “Amish aim to restore dog breeding rep”, by Meghan Holden, May 23, 2016.

**Dr. Candace Croney** is in the “ohmidog” article “Program works with Amish in southern Indiana to improve breeding conditions”, by John Woesendiek, 5/24/2016. [www.ohmidog.com/tag/center-for-animal-welfare](http://www.ohmidog.com/tag/center-for-animal-welfare)

**Dr. Candace Croney** was on WLFI News for the report “Purdue working with dog breeders”, by Brad Oppenheim, 5/25/2016. <http://wlfi.com/2016/05/24/purdue-working-with-dog-breeders>

**Dr. Candace Croney** is in the Washington Times Herald article “Purdue center, Amish dog breeders work to create standards,” by the Associated Press, 5/31/2016.

**Dr. Brianna Gaskill** is quoted in the STAT article “Lab mice have a chill, and that may be messing up study results”, by Ike Swetlitz, April 19, 2016. [www.statnews.com/2016/04/19/lab-mice-temperature/](http://www.statnews.com/2016/04/19/lab-mice-temperature/)

**Dr. Brianna Gaskill** is in the Slate article “Some animals are more equal than others”, by Daniel Engber, April 11, 2016. [www.slate.com/articles/health\\_and\\_science/science/2016/04/the\\_animal\\_welfare\\_act\\_may\\_be\\_50\\_but\\_it\\_is-still-ignoring-some-of-the-most.html](http://www.slate.com/articles/health_and_science/science/2016/04/the_animal_welfare_act_may_be_50_but_it_is-still-ignoring-some-of-the-most.html)

**Dr. Bill Muir** (Animal Sciences) was featured on NPR discussing welfare issues pertaining to the debate on fast growing chickens. <http://www.npr.org/sections/thesalt/2016/03/30/472167748/why-whole-foods-wants-a-slower-growing-chicken>

**Dr. Bill Muir** was interviewed by David Sloan Wilson, President of the Evolution Institute, on his program “This View of Life”. When the Strong Outbreed the Weak. <https://evolution-institute.org/article/when-the-strong-outbreed-the-weak-an-interview-with-william-muir/>

## Presentations by CAWS Members

**Dr. Candace Croney** gave the Elanco Human-Animal Bond lecture “Friends, Family or Food? Factors Shaping Perceptions of Animals and their Welfare Implications” at the Purdue University Veterinary Conference in September, 2016.

**Dr. Candace Croney presented an invited lecture at the** Joint Meeting of the American Association of Animal Sciences/American Dairy Science Association in July, 2016 in Salt Lake City, UT entitled, “The human-animal bond: science-based approaches to improving companion animal welfare and adoption outcomes.”

**Dr. Candace Croney** announced the launch of the Canine Care Certification program at the World Pet Association’s SuperZoo trade show in Las Vegas, August, 2016.

**Dr. Brianna Gaskill** presented a lecture titled “Stressed out! The consequences of environmentally induced stress on mouse models” for the Laboratory Animal Science BioConference Live web conference (February, 2016) that focused on how nests insulate mice from cold laboratory temperatures, reducing thermal stress. Her studies are also referenced in a new edition of a textbook entitled, “Comfortable Quarters for Laboratory Animals”.

**Dr. Brianna Gaskill** presented “The value of nesting enrichment for mice” at the Medical Research Enrichment Symposium. Ann Arbor, MI. March 23, 2016.

**Dr. Bill Muir** participated in the Purdue Conference Event “Dawn or Doom ’16: Is Technology Moving Faster than our Ability to Understand?” His presentation was titled “The Science and Science Fiction of GMOs: With Great Power Comes Great Responsibility”.

**Dr. Maggie O’Haire** co-presented a workshop “Overview of a Novel Video Behavioral Coding System for Human-Animal Interaction” at the Purdue University Center for the Human-Animal Bond Conference in November, 2016.

## Publications by CAWS Members

Alemu, S. W., Calus, M. P., **Muir, W. M.**, Peeters, K., Vereijken, A., & Bijma, P. 2016. Genomic prediction of survival time in a population of brown laying hens showing cannibalistic behavior. *Genetics Selection Evolution*, 48(1), 68.

**Bauer AE**, Hubbard KR, Johnson AJ, Messick JB, **Weng, HY**, Pogradichniy RM. 2016. A cross sectional study evaluating the prevalence of *Coxiella burnetii*, potential risk factors for infection, and agreement between diagnostic methods in goats in Indiana. *Preventive Veterinary Medicine*.

<http://www.ncbi.nlm.nih.gov/pubmed/26897246>

**Beck AM**: 2016. Foreword, xii-xvii, In Coppinger R, Coppinger L. *What is a Dog?* Chicago, IL: University of Chicago Press.

Bir C, **Croney C**, **Widmar NO**: 2016. Public perceptions of dog welfare, sourcing and breeding regulation. CAWS Executive white paper.

Bir C, **Croney C**, **Widmar NO**: 2016. US Residents’ Perceptions of Dogs, Their Welfare and Related Information Sources. CAWS Executive White Paper.

Bir C, **Widmar NO**, **Croney C**: 2016. Public Perceptions of Dog Acquisition: Sources, Rationales and Expenditures. CAWS Executive White Paper.

- Blankenberger W, LaFollette M, **Gaskill BN**: 2016. Tickling Rats: Differential Benefits for Pet Store Rats. *Journal of Purdue Undergraduate Research*. In press.
- Burres N, Edwards E, **Beck AM**, Richards E. 2016. Incorporating pets into acute inpatient rehabilitation: A case study. *Rehabilitation Nursing*. <http://www.ncbi.nlm.nih.gov/pubmed/26956570>
- Byrd C, Winnicker C, **Gaskill BN**: 2016. Made in the shade: Instituting a dark colored cover to improve central space use within a guinea pig enclosure. *Journal of Applied Animal Welfare Science*. In press.
- Hu, J. Y., Hester, P. Y., Makagon, M. M., Vezzoli, G., Gates, R. S., Xiong, Y. J., & **Cheng, H. W.** 2016. Cooled perch effects on performance and well-being traits in caged White Leghorn hens. *Poultry Science*, pew248.
- Cabezon F, Stewart KR, **Schinckel A**, Woodliff J: 2016. Effect of natural betaine on estimates of semen quality in mature AI board during summer heat stress. *Journal of Animal Science* or. March, 2016.
- Cummins AM, **Widmar NJO**, **Croney CC**, Fulton JR: 2016. Exploring Agritourism Experience and Perceptions of Pork Production. *Agricultural Sciences* 7(4):239-249. December, 2015.
- Cummins AM, **Widmar NJO**, **Croney CC**, Fulton JR. 2016. Understanding Consumer Pork Attribute Preferences. *Theoretical Economics Letters* 6(2):155-177. December, 2015.
- Erasmus MA**, Lee HC, Kang I, Swanson JC. 2015. Fear responses and postmortem muscle characteristics of turkeys of two genetic lines. *Poultry Science* 94(9):2018-2025.
- Gaskill BN**, Pritchett-Corning KR: 2016. Nest building as an indicator of illness in laboratory mice. *Applied Animal Behavior Science*. <http://dx.doi.org/10.1016/j.applanim.2016.04.008>
- Grandin T, Fine AH, **O'Haire ME**, Carlisle, Bowers CM. In Press. The use of therapy animals for individuals with autism spectrum disorder. In: AH Fine (Ed), *Handbook on animal-assisted therapy: Theoretical foundations and guidelines for practice* (4<sup>th</sup> ed). San Diego CA: Academic Press.
- Horn NL, Ruch F, Miller G, **Ajuwon KM**, Adeola O: 2016. Determination of the adequate dose of garlic diallyl disulfide and diallyl trisulfide for effecting changes in growth performance, total-tract nutrient and energy digestibility, ileal characteristics, and serum immune parameters in broiler chickens. *Poultry Science*. April 2016.
- Sapkota, A., Herr, A., Johnson, J. S., & **Lay, D. C.** 2016. Core body temperature does not cool down with skin surface temperature during recovery at room temperature after acute heat stress exposure. *Livestock Science*, 191, 143-147.
- Morgan CJ, **Croney CC**, **Widmar NJO**: 2016. Exploring Relationships between Ethical Consumption, Lifestyle Choices, and Social Responsibility. *Advances in Applied Sociology* 6:199-216. December, 2015.
- Mueller MK, Fine AH, **O'Haire ME**. In press. Understanding the role of human-animal interaction in the family context. In AH Fine (Ed), *Handbook on Animal Assisted Therapy: Theoretical foundations and guidelines for practice* (4<sup>th</sup> ed). San Diego CA: Academic Press
- Ni JQ**, Kaelin D, Lopes IM, Liu S, Diehl CA, Zong C: 2016. Design and performance of a direct and continuous ventilation measurement system for variable-speed pit fans in a pig building. *Biosystems Engineering* 147:151-161.
- Qu H, Yan H, Lu H, Donkin SS, **Ajuwon KM**: 2016. Heat stress in pigs is accompanied by adipose tissue-specific responses that favor increased triglyceride storage. *Journal of Animal Science*. May, 2016.
- Ruple A**, Morley PS: 2016. Risk Factors Associated with development of Histiocytic Sarcoma in Bernese Mountain Dogs. *Journal of Veterinary Internal Medicine*. DOI: 10.1111/jvim.13964  
<http://onlinelibrary.wiley.com/doi/10.1111/jvim.13964/abstract>
- Stella, J. and **Croney, C.** 2016. Environmental aspects of domestic cat care and management: implications for cat welfare. *The Scientific World Journal*. Special Issue: Emerging Advancements in Canine and Feline Metabolism and Nutrition. Vol. 2016, Article ID 6296315. doi:10.1155/2016/6296315.
- Voigt M, Hiney K, **Croney C**, Waite K, Borron A, Brady C: 2016. Show Horse Welfare: The Viewpoints of Judges, Stewards and Show Managers. *Journal of Applied Animal Welfare Science* 19(2): 183-197, [www.bcgu.bkn.bug.giv.oybned.25642585](http://www.bcgu.bkn.bug.giv.oybned.25642585)
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at which overcrowding and feed interruption emerge on the swine premises under movement restrictions during a classical swine fever outbreak. *Animal: An International Journal of Animal Bioscience*. 1-7. doi:10.1017/S1751731116001609.

Yadav S, **Olynk Widmar NJ**, **Weng HY**: 2016. Modeling classical swine fever outbreak-related outcomes. *Frontiers in Veterinary Science* 3:7. doi:10.3389/fvets.2016.00007

### Upcoming Events on Animal Welfare

May 5, 2017	Scientists Center for Animal Welfare (SCAW) IACUC Training Workshop, College Park, MD.
May 18, 2017	CAWS annual symposium, Purdue University, West Lafayette, IN.
May 19, 2017	Canine Welfare Science Forum, Purdue University, West Lafayette, IN.
June 13-16, 2017	Laboratory Animal Welfare Training Exchange (LAWTE) Biennial Conference: "LAWTE's Sweet Spot: Teaching, Learning and Supporting Animal Welfare" Hershey, Pennsylvania.
June 27-29, 2017	UFAW Measuring animal welfare and applying scientific advances - Why is it still so difficult? University of London, Surrey, UK
September 5-8, 2017	7th International Conference on the Assessment of Animal Welfare at Farm and Group Level. Wageningen, The Netherlands.

*Scenes from the  
2016 CAWS  
Symposium*



