

EXHIBIT 6

DECLARATION OF MICHAEL GREGER, M.D.

I, Michael Greger, declare as follows:

1. I serve as the Director of Public Health and Animal Agriculture for the Humane Society of the United States ("HSUS"). I have held this position since 2005. I have lectured internationally, and have presented at the Conference on World Affairs, the National Institutes of Health, and the International Bird Flu Summit. I have an M.D. degree from the Tufts University School of Medicine. For more information regarding my credentials, see my *curriculum vitae*, which is attached to this declaration as Exhibit 1. I have personal knowledge of the facts set forth in this declaration. The facts set forth are true to the best of my knowledge and recollection. If called, I could and would testify to these facts in a court of law.

2. I have reviewed Exhibit 1 to the Petition for Rulemaking prepared by Front Range Equine Rescue and The Humane Society of the United States, as well as the declarations of Hilary Wood, Joanne Pavlis, Randy Parker and Peggy Larson, D.V.M. being submitted in support of the Petition. I understand from the declarations that most, if not all, of the drugs, treatments and substances listed on Exhibit 1 are routinely, and without adequate control, given to American horses who may end up as horse meat for human consumption. Exhibit 1 also accurately describes many of the adverse reactions and side effects of the drugs and substances listed there.

3. The substances listed on Exhibit 1, if ingested by humans, present a variety of potential health problems and adverse reactions, which can range from benign to fatal. While some of the substances are approved for use in humans, none of them are approved for use in humans who are not aware they are ingesting the substances. It is a matter of common sense and standard medical practice not to give drugs to individuals who are unaware they are receiving the drugs. Yet that is exactly what would be happening if horse meat that is eaten by humans contains residue of any of the substances listed on Exhibit 1.

4. It is a foundational medical treatment principle that patients are not given any drugs without first ascertaining if the patients are taking any other drugs at the time. A patient's current

drug and medication regime is important because it may limit the type of drugs that may be recommended or prescribed, based on the negative or potentiating reactions between drugs that may occur. Adverse drug reactions between different medications can be extremely severe and must be avoided to the extent possible.

5. It is also a foundational medical principle that patients must be asked about their prior experience with medications before prescribing or recommending new drugs for treatment. Taking such a history from a patient is vital, in order to determine if they may have allergies to certain specific drugs or groups of drugs. Patients may have known allergies to certain drugs, which can cause severe reactions, including anaphylactic shock or even death.

6. If drug residues in horses are unknown, individuals consuming horse meat will be unaware of what drugs and substances they may be eating. If consumers have drug allergies, there is a potential for individuals who eat horse meat to have serious negative reactions if any of the drugs that remain in horse meat that they eat are drugs to which they are allergic. There is the potential for an allergic reaction, made even worse because the consumer will not know that they have taken any drugs. Unless all horses are tested for all potential dangerous drug residues, and unless it can be guaranteed that horse meat comes only from horses who have never had any potentially dangerous substances to which humans are known to develop allergies, there is no way to eliminate the potential for such an adverse, and potentially severe, reaction. Additionally, since there is no way of filtering the consuming population to avoid adverse reactions, and no way to identify meat from animals who have had specific substances, the fact that a drug may be safe for some humans does not assure its safety for the consuming public or the market.

7. It is also a foundational medical principle that patients must be asked about their past family and personal medical history, and current medical conditions, before prescribing most drugs, in order to determine if the patients may have sensitivities to certain specific drugs. Patients may have particular genetic predispositions, or current illnesses or diseases, that preclude or limit the use of certain drugs. (For example, individuals with bleeding disorders are generally restricted

from their intake of drugs that may act as blood thinning agents, and must exercise extreme caution if they do take such drugs.)

8. If drug residues in horses are unknown, individuals consuming horse meat will be unaware of what drugs and substances they may be eating. If any of those drug residues would be contraindicated for use by the consumer because of sensitivities they have to certain drugs, based on genetic disposition, temporary conditions, or current illnesses, there is a potential for individuals who eat horse meat to have serious negative impacts. Unless all horses are tested for all potential dangerous drug residues, and unless it can be guaranteed that horse meat comes only from horses who have never had any potentially dangerous substances, there is no way to avoid the potential for such a negative reaction. Additionally, since there is no way of filtering the consuming population to avoid adverse reactions, and no way to identify meat from animals who have had specific substances, the fact that a drug may be safe for some humans does not assure its safety for the consuming public or the market.

9. It is a matter of undisputed medical science that pregnant and nursing women are strongly cautioned to avoid many drugs, including some listed on Exhibit 1, which could have harmful effects on their fetus or nursing babies. If drug residues in horses are unknown, there is a chance that such drugs could exist in horse meat, and there is a potential for pregnant and nursing women who eat horse meat to have serious negative impacts on their unborn, or nursing babies. Unless all horses are tested for all potential dangerous drug residues, and unless it can be guaranteed that horse meat comes only from horses who have never had any drugs or substances that would be dangerous for pregnant or nursing women, there is no way to avoid the potential for such a negative reaction.

10. The use of steroids by humans should be very carefully monitored and controlled, overseen by a physician. Steroids can have significant detrimental effect on a number of body systems. Exhibit 1 contains a number of steroids that, if taken by humans, would affect humans in many ways, including notable effects on human reproductive systems and sexual hormone production. Steroids such as prednisone and methylprednisolone, which are both on Exhibit 1 and

given to horses, should only be used under the careful monitoring and recommendation of a physician, and have a long list of potential negative, and serious, side effects.

11. I understand from the declarations of Hilary Wood, Joanne Pavlis, Randy Parker and Peggy Larson that many antibiotics, such as those listed on Exhibit 1, are given to American horses. The unknown and unmonitored use of antibiotics in horses that may be eaten creates the potential for adverse effects on the humans who eat those horses. Because of the dosing of horses with antibiotics, unknown amounts of antibiotics and antibiotic residue may be ingested by humans. This is problematic, and potentially harmful, for two reasons. First, it is a generally-accepted scientific principle that the use of antibiotics in food-producing animals leads to the growth of antibiotic-resistant pathogens, which negatively affect tens of thousands of Americans each year. Second, it is standard medical practice that humans should only take antibiotics when necessary and indicated, in order to prevent the development of new antibiotic-resistant bacteria. Inappropriate use of antibiotics, including use when no such treatment is indicated, leads to drug-resistant bacteria. *See*

<http://www.niaid.nih.gov/topics/antimicrobialResistance/Understanding/Pages/causes.aspx>.

12. If drug residues in horses are unknown, there is a potential for individuals who eat horse meat to ingest antibiotics that they do not need, and to be exposed to or develop antibiotic-resistant bacteria which could potentially lead to severe illnesses that could not be treated with standard antibiotic therapy. Unless all horses are tested for all potential antibiotic residues, and unless it can be guaranteed that horse meat comes only from horses who do not have significant antibiotic residues and have not developed antibiotic-resistant strains of bacteria, there is no way to avoid the potential for a significant adverse effect on human health.

13. I am informed and believe that many of the drugs and other substances on Exhibit 1 have never been tested on humans, and that no studies have determined the potential health risks and dangers associated with ingestion of those drugs and substances. It is a strong ethical and medical principle that unsuspecting humans should not be treated as random experimental subjects and be indiscriminately given drugs and other substances that they are unaware they are taking.

14. With respect to the drugs and other substances given to horses who become meat, there is a very real potential for danger to humans who eat that meat, because of the lack of any information about the consequences of ingesting those substances, or the nature of the residue or metabolites of those substances. If drug residues in horses are unknown, there is a potential for individuals who eat horse meat to have serious negative impacts from ingestion of drugs and substances that have never been tested on humans and that they do not even know they are taking. Unless all horses are tested for all potential dangerous drug residues, and unless it can be guaranteed that horse meat comes only from horses who have never had any potentially dangerous substances, there is no way to avoid the potential for such a negative reaction.

15. Many of the drugs and substances listed on Exhibit 1 are known to be harmful to, and unsafe for, humans to ingest. If drug residues in horses contain substances that are known to be harmful or unsafe for human consumption, there is a potential for individuals who eat horse meat to have serious negative impacts from ingestion of that meat. Unless all horses are tested for all potential dangerous drug residues, and unless it can be guaranteed that horse meat comes only from horses who have never had any potentially dangerous substances or do not have any drug residues from of any drugs or substances known to be harmful to humans, there is no way to avoid the potential for such a negative reaction.

I declare under penalty of perjury that the foregoing is true and correct, based on my own personal knowledge and experience.

Executed this 19 day of March, 2012, in Madrid, Spain .



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EDUCATION:

- *M.D.* – Tufts University School of Medicine; Boston, MA; May 1999 with honors
- *B.S. Biology* – Cornell University College of Agriculture; Ithaca, NY; May 1995

LICENSURE:

- Maryland Board of Registration in Medicine license #D0064571 (active)
- Massachusetts Board of Registration in Medicine license #206106 (inactive)

POSITIONS:

- *Director.* Public Health and Animal Agriculture, Humane Society International (since 2009)
- *Director.* Public Health and Animal Agriculture, The Humane Society of the United States (since 2005)
- *Guest Lecturer.* Cornell University Department of Nutrition (Fall 2004)
- *Public Speaker.* Speaking schedule posted at <http://www.DrGreger.org/dates.html> (since 2002)
- *Coordinator--Infectious Disease.* Organic Consumers Association; Marais, MN (2001-2005)
- *Chief Medical Investigator.* Farm Sanctuary; Watkins Glen, NY (1993-2005)

SELECTED PUBLICATIONS:

- Greger M. 2012. The Welfare of Transgenic Farm Animals. In *Biotechnology - Molecular Studies and Novel Applications for Improved Quality of Human Life*. InTech, 2012.
- Greger M. 2010. Transgenesis in animal agriculture and zoonotic disease resistance. *Centre for Agriculture and Biosciences (CAB) Reviews* 6(41):1-6.
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