

# The “SuperBugs” are Here!

## *... New Solutions & New Strategies to Address Antibiotic Resistance*

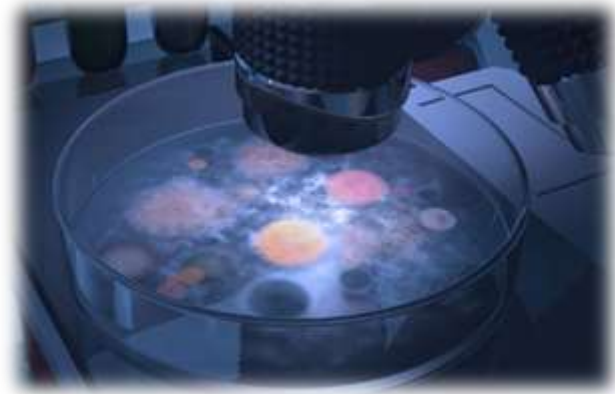
**By Jimmie Holman & Justin Allen**

A growing concern within the medical industry that has been receiving much attention lately is the decreasing effectiveness of our antibiotics and the increasing resistance that many pathogens are developing against them. Because of factors such as excessive and unnecessary use, humans now have almost rendered their antibiotic treatments useless. Germs are becoming more and more resistant over time as more antibiotics are administered and consumed. What’s also concerning is the fact that very few new antibiotics are making it to the public market. By the time that the drugs have finally completed clinical trials and approvals, the targeted bacteria have likely already mutated beyond what the new antibiotics can attack and destroy.



During a conference in Copenhagen, Denmark, World Health Organization (WHO) Director-General Dr. Margaret Chan emphasized the seriousness of this issue and its critical implications for the future. She states that instead of moving back to a pre-antibiotic era as some have suggested, we are actually moving towards a **“post-antibiotic era...An end to modern medicine as we know it.”** Instead of being able to address pathogens as we have in the past, our current pharmaceutical methodology would not work.

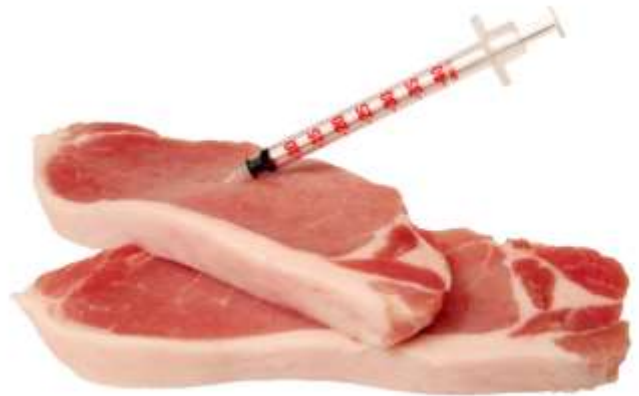




While pointing out that hospitals have become “hotbeds for highly-resistant pathogens,” Chan said that this problem reinforces the risk that “hospitalization kills instead of cures.” Typical post-operative treatments to fight infection could make even many simple operations too hazardous to undertake. Things such as “strep throat or a child’s scratched knee could once again kill,” Chan warns.

## Sources of the Problem

The mandated and indiscriminate use of antibiotics in regulated animal livestock and food products has been a major factor in the increase of drug-resistant bacteria. The consumption of these food products has consequently transferred these antibiotics to us; many of which were never authorized for human consumption. Other than for the purpose of growth promotion, the excessive use of antibiotics in food animals has also been justified as an attempt to increase their wellness and production.



**WARNING:** Antibiotics don't work for viruses like colds and the flu. Using them for viruses will **NOT** make you feel better or get back to work faster.

**Antibiotics are strong medicines. Keep them that way. Prevent antibiotic resistance.** Antibiotics don't fight viruses—they fight bacteria. Using antibiotics for viruses can put you at risk of getting a bacterial infection that is resistant to antibiotic treatment. Talk to your healthcare provider about antibiotics, visit [www.cdc.gov/getsmart](http://www.cdc.gov/getsmart), or call 1-800-CDC-INFO to learn more.

Taking antibiotics for viral infections such as a cold, a cough, or the flu will **NOT**:

- Cure the infection
- Keep other people from catching it
- Help you feel better



Using antibiotics for a common cold or flu will not help a patient feel better, cure their flu (or other respiratory issues) or keep them from spreading it. Antibiotics fight against bacteria, not viruses. Medical professionals and officials are now realizing that, because many doctors have already inappropriately prescribed antibiotics for patients to help with viral health problems, they have inadvertently contributed to the growth of drug-resistant bacteria.

Recently, the Centers for Disease Control and Prevention (CDC) have made efforts to campaign against the indiscriminate use and prescription of antibiotics by medical doctors. Through a series of educational posters and media, the CDC is trying to raise awareness of antibiotic resistance and encourage patients and doctors to limit their use in order to slow the progress of growing resistance.

Consequences of antibiotic resistance have led to a possible increase of infections that could also result in: more-serious illness or disability; more deaths from previously treatable illnesses; prolonged recovery; more-frequent or longer hospitalization; more doctor visits; less effective or more-invasive treatments; more-expensive treatments.

## Addressing the Issue

However, the appropriate use of antibiotics should help to minimize these risks. [See sidebar.] While we can personally address the problem through appropriate use and application of antibiotic prescriptions, food production companies should also begin reducing their use of growth promoters in cattle and food crops.

In her statement, Dr. Chan also mentioned the accomplishments the European Union (EU) has made with their ban against the use of antibiotics and steroids in livestock and food crops. After its implementation, the ban reduced human health risks without causing harm to animal health or farmers' incomes. The ban's commencement was also followed by an increase in poultry and livestock production.<sup>1</sup>



## Solutions

One factor practitioners must consider is determining how to address the drug-resistant bacterial mutations that now exist. Conventional medical protocols are proving to be minimally to completely ineffective against drug-resistant bacteria. Decades of excessive and indiscriminate use of antibiotics have necessitated new solutions possibly never before considered. In the absence of effective new antibiotics, new solutions and strategies are required; many of them likely outside the realm of conventional medical thought.

Some of these alternative methods can actually accomplish the same task as antibiotics with less risk of subjecting a patient to still additional bacterial mutation and potential negative drug side effects as well.

As opposed to using antibiotics and other prescriptions, alternative solutions involving holistic concepts are typically considerate strategies that have been outlined for each individual patient and their specific health issues.

Common sense-substances such as colloidal silver and select natural herbal supplements can also provide relief for patients. The underlying mechanisms of these methods work to help treatment without the risk of bacteria becoming drug-resistant.

## Minimizing Risk:

A few steps that can be taken to help reduce growth of resistant bacteria are:

Use antibiotics only as prescribed by a doctor.

Take appropriate daily dosage and complete the entire course of treatment.

Never take antibiotics prescribed for another person.

Always practice good hygiene and wash hands with soap regularly.

Never take leftover antibiotics, throw them away.\*\*

Other than speaking with a doctor, there are many guideline resources available that explain in further detail the proper use of antibiotics and risk-reduction for drug-resistant bacteria.

Form "Consumer Health." *Antibiotics: Misuse Puts You and Others at Risk.* Mayo Clinic, 12 Dec. 2014. Web. 16 Jan. 2015.

<sup>1</sup> Chan, Margaret. "Antimicrobial Resistance in the European Union and the World." Speech to World Health Organization. 14 Mar. 2012. MS. Copenhagen, Denmark. (attached)

New methods of frequency application are apparently proving to be highly effective and more beneficial for targeting not only specific normal pathogens but the current strains of mutations as well. While entirely new antibiotics and years of assessments, trials and regulatory processes are needed to create a new conventional defense against these pathogens, a simple frequency adjustment with state-of-the-art equipment takes only seconds and is completely free of cost. ***Unlike the antibiotics incapability, these electronic strategies also appear to be even more effective on issues of a viral nature.***



Pulsed Technologies, with eminently qualified partners, has been intensively investigating the biological effects of frequency application on not only standard cultures but also some of the worst-case mutations that are common today (such as the MRSA Methicillin-Resistant Staphylococcus Aureus). MRSA is only one of the “superbugs” that are now prevalent in hospitals today and a result of the very situation Dr. Chan warned of through her presentation before the World Health Organization.



Because there are no chemical ingredients involved in these methods, the chance of potential negative and toxic side effects is also reduced. Major side effects of antibiotics may surface years after treatment and, in many cases, they create severe arthritic issues for the sufferer. Nearly all antibiotics force pathogenic bacteria to seek protection in a patient’s joints, causing arthritic degeneration and possibly other issues as well. <sup>2</sup>

Selecting which frequency routine of antibiotic assistance that is most beneficial can be determined by a number of factors. A qualified practitioner will generally be able to help someone choose between treatment with precision frequency and contact frequency application. A person must be careful to use the correct protocols during their treatment or risk a

potential new mutation in the bacteria they are targeting. Although frequency application may not include the use of prescription antibiotics, bacteria may still respond to certain frequencies in a negative manner that allows them to mutate further and strengthen. Practitioners help reduce this risk when talking with their patients over what frequencies would be correct and most effective for their regimen. Patients should never deviate from the recommended protocol. If someone has concerns over their treatment regimen, they should bring any questions to the doctor immediately for assistance.

Once someone has begun or completed a regimen that has attacked and destroyed much of the pathogenic bacteria they are targeting, it is greatly helpful to cleanse and rinse that bacteria from the body. Anyone searching can easily locate numerous ways to detoxify their health system. There are many wholesome remedies focused on the



<sup>2</sup> Sieger, Lyks. "Dangers of Antibiotics." *Sieger's Secrets For Success with Bio-Active Frequency Technology*. N.p.: n.p., 1986. 42-43. Print.

use of substances and routines such as natural herbs and healthier nutrition habits. Many herbal remedies can also effectively distinguish and remove infectious bacteria while leaving helpful probiotic bacteria in the body. Detoxing this way can also help to remove some of the prescribed antibiotics leftover in the body as well.

Although antibiotics have contributed many medical successes over time, scientists are now realizing that the effects of taking them can be intense and long-lasting. Medical agencies such as the FDA, CDC, and the Mayo Clinic have all released information about the risks of antibiotics use and its role in the development of drug-resistant bacteria. Each agency has also suggested the minimal use of antibiotics, saying that people should only take them as ordered by a doctor and when they are sick. Because antibiotic resistance is a fast-growing and global issue, it is imperative that everyone educate themselves over what it is and why it is so important to consider. With raised awareness, people can begin to work towards overcoming this issue and resetting the condition of public health to a stronger level.



**Jimmie L. Holman** is CEO of Pulsed Technologies Research, LLC (USA - Dallas, Texas) and COO of Bioenergetics & Pulsed Technologies, SRL (European Union - Bucharest, Romania) Mr. Holman has been exclusively involved, since appx. 1969, in proprietary research and development in many areas of highly technical design, including electronic warfare, electronic surveillance, signal intelligence, exotic signal processing, advanced supercomputer development, and specialized studies for both domestic and foreign governments and agencies. Mr. Jimmie Holman has been extensively researching Resonant Frequency technology since appx. 1995 with intense focus on the positive effects and natural responses of a biological nature for personal, environmental, medical, commercial and industrial applications. Although Mr. Holman is based in Dallas, Texas much of the proprietary work of Pulsed Technologies is being securely carried out abroad ... specifically in Eastern Europe.

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# Antimicrobial Resistance in the European Union and the World

**Dr Margaret Chan**  
**Director-General of the**  
**World Health Organization**

Source: [http://www.who.int/dg/speeches/2012/amr\\_20120314/en/index.html](http://www.who.int/dg/speeches/2012/amr_20120314/en/index.html)



**The EU's contributions to the solutions of the global antimicrobial resistance problem Keynote address at the conference on Combating antimicrobial resistance: time for action**

**Copenhagen, Denmark**  
**14 March 2012**

*Your Royal Highness Crown Princess Mary, excellencies, distinguished delegates, experts, representatives of regulatory authorities, agencies for disease control, and civil society, ladies and gentlemen,*

*You are meeting to explore what EU Member States can do to solve what you rightly recognize as a serious, growing, and global threat to health.*

*Drug-resistant pathogens are notorious globe-trotters. They travel well in infected air passengers and through global trade in food. In addition, the growth of medical tourism has accelerated the international spread of hospital-acquired infections that are frequently resistant to multiple drugs.*

*Let me acknowledge the work of the European Centre for Disease Prevention and Control, or ECDC, in so quickly conducting risk assessments of the spread of NDM-1-producing bacteria within Europe.*

*Surveillance is on your agenda. This kind of rapid response to an emerging threat speaks well of the EU's capacity to protect its citizens. It also demonstrates the EU's capacity to generate models, useful elsewhere, for combating antimicrobial resistance on multiple fronts.*

*The EU has its eyes wide open to the problem. This is readily seen in the number of recent policies, directives, technical reports, strategies, and regulatory decisions designed to reduce antibiotic consumption, in humans*

*and animals, ensure the prudent use of these fragile medicines, and protect specific agents that are critically important for human medicine.*

*You have moved forward in remarkable ways, as reflected in several EU-wide networks for surveillance of both resistance and consumption, and for susceptibility testing.*

*Thanks to this surveillance, we know that consumption patterns and resistance levels vary greatly across Europe, pointing to a clear need to share experiences and harmonize best practices.*

*The EU's progress is also reflected in success stories in individual countries. Worldwide, the fact that greater quantities of antibiotics are used in healthy animals than in unhealthy humans is a cause for great concern.*

*This makes it all the more an honour to speak to you in Denmark. Like several other EU nations, Denmark has achieved low domestic antibiotic consumption through multisectoral collaboration and a range of targeted measures.*

*In particular, Denmark has tackled the problem of antibiotic use in food-producing animals in a pioneering way. Recognizing the potential for a health crisis, this country progressively ended the administration of antibiotics as growth-promoters in the late 1990s, well before the EU-wide ban.*

*An international review panel, set up by WHO at the request of the Danish government, concluded that the ban reduced human health risks without significantly harming animal health or farmers' incomes.*

*In fact, Danish government and industry data showed that livestock and poultry production actually increased following the ban, while antibiotic resistance on farms and in meat declined.*

*What began as the Danish "experiment" became the Danish "model".*

*The termination of the use of antibiotics as growth promoters had a voluntary component on the part of industry, strongly motivated by consumer concerns. I congratulate industry for its responsible actions.*

*There is another lesson here. Never underestimate the importance of consumer groups and civil society in combating antimicrobial resistance. They are important movers, shakers, and front-line players, especially in this age of social media.*

*Ladies and gentlemen,*

*The antimicrobial threat is easy to describe. It has an irrefutable logic.*

*Antimicrobial resistance is on the rise in Europe, and elsewhere in the world. We are losing our first-line antimicrobials. Replacement treatments are more costly, more toxic, need much longer durations of treatment, and may require treatment in intensive care units.*

*For patients infected with some drug-resistant pathogens, mortality has been shown to increase by around 50%. Let me give an example of what this means for a disease of global significance.*

*Among the world's 12 million cases of tuberculosis in 2010, WHO estimates that 650,000 involved multidrug-resistant TB strains. Treatment of MDR-TB is extremely complicated, typically requiring two years of medication with toxic and expensive medicines, some of which are in constant short supply. Even with the best of care, only slightly more than 50% of these patients will be cured.*

*Many other pathogens are developing resistance to multiple drugs, some to nearly all. Hospitals have become hotbeds for highly-resistant pathogens, like MRSA, ESBL, and CPE, increasing the risk that hospitalization kills instead of cures. These are end-of-the-road pathogens that are resistant to last-line antimicrobials.*

*If current trends continue unabated, the future is easy to predict. Some experts say we are moving back to the pre-antibiotic era. No. This will be a post-antibiotic era. In terms of new replacement antibiotics, the pipeline is virtually dry, especially for gram-negative bacteria. The cupboard is nearly bare.*

*Prospects for turning this situation around look dim. The pharmaceutical industry lacks incentives to bring new antimicrobials to market for many reasons, some of which fall on the shoulders of the medical and public health professions. Namely, our inability to combat the gross misuse of these medicines.*

*From an industry perspective, why invest considerable sums of money to develop a new antimicrobial when irrational use will accelerate its ineffectiveness before the R&D investment can be recouped?*

*A post-antibiotic era means, in effect, an end to modern medicine as we know it. Things as common as strep throat or a child's scratched knee could once again kill.*

*Some sophisticated interventions, like hip replacements, organ transplants, cancer chemotherapy, and care of preterm infants, would become far more difficult or even too dangerous to undertake.*

*At a time of multiple calamities in the world, we cannot allow the loss of essential antimicrobials, essential cures for many millions of people, to become the next global crisis.*

*Ladies and gentlemen,*

*As a follow-up to last year's World Health Day, on antimicrobial resistance, WHO has just launched a new document setting out options for action to combat antimicrobial resistance. As that document notes, much can be done to limit selective pressure on bacteria to develop resistance.*

*Namely: Prescribe antibiotics appropriately and only when needed. Follow treatment correctly. Restrict the use of antibiotics in food production to therapeutic purposes. And tackle the problem of substandard and counterfeit medicines.*

*The EU is doing many of the right things well.*

*You have a five-year action plan with twelve lines of action, underscoring the need for a broad-based, multi-pronged response. There is a strong convergence between these actions and those in WHO's European strategic action plan on antibiotic resistance, launched last year. This sets the stage for many jointly-undertaken activities.*

*Last year, the WHO Regional Office for Europe also issued a guide to options for the prevention and containment of antibiotic resistance from a food safety perspective.*

*The EU is making good use of regulatory tools, and has solid technical backing from agencies like the European Food Safety Authority and ECDC.*

*You have launched an unprecedented collaborative R&D effort to bring new antimicrobials to market. You emphasize the need to prevent infections in the first place, whether through vaccines or better hygiene, also in animals.*

*And you recognize that new point-of-care diagnostic tools are another way to improve prescribing practices and promote prudent use. Your European Antibiotic Awareness Days keep the public alert to the threat and their role in diminishing it.*

*But the threat, as you have noted, is indeed global, extremely serious, and growing.*

*Political will at the highest level is essential. Over many years, WHO and the EU have repeatedly drawn attention to this threat in appropriately dramatic statements, as during last year's World Health Day.*

*Yet attention is still sporadic, and actions are far too inadequate. In my personal view, one problem is that the threat of antimicrobial resistance is competing for attention in a world beset by one global crisis after another. These days, doomsday scenarios are a dime a dozen.*

*To underscore the severity of this global threat, let me briefly remind you of the daunting challenges facing developing countries.*

*Many countries are crippled by lack of capacity, including laboratory, diagnostic, quality assurance, regulatory, and surveillance capacity, and control over how antimicrobials are obtained and used.*

*For example, anti-malaria pills are sold individually at the local marketplace. Counterfeit and substandard antibiotics abound. In many countries, the pharmaceutical industry is the principal source of prescribing information for doctors.*

*Good public health practices are undermined by utter poverty. When resources are extremely limited, will a doctor use precious money to treat as many patients as possible, or invest in diagnostic tests?*

*When people travel very great distances to reach a health post, they want something in return. They demand something: an injection or some pills. They do not take "no" for an answer.*

*WHO is aware of these challenges and is addressing them, also through strategies for combating antimicrobial resistance adopted by other WHO regions. Recent WHO-coordinated initiatives are described in the new document I just mentioned. Building capacity, including regulatory capacity, is a built-in component of these initiatives.*

*WHO work, aided by international partners, including the EU, pioneered the way forward through laboratory and surveillance networks set up to track multidrug-resistant TB and HIV-associated drug resistance.*

*Again, we have a good model for moving forward and are building on this success.*

*Ladies and gentlemen,*

*I thank Denmark for raising the profile of antimicrobial resistance during its EU presidency. I thank the EU for its collective progress, and striking progress within individual countries. I thank you for your unwavering support to WHO.*

*We have many challenges ahead, and a long way to go. But we have solid success to build on. And we are steadily on our way.*

*Thank you.*