SUBMISSION

to

THE NATIONAL RESEARCH PRIORITIES TASKFORCE

from

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RESTORING THE NATION'S HEALTH THROUGH SIMPLE PREVENTIVE DIET

and

A NATIONAL INSTITUTE OF <u>GOOD</u> HEALTH

(NOTE: I have ignored Stem Cells, since they are *not relevant to common diseases*.)

There is an urgent need to look beyond drug-focussed commercially-driven medical research (the Wills model), if we are ever to solve the *simple root causes* of common diseases which, once found, will finally *explain* Medicine's Great Mass of undigested and confused observations and lead to scientifically based preventive dietetic measures. The unthinking resort to drug discovery to treat diseases whose origins remain elusive, along with a bizarre belief in many causes and many possible drugs for each disease, shows that Medicine is truly up a tree. Either that, or it is the lowest rung on the ladder of science.

Medicine's mass of descriptive observations and measurements do not make a science, any more than a heap of bricks makes a palace. Description, as Julian Huxley once said, is only the beginning of science, which reaches its maturity only when general laws and conclusions are drawn, by grouping the facts and identifying simple patterns and unifying themes. This was the method of Newton and Darwin—gather the facts slowly, confirming these by experiment if possible; and "then, more warily, assert any explanatory hypotheses" (Newton).

Medicine's misfortune is that in scientific method it unwittingly follows the late Karl Popper, an opinionated Austrian philosopher who rejected the broad and powerful inductive approach of Darwin and Newton, in favour of fanciful guesswork that puts up an inductively weak hypothesis first, which experiment will then confirm or refute. Popper, no scientist himself, suffered a romantic fancy that imaginative guesswork drove scientists to discovery, when in fact it was the insightful grouping of many hard-won diamond-hard facts, not an exercise in dreaming, that led to Newton's Laws and Darwin's Theory of Evolution.

Medicine describes diseases well, but can't get to the root cause. Surgery is a Craft, that aims and cuts; Medicine is a Conspiracy, that prescribes and profits; but Nutrition is a Science, that explains and prevents disease. Medicine has many unexplained associations to deal with, such as stress and heart disease, or diabetes and depression, or robust physical health in Alzheimer's disease. So it is not yet a science, having found no explanatory principles, yet could be turned into one. The great Scottish GP-turned–London cardiologist Sir James Mackenzie held that for the understanding of disease, the simplification of medicine was necessary, predicting

that the many complex and difficult diseases he had seen were all produced in a few simple ways.

Here was Medicine's Newton, looking for a simplifying law, warning that in our search for the obscure and recondite, we are in danger of missing the simple and obvious. I wonder what Mackenzie would have made of Australia's National Health and Medical Research Council, which dissolved its Nutrition Standing Committee some years ago, thereby losing sight of the Simple and Obvious causes of disease.

The misnamed National "Health" and Medical Research Council (the NHMRC) researches neither health (eg. healthy centenarians) nor the dietetic causes and prevention of disease. Its equally toxic UK equivalent calls itself simply the Medical Research Council, discreetly leaving untreatable, profitless Health - the Eternal Enemy of Medicine - to those who obviously know more about it, like eaters of vegetables, hempen homespuns, strong-ale yokels and fisherfolk, fresh-air fanatics and other simple-minded do-it-yourselfers, all true believers in the Simple and Obvious.

It is true that the NHMRC has published the odd guide on healthy diet, but the relevant research was done overseas, to be reviewed by local nutrition experts called in to perform this delicate task. The Council's own researchers have no interest at all in diet, referring to anything not genetic as "environmental factors", which is presumably what they order for lunch. It is precisely the historic failure of medicals and the NHMRC to get the national diet healthy, that has created the current epidemic of common degenerative diseases, which biotech and research parasites see as an exciting opportunity to make money. They are in for a lesson.

Historically dominated by medicals untrained in scientific theory, a recent takeover of the NHMRC by medical technicians untrained in clinical medicine, nutrition, or formal scientific logic has led to an anti-intellectual commercializing drugdiscovery focus instead of cheap prevention i.e. an entrepreneurial conspiracy against Public Health, funded with Public Money. Young researchers are now urged to become knavish entrepreneurs and drug developers, instead of openminded, curiosity-driven Disease Detectives working in the public interest. An evil fate awaits them, a fate called Scientific Oblivion.

The NHMRC, already suffering medical complications, has now gone Commercial, and has clearly taken a turn for the worse. Should we perhaps rename it the National Drug and Medical Research Council, and dispense with Health entirely?

This market-driven drug frenzy will continue to foster, at great public expense, the sick national culture of dependency on Government and Medicals, with their Magic Pills and Quick Fixes. What happened to Health, and to honest research into the *causes* of disease, so all these experts with their snouts in the tax trough can reach a conclusion and tell us all *what to eat* so we can *avoid* the diseases they now hope to *profit* from, by drugging some Obscure Enzyme or Recondite Receptor? Who's on a nice little earner here?

This risky strategy of pills and profits, which if successful would bring power, dividends and prestige to the sworn enemies of nutrition and public health, is the logical result of the 1998 Wills Report proposing a "Virtuous Cycle" of collaboration between academia, government and industry, to discover new drugs and sell them to the public. A global consulting firm with links to US venture capital suggested this strategy, an obvious prescription for mediocrity, and a symptom of Medicine's moral and intellectual bankruptcy. Can't we think for ourselves what to do?

This Virtuous Cycle has rapidly become a Vicious Circle, corrupting medical academics, suppressing dissent and skepticism in universities, gobbling up precious Government dollars that could have funded nutrition education and Vegetable Vouchers, and rolling over the prostrated corpse of Public Health – Hygeia herself, dressed in her torn rags. Wills's Cycle has become a corrupting, gobbling, rolling Juggernaut, that has sold the dummy to an ignorant government, doubling the ill-gotten gains of a moribund medical outfit that has solved not one disease in its entire history, and never will.

The nation's peak funding body for medical research, then, is rapidly becoming an expensive and irrelevant piggybank, funding sheltered workshops for genetic dreamers and drug-fantasizers who sneer at nutrition and long for pin-striped suits, board positions and stock options.

The latest Medical Fashion, which is a lopsided addiction to Imaginary Genes to explain common nutritional diseases, threatens the advance of public health; a healthy person on a healthy diet is a living affront to these "*pretenders to science, who vainly and preposterously seek new remedies, practising the vilest imposture for lucre's sake, ignorant of the true causes of disease*" [Dr. William Gilbert, Royal Physician and Founder of the Royal Society].

Thus, medicine (the science of knowing all the answers without asking the questions) badly needs a dose of real science, but not of *pharmacology* (the science of dietetic ignorance), or *genetics* (the science of extracting research grants). *Nutrition* science needs to be put back on the menu. What can be done by government, assuming that government can indeed do something to teach the public what to eat, to avoid chronic disease?

The public health crisis in the overfed West, which sees huge increases in obesity, diabetes, depression etc., running exactly *in parallel* to the rising expenditure on medical services and drug-focussed research, can be solved only by diverting these wasted monies into securing Direct Health Outcomes, by means of diet. At the very least, a Quid-Pro-Quo programme would see a dollar lost to the NHMRC or biotech upstarts *matched* by a dollar to subsidize fruit and vegetable vouchers for the poor. Guess which dollar would get the best return?

On the research side, this country deserves a National Institute of *Good* Health, or a National Health and *Nutrition* Research Council (the NH<u>N</u>RC!), to undo the damage done by 66 years of medical influence on the NHMRC, which even discarded its nutrition committee some years ago, so losing all contact with reality. I see no future for this body of drug-crazed dreamers and lab technicians in its present form, unless it responds to the sting of competition and gets back on track.

So my suggested National Research Priority is a National Institute of *Good* Health, which would focus its research on 1) *dietary fatty acids* and 2) the mass production of a safe and effective dietary supplement for stress disorders (*inositol*, a simple carbohydrate molecule found in certain plant and animal foods).

- 1) The rationale for the research on *fatty acids* is based on the pioneering work of Oxford's Dr. Hugh Sinclair, in the 1950's and later. Common Western diseases (heart disease, diabetes, cancer etc.) are not genetic at all, according to his Essential Fatty Acid (EFA) Theory, but develop slowly in populations eating too much saturated (non-essential) fat and insufficient counterbalancing EFA. ie. a low polyunsaturate/saturate ratio is pathogenic throughout most organs and tissues. It now seems that Sinclair was right.
- 2) The public are now aware of two families of EFA, the Omega-3 "fish-oil" family and the more common Omega-6 "vegetable oil" family. EFA are all

polyunsaturated fatty acids, which cannot be made in the body, and which are vital components of every cell membrane in the body, also giving rise to active metabolites that regulate a wide variety of cellular functions, including numerous gene-regulating effects. Very few scientists, especially in Australian research labs, are aware of this potent effect of specific environmental factors on genetic function; *none* can see how fatty diet creates oxidation and free radicals, thereby driving cellular proliferation, inflammation and DNA mutations that underlie common cancers.

The relevance of these EFA to common diseases is that dietary disturbances in their intake (not DNA variations!) are the actual cause of such diseases. Two mechanisms are involved:-

1. EXCESSIVE SATURATED FAT CAUSES DISEASES IN ALL ORGANS

Firstly, *fatty diets* with low EFA intake (low poly/sat ratio) deplete cell membranes of EFA in all tissues, compromising membrane function and causing excessive formation of inflammatory lipid metabolites and soluble free radicals. From these fundamental disturbances flow a host of ill effects, in all organs, from foetus through to old age, leading directly to such common degenerative diseases as cardiovascular disease, maturity-onset diabetes, high blood pressure and cancer. These are the well-known high-fat chronic Western diseases studied by epidemiologists for many years, and here is the simple root cause, so easily avoided, which gives medicals and drug developers nightmares, should the secret get out to the taxpaying public, who are paying through their (chronically inflamed) noses for Medicare and medical research.

And it is not just this generation that gets these diseases by eating saturated fat; recent research shows a sinister effect of saturated fat consumption in pregnancy, which makes the same fatty diet even more dangerous to the offspring, due to the creation of *lifelong anxiety disorders* (chronic stress) in the children of such mothers. Many of these mothers are low down the social scale and have more children than healthier mothers, so creating a swelling and dependent underclass of anxiety-ridden, frequently unintelligent children, with poor dietary habits, a high risk of heart disease, obesity, alcoholism and drug abuse, smoking, depression and academic failure -- and the next generation of welfare mums is in their ranks.

Thus a calm mother, herself from a healthy low-fat pregnancy but eating a fatty diet herself, will develop heart disease, cancer or stroke fairly late in the lifespan, later still if protected by good fruit and vegetable intake. But the children from her highfat pregnancies will not be so lucky, because chronic anxiety severely aggravates the effects of a similar fatty diet, also driving the children to binge-eating, alcohol, tobacco, drugs or obsessive gambling.

The *intellect*, too, is often markedly reduced, unless the mother eats fruit and vegetables in the pregnancy. The vitamin C and folic acid ameliorate the oxidative brain damage induced by fatty pregnancy diet, which hits boys harder than girls.

Over half of all heart attacks cannot be predicted, even after grouping the usual risk factors of obesity, smoking, blood pressure, diabetes etc.. The missing factor is unrecognized stress, which also aggravates the risk of cancer and its outcome. This means that the anxious person is several times as likely to develop such diseases, including diabetes, even eating the same fatty diet and smoking the same number of cigarettes, as the calm person next door. Studies show that anxiety shortens life; most healthy aged persons and centenarians are calm, and may even eat some fat or smoke moderately. Long life begins in the womb, with the mother's diet.

This breakthrough in understanding the prenatal origins of stress enables us to limit its effects, by recommending a rigorous healthy low-fat diet to the very people least likely to accept the advice---comfort eaters, nervous smokers, relief drinkers, chocaholics and problem gamblers! A lucky few, if hounded into healthy habits by their dietitian or doctor, may live a long healthy life, but the anxiety will not go away, and may lead to heart failure or Parkinson's disease in old age.

And most anxious people will not heed the advice anyway, and will continue to binge-eat, drink, smoke and gamble, no matter what we do. Fatty diet alters brain membranes, impairing energy production, so adding *depression* to the underlying anxiety; the end result one day will be a depressed obese patient waiting in the diabetes outpatient clinic to see a diabetes specialist who believes in genes and drugs, and who may miss the anxiety and depression altogether. A heart attack is likely at any time, with a poor prognosis. What can be done?

Astonishingly, an answer to the problem has been found, in a simple carbohydrate molecule called *inositol*. This natural sugar-alcohol molecule, chemical name cyclohexane hexol, was once known as Nature's Valium, having calming effects and altering brainwaves in a manner similar to tranquillising drugs. A modern study of this old remedy, conducted at Beersheeba in Israel, shows it to be a safe and effective treatment for anxiety states. This is what healthy diet, although effective against weight gain and depression, cannot achieve on its own.

But put the two together, and the results are striking, with effects going far beyond the improved mental state; firstly, the inositol suppresses binge-eating, promoting satiety and rapid weight loss. This easy change to healthy diet puts Essential Fatty Acids into cell membranes and stops free radical damage. The inositol acts by locating in nerve membranes as a signalling phospholipid and boosting the action of key neurotransmitters in the brain (serotonin, noradrenaline and perhaps dopamine); not only are the anxiety and comfort eating relieved, but the overactive sympathetic nerves running out to the rest of the body are dampened down, relieving stress effects on the heart, intestines, muscles, immune system, and sexual function, and lowering pulse rate, blood pressure and blood sugar. Inositol has several specific antidiabetic actions on muscle, liver and pancreatic beta-cells, in addition to killing binge-eating.

Insulin itself employs inositol signaling pathways, so I predict that the future control of the *global diabetes epidemic* will hinge on inositol and low-fat diet. The rapid reversal of insulin resistance in stressed pre-diabetics given inositol shows as newfound muscular energy, as glucose replaces fatty acids in energy metabolism. Restoration of insulin action also means more *protein synthesis* in muscles of the limbs, trunk, chest and pelvic floor, thus preventing so-called "age-related" limb wasting, hernias, shortness of breath and leaky bladder and prolapse.

Prompt and dramatic relief of chronic stress-related mental and physical symptoms, without side-effects or drowsiness, comes as a great surprise to many patients, who have become so accustomed to loss of confidence, fibromyalgia, irritable bowel, muscular fatigue, impotence, obsessive behaviour, addictions to beer or nicotine or drugs, etc., that they could never imagine being calm and healthy, even to the point of not fretting over jobs left undone, or relaxing on the couch instead of obsessively cleaning the house!

These remarkable results have been achieved with a natural non-prescription supplement, combined with a low-fat Mediterranean diet supplying Omega-6 and Omega-3 fatty acids. This dietetic regime could be described as Cellular Membrane Therapy And Signal Transduction Enhancer, abbreviated to "CMTASTE", which has a useful nutritional flavour to it!

A National Institute of Good Health would research this simple non-medical solution to the inter-linked physical and mental disorders arising in high-fat populations, by conducting clinical trials, producing the inositol itself from cereal bran and legumes, and setting up a center to examine the biochemistry of inositol signalling pathways in brain, nerve, heart, viscera, muscle etc..

An early initiative would be to intervene in stressed and high-fat pregnancies, both to prevent anxiety in the foetus, and to treat and prevent antenatal and postnatal depression in the mother. The majority of such women are known to be anxious.

Such treatment would not only prevent anxiety in the newborn; it would also *preserve intelligence*, and a related project, of great significance to education, would attempt to actually elevate IQ postnatally in infants and children already likely to be anxious and backward, from our knowledge of the mother's history and diet.

Professor Fiona Stanley of Perth, who is more worried than anyone else in this country about child development – for good reasons – has found evidence that a simple improvement in diet can raise IQ in the infant and toddler age group. And vitamins and minerals have been shown to help IQ in some primary school studies, so inositol, which is heavily involved in *pre*natal (and probably *post*natal) brain development, may enable healthy diet to exert an even stronger IQ effect in the slowly developing human brain, up to about 10-12 years of age.

The children would also receive omega-3 and omega-6 supplements, especially in infancy, since these have already been shown to raise IQ by 5 points or so. The anxiety, obesity and low self-esteem would soon be behind these children, and they'll soon be fit enough to outrun the bullies; in fact, any residual obsessive drive would positively help these kids become high achievers in the classroom and on the playing fields. This is *the most exciting project imaginable* with inositol and diet, and would soon catch on in primary schools.

Adult projects would include a Country Heart Club 3D Project (Don't Drop Dead!), using inositol to stop heart disease in stressed people, through its effects on food and smoking addiction, on blood pressure and pulse rate, and specifically on *scary ECGs*, common in stressed and prediabetic patients, that presage sudden death through "QT prolongation". It is amusing to note that US stem cell pusher, Medical Catherine Versaillie from Minnesota, who graced, our shores recently, admitted some concern that stem cells placed in heart muscle areas might not "align" with the electrical conducting pathways, little realizing that out-of-synch recharging in the left ventricle is the exact electrical basis of sudden cardiac death! Three quarters of diabetics die from heart disease, and over half of the diabetic population suffer curable stress. God help them if they go to the Mayo Clinic and fall into her hands.

Other projects for adults would include stress incontinence, impaired sexual function (in *both* sexes), irritable bowel, asthma and allergies, chronic fatigue; prevention and treatment of cancer, blood pressure, stroke, dementia and Parkinson's; immune system enhancement and autoimmune disease control; drug, smoking and alcohol project for stressed people; stronger body and mind for ageing Australians etc., ---in fact the whole range of well-recognised "psychosomatic" ailments that psychomedicals recognize but can't explain, let alone prevent or treat.

The combined regime of diet plus inositol should gradually wipe out numerous intractable and expensive health problems seen through the lifespan in stressed people, from diabetes, cholesterol, asthma, fatigue states, obesity and addictive behaviours, through to hypertension, heart failure, vascular dementia, aggravated

cancers, and Parkinson's disease. Roughly 25% of Australians suffer from significant stress, and will need lifelong therapy. They will then live the longer life that calm people already enjoy, and be as productive and independent in their later years, still working and paying tax! Inositol production would need to be upgraded on a large scale, to 10,000 tonnes a year, in order to give 6 gm of powder a day to each sufferer. That is worth \$2,500,000,000 a year at current prices, and then there's the export market to consider, to countries where lots of meat fat and dairy fat and solidified oils have been eaten in pregnancy over the last 80 years.

2. REFINED VEGETABLE OILS CAUSE TWO SPECIAL BRAIN DISEASES

In contrast to saturated fat, which disturbs cell membrane structure in all tissues and organs, causing a wide variety of mutually associated diseases, including proneness to infection, polyunsaturated vegetable oils are rich sources of Omega-6 Essential fatty Acids, which we all know prevent heart disease etc., and surely no disease could possibly come about from their use?

But it is precisely the good reputation of quality soft margarines and oils that provides such false reassurance. The catch is that seed-oils are indeed rich, concentrated sources of EFA, and so must include an equally rich, concentrated supply of vitamin E. This is not guaranteed in processed oils, which in fact lose about a third of their natural vitamin E during steam-refining. Margarines have enough vitamin E to balance the reduced level of polyunsaturated fatty acids resulting from the hardening of some of the polys to form saturates, to make the margarine solid and spreadable, not liquid and runny. So the essential fatty acids in margarines are usually adequately protected by the vitamin E present.

So it's the *oils*, like canola, sunflower, cottonseed, grapeseed etc., that present the curious problem of being extremely effective against heart disease, diabetes and cancer etc., and yet something is bound to go wrong if a third of the polyunsaturates you eat are coming in unprotected against internal oxidation, for lack of vitamin E. The clue to working out the consequences of this deficiency is that oxidation will certainly occur somewhere, but it will depend on which organ or tissue has the highest local membrane concentrations of oxidisable EFA.

Those tissues are the *brain and retina*, which have dense membrane clusters of vulnerable long-chain EFA, of both Omega families, and the resulting membrane oxidation in those tissues causes two, and only two, distinctive diseases, which are of recent historical origin, dating from the introduction of edible oil refining in 1920. The diseases are Alzheimer's disease and Attention Deficit/Hyperactivity Disorder.

ADHD, like anxiety, requires *prenatal* exposure to the causative agent in the mother's diet, but the result is a fearless, dreamy, hyperactive child, often aggressive and dyslexic, in every way opposite to anxious; and the IQ is preserved, unlike in many anxious children. Later consequences include drug abuse, antisocial behaviour, school dropout, bulimia and youth depression. This is an epidemic.

Prevention of ADHD and Alzheimer's is as simple as the cause; add vitamin E to the oil in manufacture, or take a small weekly supplement to protect the brain. Adults at risk of getting Alzheimer's are easily detected by asking about diet, and by looking for the 4 trademark symptoms of brain and retinal burnout:- memory problems, irritability, glare sensitivity and night-blindness. The urine contains peroxidised brain fatty acid products (F2 isoprostanes). A switch to olive oil or cold-pressed health shop oil soon clears the brain, but the visual symptoms are irreversible. Early Alzheimer's in older persons, say over 55-60, should stop with

vitamin E, provided that Omega-3 EFA are also given (fishoil capsules, walnuts, flax oil). Earlier intervention will be more likely to succeed, before it gets too late.

A National Institute of Good Health would not waste much time on such a simple problem, but would urge oil manufacturers to adopt new refining techniques that preserve the vitamin E better.

A spin-off from Alzheimer's is a possible new cancer therapy, well worth researching, which would attempt to kill cancer cells by giving them hyperacute Alzheimer's disease, by oxidizing the cancer cell membrane in exactly the same way that refined vegetable oil oxidizes nerve cells, releasing toxic broken-down EFA fragments (aldehydes) into the cell interior. The treatment, which might cause transient memory impairment as the only side-effect, would consist of administering intravenous long-chain fishoil and primrose oil EFA, with no vitamin E protection. This may work well together with patient-friendly hyperthermia, and reduce the need for more toxic and expensive chemotherapy and irradiation, thus saving the need for bone-marrow revival with Colony-Stimulating Factors, much to the annoyance of those who presently devise and profit from such desperate remedies.

CONCLUSION

The obvious failure of Modern Medicine, which in principle remains unrepentantly Mediaeval in its use of handy empirics and fiendish chemicals to treat the endstages of easily prevented diseases of *nutritional* origin, demands an urgent response from the public.

Taxes currently flowing into the bulging coffers of the NHMRC and biotech upstarts with half-baked hypotheses and amateurish genetic theories of disease would be better spent on Direct Health Outcomes, namely fruit and vegetable vouchers for those who need them most and can't afford them.

Any money left over would be well spent on a National Institute of Good Health, with branches (Health Institutes) in all towns and suburbs, to be staffed by nurses, midwives and dietitians. Our logo will read:- No Drugs. No Herbs. Let Food Be Your Medicine. Local subscriptions would cover salaries, and spare cash would go into a Healthicare insurance scheme, designed to compete with and replace Medicare. The Institutes would put health back into the people's own hands, which Government and Medicals have shown they cannot and will not do, because of an idiotic belief in drugs, bureaucracy and the new South Sea Bubble of Biomediocrity.

We are looking here at restoring to health every age group, from developing baby to elderly citizen, in every conceivable way both mentally and physically. The gigantic savings on medical care and drugs, on disability pensions, nursing homes and government services and "health" bureaucracies will leave plenty of money for salinity control, efficient irrigation, horticulture, fast trains, olive trees and education. *A dollar saved is a dollar earned*. This will make a mockery of the popular idiocy that sees national *profit* coming out of drug and medical biotech investment, which can only be a *drain* on the public purse—a Bio-BlackHole; is doomed anyway (through ignorance of disease causation); and could only thrive *by starving Public Health and letting Her go about in rags*.

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