THE PEW CHARITABLE TRUSTS

July 21, 2009

Dr. Margaret A. Hamburg
Commissioner
U.S. Food and Drug Administration
10903 New Hampshire Avenue
Silver Spring, MD 20993-0002

Dr. Joshua M. Sharfstein
Principal Deputy Commissioner
U.S. Food and Drug Administration
10903 New Hampshire Avenue
Silver Spring, MD 20993-0002

Dear Commissioner Hamburg and Principal Deputy Commissioner Sharfstein:

The Pew Campaign on Human Health and Industrial Farming (Pew) would like to extend our sincere thanks to you both for taking the time to meet with us on June 23 to discuss the contribution of animal agriculture to the growing public health crisis of antimicrobial resistance. We are deeply appreciative not only of your consideration of our viewpoints, but also the expertise and dedication that you bring to the U.S. Food and Drug Administration (FDA).

Pew was very pleased to learn at the recent House Rules Committee hearing on the Preservation of Antibiotics for Medical Treatment Act (PAMTA) that under your leadership, FDA now publicly recognizes the contribution to human drug resistance of nontherapeutic antimicrobial use in food animal production, and that the agency is in the process of formulating a new and long-overdue policy seeking to reduce the use of human antimicrobials in food animals. We are eager to work with you and your staff to help craft a policy that best protects public health while minimizing costs to the animal agriculture industry. We would appreciate the opportunity to meet with you again to discuss and make recommendations regarding the details of such a policy, and would like to bring with us experts from the fields of human and animal medicine and animal agriculture to answer any technical questions that may arise.

Pew thoroughly supports the agency's intent to end the use of antimicrobials for growth promotion and feed efficiency in food animals in the United States. We agree that feeding livestock and poultry vital human antibiotics and related drugs simply to ease and speed production is not a judicious use of these important drugs. We also agree that such uses do not, as Dr. Sharfstein stated in testimony, advance animal or human health, and that ending these uses will not compromise the safety of food.

However, Pew is concerned that a policy limited to phasing out this one category of nontherapeutic use would severely limit success in reducing antimicrobial use and decreasing the incidence of resistance. Clear and detailed definitions of terms like "nontherapeutic, therapeutic and

prophylactic" are critical if the agriculture industry's role in resistance is to be effectively measured and reduced. The animal agriculture and drug industries interpret "nontherapeutic" antimicrobial use very narrowly to mean only treatment for growth promotion and feed efficiency. The Animal Health Institute, the principal trade association for animal drug manufacturers, testified before the House Agriculture Committee on September 25, 2008, that less than five percent of all antibiotic uses on the farm are for growth promotion, based on drug sponsor estimates.[1] The vast majority of nontherapeutic antimicrobial use practiced today falls under what industry calls "prevention and control" uses which, in the absence of diagnosed microbial disease or documented disease exposure, Pew would consider to be nontherapeutic use. The Union of Concerned Scientists estimated in 2001 that all nontherapeutic (i.e., non-disease-treating) uses in cattle, swine and poultry amount to 24.6 million pounds of antimicrobials annually, or as much as 70 percent of all U.S. antimicrobials produced—eight times the estimate for human medical uses.[2] Therefore, it is vitally important that use in the prevention and control categories be tightly managed in order to preserve antimicrobial efficacy for treating sick animals and people.

Pew agrees with FDA that some preventive uses of human antimicrobials are necessary and judicious to relieve or avoid animal suffering and death; however, we stress that these uses must remain short-term in nature, for discrete events, and highly targeted (e.g., treating as few animals as possible with the most appropriate drug) to remain judicious. Pew defines prevention and control—or "prophylactic"—use of antimicrobials as short-term application in healthy animals in advance of an expected exposure to an infectious agent (e.g., shipping fever) or after known exposure but before onset of laboratory-confirmed clinical disease as determined by a licensed veterinarian. Ideally, the treatment also would be at a dosage strong enough to kill microbes, rather than the low doses commonly used in animal feed today.

We would appreciate the opportunity to talk with you in greater detail about the policy principles you are developing for prevention and control. We support FDA's commitment to "evidence-based" policy, as we are confident the body of scientific evidence supports dramatically reducing antimicrobial use in food animals. FDA's principles appear at first glance to be a helpful start. However, the details of how such principles are defined, interpreted, and enforced will be critical. For example, Dr. Sharfstein's Rules Committee testimony stated that important factors in determining whether a prevention use is appropriate include:

- Evidence that such a preventive use is consistent with accepted veterinary practice. Naturally, any use of medicine should be consistent with guidelines established by the medical community. However, the nontherapeutic uses practiced today in industrial farming do not have parallels to human medicine, and do not typically involve a veterinarian-patient relationship. Instead, they are endorsed and defended by industry representatives and affiliates with a financial stake in maintaining the status quo, so as to grow animals fatter faster and as a substitute for good husbandry and sanitation on many industrial farms. Pew encourages FDA to be mindful of differences between truly accepted veterinary practice and accepted industry practice—many veterinarians will agree they are not the same. For these reasons, Pew strongly supports your position that "the use of medications for prevention and control should be under the supervision of a veterinarian."
- Evidence that no reasonable alternatives exist for intervention. In addition to medicinal alternatives that have less potential impact on human antimicrobial resistance, Pew would strongly encourage FDA to also consider various production methods as viable alternatives

to nontherapeutic antimicrobial use, such as cleaning animal houses more frequently, improving ventilation and waste management, and using deep bedding. These have all been recognized by the U.S. Department of Agriculture as equally appropriate ways to reduce bacterial contamination with little negative—or even with somewhat positive—economic impact to producers.[3]

As expressed in our June meeting and in letters to the agency, Pew also urges FDA to make any policy regarding prevention and control—and any nontherapeutic antimicrobial use—legally binding, enforceable and retroactive. The voluntary nature of current use guidelines, set out in Guidance #152, has failed to result in sufficient drug safety reviews and approval withdrawals, or much change in use. In fact, FDA has not even established a schedule for reviewing existing approvals, even though it is recommended in Guidance #152.

Pew agrees with FDA that the current statutory process of withdrawing a new animal drug approval is very burdensome for the agency. We support your recommendation that any proposed legislation facilitate the timely removal of nonjudicious uses of antimicrobials in food animals. We believe that appropriate and narrow legal definitions of therapeutic, nontherapeutic and prophylactic use, coupled with stringent limitations on nontherapeutic use and detailed guidance and oversight of prophylactic use, will make the agency's job of evaluating drug applications easier and more cost-efficient. We also believe a policy based on these definitions and proper enforcement will make great strides in reducing antimicrobial use in animal agriculture, shrinking the animal reservoir of antimicrobial-resistant bacteria and restoring and safeguarding the efficacy of critical human drugs—ultimately saving lives.

We look forward to the opportunity to meet with you to discuss these details further, and are happy to invite the participation of medical and industry experts who can provide additional technical assistance. We are also enclosing a number of scientific studies that may be of interest. With questions or to arrange a meeting, please feel free to contact Shannon Heyck-Williams, Government Operations Officer at the Pew Environment Group, at (202) 887-8801.

Sincerely,

Laura A. Rogers
Project Director
Pew Campaign on Human Health and Industrial Farming

Robert P. Martin
Senior Officer, Pew Environment Group
Former Executive Director, Pew Commission on Industrial Farm Animal Production

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[1] Testimony of Dr. Richard Carnevale, Animal Health Institute, before the U.S. House Committee on Agriculture Subcommittee on Livestock, Diary and Poultry, September 25, 2008.

[2] Union of Concerned Scientists. 2001. *Hogging It: Estimates of Antimicrobial Abuse in Livestock*. Cambridge, MA: Union of Concerned Scientists, pp. 58, 63. UCS' estimate of human use is based on National Center for Health Statistics data (see p. 17). The Institute of Medicine estimated in 1985 that subtherapeutic use in cattle, swine and poultry totaled 16.1 million pounds, or more than half of all antimicrobials produced at that time.

[3] MacDonald, James M. and William D. McBride. January 2009. *The Transformation of U.S. Livestock Agriculture: Scale, Efficiency, and Risks*. Economic Information Bulletin No. (EIB-43), U.S. Department of Agriculture Economic Research Service, pp. 32-35.