

## IN THIS ISSUE:

- 1 CEO Message
- ISM POINT OF VIEW: When Guidelines become Medical 'Law'
- 5. The Importance of Digestive Disorders, Gut Repair and Immune System Strength

# " If you don't take care of your body, where are you going to live? "

At times in life "where we live" becomes uncomfortable. Anxiety, illness and pain can shift our reality and shake us to the core. Our health is always important but only when there is a crisis, is it truly realized as the gift it is.

Over the past two decades, ISM has been a part of the lives of thousands of people, many who were facing extreme health issues. We are grateful to have been able to help so many of them manage or resolve their challenges.

#### Bill-ISM

- Building the Perfect Protein Smoothie
- NATURAL PERSPECTIVES: Cardiovascular issues -Is it okay to eat eggs and cheese?"
- ISM's SCIENCE CORNER: Genistein Core Scientific Information



ISM is committed to continue supporting the health of body, mind and spirit so that each of you can be as healthy as possible. To Life!

Kathryn O'Neill, CEO

## ISM POINT OF VIEW: When Guidelines become Medical 'Law'

In recent years we have seen an increasing number of new medical guidelines being proposed that potentially interfere with the best practice of health care. These guidelines are developed by various parties with vested interests and then concomitantly become "medical law".

Some examples include extending the use of statins for blood pressure support, or expanding the use of antidepressants so that over 30% of the North American population (including children!) are eligible for antidepressant medication. They include overly tight control of diabetes and "prediabetes", overly tight control of hypertension, hormone replacement for all post-menopausal women, over-scheduled and ineffective mammogram screening, and the universal use of vaccines. In each of these situations, medical guidelines have led to significant unintended consequences. **Certainly, many medical issues absolutely deserve and need tight guidelines**,



but other issues are more complex, and trying to impose rigid rules on those issues has been and will continue to be a mistake.

Too many believe that we can define excellent medical decision-making. They want to compare patients with machines or a math equation. They want to believe that we can write rules in the form:

# IF medical diagnostic (e.g. blood pressure) > a number, THEN you should prescribe "our drug".

Sorry, but medical decision-making is very complex. People have distinct problems with many variables, and one size does not fit all. Healthcare issues deserve multiple opinions – multiple conventional and alternative approaches. We must allow and encourage professional disagreement and differing expert opinion, not condemn it.

Healthcare decision-making is often as much art as science! Many variables need to be considered before treatment recommendations are made, and this becomes even more complex when we inject individual patient preferences and values into the equation. Even when the data is clear on a health issue (which it rarely is), if we make rigid guidelines and force physicians to adhere to overly strict rules, patient preferences and optimal health are at risk of being ignored.

That's not good medical care.

## The Importance of Digestive Disorders, Gut Repair and Immune System Strength

#### Carolyn Mercer, B.Sc., N.D.



As a Naturopathic Doctor, I have found that digestive health is critical in helping to regulate inflammatory conditions such as

arthritis, digestive disorders such as Crohn's disease or Irritable Bowel Syndrome, and immune conditions triggering autoimmunity or imbalances of bacteria in the body. Digestive disorders will likely impede the absorption of critical micronutrients and protein that are so essential in maintaining a strong immune system and for general metabolic health. The health of our digestive tract is a lot like a garden and we need to maintain the proper environment for it to operate correctly. There are good bacteria that live along the lining of the gut walls. If there is an imbalance caused by inflammatory foods, lack of digestive enzymes or emotional stressors, all of which can impair our immune system, this creates further imbalance. Inflammation results in increased production of a hormone called cortisol. Long term, eating inflammatory foods and increased cortisol changes the pH of our digestive tract creating a more acidic environment. A more acidic environment creates a situation in which chronic bacterial or fungi will thrive, impairing the immune

system. Continuing to eat inflammatory foods damages the lining of the digestive tract resulting in further damage. Normally the lining of the digestive tract is covered with 'MALT' tissue or Mucosal Associated Lymphoid Tissue. The tissue helps to regulate immune health throughout the body; this is one reason why healing the lining of the digestive tract is helpful in regulating autoimmunity. With enough damage to the lining of the gut, this creates a porous gut lining which allows undigested food particles and bad bacteria or fungi to be absorbed into the blood stream. The body may potentially identify these as foreign antigens which can potentially aggravate autoimmune conditions. Over time more of the MALT tissue is destroyed when more of the lining is destroyed and the body's immune defenses become further impaired. This is when we step in with a process to help

mmune System Management



repair the body's digestive processes; this is referred to as the **"Four R's of Gut Repair".** 

(1) **REMOVE:** First, we want to "**Remove**" any offending foods that are potentially causing any inflammatory reactions. I generally recommend that clients follow an elimination diet or complete food sensitivity testing. Food sensitivity testing is different from food allergy testing. Most testing with a traditional allergist identifies foods or items that are causing an immediate, severe, inflammatory reaction. The food sensitivity testing identifies foods that may have a milder, delayed inflammatory reaction\*. By identifying offending foods, the client is educated about what foods to avoid; by avoiding these foods, the inflammatory load on the body is reduced. The release of cortisol is decreased, creating a more alkaline environment more conducive to gut healing.

(2) **REPLACE:** Second, we want to **"Replace"** any enzymes in the system that might not be doing the job of breaking down the foods we are ingesting. In some cases, there may be an underproduction of stomach acid; perhaps a congested liver is blocking the release of enzymes into the body to break down foods successfully, resulting in gas and bloating. Determining whether there are foods that are not being broken down correctly is important because if this issue can be rectified it eases the digestive process resulting in decreased bloating, decreased acidity and a more alkaline environment.

(3) RE-INOCULATE: Third, we want to "Re-inoculate" the good bacteria that should



thrive in the digestive tract. As mentioned previously, offending foods create an acidic environment which causes a die-off of the good bacteria that should live along the lining of the digestive tract, allowing for optimal function. By helping to boost the level of good bacteria in the system using a probiotic, we are aiding in creating a more balanced alkaline environment which allows the digestive processes to function more optimally. Oftentimes, over extended periods of time where food intolerances are developed, there is an overgrowth of bad bacteria or yeast in the system, so giving a probiotic helps to jumpstart the healing process and bring our body back into a state of homeostasis.

## (4) REPAIR: Finally, we want to "Repair"

the lining of the gut wall; certain amino acids, herbs and micronutrients can help with this process. With severe conditions such as Irritable Bowel Syndrome or Crohn's disease, there is often damage to the gut lining caused by offending foods. This can cause absorption of bacteria, yeast or undigested foods. The body may identify these substances as foreign antigens which can potentially aggravate autoimmune issues, causing more systemic problems such as arthritis or fibromyalgia. By helping



\*Contact ISM for further information on food sensitivity testing and associated costs

#### About Dr Carolyn Mercer

Dr. Carolyn graduated from Wilfrid Laurier University with a Bachelor of Science, studying biology and psychology. At this time she developed an interest in evidence-based research. Since attending the Canadian College of Naturopathic Medicine, she has integrated her past research-based education with a more holistic avenue of healing. As a Naturopathic Doctor, Dr. Carolyn was trained in several modalities of alternative health including nutrition, botanical medicine, Chinese medicine and acupuncture, homeopathy, bodywork and lifestyle counselling.

With Carolyn's forward-thinking, preventative approach towards health, she believes that no matter what the level of health of the individual, there are always ways to improve the quality of our lives each and every day. Special interests include weight loss, nutrition and exercise, detoxication, fatigue, gastrointestinal health and allergies, mental health and wellness, and infertility



" Anything's possible if we can think it "

~ Bill O'Neill







## **Building the Perfect Protein Smoothie**

ISM encourages, where possible, taking your ISM Pro-Custom protein therapeutic in a smoothie. There are several reasons for this. First, ISM uses highly bioavailable, pharmaceutical quality components. We customise your formula to meet YOUR needs, which may involve 30-50 compounds. We use minimum amounts of natural sweeteners and completely avoid any synthetic sweetening or flavouring. An already damaged immune system does not need additional stress from low quality materials or carcinogenic sweeteners. Our concern is improving your health - not making a delectable 'milk shake'. Of course, in some situations, this can have the 'Buckley's Cough Syrup Effect" - "It tastes awful. And it works." A smoothie can help mask any

flavouring issue (as can mixing your custom with yoghurt, natural puddings, even in your mashed potatoes!)

Second, a good smoothie will also contain some fibre and oils. These will assist your digestive tract in fully absorbing the nutrients. Oils are essential in protein absorption. Fruit can add fibre and antioxidants.

Third, if you are undergoing intense medical treatments your body will be in a state of trauma and will need both calories and extra nutrition. So often, during chemo, radiation or surgery your appetite will also be 'zapped'. This is where a delicious, nutrient-dense, easy-toconsume smoothie can greatly accelerate your recovery and give you increased energy.



### How to build the perfect smoothie

To take advantage of the many benefits listed above, ISM suggests five components for your smoothie:

- 1 ISM Pro-Custom protein therapeutic
- 2. A sugar-free fat source: one tbsp of coconut oil, chopped nuts or natural nut butter
- A non-psyllium fibre: one tbsp chia seeds, ground flaxseed or preferred fibre
- A low glycemic fruit: 1/2 1 cup berries or banana
- A liquid: water, unsweetened almond milk, or organic Greek yogurt (Greek yogurt supplies about 15-20 g of protein in just 6 ounces)

For variety and added benefits, try adding one of these to change up your daily smoothie: greens powder, cinnamon, peanut butter or unsweetened cocoa powder.

## Get Started Now! Kiwi Smoothie (1 serving)

ISM Pro-Custom protein therapeutic (per your specific dosage)

2 kiwifruit, peeled and cut into chunks
1 medium ripe banana
1/4 cup frozen blueberries
1/2 cup (4 ounces) Greek yogurt
1 tablespoon organic honey (or to taste)

**1/2 cup** almond milk or **1/4 teaspoon** almond extract, *optional* 

**Directions:** Throw it all in a blender and blend! That wasn't so hard was it?

### **Smoothie Tips:**

- Use organic foods where possible
- To get the most flavour and nutrients into your smoothies, don't take up space with ice. Instead use frozen fruit or portion out your own fruit and keep them in the freezer for instant access.
- Make sure to clean and peel ingredients before blending.
- Use frozen fruit if fresh fruit is not available.
- If you have a sore mouth, avoid fruits containing small seeds (like strawberries or raspberries), nuts or flax, and juices that are acidic (like orange or pineapple). Never use grapefruit juice – it can interfere with your medications.
- If you don't have a sore mouth, try adding: flax seeds, sesame seeds, sunflower seeds, pumpkin seeds, oatmeal, oat bran, wheat germ, melon seeds (these won't affect the flavour of your drink).
- Bananas are a good way to sweeten up smoothies.
- If it is too sweet, add lemon juice (about 1 tsp at a time till desired taste) or cranberries
- Blend smoothie into desired consistency by adding more or less liquid.
- · For a creamier taste, add yogurt.
- Drink right away. Smoothies tend to separate after 20 minutes.
- If you do not have a blender you can use a hand-held blender. Make sure the ingredients are chopped into small pieces, and lift the blender up and down while blending the smoothie.



# NATURAL PERSPECTIVES: Cardiovascular issues – Is it okay to eat eggs and cheese?

Daily, ISM clients ask for our input on everything from treatment options to nutritional choices. This column focuses on issues we believe to be relevant to many of you.

mmune System Management

**Q:** "I have cardiovascular issues and high cholesterol readings. Is it okay to eat eggs and cheese?"

A: Yes. Enjoy them in moderation.

Most of us grew up being told that foods like red meat, eggs and bacon raise our cholesterol levels. This idea is so deeply ingrained in our cultural psyche that few people even question it. But is it really true? ISM's position is that eating cholesterol and saturated fat does not increase cholesterol levels in the blood for most people.

The diet-heart hypothesis—which holds that eating cholesterol and saturated fat raises cholesterol

in our blood—originated with studies in both animals and humans more than half a century ago. However, more recent (and higher quality) evidence doesn't support it.

Eggs have been demonized because of their high cholesterol content. A single egg contains around 210mg of dietary cholesterol, which is more than two-thirds of the 300mg daily limit recommended by the Heart Association. You need to view this recommendation as an average daily limit. These older guidelines would still allow you to eat one or two eggbased dishes a week, or to eat one egg a day.

However, the jury is still out on whether there is a direct link between dietary cholesterol, which is found in the foods we eat, and blood cholesterol, which is manufactured by the body. Many factors affect our blood cholesterol levels, including family history, diet, age and exercise. In terms of



www.aminomics.com



diet, there is evidence to suggest that our intake of saturated fats and trans fats have a greater impact on blood cholesterol levels. Eggs are NOT high in trans fat.

mmune System Management

On any given day, we have between 1,100 and 1,700 milligrams of cholesterol in our body. 25% of that comes from our diet, and 75% is produced inside of our bodies by the liver. Much of the cholesterol that's found in food cannot be absorbed by our bodies, and most of the cholesterol in our gut was first synthesized in body cells and ended up in the gut via the liver and gall bladder. The body tightly regulates the amount of cholesterol in the blood by controlling internal production; when cholesterol intake in the diet goes down, the body makes more. When cholesterol intake in the diet goes up, the body makes less. This explains why welldesigned cholesterol feeding studies show that dietary cholesterol has very little impact on blood cholesterol levels in about 75% of the population. The remaining 25% of the population are referred to as "hyper-responders". In this group, dietary cholesterol does modestly increase both LDL ("bad cholesterol") and HDL ("good cholesterol"), but it does not affect the ratio of LDL to HDL or increase the risk of heart disease.

Eggs are a good source of protein and contain more than a dozen vitamins and minerals, including iron, zinc, folate, phosphorous, riboflavin, vitamins A, D, E and B-12. They pack quite a nutritional punch for only 70 calories each. You can also buy eggs with extra mega-3 fatty acids, which reduce the risk of heart disease. These enriched eggs provide the same amount of heart-healthy omega-3 fatty acids as a 3-ounce serving of oily fish such as salmon. **So yes, enjoy** eggs in moderation.

Likewise for cheese. Cheese is a good source of calcium and protein, and should not be excluded from the typical diet. According to a study published in the American Journal of Clinical Nutrition, people who ate daily servings of cheese for six-week intervals did not have higher LDL than when they ate a normal diet. Why? Cheese has a lot of calcium, which has been shown to increase the amount of fat excreted by the digestive tract. Other possible explanations involve the large amount of protein in cheese and its fermentation process, both of which could affect the way it's digested.

Danish scientists found that when men ate a whopping 10 daily 1-ounce servings of fullfat cheese for three weeks, their LDL (bad) cholesterol didn't budge. Which isn't to say you should live on the stuff—just that you don't need to fear it.

#### What about saturated fats?

Saturated fat has been demonized ever since Ancel Keys's landmark study over four decades ago. This concluded that a correlation existed between the incidence of coronary heart disease and total cholesterol concentrations, which then correlated with the proportion of energy provided by saturated fat. But correlation is not causation. Nevertheless, we were advised to cut fat intake to 30% of total energy and saturated fat to 10%. Scientific evidence shows that this advice has, paradoxically, increased our cardiovascular risks. Furthermore, the government's obsession with levels of total cholesterol, which has led to the



overmedication of millions of people with statins, has diverted our attention from the more shocking pharmaceutical risk factors. A recent study in the British Medical Journal indicates that longmaligned saturated fats actually have little impact on your risk of heart disease and stroke and could even protect against these conditions.

mmune System Management

Longer-term studies have shown no association between saturated fat intake and blood cholesterol levels. In fact, of all the long-term studies examining this issue, only one showed an association between saturated fat intake and cholesterol levels, and even that association was weak.

In a 2004 editorial in the Journal of American College of Cardiology, Sylvan Lee Weinberg, former president of the American College of Cardiology and outspoken opponent of the diet-heart hypothesis, said: *"The low-fat, highcarbohydrate diet... may well have played an unintended role in the current epidemics of obesity, lipid abnormalities, type 2 diabetes, and metabolic syndromes. This diet can no longer be defended."*  One thing that's often overlooked with saturated fats is the role of palmitic acid. Excessive palmitic acid has been shown to cause inflammation, increase insulin resistance, kill pancreatic beta cells responsible for the production of insulin, and neutralize leptin – the hormone that signals the brain to tell you when you're full. And the key point is this – when you overeat, the excess carbohydrates in your body get converted through lipogenesis into palmitic acid in your blood, which has the same effect as dietary palmitic acid essentially giving you multiple negative effects; and that's the main reason why fast food is so bad for you.

So, eat sensibly. Keep your foods varied. Keep your foods balanced. And enjoy your eggs and cheese – in moderation of course!

- 1 BMJ 2013; 347 (Published 22 October 2013) The Diet-Heart Myth: Cholesterol and Saturated Fat Are Not the Enemy by Chris Kresser
- 2. Dietary cholesterol and coronary artery disease: a systematic review. Curr Atheroscler
- 3. Rep. 2009 Nov;11(6):418-22.



Subscribe to our Newsletter Please fill out the form, and you will be added to our mailing list.

First Name:	
Last Name:	
Email Address:	





## ISM's SCIENCE CORNER: Use of the Flavonoids, Genistein and EpiGalloCatechin Gallate (EGCG), in ISM's Aminomics Functional Therapies (abstract)

by Marian Laderoute, Ph.D. Medical Sciences (Immunology)

We are often asked, if ISM's Aminomics therapy works to re-establish wellness in people with cancer, then why is mainstream medicine not aware of, nor offering, similar "functional therapies". Well, it is quite simple. First ISM considers the core causes of an individual's illness while mainstream medicine tends to target signs and symptoms. Moreover, ISM believes that the malignant potential of tumors does not appear to be just genetically





determined (i.e., it might be a phenotype and not a genotype) and thus, malignant tumors, under the appropriate conditions, could become benign by nutraceutical intervention (Figure 1). In contrast, mainstream medicine tends to believe that malignant behavior is genetically determined and thus, cannot be altered. This fundamental difference in belief and approach is one of the reasons why "functional approaches for cancer" are not currently offered or recognized by mainstream medicine.

ISM's unique approach is based on the overexpression and enhanced activity of the 67 kDa alpha-fetoprotein (AFP) receptor in tumors which we believe maintains the malignant phenotype of tumors (Figures 1 & 2). Accumulating research substantiates that genistein and epigallocatechin gallate (EGCG) may block the malignant potential of tumors. If correct, this would achieve many things:

- First, it would block the cancer cell's natural resistance to killing by the immune system or by chemotherapy and radiation therapy.
- 2. Second, it would slow or stop metastasis, and
- Third, it would block the release of alpha-fetoprotein (AFP) and other immunosuppressive substances by the tumor. The latter allows the individual's immune



system to rebalance as well as open up the amino acid pathways for re-balancing.

mmune System Management

When an amino acid pathway is blocked, even just one, this can dramatically alter protein synthesis or functionality. The immune system during illness is the highest user of amino acids. Therefore to jump-start recovery, ISM provides targeted, custom amino acid therapeutics (Aminomics) to support the rebalancing of an individual's amino acid profile. As a result of this, homeostasis is restored more quickly. ISM clients often report feeling much better, often relatively soon after starting custom therapy. Other health benefits anecdotally reported by clients after 6 months in an ISM Aminomics Program include hair and nails that notably grow faster, improved vision, better sleep, less depression, less pain and inflammation, more energy, lower cardiovascular risks and overall, re-establishment of general wellness - all activities related to amino acids.

There has been some controversy about genistein use and risk of breast and hormonerelated cancers. This is because genistein, an isoflavone derived from Glycine max (soybean), is a selective estrogen receptor modulator (SERM), and precautionary notes about the use of genistein in breast cancer patients can be found at both the Health Canada and US FDA websites for natural health products used at high doses. However, there is no randomized clinical trial data to show that genistein actually has adverse affects on breast, prostate or other hormoneassociated cancer outcomes. Similarly there is no evidence to substantiate the notion that genistein use might increase the risk of cancer in humans and unlike tamoxifen, another SERM,

it does not appear to carry any additional risk of uterine cancer.

In contrast to the above, epidemiological, in vitro and molecular evidence suggest genistein may protect against cancer. Microarray analyses of tissues treated in vivo, appear to consistently indicate that genistein reduces malignant potential. Importantly, genistein along with epigallocatechin gallate may overcome resistance to apoptosis (cell death) induction in cells programmed for cell death which is a notable characteristic of malignant tumors. This would mean that the immune system is more able to destroy or control a tumor which has been rendered more benign by genistein/epigallocatechin. It also implies that toxic therapies such as radiation and/or chemotherapy are more likely to significantly reduce tumor burden when patients remain on ISM's Aminomics immune therapy due to abrogation of apoptosis resistance.

Randomized clinical trials have clearly established that:

- Genistein is generally without adverse effects with the exception of minor gastrointestinal complaints at high doses.
- Genistein has been ascribed with beneficial effects on cardiovascular function, osteoporosis and metabolic syndrome.
- The anti-inflammatory effects of genistein on immune cells has also been confirmed.

Overall, an emerging consensus is that genistein is expected to be useful for cancer prevention and treatment in humans and thus the precautionary



notes by North American regulators against use for hormone-initiated cancers appears to be largely unfounded and therefore potentially misleading.

In support of this notion, in December 2012<sup>(1)</sup>, the Natural Health Products Directorate at Health Canada approved ISM's NuComplete which is a combination of vitamins, minerals and nutraceuticals. The approved daily dosage of flavonoid nutraceuticals in NuComplete includes a dose of 45 mg of soy isoflavones (aglycone isoflavone equivalents of 17.76 mg) and 45 mgs of EGCG. NuComplete was approved for reestablishing and/or maintaining wellness in adults with contraindications only for pregnancy and during breast-feeding. As most clinical trials have used three to ten-fold higher doses of genistein without significant adverse events, and ISM has observed only favorable improvements in clients' wellness, representing about 20,000 patient-years, we suggest the use of low-dose genistein/EGCG is safe and necessary to mediate favorable outcomes for clients with chronic diseases.

In summary, ISM believes that low-dose genistein along with EGCG may alter malignant tumors, so that the immune system can then mediate control of the tumor. We also believe that these flavonoids facilitate the re-balancing of amino acids and overall metabolism. Together these effects appear to allow for re-establishment of wellness in individuals with chronic or persistent illnesses.

# For a full copy of our review paper, please contact **info@aminomics.com**

(1) NuComplete NPN was licensed 2012-12-20 see http://webprod5.hc-sc.gc.ca/lnhpd-bdpsnh/info. do?licence=80036634&lang=eng

(2) Laderoute, MP. A new perspective on the nature of the cancer problem: anti-cellular senescence. Molecular Carcinogenesis 1994, 10:125-133.

Laderoute, MP. Modernized version of Todaro and De Larco's 1978 hypothesis on the autocrine nature of tumor growth. J Natl Cancer Inst 1996, 88:1239-1240.

## "Optimal Health" is written and produced by staff, associates and friends of Immune System Management Inc.

It is our philosophy that diverse health care modalities can work in conjunction with each other as part of a unified team rather than in competition. Such an integrated approach ultimately will lead to safer and more effective health care.

Optimal Health will act as a gathering place and forum for comments and articles from medical professionals, educators and researchers from all health care specialties to the ultimate benefit of both the patient and the health care provider. We aim to share up-to-date news, information and diverse views for the growing integrative, alternative and complementary medicine movement, particularly as it applies to cancer and other chronic diseases.

Your comments and article contributions are welcome.

info@aminomics.com | www.aminomics.com