# FDA/CENTER FOR VETERINARY MEDICINE

# STAKEHOLDER MEETING

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MR. ROGERS: To start our afternoon session Dr. Sundlof, the Director for the Center for Veterinary Medicine, is going to give us an update. His colleague, Dr. Tollefson will sit in for him and tell us what has happened since our last stakeholder meeting in August. And now to launch us for this afternoon's session, Dr. Sundlof.

DR. SUNDLOF: Thank you, Mike. And I do apologize for being late this morning, but I think it was very ably handled.

We will go ahead and talk just a little bit about some of the things -- some of the problems that we face at the CVM.

Although we're trying very hard to meet people's expectations, sometimes it's a little bit difficult.

Here's kind of the problem. We showed a similar slide at the last stakeholders' meeting, and at least to date nothing much has changed. In the last five years, as Dr. Henney mentioned, the FDA in general has had an eroding base budget, even though the numbers have stayed the same or even increased in some areas at least a little bit, certainly in the area of user fees

there's been a change in the resources available to the agency. That's not the case at CVM.

We have had some increases in food safety issues, but that's very targeted and focused. So we do have decreasing resources in the face of expanding responsibilities. And there are a number of those.

Just to list some of the areas where we're at, we've had no program increases in nonfood safety initiative programs in the '90s. There's been no increase for inflation, pay raises or cost of living from '92 to '99. We've had no pay increases in cost of living. That comes out of our operation budget. So we have less money to hire new people in such activities as standards and new development, regulation-writing, et cetera. We've had to absorb reductions to cover tobacco, and food safety initiatives in 1998. And the way that worked was we asked in our budget for certain amount of money; and in the case of tobacco it was about $34 million to put tobacco programs together that we were appropriated $16 million but told to spend $3 million dollars. So that additional $17 million -- or whatever it comes out to be -- $20 million, $18 million came out of all of the

programs within FDA.

As a result of the present streamlining initiative, the national performance review we've had to downsize and streamline some of our processes. And in addition, we've had to take on some new legislative initiatives which we fully support and we're very glad that we did have success in getting legislation. But along with that legislation is a demand that we do a lot of work to implement the right regulations and et cetera, and that takes away from some of our more core functions.

Here's what we've asked for in the year 2000. As Dr. Henney said in her program, this is the biggest increase that the FDA has ever asked for, and if we're successful, we will be very grateful. This will help to restore some of the erosion that has occurred in the '90s. If we are successful in what we've asked for -- and the President has already supported this -- there will be an additional 36 positions in the Office of New Animal Drug Evaluation to help us with some of the backlog and in the regulation-writing process.

We also will ask for about $4 million in operating costs for the agency, which

would give us a total of a little bit over $7 million, and that doesn't include the increases to the field. That would be substantial in CVM's base budget.

Here's what we identified in the year 2000 as some of the gaps. And if you look at this chart, the entire bar is where we think we ought to be. This is what we would need to do our job as we think expectations are out there. A lot of this is based on our last stakeholders meeting where people told us where we should be spending our resources, the things that we're supposed to be doing.

You can see that the green area is what we're presently able to do. If we get our year 2000 increase, that's what the red bar is. So even with an increase in people and money, it doesn't make a lot of impact on our overall ability to reach our goal of a hundred percent.

Premarket Approval. Again that's an area where we want to focus a lot of our resources.

Product Quality Assurance. That's making sure that we are inspecting, making sure that we're out there in the plants and doing our

job in a timely manner so that we're making it once every two years.

Our research will actually decrease a little bit in 2000. But research is in fairly good shape presently and that's largely due to the Food Safety Initiative.

Outreach, our ability to communicate with our stakeholders, is important, and we will not be doing as much next year as we were doing this year.

Enforcement. Again, an area that is suffering because of the erosion of our base.

Injury Reporting. Although in 2000 we are asking for $800,000 to do a better job of injury reporting or event reporting, some of these areas where you see we're actually going down, it was planned that we would ask for increases in those areas in the year 2001. So if we are successful this year, in our budget for 2001 we'll try and make up for some of those losses this year.

Well, in -- based on the chart that I just showed you, those are just the things that are -- those are the products that FDA/CVM produces.

The whole budget was targeted at productivity, but it didn't really take into account many of the things that Dr. Henney has just talked about, and especially improving the science base of the organization. And so we're going to have to address that also in our year 2000 budget.

I'll talk a little bit about why I think improving the science base is very important. I fully support what Dr. Henney's vision is for improving the science base.

This is kind of a schematic that I came up with, and that's about as complex as can I get it, drawing a triangle. This is supposed to be a pyramid in which the base of the pyramid is the science, and the science is the support of most of our regulatory activities, all of the standard-setting, et cetera, et cetera. When you have a fairly minimal science base, you have a very large regulatory oversight.

The caption says, "In the Face of Uncertainty FDA Will Over-Regulate Every Time." And that's fairly true. I found that to be very consistent that with imperfect knowledge where there is uncertainty, the FDA and other regulatory agencies -- especially public health agencies --

will always take a conservative approach, because they are accountable. Those agencies are accountable. But the better the information, the more surgical, the more precise those regulations can be so that they are less burdensome to the industry.

We look at the science base. Again, the white part of that schematic represents the science base with the regulatory oversight being the top part. Where we'd like to get to is to have a relatively small oversight that draws from a very large scientific base.

I put surveillance on the bottom because I think surveillance is critically important to our ability to write correct regulations and have feedback as to if the things that we've done in terms of standard-setting, regulations are providing the results that we anticipate.

Surveillance is very important from the standpoint of things that we don't know. We really look at surveillance as an activity where we're casting a broad net out there and we're trying to find out information, burdening our regulated products that we may not have any idea

exists out there.

We require fairly indepth clinical studies before we approve a drug, but things happen that were never anticipated. This happens in veterinary products; it also happens widely in human products. Without a good surveillance program out there -- and I think some of the questions that you just heard in the telecast really supported that -- how can we get information back to the FDA that we're having problems with certain products? Having a good surveillance program out there that's sensitive and picking up critical information that we can feed back into the regulatory process is very important because we just don't know everything.

In the face of ignorance we will tend to underregulate, and that's not good either.

Research is a second component. Research will provide answers to questions that we know to ask. If we know that we need more information in a specific area, we can use research to provide us with those answers. This doesn't mean that all of the research and all of the surveillance is the responsibility of FDA. In fact, most of the research -- actually only a very

small part of the research that we use in our decision-making process and standard-setting process comes directly from FDA research. We draw from the full scientific body of knowledge out there.

Similarly, although a lot of our activities, because they are product-related in terms of surveillance, are related to FDA-based surveillance, there are other surveillance systems out there, too, such as Centers for Disease Control, MedWatch and other things that are funded by FDA will add to that surveillance information that we need.

Then the most important thing that I think we do as a regulatory agency is set standards that are reasonable, that are protective of the public, that are not overly burdensome on the regulated industry. Standard-setting is a very public process. We set standards that we think conform with what society expects from us. That's why it is an open process. But once we set those standards, then it's up to us to help the industries meet those standards. So we want to set standards that are focused, that are not overly burdensome, but that are protective of the public

health and then help the industries meet those standards.

The last two things on the top of that that aren't labeled up there: Enforcement and Approval. Those are the two regulatory actions that we generally take -- as FDA is we approve products and we take regulatory action against products that don't come into compliance with the standards.

So now this is a chart that you already saw where we just talked about improving our capacity to do the things to make the outputs that we have generally. What are we going to need in the year 2001 in order to not only improve our ability to meet our statutory requirements but also to improve the science base. We're in the process of working on that budget right now. But certainly trying to keep people current, making sure that the scientists and the FDA are on par, have parity with the scientists in the industries that we regulate, et cetera.

I think I'll just stop right there. Thank you.

MR. ROGERS: Thank you, Steve.

A couple of ground rules for our

stakeholders session this afternoon. I'm going to ask each of the speakers to please identify yourselves before you start speaking, for the benefit of our transcriber. You will each have two minutes -- I'm sorry -- ten minutes; except the National Pork Producers, Paul and Beth, will have five minutes each. But two minutes.

I am going to introduce my black belt karate member of our compliance group, Noel Ferguson. He is black belt, and I brought him along to be sure that we adhere to the time limits of ten minutes.

All right. Our FDA panel is not to engage in debate but to clarify questions as appropriate.

You might also notice that at about 4:30 we will be inviting statements, questions from the audience. The microphones are on the side of the aisles and are provided for that purpose.

So with no further ado, Panel No. 1, starting with Dr. Swanson.

DR. SWANSON: Dr. Richard Swanson. I'm president of the American Veterinary Medical Association.

Good afternoon to all of you. It's good to see you. And thanks for eventually showing up, Steve.

As president of the American Veterinary Medicine Association I am pleased to participate in the stakeholders meeting. These issues are near and dear to the AVMA's heart, as drug availability is directly related to the veterinarian's ability relieve the pain and suffering of animals.

The objective of the AVMA is to advance the science and art of veterinary medicine, including the relationship to public health, biological science and agriculture. The Association provides a forum for the discussion of issues of importance to the veterinary profession and for the development of official positions. The Association is the authorized voice of the profession in presenting the views to government, academia, agriculture, pet owners, the media, and other concerned public.

The FDA seeks input on the animal Drug Availability Act and how to strengthen the Agency's science base and improve the communication processes. With regard to the ADAA, areas of

progress have included the definition of "adequate and well-controlled study," approval of one veterinary Feed Directive product, though no regulations, feed mill licensure, approval of combination products and the CVM's minor use minor species proposal. The determination of "substantial evidence" of efficacy is a big piece of the ADAA that is still being tracked; that is, determining when greater one adequate and well-controlled study is needed or when field studies are needed to establish efficacy. It is through this piece that the AVMA and others seek a speedier drug approval process.

With respect to the FDA's desire to strengthen the science base and improve its communication processes, let me offer the AVMA's replies to Questions 1, 2, and 5.

Question No. 1 asks what actions the agency might take to expand FDA's capability to include state-of-the-art science into its risk-based decision-making. The AVMA applauds science and risk-based decision-making, and it is apparent that the CVM's concern with the approval requirements for antimicrobials for food-producing animals is an obvious opportunity for CVM to apply

these principles.

The agency has made it clear that the approval of some new antimicrobials of high public health concern for use in food-producing animals will not proceed without the incorporation of a framework to address the microbial safety aspect of these products and a potential impact on human health.

The AVMA is committed to working closely, in cooperation, with the FDA/CVM on the proposed framework. Nevertheless, the AVMA urges two principles: First, that the agency consider regulating microbial safety under the rules for food contaminants instead of those for food additives. Food contaminants are substances that are unavoidably present and whose presence is tolerated, while food additives are those substances deliberately incorporated into foods. Each of these categories clearly engender different requirements.

Second, the AVMA advises that the agency conduct a risk assessment to characterize the actual human health impact of the use of antimicrobials in food-producing animals and derive the other benefits that a risk assessment offers.

Risk assessment is well recognized as a tool that supports decisions. The discipline uses scientific data to evaluate risk and was introduced in the 1970s to evaluate the human cancer risk. Risk assessment provides what has been called by Anna Lammerding of Health Canada, "a common, unified work space for people of different backgrounds to contribute to a better understanding of the whole system." Risk assessments show where there are data gaps, serve as a storage vehicle for valuable knowledge as it is accumulated, and describe a chain of cause-and-effect events where proposed changes can be evaluated.

We recognize that this is an onerous task and realize that many data gaps will be revealed. But this tool puts us all on the same page looking at the entire process.

Research needs to be elucidated and can be prioritized, and as data is collected it can be plugged into the many holes. Over time we will have a more coherent understanding of the human health impact of anti-microbial use in food-producing animals. Forgive my oversimplified comparison to 3,000 pieces of a jigsaw puzzle spread out over a large table whereby a number of

different people identify pieces and assemble these pieces into distinct parts. Together these parts are assembled to make the whole and complete picture, visible to us all. I believe that example illustrates in an admittedly simple way that the benefits to all of us of conducting a risk assessment. I believe the subject of anti-microbial resistance and potential human health impact is too important for us not to prepare a risk assessment.

The second question seeks to determine the ways the agency can facilitate the exchange and integration of scientific information to better enable FDA to meet its public health responsibilities throughout a product's life cycle.

Antimicrobial use in food-producing animals is, again, a fitting example. The AVMA sees the value in the establishment of a panel of experts, as described in the Institute of Medicine/National Research Council report "The Use of Drugs in Food Animals: Benefits and Risks." In the report, the Committee on Drug Use in Food Animals recommended that further development and use of antibiotics in both human medicine and food animal practices have

oversight by an interdisciplinary panel of experts composed of representatives of the veterinary and animal health industry, the human medicine community, consumer advocacy, the animal production industry, research, epidemiology and the regulatory agencies. The mission of this panel would be to review on a scheduled basis data that address the concerns of antibiotic resistance development in animals and humans and to advise regulatory agencies in the development and use of antibiotics in agriculture and human medicine.

We would also suggest that FDA foster a more cooperative relationship with the USDA Agricultural Research Service and the Cooperative State Research, Education and Extension Service for scientific expertise and the USDA Food Safety and Inspection Service in the conduct of the microbial risk assessments.

Question No. 5 asks how to enhance the communication process. Allow us to be participants. We look forward to the active involvement in planning the CVM's upcoming workshops that pertain to the requirements posed in the framework document, for example.

Let me also take this opportunity

to compliment the CVM on some of their existing means of communication; for example, on their outstanding representation at the AVMA council and committee meetings. This vehicle of communication is effective and greatly appreciated by the AVMA.

I'm also pleased that the CVM actively submits articles and information for inclusion in the journal of the American Veterinary Medical Association. The journal reaches 63,000 veterinarians, a very large portion -- in fact, almost all -- of our profession.

We also find the FDA Veterinarian, CVM Updates and CVM web site to be helpful.

In closing, the American Veterinary Medical Association wishes to thank the Center for Veterinary Medicine for this opportunity to comment and looks forward to ongoing cooperation with the Center. We thank the Center for recognizing the role of the veterinarian as an informed professional in the safe and effective administration of drugs to animals. Such recognition is apparent in CVM's assignment of prescription or Veterinary Fed Directive status to drugs, creation of regulations for extralabel drug use, application of professional flexible labeling

and the most recent acknowledgment of the AVMA judicious antimicrobial use principles. We pledge continued responsible drug use in the care of animals and active participation in the many deliberations that lie ahead.

Thank you very much.

(Applause.)

MR. ROGERS: Any questions from the FDA?

(No response.)

MR. ROGERS: Dr. Carnevale.

DR. CARNEVALE: Thank you, Mike.

I can personally vouch for Steve. He had a good excuse. I think we got on and off that plane more times in one morning than I think I've ever done in the last year.

In any case, thanks for inviting us here to the stakeholders meeting. I am Dr. Richard Carnevale of the Animal Health Institute, Vice President for Scientific Regulatory and International Affairs and on behalf of the Animal Health Institute and the Coalition for Animal Health I appreciate the opportunity to discuss the challenges that face the Center for Veterinary Medicine.

As you know, AHI represents the companies that research and develop the drugs and vaccines that protect the health of both food and companion animals. Today I plan to discuss the overall effectiveness and operation of the drug approval process, both as it pertains to the FDA Modernization Act and the current efforts by CVM to alter the existing process for review of antibacterials. I will not address my comments to the Animal Drug Availability Act. Joel Brandenberger and Dave Bossman will specifically address issues on ADAA later in the program.

As you are aware, AHI and the members of the Coalition for Animal Health have voiced strong concerns about CVM's proposed new safety requirements for animal antibacterials without having adequately assessed the actual risks to public health. Dr. Swanson just addressed similar comments in his presentation.

These concerns were addressed directly in comments to the Veterinary Advisory Committee and amplified in the AHI comments filed on the proposed framework document in early April. It continues to cause us concern that while the Office of Epizootics and the World Health

Organization, among other scientific bodies, have continued to suggest that documented risk assessment is the appropriate tool to develop and refine policy for animal/human safety, however, we fear that CVM may have established a zero risk policy for this issue.

Throughout the debate on antibiotic resistance, AHI has vocally supported the collection of national data to provide a meaningful overview of the prevalence of resistant food-borne pathogens. Specifically we believe that the National Antimicrobial Resistance Monitoring System should be expanded to provide a more robust picture of change in susceptibility. We look forward to the opportunity to work directly with USDA and FDA to improve and expand the NARMS system. We believe that CVM shares our goals in this area, and we also believe that within AHI and the Coalition we have expertise that will be valuable if utilized in a positive manner. We hope CVM will take the opportunity to involve industry in workshops and symposia on this and other key elements of the effort to better understand the potential for resistance development.

In fact, we are working to develop

a workshop with CVM on the concept of resistance thresholds that is broadly laid out and discussed in the framework document. Again, while this is a positive step, CVM must make every effort to make sure that workshops and other efforts to get public input allow balanced participation and open input. We fear this was not the case in the VMAC hearing, the only previous opportunity for scientific review and public comment. In that case the format narrowed the range of questions that VMAC Committee members were allowed to pursue, and the public comments in many instances seems to have been overlooked. We certainly hope that CVM will carefully review these and subsequent comments to the framework document when preparing revisions.

All of the members of the Coalition for Animal Health have been active participants in the AVMA's association efforts to develop judicious use guidelines. We believe those efforts to combat the development of resistance are a key part of meaningful strategies to protect animal and human health.

We were somewhat disappointed when the judicious use guidelines did not figure prominently in the proposed framework or in the CVM

presentation at VMAC. We would encourage CVM to make judicious use guidelines the cornerstone of the framework.

The member companies of AHI believe that the approval process for animal drugs should be based on science and the actual assessment of risk and not on assumed risk. Furthermore, the approval process should be certain and predictable. In many ways the current approval process at CVM fails to meet these standards. In October 1998, AHI filed a Citizens Petition with the Food and Drug Administration asking that CVM refrain from imposing additional requirements on individual applicants until the legal and scientific justifications for these requirements were clarified. We believe that the approval process continues to be disrupted by the uncertainty of these product-specific requirements. AHI looks forward to CVM's review and response to its petition.

AHI and the Coalition for Animal Health have always been committed to working constructively with CVM and attempting to address issues of concern in a positive and proactive manner. The record of cooperation with CVM

established during development and passage of the Animal Drug Availability Act is a testament to that commitment. We believe that the spirit of cooperation can and should be brought to the table as the issue of antibiotic resistance is addressed.

With my remaining time, let me turn my comments to the Food and Drug Modernization Act. We would like to focus on five areas of that legislation in regard to their impact on animal drugs, impact and implementation.

Section 116, Manufacturing Changes. We welcome the fact that congress and FDA are moving to implement a more streamlined procedure for making changes in the manufacturing process and/or specifications of new human and animal drugs, particularly for those changes considered minor. However, we want to point out the long before FDMA, AHI and CVM had worked out a procedure for the agency review of Category I manufacturing changes called the Alternate Administrative Procedure. This allowed firms to submit many changes considered minor as biennial reports to the Agency, both expanding the current list of changes that don't need prior approval and also reducing the paperwork burden for documenting

such changes. AHI co-sponsored a workshop with CVM to introduce the procedure for the AAP. We viewed this as a highly productive exercise with many of our member firms participating in the program. With passage of FDMA, our initial reading was that the law should not change the basic tenets of the AAP, but more recent feedback from the agency indicates that may not be the case. In particular Section 116 requires annual reporting while the AAP permits biennial.

The major concern with our members at this stage is that we're unable to get any specific guidance from CVM on this issue. We hope that the benefits gained from the AAP are not lost because of the knew legislation.

Section 130, Reports of Post-Market Approval. This is a new provision of the law which requires reports of post-marketing studies on new drugs and presumably new animal drugs. AHI has several questions with regard to the provision. What was the intent of this section and how is it applicable to animal drugs? What types of studies will it apply to? Could it potentially apply to antibiotic resistance monitoring, which may not be a study, per se, but

the ongoing collection of data? We are also concerned with the public release of such studies. The law only indicates the identification of the sponsor and the status of the study will be released. Could that potentially be interpreted to allow release to the public?

Finally will there be a lead office for reporting the information to the public or to Congress, or will each Center be responsible?

Section 402, Expanded Access to Investigational Therapies and Devices. An important section or part of the law allows greater access to lifesaving therapies that may not be available commercially but are under investigation. This is clearly aimed at human therapeutics, but could it be applicable under similar circumstances to animal drugs? CVM has a compassionate use policy that permits the use of certain unapproved drugs for treating animal diseases where there may be no approved drug. However, this policy is tied to the INAD in that the veterinarian wishing to use the drug must be engaged in an active investigation. Furthermore, it's uncertain whether or not the company would be able to recover costs

for providing the drug and must maintain specific records of the distribution and use.

Companies frequently get requests for investigational drugs that have data -- at least partial data -- showing them to be safe and effective, but they're just not yet approved. They have a difficult time honoring those legitimate requests unless they're able to assume the costs and all the recordkeeping and other responsibilities that go into it.

We'd encourage the Center to consider to apply the intention of this section of FDMA to animal drugs.

Approval of Supplemental Applications for Approved Products under Section 403. This section covers new criteria for supplemental applications. AHI would like to know when guidance on implementing this provision would be available for animal drug manufacturers. We know that FDAMA encourages the companies to submit supplemental applications based wholly or in part on published literature or data already submitted to prevent duplication of research. This does seem at odds with the proposed regulation published last year on the new definition of "substantial evidence

of effectiveness" under the Animal Drug Availability Act. In that proposal, the agency appeared to be discouraging the use of public literature as a demonstration of substantial evidence as well as the previously submitted data considered less than contemporary. We wonder how the ADAA and the intent of FDMA will be reconciled on this matter.

At that point I can conclude my comments. Thank you.

(Applause.)

DR. WAGES: My name is Dennis Wages, and I'm a veterinarian representing the American Association of Avian Pathologists, which is primarily composed of poultry veterinarians, allied industries, commercial production, research and academia. Veterinarians in AAAP are involved in the production of over seven billion broilers, 300 million turkeys and 325 million table egg layers, producing over eighty million eggs annually.

One of the intents of the FDA Modernization Act is to make available new animal drugs for use in livestock. However circumstances surrounding the recently discussed framework

document produced by FDA/CVM seems to have disrupted the approval process and the potential for new animal drug development. It's my understanding that until the framework document is finalized, new animal drug approvals are on hold. Likewise, the major pharmaceutical players in our industry have put the discovery of such new animal drugs with potential use in poultry not only on the back burner, but the discovery process for food animal drugs as a whole has ceased.

Even though the intent of the framework document was to increase the availability of drugs used in veterinary medicine and provide a comfort zone of use of antibacterials to all those involved, in reality it has brought it to an end.

I would encourage CVM to encourage the drug approval process while the framework document is being fine-tuned, because there are more questions than answers regarding the document. Discovery of new and innovative therapeutic regimens are vital to the food animal industry as the arsenal of therapeutic agents declines.

From the FDAMA communications listed on the CVM web page it's stated and we've heard today that Dr. Henney places a high premium

and priority on making sure that science anchors FDA's decision-making process. The poultry industry is concerned where the science and the risk assessments are associated with some of the current thinking regarding antibacterial uses. Is it not possible for an impartial or at least a diverse panel to be identified by CVM to peer and/or scientifically review studies and articles that are released to not only CVM but professional and private sectors to comment on the implications of such articles.

For example, the study from Minnesota regarding Campylobacter resistance in ready-to-eat poultry raises some serious questions. It's my understanding that the majority of the Minneapolis-St. Paul chickens originates from one company which, during the study, had not used any flouroquinolones. Also during that same time period, the National Chicken Council says that only 1.1 percent of the chickens in the United States were even treated with flouroquinolones. It starts in my mind a question, is there the potential for this antibiotic to actually cause the resistance that was noted? Although we don't have the true answers, it raises concerns about potential

cross-contamination at the retail level, as production companies have little control over their product after it leaves the processing facility, and other questions about ready-to-eat poultry.

The poultry industry has for many years cautioned that much cross-contamination occurs in repackaging of ready-to-cook chicken and that proper preparation is necessary. Sometimes these common-sense procedures are never emphasized in the prevention of exposure to food-borne pathogens at the CVM level. We believe that CVM needs to take advantage at an educational level. If we are going to place science in our decision process, then let's do it based on scientific experts from both sides of the question, both pro and con, and not base our decisions on politics and consumers -- excuse me, consumer groups, CDC or actions from our European neighbors.

It seems initiatives and directions are implemented when science does not appear to support the decisions; not in all cases but in some of the more controversial ones. A diverse panel of scientific experts identified by FDA/CVM could be valuable in determining the scientific merit of reports that have a potential

for controversy. Get all the facts from all the people and then make decisions. Likewise, the same experts could be involved in aiding the Agency into what scientific methods and applications are needed that would hopefully result in data being generated that all sides could derive value from.

There's no question that there are two sides to every story. However, concerning the antibiotic use controversy, there are pieces of the scientific information that certain groups seem to overlook, depending on their own agenda, and no one more group is any more at fault than any other. I would encourage CVM to continue to look at all sides of the issues and determine the true risks and outcomes of such issues.

For example, antibiotic use leads to resistance. It's a known fact that the antibiotic resistant bacteria concerning certain microbials are found in certain animals and that food-borne illness becomes more complex and many factors need to fall into place. We need to understand and to know that if, in fact, the treatment of poultry and/or any other animals actually does lead to antimicrobial resistance and truly an untreatable or at least food-borne illness

that refractory to treatment in humans. If there are food-borne illnesses that are, in fact, refractory to treatment, is this caused by the use of antimicrobials in poultry flocks? I guess that's the $64,000 question that I think people, especially science, needs to answer.

I would encourage the Agency to focus on the probability of the occurrence of such antibiotic use when it's controversial and the probability of such use and not the possibility of such use.

Risk assessment is the buzz word in the world of regulatory affairs and we feel that it's the appropriate scientific route of choice for some of these issues that face us. Retrospective studies with adequate numbers of groups represented to epidemiologically demonstrate that there is, indeed, a cause-and-effect relationship of the use of these antibacterials in veterinary medicine with the result being a food-borne illness refractory to treatment.

There are many statistic-gathering mechanisms in process concerning antimicrobial resistance that needs to be correlated, evaluated and disseminated to

stakeholders. NARMS, Food-Net, Food Safety Initiative, post-approval monitoring programs are all in various stages of data collection. This information needs to be carefully evaluated and disseminated and to avoid misinterpretation of the data.

What information is public versus what is proprietary and where is this information to be consistently found? This is information that's being generated that can put all the pieces of the puzzle together, but also pieces of that information can be used to carry on certain agendas.

We don't have all the answers, but hope that the future direction of FDA/CVM be driven by the emphasis placed on addressing these issues scientifically and not do what may be politically correct.

I don't envy the pressure that CVM has put on them from all sides. Strengthening the agency science base through well-defined studies that are going to tell us what we need to know is paramount. I think we need to outline objectives, design a plan of action that answers the key questions to our objectives.

Let us ask ourselves: What information do we have that's available to us right now that provides us insight and what gaps are there present in the information, and then what do we need to do to formalize an evaluation process that will be meaningful and address the Agency's objectives and concerns?

Outside objective evaluation of the plan of action and studies to be implemented are key to the success of the Agency's goal to strengthen its science base. As you are doing today, allowing all stakeholders to be involved as to the future of assessing public health risks is a vital part of it.

The future of antimicrobial use in all medical professions and the future availability of drugs depends on the Agency's process as to its future direction. Of course actions will always speak louder than words.

Thank you for allowing me to address these concerns of the poultry industry and the poultry veterinary concerns to you today. I feel that FDA/CVM will direct themselves in a manner that will provide the comfort zone for all stakeholders involved in these hot and very

controversial issues. Thank you.

(Applause )

MR. WADDELL: I'm John Waddell. I'm a practitioner from Nebraska. I'm here representing the American Association of Swine Practitioners.

The AASP is a professional organization of over 1300 veterinarians in the United States. Our members are integrally involved in all aspects of swine health and production. The AASP has a vested interest in assisting the FDA, and specifically the CVM, in implementation of the FDA Modernization Act.

Modernization is a continual process for any organization. Without some plan to improve, any organization, including the FDA, may find itself providing no real value to its customers or stakeholders. The development of creative strategies as part of this improvement process but true and measurable success depends on the implementation of these strategies; therefore, the implementation of ideas and strategies discussed today will speak much louder than any words that will be spoken here.

One of the stated objectives under

FDA's Modernization Act is to strengthen its science base. We applaud the CVM in its desire to use science in its decision-making.

The application of science can be a powerful tool. This raises the key issue of what level and kind of science is needed. The intuitive answer is that we need good science; however CVM needs to identify the attributes of good science, which include methodology and verification. Good science is not intuition and perception.

It is often tempting to forego science in the face of expediency and emotionalism. When science is not available, the challenge is not merely strengthening the science but also involves the balance between politics and science. Regulatory decision-making needs to balance political agendas and science. The line between the two often becomes obscured and distorted. Unfortunately, in the absence of science, political expediency rules the day. We must not let that happen.

We urge the FDA/CVM to remain committed to using science in the risk-based decision-making process. Before the FDA finalizes any decision, perhaps the following question should

be asked: Will the decision significantly lower the risk to public health?

Most AASP members practice in a world of applied science. Science dictates what medication and what treatment regimen to use. It dictates the avoidance of violative residues. It is this adherence to science that ensures we are producing a healthy and safe food product while securing the livelihood of our clients.

Can you imagine what would happen if veterinarians disregarded our scientific knowledge? What will FDA's decisions be like if they disregard scientific knowledge?

For veterinarians our measure of success in the field are well-defined. Unfortunately, the measure of success for regulatory decision-making is not always so clear-cut. However, this does not diminish the need to discover and identify the attributes of strong science as the CVM incorporates the state-of-the-art science in its decision-making process.

How can CVM strengthen its science? The first step is to define a process that can objectively review and select appropriate

studies and investigations that are pertinent to the decision at hand. The agency should not utilize a subjective process of intuition and perception that biases the decision-making process. Any selective use of data to accomplish a political agenda does little to protect the public health, nor does it build the credibility of the Agency.

Strong science must be considered when drawing data from many disciplines and sources. The application of experimental research can be extremely limited and biased. For example, so-called bench research can prove that some event is possible. The question then becomes: Is this significant in terms of applied science? In light of such research, I return to the original question posed to decision-makers earlier: Will this decision significantly lower the risk to public health?

Strong science dictates that each scientific discipline be placed in perspective with relation to its value to the decision process. For example, we are faced with the issue of antimicrobial resistance. This issue is overshadowing everything else that CVM is currently

doing. Epidemiology is a discipline that seems to be occupying much of the discussion on the issue. As an investigational science, epidemiology relies on observing populations and then making inferences about those observations. The subjective nature of inferences can allow errors that bias the interpretation of data, thus weakening the science.

Biological systems are inherently variable. Attempts to misrepresent a state of nature may provide sensational news stories and good editorial fodder, but they do little to strengthen the science. Superbugs may be today's headlines, but such sensationalism has no place in an attempt to strengthen the science in decision-making.

Strong science embraces the concept of consistency in a number of different circumstances. Any attempt to oversimplify a cause-and-effect mechanism and the interventions required to mitigate a risk may produce unintended consequences. The failure to account for variability in veterinary medicine and the production of food animals will do little to protect the public health, but it may unwittingly devastate an agricultural industry.

CVM must recognize the limitations of the science that is available for their decision-making. The agency must be prepared to deal with variability and uncertainty. It must not use the lack of data as an excuse to employ unscientific reasoning such as the precautionary principle. The precautionary principle is based primarily on perception and intuition, not characteristics of strong science.

The logical place to start in the agency's quest for effective risk-based decision-making would seem to be the use of scientific risk assessment. The attainment of some understanding of the presenting level of risk, whether qualitative or quantitative, is essential. Without this in place, the Agency cannot begin to come to grips with the level of science or data needed for the process.

A great deal of the value of determining acceptable risk and understanding a level of risk is the role that they can play in assuring the CVM's limited resources will be allocated to achieve the greatest impact.

The concept of risk assessment is also consistent with the efforts of other

governmental agencies. By clearly understanding the areas of greatest risk and employing a more comprehensive and systematic approach, the CVM can utilize a cooperative approach to improving food safety. The U.S. Department of Agriculture, through the Food Safety and Inspection Service, represents an important resource to mitigate the risk of food-borne disease at the point of slaughter.

CVM's demonstration of its willingness to adopt a formal risk assessment approach and strengthen the science will enhance the Agency's credibility and its efforts to communicate with its stakeholders.

A key factor in improving communication is trust. Unfortunately, there appears to be very little trust present between the CVM and its stakeholders. This lack of trust should not be misconstrued as malicious intent by any party. It is, however, symptomatic of the uncertainty and lack of transparency in the decision-making process.

Consistent and sustained communication efforts are required by all involved. Stakeholders cannot be embraced by CVM

during its modernization efforts and then held at arm's length with disdain during the decision-making process. Likewise, CVM cannot be portrayed as the enemy with no redeeming value for animal agriculture or public health.

When faced with uncertainty from a lack of science, CVM should look to its stakeholders for assistance. The timing of such a request is vital. If the decision-making process has proceeded too far, the assistance will have little value or real impact on the process. When the process has gone too far, stakeholders have to wonder whether their input was desired at all or whether it was merely window-dressing needed to satisfy a statutory requirement. The result is the loss of credibility in these situations. FDA needs to bring the stakeholders into the process at the earliest moment.

Stakeholders have an obligation to respond with credible data where available. When data is not available, stakeholders should provide expert assistance in setting the research agenda and perhaps in conducting pertinent research. A fostering of communications, collaboration and cooperation must take place if CVM wishes to be

efficient and effective at meeting its responsibilities.

I thank you for this continuing opportunity to offer comment. As I stated before, the development of creative strategies is part of modernization, but true and measurable success depends on the implementation of these strategies. Any resulting action from today's discussion will speak much louder than any words spoken here.

(Applause.)

MR. ROGERS: Pork Producers will have five minutes each.

MR. SUNDBERG: Good afternoon. I'm Paul Sundberg. I'm the Assistant Vice President of Veterinary Issues from the National Pork Producer Council.

I want to begin by thanking the agency for the opportunity to offer comments this afternoon on behalf of approximately 85,000 producer members in 44 affiliated state associations.

The National Pork Producers Council is committed to the evaluation of scientific data to assess many of the issues that affect our industry. We have a series of pork

producer committees that do this with the advice of a variety of scientific experts. They then take their evaluation and look at various management alternatives and develop communication strategies when appropriate.

I'd like to offer some comments on the Agency's strategic directions as well as the specific questions posed in the Federal Register notice of this meeting.

The first two strategic directions and the first question in the Federal Register bring together the concept of scientific analysis and risk-based decision-making. Our comments at the last VMAC meeting demonstrate our support of the use of science to assess risk. It's clear the continuing challenge is to evaluate the accuracy and appropriateness of the science.

There seems to be at least two primary research areas that have occupied much of the debate about the risk of antimicrobial use in agriculture and how it affects public health. Therefore, two examples are bacteriology and epidemiology, and these two are really two different examples of approaches to a science-based mechanism.

The first, bacteriology, has focused on the laboratory discovery of the genetic basis for resistance, its mechanism of action and its transmission from one individual bacterium to another. We have improved our scientific techniques from describing R factors to an investigation of integrons and transposons. In the years to come we will find even more innovative ways that bacteria adapt to their environment. This doesn't imply these are new bacterial mechanisms, only that our discovery or understanding of them is new.

Laboratory experiments are limited by the laboratory conditions under which they're conducted. There's a danger of taking the results or the findings of the experiment as a template of what happens outside of the lab. The field does not have the ability to control laboratory environment.

Epidemiology has been defined as the study of patterns of disease that exist under those field conditions; the frequency, distribution and determinants of health and disease of populations. The unit of interest is the population and not the individual. It's useful to

provide some data that suggests associations among health determinants but usually not a cause-and-effect relationship.

As with other sciences, all of these data are only valid if it has the power to be supported by statistical analysis, if the study was designed properly and if it makes intuitive sense. Epidemiological studies that fail in any of these, as with the other bench sciences, may divert our attention, efforts and resources.

As Dr. Waddell said, unfortunately peer review publication does not always insure equality. For the Agency to stand on a risk-based decision-making policy it has to use the best information available from the bench sciences and the field sciences to do a risk measurement or assessment. Using just one discipline will dangerously narrow and invalidate any assessment of risk and probably will be misleading. This is true whether you're using only bacteriology, epidemiology or any other scientific discipline. A systems approach is needed for risk assessment to be scientifically valid -- similar to that of the Agency's strategic directions that calls for a systems approach to Agency regulation and looking

for problem solutions rather than piecemeal review and enforcement. Only then can it reasonably assume what policies are going to have an effect on the risk.

The first question asks what actions the agency can take to expand its incorporation of state-of-the-art science into its risk-based decision-making. The Agency should develop the model so that it can assure itself that its decision-making is, in fact, risk-based, using the expertise available within and without the agency to define and develop risk-based risk assessment approach. This will ensure the inclusion of the state-of-the-art science because the risk assessment model has be to continually refined as more information comes available. Once the model for risk assessment is developed through a transparent, scientifically defensible process, the agency, in conjunction with its stakeholders, can move on to the risk management and risk communication portion of the total risk analysis.

The basic message is to follow the risk analysis process and not implement risk management policies before doing an assessment of the risk. The risk communication strategy appears

to be the point of Question 3, the actions needed for educating the public. This is exactly why the agency must have already completed the defensible, credible assessment of risk, to communicate those strategies to the public. Without that credible assessment, its message of the balance between risks and benefits may not be believable or even well founded. Completing an assessment of risk and the transparent transfer of risk management policy will give the stakeholders the tools that will enable them to carry the FDA's message to the public.

We stand ready to help the agency in this task. The nation's pork producers are willing to spend their own checkoff money on this because they recognize the important role of science in this issue.

I'd like to introduce Barb Determan. She's a pork producer from Iowa, also from the National Pork Producers Council.

And I'd also like to thank the CVM to allow us to split up our time.

MS. DETERMAN: As Paul said, I'm a producer from Early, Iowa. Myself and my husband, Steve, and our three children have a family farming

operation in northwest Iowa. Our farrow-to-finish operation produces about 2000 head of hogs a year. I am a volunteer for the National Pork Producer Council. I donate my time to represent producers from across the nation.

I appreciate the opportunity to talk with you this afternoon about the agency's reliance on science to meet its obligations. I would like to give you my perception after I've had a chance to meet with the CVM on two occasions on its decision-making process. Thank you for those two opportunities as well as this one today.

Meetings like this are very important in helping to foster open communication and exchange of ideas between the CVM and its constituents. We also need to explore new ways that this can go farther. The CVM has people with the decision-making power. Those decisions will affect the way that the nation's pork producers, my husband and myself live and work every day. I think all of us -- CVM and the pork producers -- have a common goal of food safety and the preservation of public health. There needs to be an effective mechanism, how we work together to help reach that goal. We need to better understand

the constraints that the agency works under, and you need to better understand our business and how we work. One of the most important outcomes of these types of meetings is to talk about how that mechanism can be developed.

I would also like to say a few things about what I saw at the last Veterinary Medicine Advisory Committee meeting. CVM had gathered an impressive group of experts and advisors. However there was only one practitioner on the committee that had any idea of how veterinary medicine works in everyday practice, and that person chaired the meeting, which limited his ability to offer input. If the VMAC is to be effective, let it contribute the real life understanding of veterinary medicine that CVM needs. Speaker after speaker tried to offer that input during the first day, but when it came to the discussions of the Committee during the second day, there was no indication that what we had tried to convey had any effect on the outcome.

I recently had the opportunity to travel to Europe to talk with Swedish producers, scientists, officials and veterinarians about how they raise pigs and use antibiotics.

One of the things I learned was that they're relying more on politics than they are on science. In fact, science is basically on the run in Europe. Many of their policies are based on marketing decisions and posturing of one country against the others. This is not a good example for the CVM and their science-based decision-making.

In a recent issue of Meat International, a trade magazine for international meat associations, there was an interview with Anne Birgitte Lundholt, the managing director of Danske Slagterier, the federation of producers and slaughterhouses in Denmark. When she was asked about the EU ban of certain antibiotics as growth promoters and what the effect has been on production, she said, "Scientifically growth promoters do not seem to be a problem, but we find it impossible to explain to the average consumer that medicine has to be given to healthy pigs. It is against our normal philosophy of following science."

When we talked with Danske Slagterier during our trip, we were told of the Danish plan to stop using all growth promotant antimicrobials, even nursery-age pigs. The

banning growth promoters scientists told us that it was strictly a political decision that was the result of a slow news time during last summer.

The last thing we need to learn in this discussion is that as we talk about the basis of science for decisions is that we all need to maintain our advocacy for the role of sound science. The Centers for Disease Control has become an advocate for the European philosophy. During the VMAC meeting we were told that we had better move along with this issue because we didn't know what it was like to stand by the bed of a dying child. The CDC's Dr. Angulo was quoted in the Food Chem News as saying that he, -- and then presumably the CDC, was fully supportive of the recent CSPI petition to ask for the banning of all subtherapeutic uses of antimicrobials.

I'll let the scientists argue that, because, as you can tell, my name doesn't have all the letters behind it; I just raise pigs. What I have to offer is my opinion that the CVM needs to be an advocate for its positions. If it wants to stand on scientific judgment, then it should be ready to express that policy and refute the ones that don't. Numerous scientific bodies

have said that the risk of agricultural uses of antimicrobials has not been determined, but there is no imminent hazard. We need to stand by our positions on sound science and become its advocate or we will find ourselves that we could be in a period of slow news and be forced to abandon it strictly because of policies.

The National Pork Producers Council is spending our pork producer checkoff dollars to try to supply some of the scientific answers we need, and we offer all the help we can help you in continuing those efforts.

Thank you.

(Applause.)

MR. ROGERS: Before we dismiss this panel, I'd like to ask the FDA group if you have any clarifying questions of any of the panelists.

(No response.)

MR. ROGERS: Hearing none, thank you so much for your input.

(A short recess was taken.)

MR. BREEN: We'll get started for the last session.

First of all, my name is Charles

Breen, and I'll be filling in for Mike Rogers this afternoon. As you'll notice, there's a difference between the previous man standing over here in the dark suit and myself.

To continue, Dr. James A. Jarrett, Executive Vice President of the American Association of Bovine Practitioners.

DR. JARRETT: Thank you, David. I'm Jim Jarrett. I'm the Executive Vice President of the American Association of Bovine Practitioners.

AAVP is an organization of over 5500 veterinarians, each with at least some interest and involvement in cattle medicine. We have members who are highly specialized in their practice and members who see only one or two cows a week; so we are quite varied in our interest.

We all share the knowledge that all of our bovine patients are only one conception away from McDonalds. They are all part of the human food chain, all of them. We all share a sense of responsibility for the health of the nation's cattle herd and the wholesomeness of the human food that it produces. We believe this food to be as safe as is humanly possible to make it.

This is supported by the fact that the incidence of food-borne illness as a result of anything that happens at the farm level is at an all-time low.

We support our other animal agriculture interests that have gone before me today. And at the risk of saying "Me, too," and sitting down, I will continue. But we will be supportive -- where is Paul? -- all of you guys, and appreciate what you had to say as well.

Our mission is to prevent pain and suffering in our patients and to ensure that the pathogen level in food for animals is as low as is humanly possible to make it.

To do this, from time to time we need various therapeutic agents. This brings us in closer contact with the FDA/CVM than any other public agency, including the IRS. We appreciate the opportunity for input.

DR. TOLLEFSON: We've never been compared to the IRS.

DR. JARRETT: We appreciate the opportunity for to give input. We are encouraged by the report of the following of the stakeholders meeting in August of 1998.

Today I've been encouraged by

statements such as risk-benefit ratio. I've been encouraged by statements that refer to a global economy, and would stress the need to keep American agricultural on a level playing field with our producing comrades around the world.

I am encouraged by a proposed increase in the dollars for outreach and enforcement as depicted by Dr. Sundlof slide earlier today.

Some of our members have the perception that FDA serves only the consumer interest and perceived needs using questionable to marginal science. As an example, the current intense activity over antimicrobial resistance is being an issue that, at the moment, has limited human health impact. Much of the action assumes that there is a problem or a hazard to human health that has yet to be demonstrated.

We have concerns that many actions and decisions seem to be based on marginal science at best and false information to emotionalism at worst. However, based on the premises that there might be a problem, animal agriculture is being proactive with its efforts to formulate such things as prudent or judicious use guidelines and

distributing them to our end user members. We are making available to the practitioner database and data information on the selection dosage and usage of antimicrobial agents, including the choice of drugs as well as the dosage, terms of therapy and such information. This information is and will be made available to the practitioner to use as he or she makes decisions about controlling pain and suffering in our food animal patients at the same time.

However, we vigorously oppose any formulary or any edict that might tell or take away any of the responsibility or the decision-making power of the practitioner in the field.

This brings me to respond to the five questions. Some of this response will be a repeat from the last meeting in August, and I apologize for this.

The first question, though, I am impressed, though, that all these questions begin with the phrase, "What actions do you propose?" There have been many actions proposed by previous speakers, and I'm sure by those who will follow as well as some of the comments that I will have.

I'm most concerned about how we

incorporate true science in a risk-based decision-making process, as related to the first question.

Monitoring is certainly a part of any concern or any evaluation of antibiotics or therapeutic agents. We certainly support some kind of monitoring program; however, we have concerns about how samples might be selected and collected and how the results might be used. We would encourage -- and I would encourage this as a part of all five responses -- the inclusion of veterinarians and other livestock producers with experience at the production level in the decision-making process, along with non-agency experts that have already been alluded to.

The second question refers to the actions needed or suggested to help in the exchange and integration of scientific information. We would suggest, as I have before, the utilization of the existing channels of communication, such as the American Association of Bovine Practitioners, the American Association of Swine Practitioners, the American Veterinary Medical Association, and yes, Dennis's poultry veterinarians, along with many other existing groups that are there with excellent

communicating channels already in place. Again, the inclusion in this one as well of non-agency experts and outside assistance in formulating education programs.

Number 3 deals with educating the public about risk versus benefits. I take this to mean that there will be such a program and praise the Agency for this. This should include such information as resistance versus a shift in susceptibility. We feel it should identify some of the weakest public health links and concentrate efforts on these. Antimicrobial resistance may or may not be the weakest current public health link as it applies to food animal agriculture. And again, including outside experts and outside assistance as actions are formulated.

Question 4 focuses on action to -- focus resources on areas of greatest risk. Here I would like to repeat some of the statements that I made at the August meeting. Many and most of our members would like to see the agency enforce current regulations before enacting new ones and feel that the enforcement of current regulations would go a long way toward helping to alleviate some of the problems currently seen.

I'm encouraged by the increased funding that is being asked for in the area of this effort and the recent requests of CVM-FDA for funding to be applied in the area of surveillance and enforcement.

Most of the problems that we deal with today are caused by a few producers and veterinarians. Any action in the area of bringing this under control, we feel, must help in terms of solving the overall problem.

As an example of some of these problems, I could state just recently a request for all the members of the AABP in several states to be supplied to a compounding pharmacist. I did not do this and don't plan to. I would, in addition, quote -- or, rather, relate the fact that at a recent -- within the last three or four months at a major veterinary meeting in the exhibit hall, three booths promoting compounding pharmacists. This kind of activity can do nothing but, in our feeling, deter and deliver the wrong message to our clients and to many veterinarians in the field.

Question No. 5 refers to additional action items to enhance communication. Again, I would repeat, the involvement of existing

channels of communication such as the organizations that are here today; and I would, again, as I did at the August meeting, encourage the exchange on a one-on-one basis between members of the agency and personnel in the field.

In summary, I would like to enforce or encourage the enforcement of existing regulations before new ones are formulated. I would like to encourage the allowing of time for current industry changes to take effect, particularly in microbial resistance in such areas as prudent use, and I would commend the agency for listening to its stakeholders in meetings such as this today and look forward to the resulting actions and changes as a result.

Thank you.

(Applause.)

MR. BREEN: Richard Wood, Executive Director of Food Animal Concerns Trust.

MR. WOOD: Thank you for the opportunity to respond to the questions related to the FDA Modernization Act.

I am Richard Wood. I am the Executive Director of FACT, or Food Animal Concerns Trust.

FACT is a consumer organization with about 30,000 constituents nationwide. We advocate farm management systems that promote the safety of meat, poultry and eggs. We have a food safety policy program that is based on our review of scientific literature, and our farm projects. We now have one project working with thirteen farms in Pennsylvania as well as in Hawaii where we have a Salmonella control program for an egg-layer system, and we're now working on a niche marketing project with hog farmers in the Midwest.

Coming to the FDA questions. As a consumer-based organization, we must rely on the scientific research of others. We are not scientists, but that does not exclude us from this table. For all of our experience, we do bring to the table critical real-life questions about the safety of the food we eat. As we turn to the federal regulatory agencies, our questions become expectations as to how these agencies will address our food safety concerns. Granted, we could each develop a clinical list of expectations, but in our best moments as consumers we have some expectations that are not content filled as far as precise content, but they are filled in terms of outcome.

There are expectations in terms of outcome.

Our expectations are that the regulatory agencies will gather all the data necessary to make a well-founded decision; that they will conduct unbiased research to the greatest extent possible; thirdly, that they'll provide a decision-making process that is transparent, giving opportunity for input and feedback from all the affected parties along the way; fourth, that the regulatory agencies will have the power to implement and enforce the resolutions fairly across the board wherever the threat or the need exists; and, fifth, that there will not be delay in the face of a food safety threat immediately related to public health.

It is in this context that I'd like to address the questions put before us by the FDA.

FDA Question 1: What actions do you propose the Agency take to expand its state-of-the-art Science? The FDA Center for Veterinary Medicine is about to implement a framework document that many have talked about today. I probably should have put this speech away and pulled out my framework speech, because that

does seem to be the topic at hand. I do have some comments about it. But in the context of relating to the FDA questions, we do strongly support the framework document and want to see it implemented. I probably should sit down. But that's the position.

We also have a whole list of questions that we have raised, both publicly and through our comments about the framework document, as other groups have questions. Some have questions as to whether or not the framework is based on good science. We see the framework as a helpful expression both of what works and what needs to be replicated in the Agency, and also an expression of what doesn't work within the Agency as it addresses food safety issues.

What works? Well, the framework proposes to gather a wide range of data regarding the sale of antibiotics and their use on farms. The pharmaceutical companies are being asked to provide sales information. CVM is also proposing to initiate on-farm monitoring for antibiotic resistance, in addition to the information secured through the National Antimicrobial Monitoring Systems, or NARMS. Gathering actual use data

should make it possible to link antibiotic use with decreased susceptibility when an event occurs to a particular drug, and thereby to make possible realistic mitigation strategies.

In our view this proposal is a model for how the FDA should go about making its decisions, and it's part of the answer to their first question regarding expanding its scientific capabilities. Gather all the data necessary to make a well-founded decision.

However, the framework fails as a model when it comes to the FDA implementing their proposals across the board wherever the need may exist. This is where you say they've gone to far, and we say they haven't gone far enough. The framework proposal is essentially prospective, addressing only new animal drug applications.

Our expectation is that this response to potential antibiotic resistance should be applied to all animal antibiotic approvals, past and future. With approximately fifty million pounds of antibiotics already going to the farm each year, all approvals should be included within one post-approval resistance monitoring scheme, and that would then create a level playing field for

all antibiotics used with food animals.

Question 2. What actions do you propose to facilitate the exchange and integration of scientific information? In our view, consumers expect that a food safety regulatory agency will conduct unbiased and thorough research.

We all know that lack of funding is major a limiting factor of the FDA. It's heartening to see the bar graph where there is increased research funding thanks to some of the initiatives that are going on. But there are some endemic problems, in our view, that would not be fixed by more money. This has to do with the duplication of roles within the Agency and among the regulatory agencies. We were glad to hear the commissioner address that concern earlier today.

In response to Question 2, for there to be an exchange and integration of the scientific information, clear roles and authority must exist. FDA through FDAMA is presented with an excellent opportunity to take further steps to clarify how research is conducted within the agency and how it coordinates its efforts with other governmental agencies, like the ARS and FSIS and others.

We call for continuing preservation of the Joint Commission and the Joint Council on Food Safety.

Second of all, we encourage the exchange of scientific information between the FDA and academia and industry researchers. FACT calls on the FDA to maintain and expand its own expertise and research base, that part of the pyramid that was laid out by Dr. Sundlof.

I recently had the opportunity to visit the CVM lab in Maryland, where the agency is addressing a number of animal health issues. What impressed me most during my visit, as a lay person, were areas in which CVM research was addressing critical animal health questions where neither academia nor industry research was to be found. Isn't that the way it's supposed to be? The focus on the exchange and integration of scientific exchange of information, we call on the FDA to maintain its own unique contribution to the process of scientific research.

Moving on to Question 4: What actions do you propose to enable FDA to focus resources on areas of greatest risk? First we feel that FDA must maintain its focus on priorities

established through the Food Safety Program and also projects established by its own actions. As a consumer group we hold the FDA accountable for what it says it's going to do. The FDA is part of the President's Food Safety Initiative. FACT expects the Center for Veterinary Medicine to fulfill the food safety priorities as assigned. Sometimes we look at the bar graphs and say that's stuff we have to do. Well, it's there because we wanted it to happen, along with others, apparently, across the nation.

The CVM must also fulfill commitments that it has made in other areas, such as enforcing the mammalian to ruminant feeding ban and implementing regulations related to antibiotic resistance. As priorities, these are areas that should be held harmless from shortfalls in FDA funding.

Second, in terms of Question 4, risk assessment should be conducted within a time frame that allows for regulatory response as soon as possible. In our view, as we've experienced risk assessments among regulatory agencies, risk assessments have too often become the science of the delay. CVA is less guilty of this, quite

frankly, than other FDA centers or agencies, but to use an example from another area, in December of 1996, the FSIS began a risk assessment of Salmonella enteritidis in shell eggs. We supported that assessment. We provided that assessment volumes of material. And maybe we provided them too much material, because two years passed and no risk assessment was published. In May 1998, an ANPR was published as a joint FSIS-CFSAN effort, but still no risk assessment was published. Findings from the risk assessment was published after the deadline for comments on the ANPR and findings from the risk assessments then had to be incorporated back to the ANPR. To date there's been no further public movement toward a rule on SE and shell eggs.

We applaud CVM for moving in a timely fashion on both the BSE rule and implementing the framework document.

Third, FACT is concerned about CVM reliance on third parties to perform its reviews. At several points in the Compliance Plan, the FDA refers to the need to rely on third parties to essentially speed up the drug approval process, a necessary goal. While FDAMA allows CVM to work

with third parties, we do not support an arrangement where the sponsor selects and pays for the contractor. FDA, we feel, needs to control the review process, even if third party contracts are established.

Finally, in response to the funding question. It may seem that we've not helped very much. We want a food safety initiative. What's that? 3.5 million at least? We want enforcement of the BSE regulations. Ching. We want post-approval surveillance of all antibiotics. Ching.

Quite frankly, as consumers we can only point to the need from our perspective. There are numerous areas of CVM cost that we have not identified, particularly with the implementation of ADAA. But we bring to you our priorities and concerns. Even though we are not in a position to say what to cut, we are in a position to work for adequate funding for this Center as it addresses food safety.

Finally, the last question. FACT supports FDA's objective of obtaining input from external stakeholders and encourages the continued use of its advisory committees for that purpose, as

well as meetings such as today. We expect that the decision-making process at the FDA will be transparent, with feedback coming from all stakeholders, including consumer groups. For consumer groups, the FDA Office of Consumer Affairs is invaluable and the web site is helpful as well, even though many of the decisions facing CVM and FDA require scientific expertise, we call on the FDA to continue to involve lay people in the process. Science without a connection to people's experience is an abstraction and will lead the agency in meaningless directions.

Thank you.

(Applause.)

MR. BREEN: Our next speaker is Joel Brandenberger, Vice President of Legislative Affairs for the National Turkey Federation.

MR. BRANDENBERGER: Thank you.

My name is Joel Brandenberger, Vice President of Legislative Affairs for the National Turkey Federation. I represent, obviously, the processors and producers of turkey nationally. We really do appreciate the opportunity to be here today. In fact, we've done this with folks from CVM in a number of different

venues over time. Maybe for fun we ought to do each other's presentation and see how it turns out.

I'm going to focus primarily on some of the questions regarding implementation of the Animal Drug Availability Act. But before I get to that, I would like to take just a moment to endorse some things that Rich Carnevale said, from AHI, Barb and Paul and Dr. Waddell -- I guess he's gone now -- and endorse their comments, specifically as they concern risk assessment and the antibiotic framework. Some of the gains which we're about to talk about that have been made by the ADAA could be put at risk if we make regulatory changes to the approval process for antibiotics that are not based on real risk and sound science. I think the desire of the stakeholders to see a comprehensive, qualitative risk assessment conducted required in implementation of any changes in the antibiotics approval process is clear.

I guess from our point, speaking not just for the National Turkey Federation, but I know I speak for everyone in the Coalition for Animal Health on this, we would encourage FDA/CVM to sit down with the stakeholders and to see if there's a way this could be done. We are confident

and hopeful it could be done in a way and fashionably not slow. Also the overall time frame for addressing the antibiotic resistance issue. But I think you would see in a lot of the stakeholders a much higher degree of confidence if such a risk assessment were conducted.

Okay. To ADAA Implementation. I think, you know, ADAA covered a lot. I think we're going to focus today, speaking both for the National Turkey Federation and for the National Coalition for Animal Health on the efficacy provisions. That's the core of the bill. That's why we got involved with the stakeholders in pushing for the package. It's clear from the way it was constructed that that was Congress's primary intent. Very briefly the efficacy provisions that we're talking about here are, one, to remove the presumption that multiple field investigations are needed; to replace that assumption with one that either no or one field investigation may be all that is needed in many circumstances. Require CVM to justify more than one field investigation by written order specific to the drug and its intended use. Eliminate efficacy requirements for combination drugs when all of the drugs or active

ingredients are previously approved and all have at least one claim in the combination. And I should mention that efficacy should still apply when two or more antibacterials are used in combination, at least for the feed and water drugs.

So two and a half years after passage, how is CVM doing? How do we, as stakeholders who worked so closely with them view the success record on implementation of this Act.

Well, let's start with the good news first. That has to do with the combination drug section which, taken as a whole, appears to be a working exactly as the ADAA's authors intended. I had a chance to read some articles recently and visit with some folks at CVM about that. We're extremely pleased that we have seen, since ADA became law, more than forty combination drugs approved. Roughly 75 percent of those are production drugs. Parochially speaking, the vast majority have been poultry drugs, and even more parochially we're even more pleased that four of them have been combination turkey drugs. We should also mention that there have been several cattle approvals, and we have heard that there are some swine approvals coming down the line. So, you

know, we think that, on balance, it's working well. I'm not going to say that every application is going smoothly, because I'm sure if I indicated that I would hear from a lot of our pharmaceutical allied members tomorrow with some story. But I think there's every indication that the combination proposals are being looked at to be ensure that combination drugs are being used for appropriate therapy, that there no human safety residue questions involved, and that the answer to those questions are yes to the appropriate therapy mode, and CVM is to be commended and congratulated, in fact.

The good news that is tempered in a couple of issues. Dispersal of combination approvals is obviously going to have a limited life span. There's a limited, finite number of approved drugs out there for which these combinations can be used. At some point all of the available combinations will end and we will see the dispersal approvals begin to slow down.

That brings us to the question about other provisions. I can't -- when I originally started preparing for this presentation I originally thought we were going to have to take

a hard look and raise some of the questions that we've raised in previous forums about whether less than three field investigations could really be used in those circumstances. After a while a lot of the anecdotal information that we've had in the past that we've had some problems. There are a lot of old stories. I'm not going to torture you with stories about instances where we've seen turkey drugs slowed by what we think is needless efficacy requirements. But I've got to say this: CVM has apparently completed, at least internally, its report to Congress that was required in the FY '99 Agricultural Appropriations Bill. Hopefully very soon we'll see that publicly. We've seen some preferences to date that 78 percent of the applications have been approved at some point by the ADAA. We hope that's accurate. We're going to love to look for it and see how that's counted, how they're measuring these improvements. We hope it's good news.

What we've seen to this point has raised a couple of concerns, though. Last October, Congress proposed several questions to CVM in the context of a House Commerce Committee hearing about this very question. One of the answers was really

disturbing. When they were asked to give the number of ADAAs in which less than three field investigations were used, the first line is, We don't have a field in our tracking system that allows us to measure this accurately. Well, it was pretty clear from the way Congress handled the ADAA that measuring this was going to be pretty important. So let me at least first suggest that perhaps that the tracking system be amended so there is such a field in the future and we can get an accurate measure of this. Because I think it was important to Congress; I know it was important to the coalition, and this is a question that's not going to go away, I think, until we can get an accurate measurement of this.

They did report in theirs answer to Congress that there had been at least seven supplemental ADAAs for food animals that had been approved for drugs with less than three investigations. That's encouraging. There was also a claim in the response to Congress that seventeen ADAAs, including nine for food animals that had less than three and sometimes no field investigations.

The question I come back to is I

think a breakdown on exactly how many investigations -- you know, obviously we want to reveal the drug, but in general how many we were talking about would be extremely useful.

I think we also have to mention that the substantial evidence regulation, the second major implementing regulation for ADAA, is approximately six months overdue. We recognize this all is not entirely the Agency's fault, but we need to see the regulation at some point. And we are a little curious about the claim that, in part, the delay is we were waiting to see what happened with the arsenical. The omnibus appropriations bill did not pass until October, but the House first action on this was June 10th, and there was every indication from June on that this was going to be part of the bill.

I want to endorse what Rich said about compassionate use of INADs. I think there was at least one instance in our industry that this could be have been very useful. This is not just to pick on CVM. I say this to every pharmaceutical company that's here: Please, someone step up and use the binding presubmission conference as it was envisioned in the ADAA.

So finally we've got a handful of very short recommendations, quick recommendations we'd like to make on where to proceed from here.

If the report to Congress does not include it, we would hope CVM, at its earliest possible date, would help us by further enumerating the original and supplemental ADAAs that have been approved since ADAA's enactment, the number that were approved with one or no field investigation, the total approvals since implementation compared with the total approvals for the two years prior to implementation, the number of combination approvals by species since ADAA's enactment and the number of pending ADAAs for which the Agency has agreed to require one or no field investigation, and the number of combination approvals by species that are pending.

Whatever is in the report, we'll have to see it; whatever's not, we need to see it.

The tracking system we've already mentioned.

One other thing we've talked about in the past is we do think there should be some type of annual review with stakeholders of ADAA implementation, perhaps a little more informal than

a session like this, to talk about the concerns, need the substantial evidence rule promulgated and we also need the Agency to please adopt a proactive stance for minor use minor species provisions. This committee did some very good work, but the fact that it does not yet have administration endorsing it is concerning to us if we try to move forward with implementing some of those provisions.

Thank you for your time.

DR. ALDERSON: Can we get a copy of the specific requests, the numbers that you would like?

MR. BRANDENBERGER: This is all marked up, but I'll certainly mail something to you tomorrow.

MR. BREEN: Our next speaker is David Bossman, President of the American Feed Industry Association.

MR. BOSSMAN: Good afternoon. My name is David Bossman. I am the President of the American Feed Industry Association.

I'm going to submit my formal remarks and questions or answers to the questions in writing so we don't have to go through all this

today, and maybe we can even save a little time.

Much of the comments as per a stakeholder would be similar do what we did last fall. There's just a few things that I'd like to mention. The relationship that AFIA has with CVM, we consider very good, and we appreciate that ongoing communication in doing that.

Some of the specifics that I wanted to briefly mention on the ADAA. We need the regs for the BSD, we need the regs for the feed bill licensing, and we need the minor species. We we've heard those mentioned a few times today, and we'll have a more important or written documents of that as part of our submission.

The other issue is the funding for the state inspections. In order to have uniform inspections from one state to the other, we're going to need that funding. The relationship between FDA and AVCO and the industry is pretty unique. And as you drop off one of the states, the regulatory inspection scheme certainly doesn't hold as well as it could.

The final point that I'd like to bring out -- and certainly we've heard about it many, many times today -- and that's Dr. Henney's

priority on risk assessment or science-based approach. In my mind, the real reason to do that -- and we've heard a lot of different comments about that, but the real reason to do that is for consumer confidence in the food supply. Anything less than that distorts why you are doing something.

And there's as Barb talked about what they're doing in Europe because it was a slow news day could really happen here. I had the Europeans in my office last week, and they said the same thing. They lost their opportunity for a science-based approach. We don't dare do that. If we can't stand on the science, we don't have anything to stand on. The emotion and the politics just will not ride today. We have to be able to use the science. And good science is good science. We found the Europeans, their science, they'll drag out a scientist who will say anything, and everybody can guy buy one. We haven't gotten to that point here and we don't dare get to that point.

It's interesting to note the English -- I don't even remember what her title was -- not too long ago said that the deaths

because of Viagra, which was last year's headlines, were significantly higher than the headlines of two years prior which was BSE. And that's true. People do know that there is a risk. There is a risk to everything. They understand that risk assessment works, and as long as we stand on the science, we can live with that.

Thank you very much for the opportunity to be here.

(Applause.)

MR. BREENE: Our next speaker is Robert Sinclair.

MR. SINCLAIR: Good afternoon. My name is Bob Sinclair. My wife, Jane, and I are from West Bloomfield, Michigan. We are here with our colleague, Jean Townsend from John's Island, South Carolina. We'd like to thank the CVM for the opportunity to attend this meeting and offer some views.

As consumers and dog owners, we feel strongly that the communication efforts of the FDA can be improved so that users of animal health products can have better access to understandable and timely information. The quality of life of the hundred million-plus American companion animals and

their owners and households will benefit when the agency treats information about animal health products the way it treats information about human health products.

Question 2 in the March 22nd Federal Register notice, let me offer two comments. First, FDA can improve the timeliness of publishing adverse drug experience reports, particularly when new drugs are introduced in the market. Delays in the exchange of information between the FDA and consumers can have serious implications for the companion animals that they care for.

Many manufacturers are required to submit ADAA reports to the Agency. Availability of evaluations of these reports to the general public, in our view, should not await preparation and subsequent publication of annual summaries.

An example, Pfizer introduced Rimidil Purprophen for dogs in January 1997. Clearly ADE reports were received during the '97 calendar year, but the '97 FDA summary of ADE reports on veterinary drugs was not published until October 29, 1998. Dog owners were denied access to this important information for an unacceptably long

period of time, in our view. For months during which the volume of ADE reports about Rimidil was building, owners were purchasing and administering the drug to their pets with little knowledge about adverse effects. Dear Doctor letters may be issued, and they were, and label changes may occur, and they did, but there is no assurance that balanced risk/benefit information is available to consumers. Lack of information about Rimidil's potentially toxic side effects seriously affected the quality of life of our toy poodle, Misty, and caused the death of Jean Townsend's chocolate lab, George.

We detailed Misty's story in reports submitted last October, and in February Georgia's necropsy report was sent to Pfizer and to the FDA/CVM.

Second, various means can be employed to disseminate balanced information about animal health products to consumers. Internet web site updates plus post read line bulletins to veterinary facilities and other communication techniques come to mind.

In view of the time, I'm going to edit this on the fly and go right on to the next

point.

Question 3 in the notice asks, "What actions do you propose for educating the public about the concept of balancing risks against benefits in public health decision-making?" We have several responses to this question.

Direct to consumer so-called DTC advertising posts, we believe FDA can re-institute its earlier policy requiring that DTC advertising of human and animal prescription drugs in all media include a brief summary -- quote, "a brief summary" -- of hazards and contraindications. After broadcast advertising restrictions were eased on August 8th, 1997, it became apparent that procedures are not in place to assure that balanced information is, in fact, delivered in all media. Unbalanced TV commercials encourage animal owners to unknowingly demand drugs like Rimidil that may cause their pets to suffer lethal or sublethal side effects. Coupled with unavailability of label information or patient information leaflets, animal owners hoping to help their pets cannot evaluate the risks versus the benefits and make informed decisions.

We suggest a new regulation. We

suggest that FDA can initiate rule-making towards a federal regulation requiring that consumer information prepared and supplied by the manufacturer must absolutely be delivered to animal owners when prescription drugs are purchased. Drugs suppliers and veterinary practitioners who fail to provide such information to animal owners would be held in violation of this regulation. And obviously means to monitor compliance and enforce the proposed regulation would be required.

Blister pack and tube packaging include inserts that do provide information, but many animal prescription drugs are dispensed in small vet-supplied containers without either label information or PILs, containing balanced risk/benefit information. Typically these containers indicate the name of the drug, the dosage and the condition for which it was prescribed. Animal owners are not assured receipt of accurate guidelines advising that their animals should be carefully and objectively monitored.

We -- Jean and I -- we never received such guidance about Rimidil. The only information that was provided verbally to us was that Rimidil is, quote, "safer than aspirin and has