

THE GREENING OF ANIMAL AND HUMAN HEALTH CARE:

REVISIONING DISEASE: NATURE - NURTURE CO-FACTORS

By Dr. Michael W. Fox

To enter modern civilization is indeed to enter disease. To advocate alternative, complementary treatments integrated with the conventional is to challenge the political and economic status quo as well as a limited, corporate-profit driven medical paradigm. It is limited because of a lack of any integrated approach to treatment of disease and prevention which tends to rely on intervention and more recently on addressing genetic/genomic co-factors to the exclusion of environmental co-factors.

The co-factors underlying many infectious and non-infectious diseases, and their prevention, are genetic and environmental; nature and nurture. Expensive drugs, often with harmful side-effects, DNA screening, and recombinant DNA vaccines to influence genetic co-factors are now a top research and development priority for the medical industry. This is in part because of increasing bacterial resistance to antibiotics resulting from their misuse by the livestock and poultry industries, and resistance to making long-overdue improvements in how farmed animals are husbanded. In the U.S., according to the Union of Concerned Scientists, 16 percent of antibiotics are used to treat humans and companion animals while 14 percent is used to treat sick farm animals and 70 percent is put in their feed to enhance productivity. Genetic resistance to pesticides in crop and animal pests and parasites due to the indiscriminate and wholesale use of these chemicals is all part of the same food and agriculture originating, environmental co-factor sector of many animal and human diseases.

Expensive anti-viral, gene-targeting, genome altering drugs, genetically engineered live vaccines, and gene-slicing and silencing biotechnologies are being researched and developed for both the medical and agribusiness food industries to better combat human, animal, and plant diseases. The iatrogenic consequences of earlier kinds of vaccines and the adjuvants and other additives and contaminants therein continue to be dismissed by organized medicine, a problem that pales in my mind before the veterinary profession's unquestioned support of stressful, inhumane and disease-promoting intensive methods of animal production from their inception, and continued foot-dragging over their food animal sector role and responsibilities in the very serious issue of antibiotic resistance. Public concerns were swept aside in the rapid U.S. government approval of anabolic steroids, systemic pesticides, genetically engineered bovine growth hormone and other Big Pharm 'animal health and productivity' pharmaceuticals, many of which are banned in other countries for consumer health, environmental and animal welfare concerns.

HUMAN-CAUSED DISEASES

The iatrogenic consequences of antibiotics and chemical pesticides, compounded by chemical fertilizers, nutrient-deficient soils, forages and crops, and by how the land is farmed and animals raised, *promote disease*. These environmental co-factors play an instrumental role in the genesis of new kinds of often virulent infections, and sometimes highly contagious viral, mycobacterial, protozoal, fungal and other diseases. Non-infectious metabolic, neuro-endocrine, immunologic, developmental and reproductive disorders are linked to these and other environmental and also genetic co-factors. Those genetic co-factors (including genetic uniformity/lack of biodiversity) in hybrid varieties of crops and farmed animals selected for high yield traits, and the selective breeding of pure-bred dogs, cats, and other domestic animals for extreme, biologically anomalous physical characteristics are recognized by many as pervasive but not insurmountable concerns.

Chemical and pharmacological residues in what we consume as well our companion animals, are known carcinogens and endocrine-disruptors. These, along with the nutrient deficiencies, questionable additives and adulterants in many manufactured and processed foods and beverages, are some of the co-factors involved in the genesis of many non-infectious diseases, especially obesity, diabetes, cancer, heart disease and allergies. They also play a significant role in lowering resistance to infectious diseases. Nutritionists are at last reaching unanimity over one major disease co-factor, namely omega fatty acid deficiencies and imbalances in the foods we and our animal companions consume, and in the fats and oils in which many foods are cooked.

NEGLECTED ENVIRONMENT AND DISEASE CO-FACTORS

There is little profit incentive for the multinational food and drug industrial complex and allied medical and animal health industries to address the *environmental* co-factors of infectious and non-infectious diseases. Aside from the epigenetic effects of some environmental co-factors, many of these co-factors we share with our companion animals because of where and how we live, and what we all ingest. According to Veterinary Pet Health Insurance, the conditions most often reported in insurance claims in the U.S. in 2008, which are common to both human and animal patients (but not transmissible from one species to the other) were, in descending order of prevalence, allergies, bladder infection, arthritis, diabetes, skin cancer and gum disease.

Today's house cats and home dogs are the canaries down the proverbial mine shaft which they share with us. Environmental co-factors could be addressed at far less cost and risk than some of the more interventive treatments currently being advocated, such as using genetic engineering to enhance disease resistance, prescribing DNA vaccines and costly and often harmful immunosuppressive chemotherapies, radiation, and immune-system enhancing drugs. Most often the symptoms of disease and inflammation are treated repeatedly with conventional, less costly drugs such as antibiotics and corticosteroids, so often with harmful side-effects.

Environmental co-factors in food animal production, such as over-crowding stress, poor sanitation, ventilation and building design, and body injuries and death in transit to

slaughter are written off as one of the inevitable costs of high-volume production, the so-called economy of scale. This ‘bigger the better’ business model spawned ever larger and crowded animal factory farms and feedlots that are now epicenters for zoonotic diseases, environmental pollution, and water and food contamination: they are also places of unspeakable animal suffering which I was one of the first to document some thirty years ago, along with the puppy breeding mills on many once viable family farms.

Economies of scale and pure greed notwithstanding, the global economic crisis of 2010 was caused in part by corporate entities becoming “too big to fail”. The increasing complexity of any corporate enterprise can quickly become dysfunctional just as the health care system with its layers of insurance-dictated treatments, legal administrative costs, and federal regulations, while drug companies continue to raise prescription drug prices and, with the support of politicians, seek periodically to ban all OTC (over-the-counter) non-prescription products such as vitamins and other nutraceutical supplements. Many tried and true home remedies, traditional wisdom, and even common sense personal health care maintenance habits and customs are going the way of the Dodo bird.

A CLEARER VISION

We need a medical paradigm of such scope that profits do not exclude compassion, and scientific ‘proof’ does not trump evidence-based medicine. We need health education that empowers consumer awareness, a health and environmentally conscious consumerism promoted by government, along with the Green anarchy of the humane and conscientious cook and kitchen.

We need a vision of health based on the principles of symbiogenetic balance, harmony and dynamic instability as well as full attention to the above disease co-factors rather than that of the medical Imperium with its ‘war’ on cancer and ‘battle’ against birth defects. We need a medicine and health care system for humans and other animals based more on well-being and disease prevention than on interventive treatments when diseases occur.

We need a medical vision of health that sees the culture-crippled and de-humanizing distortions of the human condition getting ever worse so long as those endemic cultural values, perceptions and beliefs are adhered to that lead to so much intra-species violence,(internecine strife), animal cruelty and suffering, extinction of wildlife and violence against the natural world.

This is the ‘Greening’ of the human and animal health care industries which I did not expect to live to see but is happening now, as witnessed by one multinational pet food manufacturer marketing its own brand of beneficial dietary probiotics for cats and dogs; the plethora of many good quality pet foods and nutraceutical supplements in the market place; increasing consumer demand for organically certified foods. More and more human and animal doctors are moving away from conventional treatment protocols and are adopting a balanced approach which gives due attention to all disease co-factors and integrates complimentary and alternative treatments to health problems that can be rectified with the least harm/risk to the patient.

The bioethics of 'green' medicine and holistic healing integrate Earth health care, human health care and animal health care. This tripartite approach to wellness and well-being is complimented by the tripartite approach to patient diagnosis and treatment of the mind-body-spirit triad. (Those who are unaware of animals' spirit or ethos have never really seen a happy, contented or dispirited animal.)

In the broader scope of things to come, the better we care for the animals and the planet, the better we will be because we will have overcome the most pervasive co-factor of disease: Our anthropocentric, self-limited and self-limiting world view of human superiority and mastery, once wrought through magic, divination and prayer, now through medical and veterinary science and industry. We will know that the same co-factors are at work when we harm the earth because we harm ourselves, and when we abuse animals and violate their sanctity, we do no less to our own humanity and sanity. The meaning of good medicine will be recalled, and we will again speak to the plants that heal us, and to the creatures who keep us whole.

Acknowledgement. The author is grateful for the helpful comments of Robin Scott, MD.

*The author is a veterinarian and writes the syndicated newspaper column *Animal Doctor*. His website is www.twobitdog.com/DrFox/