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Maryland Legislative Bodies Testimony

It is an honor to provide testimony today. I am Doctor Robert Max Thornsberry, a 1977 graduate of the University of Missouri College of Veterinary Medicine, and a practicing food animal veterinarian. I was appointed the Chairman of the Animal Health Committee by the President of the Board of Directors for the Ranchers and Cattlemen's Action Legal Fund-United Stockgrowers of America (R-CALF-USA), an independent organization advocating for cattlemen, bison producers, and sheep producers across the United States. I was recently tasked with the education of our membership concerning the use of mRNA injections for livestock. Doctor Louis Pasteur with the assistance of his protégée, veterinarian Doctor Edmond Isadore Entinne Nocard, developed successful vaccines for both rabies and Anthrax in the late 1800's. The process of pasteurization of milk and proper canning processes developed by these men literally transformed the concept of food safety across the globe, saving countless lives.

mRNA technology is not new and was first utilized in 1990 as a form of gene therapy in animals[1], but was not utilized in clinical veterinary medicine. The Food and Drug Administration (FDA) still classifies mRNA as a form of gene therapy because it introduces into the animal a nucleotide code on mRNA for specific genes[2]. For that reason, particular scrutiny is required by the FDA for food safety. mRNA injections meet FDA's gene therapy definition, but the FDA has elected not to regulate mRNA injections as gene therapies. Recent agricultural press publications have attempted to quell any food safety concerns[3,4]. Consumers, livestock producers, companion animal parents, and veterinarians desire answers to their questions, not vague reassurances. Regardless of the mRNA technology utilized, mRNA must be contained in lipid nanoparticles (tiny fat globules) when administered by injection. These lipid nanoparticles are known inflammatory agents, activating multiple inflammatory pathways in the recipient animal[5,6,7]. It is now known that injected lipid nanoparticles redistribute throughout the body of the recipient animal, further redistributing their inflammatory properties[8,9]. What is the impact on intravascular blood clotting or the incidence of anaphylactic shock following injection of mRNA in veterinary patients? Concern exists for the shedding by animals of lipid nanoparticles in various body secretions: "Vaccine mRNA-carrying lipid nanoparticles spread after injection throughout the body according to available animal studies and vaccine mRNA (naked or in nanoparticles or in natural exosomes) is found in the bloodstream as well as vaccine antigen in free form or encapsulated in exosomes (shown in human studies). Lipid nanoparticles (or their natural equivalent, exosomes, or extracellular vesicles (EVs)) have been shown to be able to be excreted through body fluids (sweat, sputum, breast milk) and to pass the transplacental barrier. These EVs are also able to penetrate by inhalation and through the skin (healthy or injured) as well as orally through breast milk (and why not during sexual intercourse through semen, as this has not been studied). It is urgent to enforce the legislation on gene therapy that applies to mRNA vaccines and to carry out studies on this subject while the generalization of mRNA vaccines is being considered."[10]

It is now known that the genetic code contained on mRNA may find its way into the DNA of animals through the process of reverse transcription[11]. This means there is the potential for the mRNA carried genetic code to be incorporated into the DNA of a veterinary patient. What significance does this pose for animals? What risk does it pose for companion animal parents to be exposed to mRNA strands contained in extracellular vesicles that are coded for specific veterinary pathogen antigens?

Sequivity[12] is the only provisionally licensed mRNA injection utilized in the United States with approval from the United States Department of Agriculture. This product is utilized in swine as an autogenous (generated from the facility where the viral pathogen is discovered) mRNA product and takes 8 weeks from discovery of the viral pathogen to injection of the genetically coded mRNA specific antigen. This short time from identification of the viral pathogen to injection into an animal does not allow time for efficacy or safety to be evaluated. The process is proprietary to the swine facility where it is injected, under the prescription of a licensed practicing veterinarian. Because of its proprietary nature, no public or published scientific data is available to the veterinary community. No data on efficacy, on potential benefits, on the incidence of adverse reactions, and on subsequent food safety for the consuming public is revealed. What is the withdrawal established for slaughter post administration of the mRNA injection? Meat from swine receiving a Sequivity mRNA injection or injections is being marketed to the consuming public now, with no data available as to its food safety. Exposure to the public is not limited to cooked meat, but also is a concern for those handling raw meat products prior to cooking, exposing homemakers to potential contamination or inhalation of extracellular vesicles containing mRNA genetically coded for specific veterinary pathogen antigens.

For these reasons and the lack of any scientific data to make an informed choice, R-CALF-USA's membership has passed a resolution requiring meat products originating from animals receiving mRNA injections to be so labeled. There is great risk in alarming the meat consumer to the point where they avoid or reduce meat consumption without proper labeling. "The U.S. lost nearly 142,000 farms and 20.1 million ag acres from 2017 to 2022, which Agriculture Secretary Tom Vilsack said should be a "wake-up call" for policymakers."[13] Veterinary medical professionals seek to maintain safe, independent, and profitable food animal clients. We do not need any consumer avoidance or concern related to the use of mRNA.

Respectfully submitted by,

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