

## Letters to the Editor

### Global food security as a national responsibility

The AVMA Committee on International Veterinary Affairs (CIVA) read the recent commentary “The role of the US veterinary profession in improving livestock health and productivity and reducing poverty in the developing world”<sup>1</sup> with great interest and is fully supportive of Dr. BeVier’s view “that the developing world would be much better off if the US veterinary profession took a leadership role in providing services to the forgotten world.” The CIVA also agrees that the US veterinary profession should “work on improving livestock productivity, which will increase farm income and help poor people escape the poverty trap,” resulting in “greater food security for both the developing and the developed world.”

The CIVA thanks Dr. BeVier for writing such a timely commentary and looks forward to being part of additional efforts to address global food security. The CIVA, in its advisory role to the AVMA Board of Directors, evaluates trends and activities that enhance and sustain the AVMA’s role in global veterinary medicine and proposes programs, initiatives, and strategic partnerships to create and enhance global opportunities for AVMA and Student AVMA members.<sup>2</sup> To this end, we have discussed the complex issue of global food security during our meetings over the past several years and believe there are untapped opportunities for veterinary expertise to improve animal health and well-being as part of the food security solution.

To be clear, when the CIVA talks about food security, it uses the definition set out in 1986 by the United Nations Food and Agriculture Organization, with input from the World Bank, which defines food security as “access of all people at all times to enough food for an active, healthy life.”<sup>3</sup> We also recognize that chronic food in-

security associated with problems of continuing or structural poverty and low incomes is distinct from transitory food insecurity, which involves periods of intensified pressure caused by natural disasters, economic collapse, or conflict. That food security continues to be a global concern is clear from simply reading the 2015 United Nations Sustainable Development Goals, the second of which is to “[e]nd hunger, achieve food security and improved nutrition and promote sustainable agriculture.”<sup>4</sup>

The CIVA believes the AVMA must take a leadership role to help solve global societal challenges related to animal and public health; food security is certainly such a challenge. Given that the AVMA has had success in bringing wide-ranging groups together through various summits to find ways forward on challenges as divergent as animal welfare and veterinary economics, the CIVA created a proposal for an AVMA-hosted global food security summit, which was approved by the Board of Directors in July 2015. The AVMA Food Security Summit—with a working title of Ending Hunger: A Critical Role for Animal Health—is scheduled for February 8–11, 2017, in Washington, DC. It will focus on opportunities for US veterinarians and students to build global animal health capacity and enhance global food security and will create new partnerships between the US veterinary profession and organizations

already engaged in food security activities that have, perhaps, been only minimally engaged with our profession.

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1. BeVier GW. The role of the US veterinary profession in improving livestock health and productivity and reducing poverty in the developing world. *J Am Vet Med Assoc* 2016;248:369–370.
2. AVMA. Veterinary medicine in today’s global community. Available at: [www.avma.org/Advocacy/International/Pages/Veterinary-Medicine-in-Global-Community.aspx](http://www.avma.org/Advocacy/International/Pages/Veterinary-Medicine-in-Global-Community.aspx). Accessed Apr 6, 2016.
3. World Bank. *Poverty and hunger: issues and options for food security in developing countries*. Washington, DC: World Bank, 1986. Available at: [documents.worldbank.org/curated/en/1986/07/440681/poverty-hunger-issues-options-food-security-developing-countries](http://documents.worldbank.org/curated/en/1986/07/440681/poverty-hunger-issues-options-food-security-developing-countries). Accessed Mar 28, 2016.
4. United Nations. *Sustainable development goals*. Geneva: United Nations,

#### Instructions for Writing a Letter to the Editor

Readers are invited to submit letters to the editor. Letters may not exceed 500 words and 6 references. Letters to the Editor must be original and cannot have been published or submitted for publication elsewhere. Not all letters are published; all letters accepted for publication are subject to editing. Those pertaining to anything published in the *JAVMA* should be received within one month of the date of publication. Submission via email ([JournalLetters@avma.org](mailto:JournalLetters@avma.org)) or fax (847-925-9329) is encouraged; authors should give their full contact information, including address, daytime telephone number, fax number, and email address.

Letters containing defamatory, libelous, or malicious statements will not be published, nor will letters representing attacks on or attempts to demean veterinary societies or their committees or agencies. Viewpoints expressed in published letters are those of the letter writers and do not necessarily represent the opinions or policies of the AVMA.

## Recognizing and reporting nonaccidental injuries in pets

The March 1, 2016, issue of *JAVMA* offered an interesting juxtaposition.

In the letters section, Drs. Lisa Miller and Phil Arkow<sup>1</sup> provide a useful and impressive list of resources to aid veterinarians in the recognition and reporting of animal abuse. A few pages later, Drs. Verrilli, Hohenhaus, Le Roux, and Donovan<sup>2</sup> describe, in a "What Is Your Diagnosis?" article, a neutered male domestic shorthair cat with transitional cell carcinoma and radiographic findings consistent with multiple traumatic events. The type of fractures and the fact that multiple fractures at different stages of healing were seen should, I believe, have raised concerns about the possibility of nonaccidental injuries in this cat.<sup>3</sup> Although rib fractures can be seen in dogs and cats with respiratory disease,<sup>4</sup> fractures of the spinous process of T6 are generally the result of blunt impact trauma or bite wounds.<sup>5</sup>

I hope that readers, if presented with a similar case, would endeavor to collect a thorough history of previous traumatic events and report any suspicions of nonaccidental injuries to the appropriate authorities.

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1. Miller L, Arkow P. Efforts to eliminate animal abuse (lett). *J Am Vet Med Assoc* 2016;248:485.
2. Verrilli AM, Hohenhaus AE, Le Roux AB, et al. What Is Your Diagnosis? *J Am Vet Med Assoc* 2016;248:493-496.
3. Munro HMC, Thrusfield MV. "Battered pets": features that raise suspicion of non-accidental injury. *J Small Anim Pract* 2001;42:218-226.
4. Adams C, Streeter EM, King R, et al. Cause and clinical characteristics of rib fractures in cats: 33 cases (2000-2009). *J Vet Emerg Crit Care (San Antonio)* 2010;20:436-440.
5. Munro R, Munro HMC. *Animal abuse and unlawful killing: forensic veterinary pathology*. Edinburgh: Elsevier, 2008.

We found the juxtaposition in the March 1, 2016, issue of *JAVMA* between the letter from Miller and Arkow<sup>1</sup> discussing resources to help veterinarians recognize animal abuse and the "What Is Your Diagnosis?" article by Verrilli et al<sup>2</sup> describing a cat with a history of weight loss and a urinary bladder mass to be quite interesting.

The report by Verrilli et al describes evidence of recurrent trauma, including a fracture of the spinous process of T6, healed rib fractures, recent rib fractures, and a thoracic mass consistent with diaphragmatic rupture; although it states that the thoracic fractures and intrathoracic mass may have been the result of traumatic events, it does not list nonaccidental injury (ie, animal abuse) as a possible differential diagnosis. The consequences and importance of differentiating nonaccidental injury from accidental injury (eg, motor vehicle trauma) cannot be underestimated. If we expect primary and referral veterinarians to recognize and report animal abuse, we must be willing to consider and list nonaccidental injury as a differential diagnosis.

It has been shown that repetitive injuries, manifested as healed fractures in conjunction with recent fractures, are a sign of nonaccidental injury.<sup>3-7</sup> Therefore, a logical question would have been why this cat had 6 acute and 2 healed rib fractures, bilaterally, the result of a minimum of 3 impacts. As veterinarians, we have a duty to ask these types of tough questions to protect animal health and welfare and promote public health. In addition to these clinical signs, there may have been other reasons to suspect abuse. Perhaps the story given as the reason for the fractures did not fit with the injuries seen. Perhaps someone in the animal's home was implicated as having abused the animal (eg, frustration from inappropriate urination). Perhaps the owner showed little concern for the condition of the animal. When red flags such as these<sup>4-7</sup> are presented, contacting the appropriate authorities (eg, police or animal control office) would be indicated. A good-faith report should be made any time

animal abuse is suspected so that those who are trained to investigate such cases may do so. Determining whether abuse has occurred is a legal decision, not one to be made by the veterinarian. It is also important to remember that there may be other animals or people at risk of violence, so reporting our concerns is in the best interest of the animal in the clinic as well as others who may be still at home.

While the report by Verrilli et al is an interesting case of transitional cell carcinoma in a cat, a rare occurrence, the opportunity to educate about signs of animal abuse is equally important. We appreciate the opportunity to do that.

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1. Miller L, Arkow P. Efforts to eliminate animal abuse (lett). *J Am Vet Med Assoc* 2016;248:485.
2. Verrilli AM, Hohenhaus AE, Le Roux AB, et al. What Is Your Diagnosis? *J Am Vet Med Assoc* 2016;248:493-496.
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6. Sinclair L, Merck M, Lockwood R. *Forensic investigation of animal cruelty: a guide for veterinary and law*

*enforcement professionals.* Washington, DC: Humane Society, 2006.

7. Arkow P, Boyden P, Patterson-Kane E. *Practical guidance for the effective response by veterinarians to suspected animal cruelty, abuse and neglect.* Schaumburg, Ill: AVMA, 2011.

### The authors respond:

We thank Drs. Cavender and Woolf et al for their interest in our manuscript and strongly agree that animal abuse is an issue of great concern within the veterinary community. The authors would like to thank them for bringing their concerns about this case to light and for addressing a topic that should not be overlooked.

With regard to this case, we would like to note that some information about the cat's history was not included in the report because of space limitations. Specifically, given the radiographic findings, we discussed our concerns about trauma with the owner. She reported that there had been no incidents of severe trauma but did report a history of aggression between this cat and its feline housemate. The cats were left unsupervised during the day, leaving opportunity for unobserved trauma. The cat displayed aggressive behavior toward hospital staff and was quite difficult to restrain; however, the cat was not hospitalized at the Animal Medical Center and no injuries occurred during outpatient treatment.

In our opinion, this owner's devotion to and concern for her cats were obvious. She had recently moved with them to the United States, pursued specialist care in the face of her cat's poor prognosis, and expressed hope in improving the cat's quality of life. Her emotional distress was obvious when she was faced with the cat's decline and ultimate euthanasia. Thus, on the basis of these findings and the fact that the owner lived alone, with no other individuals having access to the cats, we had no concern for owner-induced traumatic injury in this case.

The authors would like to note that the main focus of this manuscript centered around the cat's cancer diagnosis, the diagnostic evaluation, and the differential diagnoses for the thoracic mass. Although trauma was included as a general differential diagnosis,

all possible causes of traumatic diaphragmatic hernia were not elaborated. We agree with Drs. Cavender and Woolf et al that non-accidental injury was a differential diagnosis in this case but could not substantiate owner-induced trauma as the cause of the abnormalities identified on the radiographs.

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### Standard 10: the augmented version

In the early years of the 20th century, Abraham Flexner described the scientific method as a tool not only for investigators but also for physicians working at the bedside.<sup>1</sup> In his view, because research and clinical practice are both hypothesis driven and depend on evaluation of facts and problems, medical students who were exposed to research would learn to be analytical, thorough, critical, and open-minded. Flexner believed that research serves to keep the quality of medical education high and that bedside observations are the stepping stones for investigations at the bench.

More than a century after Flexner's historic report, quality clinical experience and scientific research are still regarded as essential partners in the making of physicians and veterinarians. Although the practice of medicine will always remain an art, research helps to move it from empiricism to a science-based discipline.<sup>2</sup> This principle, long acknowledged by the AVMA's Council on Education (COE), is embodied in standard 10 of the COE's Requirements of an Accredited College of Veterinary Medicine<sup>3</sup>:

The College must maintain substantial research activities of high quality that integrate with and strengthen the professional program. The College must demonstrate continuing scholarly productivity and must provide opportunities for any interested students in the professional veterinary

program to be exposed to or participate in on-going high quality research. All students must receive training in the principles and application of research methods and in the appraisal and integration of research into veterinary medicine and animal health.

To be accredited, a college of veterinary medicine must demonstrate, to the COE's satisfaction, that it is in compliance with the 11 standards of accreditation. The COE's formidable challenge in determining compliance with standard 10 is assessing whether a college's research activities are indeed of high quality (ie, whether they ask important questions and advance knowledge) and are truly integrated with and strengthen the professional program. Because the phenomenal pace at which biomedical knowledge is advancing keeps widening the gulf in language and understanding between clinicians and basic scientists, I believe that COE members with research backgrounds, whether educators or practitioners, are the ones best qualified to evaluate complex research programs.

Determining how well a college's research program integrates with and strengthens its professional program should be relatively straightforward for those colleges with traditional teaching hospitals, where teaching, research, and patient care are integrated and veterinarian-scientists interact with faculty clinicians, students, interns, and residents, but would be substantially more difficult for those colleges that use distributive models for clinical education, particularly if substantial numbers of students pursue off-campus research activities.

Importantly, in September 2015, the COE expanded standard 10 from a single sentence ("The college must demonstrate substantial research activities of high quality that integrate with and strengthen the professional program.") to the current version, while also increasing the amounts and types of information colleges will be required to submit to validate their research programs, including the impact on students.<sup>4</sup> It seems to me complying with the two statements in the current

version of standard 10 that the college “must demonstrate continuing scholarly productivity” and that all students “must receive training in the principles and application of research methods and in the appraisal and integration of research into veterinary medicine and animal health” will be a particular challenge for current and proposed colleges with distributive clinical education models. I would speculate that provision of state-of-the-art research laboratories and equipment, although very costly, will be easier to achieve than recruitment of high-impact clinical and basic science investigators.

The recent augmentation of standard 10 indicates that the COE recognizes the central role of high-quality research in veterinary medical education. How to apply the standard consistently across the dizzying spectrum of existing and proposed veterinary colleges is one of the COE’s most daunt-

ing challenges. The outcome will be of profound importance to the profession’s future and its ability to meet society’s needs.

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2. Thomas L. *Medical lessons from history: The Medusa and the snail*. New York: The Viking Press, 1979.
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