

**The Gawler Foundation  
Profound Healing, Sustainable Wellbeing  
Conference 2013**

# **Missed Opportunities in Cancer Prevention and Treatment**

**Dr Carole Hungerford,  
BA MBBS FACNEM**

# Our Place in the Food Chain

- Algae, fungi, “germs”, viruses and bacteria are at the bottom of the food chain
- Note what they share in common: features such as selenium dependent enzyme systems, production of essential fatty acids, including the omega-3s-all exist at the bottom of the food chain

# Quote

- “.....Nature isn't benign.....The survival of the human species is not a pre-ordained evolutionary program....genetic variation exist[s]....not necessarily confined to what happens routinely, or even frequently....It is, I think, worthwhile being conscious of the limits of our powers.....We are caught in the food chain, whether we like it or not, eating and being eaten..” - *The Coming Plague* Laurie Garrett

# Where do we start?

- Finding the “Silver bullet” to cure cancer?
- Or is this the wrong approach.
- “despite the \$US20 billion spent since Nixon launched his war [on cancer] in 1971, there has been little, if any, improvements in the treatment or survival rate for most common cancers: 'The cancer establishment remains myopically fixated on damage control-diagnosis and treatment- and basic genetic research, with, not always benign indifference to cancer prevention....

# [cont.]

- Of the 1976 cancer research budget of \$US 51.4 million, just \$US1 million was spent on research into carcinogens...”
- Prof. Sam Epstein *The Politics of Cancer revisited*.
- Alternatives?
- I await Prof. Avni Sali's talk with keen anticipation

# The Oncologists?

“Risk factors for breast cancer are various. See table 2. *[Does not include diet, supplements or chemical exposure]*. The best approach for reducing its incidence is still early detection [!!!] , rather than trying to prevent the disease....”

*Prof. John Boyages -executive director  
Westmead Breast Cancer Institute M.O  
23.10.09 p.22*

# Question

- Does this reassure you that your wives' and daughters' breasts are in good hands?
- Have I missed something about the meaning of the word “incidence”?

# What about our Soils?

- Soil health: Primarily talking about topsoil
- We are an ancient continent. Much of our topsoil has been lost to erosion
- Trees and bushes hold topsoils together
- Desertification since arrival of Europeans
- Now one tree standing for every 10 when Cook arrived
- Compare to Aboriginal land management. Read *The Biggest Estate on Earth*, Bill Gammage



# Gut bacteria

- Constitute a significant percentage of our immune system. Known anti-cancer effect on colonic cells [Stipanuk *Human Nutrition* p. 108]
- Maintain hormone balance. Abnormal bugs contribute to PCOs, infertility and hormone dependent cancers
- But what are we doing to our gut bacteria?
- Antibiotics, chlorine, feeding them sugar

# GMO?

- “To my knowledge, they have demonstrated that you can get GM plant DNA in the gut bacteria. Everyone used to deny that this was possible” Dr Michael Antonio: King’s College Medical School London
- Translates into us having GM Immune system

# Cancer-think minerals

- Selenium
- Iodine
- Zinc
- Magnesium
- Molybdenum
- ?Germanium

# The Angelina Gene

- Selenium protects BRCA 1-2 genes
- Selenium status not assessed in most oncology clinics when advising about mutilation surgery. Why not?

[Ref.]

Increased Rates of Chromosome Breakage in BRCA1 Carriers  
Are Normalized by Oral Selenium Supplementation

<http://cebp.aacrjournals.org/content/14/5/1302.full>

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3108170/>

# Missing in action: Iodine

- 59% of year 4 students in NSW are iodine deplete: [Dr. Mu Li Univ. Syd. MJA Feb. 06]
- Iodine deficiency is known to cause fibrocystic breast lesions in rats
- Fibrocystic breast disease now acknowledged as pre-malignant
- Iodine deficiency linked to breast and ovarian cysts, BPH, and the associated organ malignancies
- Iodine so important-further research indicated.  
<http://www.helpmythyroid.com>
- Key names: Dr. Guy Abraham, Dr. Jorge Flechas, Dr. James Howenstine, Dr. David Brownstein –iodine deficiency

# Missing in Action Mg and Zinc

- Zinc is essential for genomic stability
- Which means that the integrity of DNA is dependent on it = preventing cells becoming malignant
- “Zinc fingers” have been known for over a decade
- Magnesium has a role in 300 biochemical reactions in the body. Several scholarly articles relating to its actions in preventing cancers such as colon ca..

# Are you getting enough of these minerals?

- Australia soils notoriously low in zinc and selenium. [Brazil nuts just might not do it]
- Ask your doctor to measure your **plasma** zinc
- Should be > 14. [And copper, [**serum**], should be >20. ]
- Cost around \$50. Medicare won't pay. Female cancers often linked to Zn/Cu imbalance

# Cancer -think Vitamins

- Vitamin D!!!! Don't get me started!

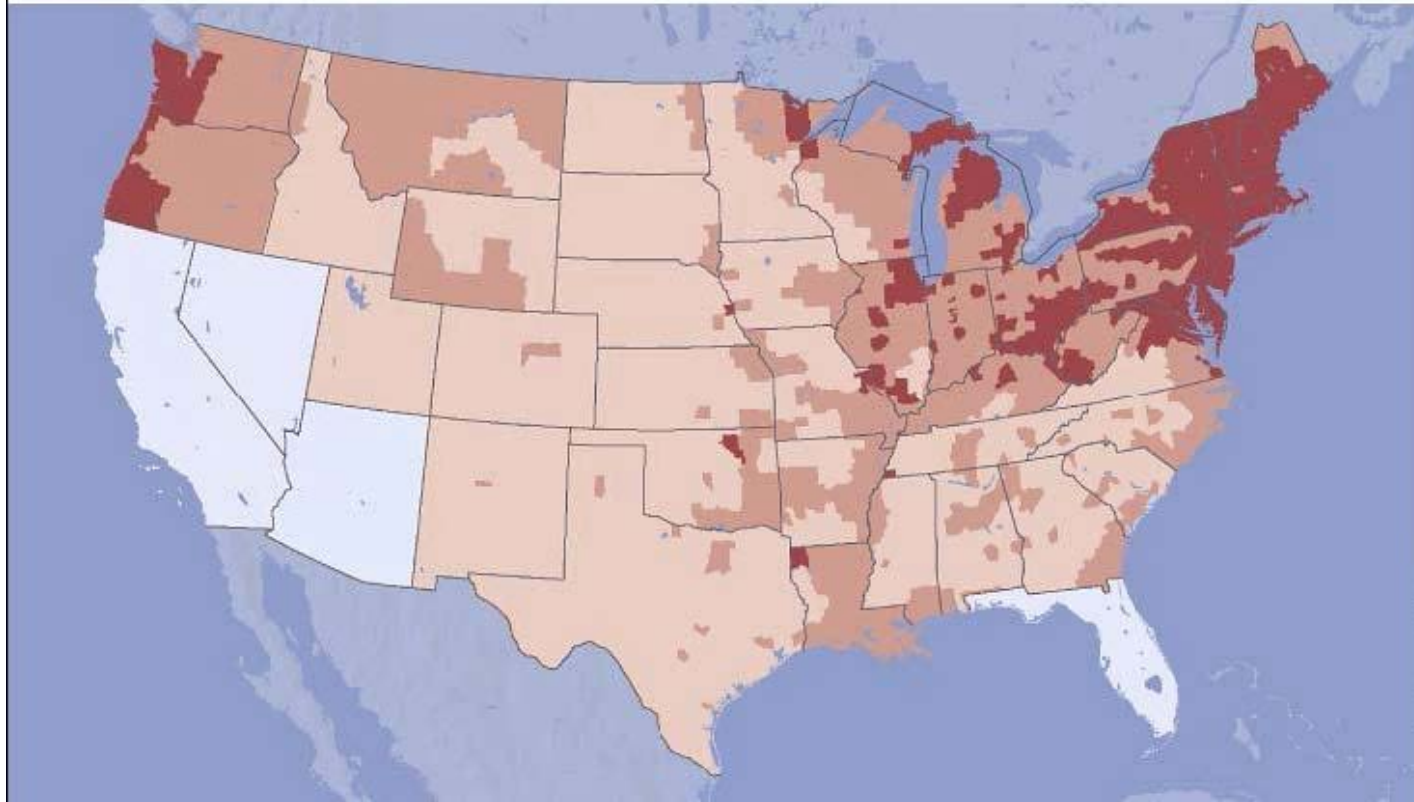


# Missing in Action: Vitamin D: [and “slip.slap.slop”]

## CANCER TAKES ITS TOLL

Counties that are further north or more urbanised tend to have higher death rates from cancer (figures given for white females, 1970-1994)

● High ● Medium ● Low ● Excluded from analysis



SOURCE: US NATIONAL CANCER INSTITUTE

# Quote

- “... we evolved over a very long period of time to be running around naked in the plains of Africa and... I have a feeling we can tolerate lots of Vit D ...and if you were to lie out naked... you'd be making about 15,000 units of vitamin D, so all this worry about taking 2,000 or 4,000 units a day seems misplaced to me
- Ref George Ebers  
[www.abc.net.au/rn/healthreport](http://www.abc.net.au/rn/healthreport) 22.06.09

# The Bad Guys

- How safe are our “safe” chemicals?
- 20% higher rate of prostate cancer in the bush
- Parkinson’s disease and Autistic Spectrum Disorders positively correlated with exposure to agricultural chemicals

# POPs and PAHs

- Persistent organic pollutants
- Polycyclic aromatic hydrocarbons
- Stockholm Convention and Treaty completed May 2001. Names the “Dirty Dozen”
- In Australia its about “phasing out” we were still using endosulfan in 2010

# Endocrine disruptors

- POPs are also known as “gender benders”. Mostly derived from two sources:
  1. Hydrocarbons, plastics and petroleum products. This includes perfumes nailpolish and most cosmetics
  2. Pesticides, herbicides and organochlorines.

# The agouti gene



# Example –the agouti gene



# Agouti effects

- The agouti gene is well known for fur colour
- It also carries with it increased risks of obesity, diabetes, cancer and reduced longevity
- Did Mother Nature stuff up here?
- Or is the problems epigenetic?



# Agouti effects

- The agouti gene is well known for fur colour
- It also carries with it increased risks of obesity, diabetes, cancer and reduced longevity
- Did Mother Nature stuff up here?
- Or is the problems epigenetic?

# Agouti mice

- Pregnant mice were supplemented with folate, choline, betaine, B12, zinc and methionine [selenium]
- Coats of the offspring became browner and animals thinner in the supplemented mice
- Supplements of zinc and [selenium] methionine gave offspring obesity, diabetes and cancer resistance

# Pollutants: pesticides

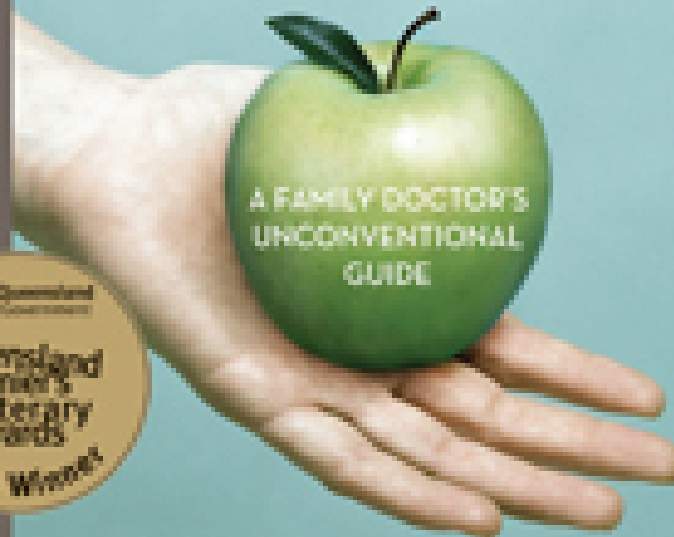
- Vinclozin – viticulture fungicide blocks male hormones
- Methoxychlor - pesticide with oestrogenic activity
- **No** DNA damage. Epigenetic impact suspected. Reduction of fertility apparent 4 generations [of rats] later
- One in ten of all Australian couples now using assisted reproduction

"Explains what we all want to know: why we get sick, how we stay well. No snake oil, just good science and good sense."

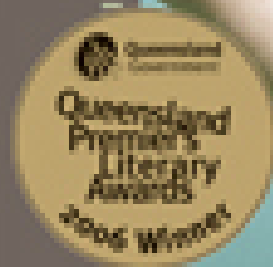
KATE GREENVILLE

REVISED EDITION

# GOOD HEALTH IN THE 21ST CENTURY



A FAMILY DOCTOR'S  
UNCONVENTIONAL  
GUIDE



Dr CAROLE HUNGERFORD