

THE MYTH OF MODERN EDUCATION

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The world believes that education is the key to better living and progress. As we look around us and inspect and examine all those matters that affect our lives and the impact of people and officers and how this coupling of education and officers has shaped our world, that belief in education can erode and seems misplaced or false.

We read of more violence in our media than forty years ago and we see more violence on our screens today. It is part of daily living, whether it is a bombing or assassination or massacre of tourists or the killing of school children by some gun in the hands of a teenkid or at a shopping mall or police brutality or snatch thieves or some one being mugged or knived by thugs who want the gold chain around the neck. Corruption is more rampant and it rears its head at all levels of organization. It comes in many forms, including cheating at the ballot box or rigging it afterwards. Has man become more evil and conniving or what ever happened to education that was supposed to create an intelligent and thinking society that operates on values? Where is the self esteem and human dignity in giving service to others? Has polite education that builds the human mind to serve humanity been lost in evaporation as we focus on getting degrees to secure better jobs for ourselves? Has the teaching of serving humanity been replaced with loyalty to business interest? Has greed raped man's conscience?

Naturally, building a nation starts with building individuals with knowledge in multi-disciplines. Developing individuals for nation building finds its foundation in values and principles and in broadening mental horizons and in giving essence to justice and fairness. This educational process depends on several factors such as access to education, quality educators and not just teachers, facilities and content, followed by methods that engage the minds of children and teens and those in adult education. That must remain as the basic cornerstone on which can be laid the instructional layers and training for developing the human resource as the functional human capital that can expand and broaden the wheels of business and entrepreneurship and drive the economy in ways that protect and improve the environment, which is a step above sustainability. Sustaining alone is not good enough for progress. It is a process that must be properly defined in order to chart the development of every human who can then become a resource to society and its progress. It is precious work. The narrow meaning attached to education as a means to put degrees in the hands of the enrolled students is a fallacy that breeds mediocracy and decadence. We can now see education as a key that can be forged for either progress or decadence.

The imparting of knowledge in science and technology has built up a vast industry that churns out millions of tons of chemicals that end up in the ecology and the food chain that eventually harm health through free radicals and weakening of the immune system. Unfortunately, economy and not health is the present dominant force in politics and there is a huge amount of wealth in industry that is used to corrupt the politician who is an ever willing partner in corruption and a co-conspirator against health.

In most parts of the world, there is little education on healthy biochemistry and the need for a health system that delivers health benefits. The drug industry calls its drugs medications although they only deliver a pharmaceutical benefit. Health education has deteriorated and with the vanishing principles that must ensure human health, health ministries in third world countries and some developed countries now insist that the doctors practice is only to deliver pharmaceutical benefits and if they prescribe health supplements, they “will be severely dealt with” and they flushed out the science of wellness.

Very few people learn that the mammalian biological system is a biochemical system that is driven by L-form biochemicals from food and edible substances and when D-form chemicals are introduced into it, they can cause harm by blocking or suppressing or inhibiting or disrupting healthy biochemical pathways that can lead to a decline in healthy cell function and lower its energy output and over time impair it to such an extent that leads to the development of disease states or death of the cell, especially when the glutathione level in the cell drops below 80% of its peak levels. Also very few people realize that all the degenerative disease conditions cannot be reversed or slowed down by drugs which may be very effective blockers or suppressors in the body and can block or suppress pain as well as the production of antioxidants in the body. Or that all of the degenerative conditions tend to establish or accelerate with a decline in the natural antioxidants levels in the body and that the science of regenerative medicine can be properly based on natural antioxidants and a change in diet that eliminates cigarettes, alcohol, trans-fatty acids or foods that yield metallo-proteins and long chain fatty acids as these yield lipo-proteins that circulate in the bloodstream and can be subject to oxidative damage that in turn pose a health risk.

Unfortunately there are people with vested interests who want the public to take more drugs and want more healthy people to take drugs. Drugs can be effective interventions but they are not health supplements. If a drug prescribed for a particular condition, say to lower cholesterol, also blocks the formation of coenzyme Q10, it can pose a health risk to the heart. It is plain common sense based on biochemistry. **The body does not produce D-form chemicals and these chemicals are not part of its healthy biochemistry. Biomolecules that can deliver a health benefit are those that are an integral part of the body's healthy biochemistry and are utilized by the body in its healthy biochemical pathways and it includes natural antioxidants from food and edible sources.** Hence drugs, in general, do not deliver health but remain as interventions under prescription. Of and on, we do find responsible doctors and ethical scientists who care to publish caution in medical journals. **An editorial in the British Medical Journal in 2004 concluded that not only was there plenty of evidence that benzodiazepines cause ‘major harm’ but there was ‘little evidence of clinically meaningful benefit** (Treating Insomnia, British Medical Journal, 2004, vol 29, p1198-99).

In the normal and ordinary course of things, when there is news from a study that a “drug may not work to protect arteries and may in fact worsen clogging” should cause patients to stop taking that drug but when Merck & Co and Schering Plough made such an announcement, the American College of Cardiology said that it “should not cause

patients to panic” and added that “patients should not suddenly stop taking the drug” and “this is not an urgent situation and patients should never stop taking any prescribed medications without first discussing with their healthcare professional” (NST, 17/01/2008). Why? Is it because, a very large number of Americans is already on the drug? If so, it means putting monetary interests before health and that means poverty in education. A more responsible statement would be to make an appointment with their health professionals without delay as drugs are not part of the body’s healthy biochemistry in vaso-regulation and arterial health. “The 1999 Paddington rail crash in the UK, in which 31 people died, prompted a long enquiry and so did the capsizing of the Herald of Free Enterprise ferry in 1987 in the UK in which 190 people died but after an estimated 140,000 Americans were damaged by Vioxx (D. Graham et al, Risk of acute myocardial infarction and sudden cardiac death in patients treated with cyclo-oxygenase 2 selective and non-selective non-steroidal anti-inflammatory drugs:nested case-control study, The Lancet, 2005, vol 365 (9548), p475-81), it was business as usual (Patrick and Jerome, 2006, Food Is Better Medicine Than Drugs, p33).

Sound decision-making, especially in providing guidelines in health must be based on knowledge. Let’s take a look at the guidelines on cholesterol. “At the beginning of 2001, if your cholesterol level was below 5 mmol/l (200mg/dl in the US), you were considered pretty much alright, depending on your other risk factors. Around 13 million Americans had higher cholesterol levels, however, and were said to be at risk from heart disease because of raised cholesterol. They were advised to take statins. Then a report by the US National Cholesterol Education Program slashed the safe level to 130mg/dl, tripling the number of Americans with an officially raised risk for heart disease. Suddenly, 39 million of them were eligible for treatment with statins. The guidelines were lowered yet again in 2004, recommending statins for people with cholesterol levels as low as 100mg/dl! You don’t have to be particularly cynical to see that diagnostic creep is a brilliant marketing tool” (Patrick and Jerome, 2006, Food Is Better Medicine Than Drugs, p45). These authors add that “eight of the nine authors of the most recent set of guidelines setting lower cholesterol targets had financial links with statin manufacturers as did nine of the eleven members of the committee that set lower levels for hypertension in 2001 (D, Wilson, New Blood-Pressure Guidelines Pay off – for Drug Companies; Seattle Times, 26-30, June 2005). A study [the Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attacks (ALLHAT)] funded solely by the US government produced several major papers showing that the newer and more expensive drugs are no more effective, and in fact are more likely to cause problems, when compared with older and far cheaper ones (ALLHAT Collaborative Research Group, Journal of the American Medical Association (JAMA), 2000, vol 283 (15), p 1967-75; JAMA, 2002, vol 288 (23), p2981-97). Do our students in medical schools ever learn this? Governments in third world countries must therefore conduct their own studies and epidemiological studies and not rely blindly on guidelines issued by panels in the US. We know that one of the major factors in cardiovascular disease and cholesterol related heart problems is that the risk is directly related to the oxidation of LDL and the very low density lipo-protein (vLDL) and the serum antioxidant levels play a vital role in health of the cardiovascular system as well as to some extent pollution of the air we breathe especially when it is contaminated with very very fine (VVF) particles from exhaust fumes.

Only a small percentage of the population know of the harmful effects of the long term use of drugs and antibiotics. Most people never come to know that antibiotics kill the pathogen as well as the good or symbiotic bacteria and the health system gives little attention in integrating interventions to complete the therapy that encourages the growth of the symbiotic microflora in the gut after the drug dosing. There are no such pressures although it is an intelligent approach for whatever reasons of the practice of medicine and because most people do not know that excess antibiotics can kill the symbiotic microflora that keeps the candida in check that prevent systemic fungal disease or complications from their excess numbers in the body. Fewer know that some microflora in the gut produce a short chain fatty acid – butyric acid – which is important for health and in cancer prevention. So, excessive and repeated use of antibiotics can increase the risk of colon cancers, especially in those people who do not eat a lot of green vegetables and asparagus and broccoli. And an even tiny minority know that natural antioxidants can improve the efficacy of certain antibiotics. Certainly research is needed in this area.

Although there are more people today with tertiary qualifications, these degrees are sought to better themselves in the employment market and to help become upwardly mobile in the corporate ladder rather than to gain a better understanding in nutrition and natural antioxidant intake or about functional foods. There are night classes to obtain such qualifications but there are no night classes to gain an understanding of nutrition and health or how high heat cooking and boiling destroys the natural antioxidants in food. Health has both a price and a cost and the economic value of health is a poorly understood notion. The enjoyment of health as a concept and as a real benefit has faded to some background and it is not to be found in the mind of the planning authorities. The life time value of a customer gains greater prominence in the mental faculties in contrast to gaining enjoyment and productivity and lowering treatment costs by pushing the middle age well into the nineties through better management of natural antioxidant intake through the diet, wellness programs and natural medicines.

Allopathic medicine is often touted as as ‘evidence-based’ medicine. Some of these studies are properly conducted and properly interpreted by competent researchers. “Until about 15 years ago, most drug trials were run by universities independently of the drug companies. Since, then that work has increasingly been taken over by private firms. One investigation showed that many of these private research firms are actually owned by the same major advertising companies that handle the drug companies’ multi-million dollar advertising accounts. The results of these trials are then used to promote drugs throughout the world (M. Peterson, Madisen Avenue Plays Growing Role in Drug Research, New York Times, 22 Nov, 2002). Many people do not know that any drug that shows a slightly better result than a placebo can qualify for a license. **“The evidence is strong that drug companies are getting the results they want and it is worrisome because between two-thirds and three-quarters of the trials in the major journals are funded by the industry** (R. Smith, Medical Journals Are an Extension of the Marketing Arm of Pharmaceutical Companies, Public Library of Science – Medicine, 2005, vol 2 (5) p138;cf, Patrick and Jerome, Food Is Better Medicine Than Drugs, 2006, p55).

The relationship between journals and the drug industry is, according to The Lancet editor Richard Horton, "somewhere between symbiotic and parasitic" and this is what doctors rely on and is what distinguishes scientific medicine from traditional medicine. Horton's education did him proud when he testified and gave evidence to the Parliamentary Health Committee, describing how drug companies "regularly try to exert pressure on a journal to run a research paper". When a favourable paper is printed, it is often reprinted and bought in bulk by the drug company, which gives them leverage. On one occasion, when Horton queried a lot of points in a paper on a COX-2 inhibitor, he was contacted by an executive of the drug company and asked to "stop being so critical", otherwise they would pull the paper and The Lancet would lose lucrative reprint rights (see: Patrick and Jerome, *Food Is Better Medicine Than Drugs*, 2006, p56).

So, it is not surprising that misleading articles have appeared in reputable journals. Sometimes, when a company sponsored trial does not produce the favorable results they want, they produce summaries that may say otherwise. And the marketing literature contains only those summaries. In one case, in a placebo study, the summary stated that the drug was "generally well tolerated" and that "most adverse effects were not serious." But when a team of independent scientists looked at the whole paper, they found that "out of 93 children given the drug, 11 had serious ADRs compared with 2 in the placebo group. Seven of these children were admitted to hospital during the drug treatment. **These researchers found that the drug was 2.7 points more effective than a placebo on a 113-point scale and it produced ADRs** (see: Patrick and Jerome, *Food Is Better Medicine Than Drugs*, 2006, p57). A similar advertisement in a medical journal advertised a very toxic drug that is toxic by inhalation and can produce the same symptoms as AIDS as "well tolerated" in children and even good for their cognitive development! So, once a drug is approved, the condition is "treatable." Here we see the drug companies end up destroying their own markets and push the public towards alternatives, many of which can have more effective results and being formulated from edible substances, they do not produce ADRs. What is needed is better research, funds and production methods for quality products so that these do not contain heavy metals and are made from organically grown plants and fruits and clinical trials are carried out to determine modulations and applications for best results.

Another worrying part of the drug story is about the conduct of the companies itself where some drug companies offer bribes to consultants not to publish inconvenient findings! And this hurts the ethical companies that have a real concern for health. "Giving evidence at a Parliamentary Health Committee hearing, Dr. Peter Wilmshurst, a consultant cardiologist at Royal Shrewsbury Hospital, told how he was offered bribes by a pharmaceutical company not to publish unfavorable results (see: Patrick and Jerome, *Food Is Better Medicine Than Drugs*, 2006, p57). It takes a researcher with strong principles to stand up for the interest of humanity and public health.

So, many drugs that were supposed to have gone through an "evidence-based" system had to be withdrawn due to the serious complications and even lethal effects in some cases. The point is that drugs are effective in many cases but drugs can harm or cause irreparable damage. Some drugs produce the harm fairly quickly but in others the effects

come as risks to health by their long term use. Vioxx, thalidomide, ritalin are all part of drug disasters. But we do not seem to learn from the past and take the added precautions. It took us some time to find out that HRT replacement therapy actually increases the risk of breast cancers. An SSRI-type drug called pondimin caused heart disease and hypertension and was withdrawn in 1997. The cholesterol lowering statin, baycol, was banned in 2001, after being linked with 31 deaths in the US and nine more elsewhere. Rezulin was found to resensitize the body to insulin and it has been officially linked to 63 deaths and 90 cases of liver injury with some people needing transplants. **During his sworn testimony before the U.S. Senate on November 18, 2004, whistle-blower David J. Graham, MD, MPH, stated that according to estimates derived from the Kaiser-FDA study, Vioxx caused upwards of 160,000 heart attacks and strokes.** This data was published in The New England Journal of Medicine October 21, 2004; 351(17): 1707-1709. Synthetic hormones can trigger the biofeedback mechanism that leads the body to produce less of these hormones naturally in the body. Alternative medicine must be funded to study the effects of functional foods and herbal formulations made from edible herbs to determine their effects on the production of hormones and antibodies and other natural biomolecules in the body that improve health and the quality of life.

While approximately 10,000 per year die from the effects of illegal drugs (such as cocaine and heroin) an article in the Journal of the American Medical Association (JAMA) reported that an estimated 106,000 hospitalized patients die each year from drugs which, by medical standards, are properly prescribed and properly administered. More than two million suffer serious side effects (Lazarou et al, Incidence of adverse drug reactions in hospitalized patients, Journal of American Medical Association, 1998;279:1200). **So, more people die from prescribed drugs than recreational drugs!**

An article in Newsweek (Kalb C: "When drugs do harm." Newsweek, April 27, 1998, p61) put this into perspective. Adverse drug reactions, from "properly" prescribed drugs, are the fourth leading cause of death in the United States. According to this article, only heart disease, cancer, and stroke kill more Americans than drugs prescribed by medical doctors. Reactions to prescription drugs kill more than twice as many Americans as HIV/AIDS or suicide. Fewer die from accidents or diabetes than adverse drug reactions. It is important to point out the limitations of this study. It did not include outpatients, cases of malpractice, or instances where the drugs were not taken as directed.

According to another JAMA publication, drug related "problems" kill as many as 198,815 people, put 8.8 million in hospitals, and account for up to 28% of hospital admissions ("Reaction." American Medical News, January 15, 1996, p11). If these figures are accurate, only cancer and heart disease kill more patients than drugs. Has the situation improved since the publication of this information? Hardly. Null (Null G, Dean C, Feldman, M, Rasio, D, Smith D: "Death by Medicine." Life Extension. March, 2004, www.lef.org/magazine/mag2004/mar2004_aws_i_death_01.htm) et al have published the most comprehensive and well-documented study I have seen of deaths associated with medical practice. In this report, their research revealed some shocking facts. The findings are summarized in the abstract:

"A definitive review and close reading of medical peer-review journals, and government health statistics shows that American medicine frequently causes more harm than good. The number of people having in-hospital, adverse drug reactions (ADR) to prescribed medicine is 2.2 million. Dr. Richard Besser, of the CDC, in 1995, said the number of unnecessary antibiotics prescribed annually for viral infections was 20 million. Dr. Besser, in 2003, now refers to tens of millions of unnecessary antibiotics.

The number of unnecessary medical and surgical procedures performed annually is 7.5 million. The number of people exposed to unnecessary hospitalization annually is 8.9 million. The total number of iatrogenic deaths shown in the following table is 783,936. It is evident that the American medical system is the leading cause of death and injury in the United States. The 2001 heart disease annual death rate is 699,697; the annual cancer death rate, 553,251."

The authors conclude: "When the number one killer in a society is the healthcare system, then, that system has no excuse except to address its own urgent shortcomings. It's a failed system in need of immediate attention. What we have outlined in this paper are insupportable aspects of our contemporary medical system that need to be changed - beginning at its very foundations" (cf & ref:Dr. Kent DC, Recreational Drugs FAR Less Likely to Kill You than Prescribed Drugs!, Mercola).

"A recent article in Archives of Internal Medicine (Moore TJ, Cohen MR, Furberg CD: Serious adverse drug events reported to the Food and Drug Administration, 1998-2005. Archives of Internal Medicine 2007;167:1752-1759) stated that in the seven year period from 1998 through 2005, reported serious adverse drug events increased 2.6-fold, and fatal adverse drug events increased 2.7-fold. **The folly of such double standards should be obvious to all. It is time to address the real drug problem - the cultural notion that the first solution to seek for relief of life's problems is a drug. That's the drug culture we need to address**" (cf & ref:Dr. Kent DC, Recreational Drugs FAR Less Likely to Kill You than Prescribed Drugs!, Mercola). Fortunately, there exists nano-biotechnology that has yielded nano extracts from fruits, flowers, spices and vegetables that can be formulated into sprays for topical use that can destroy D-form chemicals and prevent or lower the risk of ADRs but the folly is not confined to double standards alone.

"But for all its remarkable success in medical emergencies such as physical trauma after a car crash, the performance of drug-based treatments has been far less impressive in preventing and treating the chronic conditions that now plague us – arthritis, depression, diabetes and heart disease (Patrick and Jerome, 2006, Food Is Better Medicine Than Drugs, p13) and hypertension primarily because the underlying cause is biochemical and caused by free radicals and drugs generate free radicals in the body and help deplete minerals and the natural antioxidants involved in the healthy biochemical pathways and in scavenging these free radicals and in preventing the formation of secondary free radicals such as the hydroxyl (that can damage molecules and DNA) and the highly reactive peroxynitrite (that can damage cell membranes).

Then, there is the folly in interpreting statistics. Supporters of drugs may claim that the drug reduces the risk of a heart attack by 20-30% and a prevention study based on the drug may show a 31% reduction. But we need to look at the figures closely or in another way. In the West of Scotland Coronary Prevention Study (New England Journal of Medicine, 1995, vol 333 (20), p1440-7), the study showed that for every 100 men on statins, there was an average of 1.1 heart attacks, while those on the placebo there was an average of 1.6 heart attacks which is, indeed, a 31% reduction. But that is not the sort of benefit most patients are looking for. In another study, the AFCAPS/TexCAPS study (Journal of the American Medical Association, 1998, vol 279 (20), p1615-22), 6600 healthy middle-aged people with slightly raised cholesterol took statins or a placebo for five years. The risk of having heart disease among those who took the drug fell by 37% which looks impressive until you realize that the risk of developing any serious disease (that requires hospitalization and/or results in death) was identical in both groups which actually means, as Abramson of the Harvard Medical School points that people “simply traded coronary artery disease for some other serious disease.”

People need to understand the concept of “numbers needed to treat” or NNT. In evidence based medicine numbers are often bandied about in drug company promotions. **The question is this, “How many people have to receive a drug over a certain period of time in order to achieve one successful treatment?”** An NNT of one means that everyone who is treated with the drug benefits from the treatment as in the case of treatment for head lice or for scurvy with natural vitamin C. “Aspirin scores two for “reducing pain of severe sprain by 50% within minutes.” Glucosamine has an NNT of five for improving arthritis over three to eight weeks. It is certainly better than flu medicine which scores 23. Ironically, for the best sellers, the NNTs start to go off the scale – the cholesterol lowering and hypertension. According to the website Bandolier (www.jr2.ox.ac.uk/bandolier), which is devoted to evidence based medicine, you have to give the drug Pravastatin to 641 people for 4.9 years to prevent one stroke a year. Giving a diuretic drug and a beta-blocker to 70 patients with high blood pressure for 5.8 years will prevent one stroke a year (see:Patrick and Jerome, 2006, Food Is better Medicine Than Drugs, p73). Concepts that define faith in evidence are important as the evidence itself. A change in diet to eliminate certain food stuff and an increase in a broad range of antioxidants from fruits and vegetable juices could achieve better. This means that natural antioxidant and drugs are an issue in public health. The drug companies that will manage a new paradigm in the delivery of health benefits are the ones that will continue to stay in business beyond the next three decades. And education in health and biochemistry in the human biological system are going to drive that change together with the wellness revolution.

While trying to get a grasp and fathom what has become of our education as a functional system in our health and economy, one must see six examples of how the administration has actually worked against it. First, there is the case of a fine imposed on a writer of health articles for the media by the health authorities in one of the Scandinavian countries but fortunately won his case in a court of law. Next and very tragically, you can now prove a virus or a viral cause of a disease like AIDS by going to an Australian Court of Appeal, even after the “discoverer” of the AIDS virus has testified that he found it in only

40% of “AIDS cases”. This approach of proving a virus does away with the need to prove its existence through the established principles of virology and electron microscopy and all that is required is a supernatant made from blood obtained from patients. Thirdly, it has become acceptable to administer drugs that are marketed as anti-viral drugs for such patients without the lab proof that the drug is actually anti-viral but what makes matters beyond reason is that the drug itself was once labelled as toxic by inhalation and can cause the symptoms of AIDS! Fourthly, if you find an application for a psychiatric or mental illness by formulating three to five edible herbs that can supply the natural antioxidants that repair cells in the brain and improve the healthy biochemistry in the brain and improve sugar metabolism in the brain and demonstrate it through a study, you may find, as it happened in the Truehope case in north America, that your funds and grants are cut after you have presented the positive findings of your study in a conference.

Next, if you write a research article on the benefits of medium chain fatty acids and how these triglycerides are readily broken into monoglycerides by lingual lipase found in the saliva and that these monoglycerides can act as anti-viral or anti-fungal or anti-cancer agents or how the medium chain fatty acids are easily broken down in the liver to produce energy and hence these are an essential part of the diet of diabetics as an alternative source of cellular energy, you discover that the mainstream media will not publish it. And if you flush it into the internet, you find that there is an article in the Sunday columns on health that claims that coconut oil is bad for health as it contains cholesterol! Or it elevates your blood cholesterol levels and pose a risk to cardiovascular health. Such articles aim to disseminate wrong information which the health authorities do not frown upon and take no measure to counter it simply because the doctination of certain lobbies is so succesful that these medical officers actually believe that coconut oil contains cholesterol. The basic foundation is so weak, otherwise they would have known that the cell wall of plant cells is not made of cholesterol unlike the cell wall of animal cells and consequently, plant products do not contain cholesterol. Medium chain fatty acids are a very important physiologically functional food because they are readily broken down in the liver and do not yield circulating fatty acids unlike long chain fatty acids and hence do not pose a health risk to the cardiovascular system. And because these triglycerides are easily digested in the mouth, nature included them in breast milk.

The sixth example is in fact a cancer in health dissemination when the Oncology Society goes to the press to “inform” the public that cancer drugs are non-poisonous and they selectively kill cancer cells and the health ministry refuses to take them to task publicly and shys away from issuing a press release to state that chemo-drugs are highly toxic with side effects that can cause loss of hair or internal bleeding and they kill young cells in the body that can also suppress the immune system or cause depression and loss of minerals etc. It represents a moral and professional failure of the education system and a failure to properly inform the public. As more and more people desire non-toxic therapies and show a preference for clinical nutrition and natural antioxidant interventions for health benefits, chemotherapists in some countries can get desperate enough to protect their business interest and use the media to “educate” the public with misleading facts by promoting chemo-cure and cleverly avoiding to talk about the remission stage and

blurring the gap between a treatable disease and curing a disease. They may go on to claim that “while there are side effects, they could be controlled” and “are temporary” – well at least they acknowledge the proven side effects of chemo-therapy, “including loss of hair, nausea, vomiting” but fail to state the amount of oxidative damage that can also cause internal bleeding and fatigue and depression. When chemo-therapy is properly integrated with nutritional interventions, the results are much better, especially after the chemo-therapy or surgical removal of cancerous cysts, to rapidly recover health as much as possible to improve the immune system and quality of life but many chemotherapists in third world and developing countries are not happy about such nutritional interventions and tend to label alternative medicine as non-evidence based. Their commitment to chemo-therapy is so staunch that they will not apply for a grant to study the role of food based nutrients for the cancer patient. There are fanatics outside religion as well.

Early detection of cancers remains paramount especially in urban populations with poor antioxidant intake from food sources. New studies on cancer prevention and screening has resulted in new guidelines on the appropriate use of magnetic resonance imaging (MRI) for breast cancer screening. Other important studies include the discovery of a link between breast cancer incidence and the decline in the use of hormone replacement therapy. The D-form of the drug in synthetic chemicals is more toxic and harmful as it depletes the natural antioxidants in the body. Any method that helps to destroy the D-form of the drug, leaving the L-form to produce the targetted pharmaceutical benefit, followed by nutritional interventions after the drug therapy will prove to be the best approach in medicine in the future.

Other studies that show a link between human papillomavirus (HPV) infection and head and neck cancers also prove that toxicity of viral toxins can cause sufficient oxidative damage to cell membranes and impair the aerobic production of energy and citric acid in cells to transform them into cancer cells that will have very high cell membrane potential (CMP) and anaerobic production of energy while toxic biochemical pathways are established that yield toxic chemicals which in turn produce more oxidative damage that promotes the formation of tumors. Drugs cannot reduce the CMP or help repair oxidative damage cell membranes and so they are designed and tested for their ability to kill cancer cells but they also kill other healthy cells and also cause oxidative damage in the body. Naturally, research into properly integrating clinical nutrition is needed to find the best solutions in the interest of the health of the cancer patient. Just as rapid neutralization of bacterial toxins by natural antioxidants in nano form can bring down the fever, similar neutralization of viral toxins ought to reduce the risk from viral toxins or eliminate it altogether.

New equipment that has improved the ability of radiation therapy to better target cancerous tissue can help prevent the spread of lung cancer to the brain but again radiation yields large amounts of hydroxyl radicals that cause oxidative damage to cell membranes and the DNA and again more research is needed to determine the proper application of natural antioxidants, including natural aromatic oils to attain better results from radiotherapy. It is time for pharmaceutical companies to learn about integrative approaches for better results to the patients as a way to serve their business interest.

Profits are important but they cannot compromise integrity. When integrity is compromised, the education falls short of its ideals and fails society .

It takes a very immoral mind to “double your profit by watering down the medicine by 50%” and charge the same price for the same amount and then have the gall to call it “New, Improved” but it has happened. Equally, it takes a very unethical and unscientific mind to denounce the role of clinical nutrition in health and medicine and in integrating it into toxic therapies to treat side effects at the appropriate time, instead of treating the side effects with more toxic drugs. The entire well-being of the human biological system depends on healthy biochemical pathways that produce L-form biomolecules and these pathways are driven by L-form antioxidants. Oncology is the branch of medicine that studies cancer cell formation and cancers and tumors and seeks to understand their development, diagnosis, treatment and prevention. It is a multidisciplinary care of the cancer patient but many doctors who qualify as oncologists end up as chemotherapists delivering only chemo-drugs into cancer patient – another failure of education.

Some of the drugs used in chemo-therapy were originally obtained in the natural state, from plant sources and may be more effective in their L-form but are produced more cheaply through chemistry in factories that yield both the L-form and the more toxic D-form. Taxol, a drug for ovarian cancer is a good example which was developed by the National Cancer Institute by spending US\$30 million. It was found in the bark of the yew tree. And it also has anticancer properties in six other malignancies including lung and breast cancer. Indeed, it would be interesting to research the effect of a powder made from the bark of the yew tree and the bark of *Pinus mauritania* and mixed with a powder of the Indian gooseberry, both in preventive medicine and in the post chemo-patient as well as in the treatment of the early-detected cancer with and without the use of natural fat-soluble antioxidants, as for example olive oil and sesame seed oil or preferable a 50/50 mixture of these two oils, especially in tumor patients.

Many pine barks contain functional and nutritional factors beneficial for improving human immunity, improving cellular energy output and improving intestinal health. One of the antioxidants in pine barks is the super antioxidant called proanthocyanidins. The antioxidant capacity of grape seed extract comes from proanthocyanidins [oligomeric proanthocyanidins, (OPCs)]. With an antioxidant power 20 times stronger than Vitamin C and 50 times stronger than Vitamin E, OPCs is a powerful antioxidant and is known as a super antioxidant.

Natural polyphenols including flavonoids, flavonols, isoflavones, procyanidin, anthocyanins and tannins, and are found in many fruits and vegetables. Polyphenols from grapes, tea, and berries are potent antioxidants, and show anti-atherogenic, anti-inflammatory, and anticarcinogenic properties. Green tea (*Camellia sinensis*) contains the polyphenols epicatechin, epicatechin gallate, epigallocatechin and epigallocatechin gallate (EGCG). Research has shown EGCG to prevent cancer by binding to the proteolytic enzyme urokinase. Grape seed (*Vitis vinifera*) and a patented pine bark extract (*Pinus maritima*) contain various phenolic compounds and are used in Europe to treat varicose veins and vascular diseases. They reduce oxidative stress by lowering lipid

peroxidation and protect myocardial tissue. Grape seed extract has successfully treated retinopathy, particularly in diabetics. Grape polyphenols spare vitamin C and cooperative with other lipophilic antioxidants such as vitamin E, beta-carotene and lycopene. Cranberries (*Vaccinium macrocarpon*) contain mostly anthocyanins and flavonols and inhibit urinary bacterial infections (Review of Antioxidants and Their Activity, Naguib, Y. Antioxidants: A Technical Overview. Nutraceuticals World. March/April 1999:40-44).

Many of these natural antioxidants can be used in cancer therapy and can be integrated into chemo-therapy for much results. Grapeseed also has antibacterial properties and in conjunction with other herbs that have antibacterial properties can be given to the cancer patient after chemotherapy to prevent or minimise the risk of infections on account of immune suppression by the chemo-drug. These herbs also supply minerals and can aid the patient by minimizing the risks from mineral depletion arising from chemo-therapy. A holistic approach is a much better approach but it requires retraining of the chemotherapist.

Allium sativum, (garlic) has been shown to have cardioprotective properties attributed to its active components, such as allicin but the effect is on account of scavenging free radicals and protecting low density lipoprotein (LDL) from oxidation. Allicin increases activity of enzymes involved in the antioxidative processes. In one trial, after two weeks of consuming garlic tablets yielding allicin, subjects' serum LDL was significantly less susceptible to copper-induced oxidation than that of a placebo group (Review of Antioxidants and Their Activity, Naguib, Y. Antioxidants: A Technical Overview. Nutraceuticals World. March/April 1999:40-44). The reduction of oxidative stress by lowering lipid peroxidation to protect myocardial tissue is important in therapy and the prevention of oxidative damage to LDL and very low density lipoproteins (vLDL) is important for cardiovascular health. Any functional food that results in lowering the amount of vLDL is also useful.

Allicin has been shown to have antibacterial properties and is effective against colds, tubercle bacilli, botulism and candida but the distillates are not effective as the heat destroys the antioxidants. Some studies show that garlic helps to prevent some cancers (Riley et al, 2001, *Allium* Vegetables and Organo-sulfur Compunds, Do they help prevent cancer, *Environ Health Perspect*, 109 (9); 893-902) including breast cancer (Kukushima et al, 1997, Cancer Prevention by Organo-sulfur Compunds from garlic and onion, *J Cell Biochem*, 27 (suppl): 100-105). Garlic is also an excellent source of vitamin B6 plus minerals such as manganese, phosphorous, calcium, potassium, iron, selenium, germanium and copper and hence, its consumption helps to improve the functioning of the natural antioxidant network system of the body while increasing the production of glutathione – a very important antioxidant enzyme produced in the body. Its role in improving vasa-regulation may be due to the break down of the diallyl sulphide and diallyl trisulphide compunds found in garlic that may yield free electrons that can be readily donated to free radicals to render them harmless. These are enzymatically broken by enzymes found in the cell membranes of cells in the blood stream and thereby prevent oxidative damage to cell membranes by the highly reactive oxidant called the

peroxynitrite formed by the reaction of the oxygen free radical and nitric oxide. It is suspected that this breakdown may also be yielding protons that improve the cytochrome system in the mitochondria which may also explain its anti-cancer property. And finally, the metabolic breakdown also yields sulfur atoms that are used in the production of the 150 or more molecules that require sulfur, including hormones and insulin. That may explain the partial benefits to diabetics.

A German study of 4598 patients documented an Echinacea ointment in the relief of an incredible array of skin conditions. The study reported an overall success rate of 85% when the ointment was applied to skin areas affected with varicose veins, ulcers, eczema, wounds, abscesses, herpes, simplex and folliculitis. In the case of wounds and burns, he lesions within 7 days as reported by Dr. David Williams. The results can improve dramatically if the ointment is prepared with herbs and natural oils that may eliminate pain very rapidly through fast free radical scavenging and may allow for aesthetic purposes as well including for application on the post surgical scar by improving its antibacterial properties with certain herbs. There are far too many cases to document them all here.

The key in antioxidant therapy lies in giving the proper combination of antioxidants from food sources depending on the diagnosed condition. In hypertension and cardiovascular disease, garlic powder may not be sufficient as an intervention and may require other antioxidants, especially in older patients. Vitamin C, present in many fruits and vegetables, protects lipids and membranes from oxidative damage by scavenging lipid peroxidation-initiating free radicals. It can regenerate lipid-soluble antioxidants. Many studies have shown vitamin C's role in preventing cardiovascular diseases and several types of cancer. Vitamin C deficiency may increase risk of myocardial infarction (Review of Antioxidants and Their Activity, Naguib, Y. Antioxidants: A Technical Overview, Nutraceuticals World, March/April 1999:40-44) but the important factor to include is alpha-lipoic acid and coenzyme Q10 from green leaf powders of vegetables and powders of radish leaves are important in such conditions and in nutritional interventions in cancer patients. Many drugs and blockers can block the pathway in the body (and heart cells) that leads to the formation of coenzyme Q10. Very few doctors are trained in testing for blood level antioxidants and most hospitals do not provide such tests, although they are important in monitoring health, especially in cancer patients. But showing natural biomolecules and scientifically produced herbal formulations from edible substances can get into trouble with the law. The law is a funny thing – it can put words together in such a way to define animals as traffic but they do not require to display road tax discs!

There is a problem with how natural medicines can be made illegal to sell without a license but in some countries, the authorities are open and require proper testing for quality and safety. Yet the law may be worded in very wide but obsolete terms, such that if vitamin C or garlic is found to be very effective in certain conditions, it can be banned. That is what happened to S-adenosyl methionine. It is in food and it is natural biomolecule that is found in healthy human biochemistry that is vital in healthy brain biochemistry. It is effective against depression and it is without the side effects of the drugs. In fact, it is so effective that in 2005, EU officials ruled that it was medicine. So right was

Hippocrates when he said, "Let food be thy medicine." We know that natural vitamin C cures scurvy. And now S-adenosyl methionine has vanished from shelves (see;Patrick and Jerome, 2006, Food Is Better Medicine Than Drugs, p334-335). Is man and his education and legal system part of an intelligent system that best serves humanity and its health interests?

Under current laws in some countries, water can also be classified as medicine because it hydrates cells and improves or restores a physiologic function. This is a case of clever strings to puppeteer and cleverly control markets to protect vested interests.

Sometimes, the problem behavior lies with how the officers of the company carry out their "professional" work. A dermatology professor at Harvard received a letter from a pharmaceutical company to "read a two page report on the use of its drug to treat psoriasis." He was promised US\$100 if he would answer some questions afterwards. That "drug was approved by the FDA only for preventing organ rejection in people receiving kidney transplantation (see:Amazing Medicines The Drug Companies Don't Want You to Discover. 1993, p18). His education gave him the principles to respond with integrity. This doctor pointed out that a recent article in the British Journal of Dermatology stated that 46% of people being treated with this drug for psoriasis had to discontinue because of the side effects. Does it require a study or just common sense in an educated mind to figure out that a drug that suppresses the immune system to an extent that it prevents rejection cannot be used in skin conditions or in treating other conditions? That brings to the fore the abuse of the word – "treatable". If there is an approved drug, it is treatable!

According to one study, more than half of the prescription drugs approved by the FDA between 1976 and 1985 caused side effects which were either pulled back from the market or relabeled with warnings. Adverse drug reactions (ADRs) can more severe in the older and malnourished people. Every year about 650,000 older adults are hospitalized due to ADRs while an estimated 9 million suffer at home and there are 29 drugs on the market that can cause Parkinson's (see:Amazing Medicines The Drug Companies Don't Want You to Discover, 1993, p27). Also taking warfarin together with aspirin can be dangerous as this combination of blood thinners can lead to fatal bleeding in some elderly people. There are several natural substances that also serve as blood thinners (eg noni juice and omega-3 fish oil) and prevent aggregation of platelets and help in preventing blood clots but do not cause fatal bleeding can actually help blood to clot if the blood vessel is punctured or injured. This is the area for research that must be funded as it involves food and edible substances.

Things can get very ugly in the drug industry especially when it involves falsifying scientific evidence regarding the safety of a drug, more so if it is a sleeping pill. Imagine if the sleeping pill has some deadly anesthetic effects that can lead to respiratory failure and is implicated or tied to 40 deaths but even after an FDA investigation, it remains on the market. Or if a drug company lies to doctors that its drug was superior to another and it was the best choice to treat all stages of active ulcerative colitis when it was approved only for use in adults to help maintain remission of ulcerative colitis. It was reported that

a consent decree was signed requiring the company to stop making unproven claims (see: Amazing Medicines The Drug Companies Don't Want You to Discover, 1993, p20).

Most of the doctors who passed out of medical colleges more than fifteen years ago, if they have not kept abreast with free radical research and how natural antioxidants scavenge free radicals through the electron donation process and how the natural antioxidants work as a biochemical network in health and healing and how high levels of natural antioxidants can help increase the production of antibodies or proferin and how the body can produce antimicrobial biomolecules from food sources and how natural vitamin C improves the immune function and its "oxidative burst" targetted at pathogens may be at a loss to understand the interest of many people and patients in antioxidants in therapy while pharmaceutical companies engage their minds in devising the best ways to market integrated interventions to mark a quantum shift towards delivering a health benefit for that is what the consuming public aspires for. Most of these doctors, without further training and short courses will become outmoded and irrelevant to the health goals and needs of an educated society in the next fifteen years. Hence, it is time to consider the teaching of medical biochemistry.

This is the demand that is increasing every year that must be satisfied to stay in business. This is the demand that will drive the directions in the health industry with a focus on substances derived from food sources for a therapeutic effect. [If natural vitamin C and coconut oil can cure a skin condition and some inflamations, why would an educated mind seek a practioner for steroidal creams? If natural vitamin C from food sources can help the healing process through its antioxidant properties and the "spent" ascorbate radical is converted by the natural biochemistry into collagen or cysteine, why go for drugs that will yield hydrogen peroxide or toxic metabolites during their break down in the cells or liver? If a natural antiviral can help keep a disease at bay and improve quality of life, why go for a toxic cocktail of drugs that will suppress and later impair the immune system? Why ingest anything more toxic than alcohol when we know that the long term consumption of alcohol can lead to an increase in lipid peroxidation and liver problems? There is also a growing percentage of population who are realizing the importance of natural antioxidants in their antiaging role and know that drug toxicities can accelerate the aging process. Hence a radical change is required in treatment paradigms to societies who also demand the right to know of toxicities in medications and believe in the liberty to make informed decisions about their health and their bodies. The trends are emerging from within intelligent questions and the pharmaceutical companies that ignore the changing mental environment are at peril of some extent or other and this peril could lead them to become outmoded and end up in the corporate graveyard. After all, nobody actively looks for chemical toxicity except where an addiction is involved and the notion of getting well by toxic drugs is itself an antithesis in an educated mind. The innate preference is therefore to be willing to pay for restoration of health through non-toxic methods followed, in the second place by the option to have strongly toxic chemicals in their bodies with attendant side effects that can be reversed by clinical nutrition.](#)

Clinical nutrition is also fundamentally important to the practice of allopathic medicine because many drugs generate free radicals in the body or “block vital nutrient uptake according to a USDA financed study at the Human Nutritional Research Centre On Aging at Tufts University” and the longer and more toxic the drugs are the higher is the risk of nutritional side effects (see: Amazing Medicines The Drug Companies Don't Want You to Discover, 1993, p26). **Dr Earl Mindell's Vitamin Bible lists 64 prescriptions and non-prescription drugs that rob your body of vital nutrients, such as aspirin depletes vitamin C, B and folic acid; Cortisone and predisone deplete zinc; Laxatives and antacids deplete vitamin A, D, E & K and diuretics deplete potassium. This makes sound reasoning to teach and practice clinical nutrition and to be able to apply as part of a holistic approach in therapy.** Potassium, for instance can be replaced by eating bananas but it is not recommended for asthmatics.

Sharks seem to enjoy some kind of resistance to cancers. The shark skeleton is not made of bone but cartilage. Cartilage does not contain blood vessels. The rapid growth of tumors require that there be a matching supply of blood vessels. **A research team at Children's Hospital in Boston found that shark cartilage worked as an inhibitor and they discovered that a tumor will stop growing at one to two millimeters if it does not have a blood supply.** An MIT researcher, Dr. Robert Langner also reported the effectiveness of shark cartilage in laboratory animals in the Journal of Biological Response Modifiers. Dr G. Atassi of the Institute Jules Bordet in Belgium also arrived at the same results by oral administration of dried cartilage (see: Amazing Medicines The Drug Companies Don't Want You to Discover, 1993, p229). Dr Judah Folkman, at Harvard Medical School was also working on “his theory that if a tumor could be stopped from growing its own blood supply, it would wither and die” (NST, 17/01/2008) but he was developing drugs such as avastin. The lure of drugs lies in the monopoly created by the patents while natural substances may not be patented.

As early as 1922, Japanese researchers discovered that three natural substances produced in the liver, called alkyglycerols may prevent or slow down the progress of cancers. These biomolecules are found in breast milk and provide immuno-protection to newborns until their own immune systems develop. Research is needed to find out if coconut oil given to lactating mothers together with natural vitamin C and carrot juice actually improves this immuno-protective content in their breast milk and if the liver produces more of these biomolecules in healthy individuals and in cancer patients. A Swedish physician showed, in 1952, that children with leukemia responded with increased white cell counts when given bone marrow of newly slaughtered calves. Such bone marrow contains alkyglycerols. Later, Dr. Brohult found that patients with uterine or cervical cancer survived longer when given alkyglycerols. Alkyglycerols boost the immune system by increasing white blood cell production and alkyglycerols have been shown to slow white cell reduction caused by chemotherapy. Alkyglycerols can also inhibit tumor growth in laboratory studies. Liver oil from certain species of sharks can contain up to 90% of alkyglycerols (see: Amazing Medicines The Drug Companies Don't Want You to Discover, 1993, p225).

Yes, certainly there many advancements of science and experiments that have enabled researchers to look at alternative systems of medicine and to study the health benefits of alternative approaches in the science of treatments. A vaccine also, is for instance an alternative to toxic drugs. So, is surgical debulking of tumors. One oncology society in a third world country was so staunchly entrenched in favor of chemotherapy and against alternative systems and approaches, they went to the extent of stating a folly on their website that since there is no alternative engineering, there is also no alternative medicine. Is this a simple case of a blindspot in medical education or a primitive mindset that is without scientific temper? By the way, there are alternative feuls to fly and there are alternative systems and designs and materials to fly, as well as to build boats and houses. And there are alternative technologies to travel, too, as for instance by propellor planes or jet engines or airships or hot air balloons or ship or by submarine. So, is this case of a “chemotherapist will only promote chemotherapy?” If oncology is the multidisciplinary care of the cancer patient, such attitude can stifle research and call into question the scientific education of such practitioners. They can prevent development and research in therapeutic science as well as integrative medicine. It is such bunching of people in a field that can create the phenomenon of “stunted science”.

Education is not all about business interest or health and the incorporation of clinical nutrition in therapy. It certainly must espouse and inculcate a value system that nurtures equality of peoples and the understanding of the intricacies of ecology in which the human being can thrive and bring out his or her best in the service to God and His humanity and His creation that has evolved over the millions of years to produce the wealth of biodiversity and the interdependence of species. Of course, it must properly guide the development of a system of administration based on principles and precepts of justice that takes into account the convenience of the public for it is to serve their needs. The sacrosanct core of this sphere of thought is the rendering of knowledge to make available the capacity to make informed decisions and to make informed decisions about health and treatments, too. If by any law, a cancer patient is bound to be given toxic drugs, then the force of law has failed to serve humanity as it takes away the fundamental liberty to make an informed decision and it robs the individual to decide what is introduced into his body for his health and well being. The role of the state is the role of the provider of services and information and fund research into safer medicine and therapies and in a fully functional democracy the state remains subservient to that role and must enshrine the notion that above its constitution is the right to inform the patient of drug toxicities, so that it comes to rest on a higher pedestal than a fundamental liberty. Is there any human dignity in introducing toxic drugs without the patient making an informed decision or without his knowing of the toxicity? And to do that by force of law is to drive decadance into a medieval abyss going into the parallel of burning witches at the stake. As a matter of principle, the law can only be used to give force to an action that causes no harm. Anything short of that, in a civilized society, informed decision-making is its hallmark.

There are other issues of global impotance that threaten the very existence of humans on earth. One of them is the impact of the internal combustion engine. It competes for oxygen with us and releases toxic fumes and adds carbon to the atmosphere. Over time,

with the loss of green cover and decimation of our forests, we observed the disastrous consequences on climate change with megastorms, melting of the ice in the polar caps and the rising of sea water levels all of which are related to long wave radiation that imparts energy to the carbon bond in the carbon dioxide molecules. And as the number of these molecules increase in the atmosphere, the slight increases in temperature has put into motion the dynamics of global warming and the resultant changes in climate. Most politicians are not men of science and are not able to fathom the impact of elements of industry that will impact the dynamics of climate that in turn can cause loss in billions with attendant hardships for people as they remain more committed to economy and the industry bosses and are influenced by industry lobbyist instead of by digesting science. A blind spot in this phenomenon of global warming, the issue of rising temperatures, though critical, comes as a distraction to the need to understand the impact of the internal combustion engine and the burning of fossil fuels as they deplete oxygen from the atmosphere and to understand this rate of oxygen use. Earth has experienced serious fluctuations in the amount of oxygen in its atmosphere going from 14% to about 30% 300 million years ago to 40% during the time of the largest dinosaurs and then steadily declining to 21%. During the course of this decline, mammals emerged about 65 million years ago. As the decline continued the large bodied mammals dissappeared. In some cities this level is below 21%. But, we find green lungs dissappearing in cities as money flows under the table from developers to officers in the civil service.

The atmospheric oxygen content is an important issue and fortunately it can be addressed by reforestation in large scales in different parts of the world. Most people do not know that it is the plant life and the biodiversity that helps to replenish the oxygen by taking out carbon dioxide molecules from it. This bioregulation is of special importance to life on earth and is of critical importance to our existence on this planet. It must be incorporated into the education system in all schools so that it is understood and appreciated by everyone who can then play an active role in preserving the biodiversity we already have for our survival as a species.

Education as a process and its impact depends on the values and principles it successfully blends into personal development and qualified people who promote not the interest of the human being but rather its own business interest cannot be seen as part of human capital and it becomes part of decadence if business interest is promoted without regard to health and human dignity and human survival as a species that is an integral part of the natural biodiversity. And promoting an business interest by giving half-truths must be treated as a crime especially when dealing with toxic substances in health and industry.

Progress in human society is what we find in its civilization, not in the brick and mortar and personal incomes alone. Values, equality and fundamental liberties, though these may enshrined in the constitution, are above it and are not of any worth if they are not enshrined in human hearts and not expressed in human conduct and dealings. [When the education process fails to blend values and just principles into personal development, we breed a tragedy governed by greed that begins to drive the interest of the person delivering the service and it gives birth to decadence for then we will have to contend with a situation in which society produces rogues and education only makes one rogue](#)

cleverer than another. It all only points to one direct – the urgent and ethical need to research and develop the field of **NATURAL MEDICINE**.