STATEMENT FOR THE RECORD

Subcommittee on Health, Committee on Energy & Commerce U.S. House of Representatives For the hearing, "Antibiotic Resistance and the Use of Antibiotics in Animal Agriculture"

July 14, 2010

Everly Macario, ScD, MS, MEd Public Health Communications Research Consultant

As a public health communications professional working for the renowned MRSA Research Center at the University of Chicago, I am committed to protecting human lives and educating the medical community and general public about ways to prevent deadly antibiotic-resistant infections. Those of us working to promote public health greatly appreciate the Subcommittee on Health's recent attention to the growing public health threat of antibiotic resistance, including today's hearing specifically on the contribution of animal agriculture to the problem. I sincerely hope this interest does not fade before solutions are found and acted upon. I wish to submit this written testimony to express my strong support for the Preservation of Antibiotics for Medical Treatment Act (PAMTA, H.R. 1549, S. 619), a key component of any comprehensive set of solutions, which would institute a public health approach to antimicrobial use in food animals. I urge the Subcommittee to follow these hearings with prompt legislative action to pass PAMTA to greatly reduce the non-therapeutic use of important antibiotics in animal feed and water.

My interest in this issue is not purely professional, however. My beautiful curly reddish-haired cherub of a boy, Simon, is dead. As short and cold as that sentence feels, that is how it happened. Hearty and healthy at 1 ½ years of age, one random Friday morning six years ago, Simon woke not feeling well. By afternoon his face was cold and his breathing was labored. At nightfall he was bloated, covered in purple splotches and went into septic shock. He never woke up again. I need not delve into the feelings of desperate, painful insanity that I felt, and still feel, about this unfathomable experience. It is a parent's worst nightmare.

It is not possible for me to "wake up" from this nightmare. But we as a society must wake up and prevent other nightmares from occurring by preserving the efficacy of our antibiotics.

At the time of Simon's death, no one—really, no one, including the highly competent University of Chicago healthcare providers—knew why Simon had died. We learned only after an autopsy that Simon had contracted an antibiotic-resistant bacterium called, MRSA, or methicillin-resistant *Staphylococcus aureus*. And, it was the relatively new community-associated MRSA strain, not the more commonly known health care-associated strain. You're asking, "What is that?" That is what my husband and I (two PhD-level professionals, mine in public health) asked as well. My husband and I racked our brains endlessly wondering what we could have done to prevent Simon's death. To this day I do not know how Simon contracted this bug and why *he* was susceptible to it.

If someone had asked me, before Simon died, what I would do if I lost a child, I know that I would have responded something to the effect of not being able to go on with life. To my astonishment, people that I have met and would not have met if Simon had not died, such as other parents who lost children and a slew of health care and media folks, have somehow kept me afloat by validating my feeling that losing a child should not be allowed by the laws of nature. Others at the University of Chicago helped me focus on a bigger cause and made it possible to found a

MRSA Research Center. The Center's mission is to understand and interrupt MRSA transmission through basic scientific and clinical research. We still do not know basic things like how MRSA is spread and why some people get sick from MRSA and others do not.

My personal goal at the MRSA Research Center is to make the term MRSA as familiar as AIDS and most importantly, to raise awareness about the cause of the current MRSA epidemic: antibiotic resistance. Frequent, low doses of antibiotics not strong enough to kill all bacteria encourage some bacteria to develop means of survival or to become resistant. This results in stronger infections. Because of our society's overuse and misuse of antibiotics, we have created a perfect storm for such superbugs to thrive and wreak havoc. The more antibiotics we use and the more we use them improperly, the more bacteria evolve and become resistant—slowly but surely rendering entire classes of wonder drugs useless.

I have always known that we are doing what we can at the MRSA Research Center, but I know that we are just addressing the tip of the iceberg—at least 70 percent of antibiotics sold in the United States are given to healthy food animals, not sick people. Animals do not receive antibiotics the way humans do. Antibiotics are a regular feed supplement intended to increase growth and lessen the chance of infection in crowded, industrial farms. Antibiotics dispensed in this manner simply encourage bacteria to mutate. That is perhaps why a number of the "superbugs" like MRSA are showing up in food animals and industrial farms.

It is my strong personal and professional opinion that we have no choice but to regulate the largely unregulated use of antibiotics in food animals. Agribusiness is composed of people, people with families, parents with children. These people must know that it is in their own best interest to eliminate the routine use of antibiotics (the same antibiotics used to treat people) to promote growth in food animals.

There is something you can do to help honor Simon, and make sure that other mothers don't face the pain of losing a child to a malicious bacteria. Please enact legislation that would put an end to the misuse and overuse of antibiotics in food animal production. PAMTA would withdraw the routine use of seven classes of antibiotics vitally important to human health from food animal production unless animals or herds are sick with disease or unless drug companies can prove that their use does not harm human health.

We used to call my son, "sol" ("sun" in Spanish), and daughter, "luna" ("moon" in Spanish). When Simon died I believed my sun would not rise again. What I did not realize is that Simon would keep giving me the gift of sunshine, every day, translated into hope that his life and death will serve as a catalyst for major and positive change. But I can't do this alone. I hope the ray of Simon's sun that shines on you motivates you and your colleagues on the Health Subcommittee and the rest of Congress to work together in our outrage at the mere thought that other children can suffer demise similar to Simon's. We all created the problem. We now are all responsible for correcting it. Please act swiftly to help prevent more death and illness and work together to pass PAMTA.