

IN THIS ISSUE:

1. **CEO Message**
2. **ISM POINT OF VIEW:** Enough is Enough!
3. **PSYCHOTHERAPY AT ISM:** Whole Person Care
4. **BillISM**
5. **TAKING A BREAK**
6. **NATURAL PERSPECTIVES:** 'Tis the Season of Coughing and Wheezing
7. **ISM's SCIENCE CORNER:** Autoimmune Disease and Safety of Long-term Use of Immunosuppressants

“ Whenever you find yourself on the side of the majority, it’s time to pause and reflect.”

~ Mark Twain

Over twenty years, through careful analysis of ISM’s own data and reviews of thousands of peer-reviewed scientific studies on various aspects of the immune system, ISM has always taken great care to distinguish scientific fact from existing medical dogma.

On a daily basis we are bombarded with contradictory messages regarding our health, and it is only by separating the facts from the



wishful thinking, and the genuine news from the hype, that we can continue to make informed decisions about health care.

ISM encourages thoughtful questioning of the majority view, as discussed in this month’s lead article. This is an exciting time in science and medicine, and we can all influence change in the health care world by our informed choices.

Kathryn O’Neill, CEO

ISM POINT OF VIEW: Enough is Enough!

Why some scientists (and a lot of journalists!) are confused.

A recent editorial panel of medical doctors says the case is now closed for multivitamins: “Enough is Enough – they don’t help well-nourished adults!” That editorial has led to headlines like Forbes’ “Case Closed: Multivitamins Should Not Be Used”, and CNN’s “Are multivitamins a waste of money?”

Reactions to the Annals of Internal Medicine editorial include ‘close-minded, dangerous, one-sided, inaccurate and overblown’. Steve Mister, CEO of the Council for Responsible Nutrition, said:

“The editorial demonstrates a close-minded, one-sided approach that attempts to dismiss even the proven benefits of vitamins and minerals. It’s a shame that the authors refuse to recognize the real-life need for vitamin and mineral supplementation, living in a fairy-tale world that makes the inaccurate assumption that we’re all eating healthy diets and getting everything we need from food alone... given that government research repeatedly

demonstrates that the typical consumer diet is falling short on critical nutrients."

Why did the press make such a big deal about this story? Because it's a respected journal, and the authors are respected authors, and because it's controversial. So it makes the news. These are confusing times to try and understand nutritional health – one day, a particular nutrient is touted as a magic bullet, and the next it's a waste of money. In this constant news cycle we live in, the average person is left even more puzzled about what's really good for them. Unfortunately, the way news is reported, responsible health clinicians are left to play "catch up", always reacting to the inflammatory media and trying put out fires. It has left the consumer afraid, dazed, bewildered and reaching for their next prescription drug.

Unfortunately, the writers of that controversial editorial missed three key points:

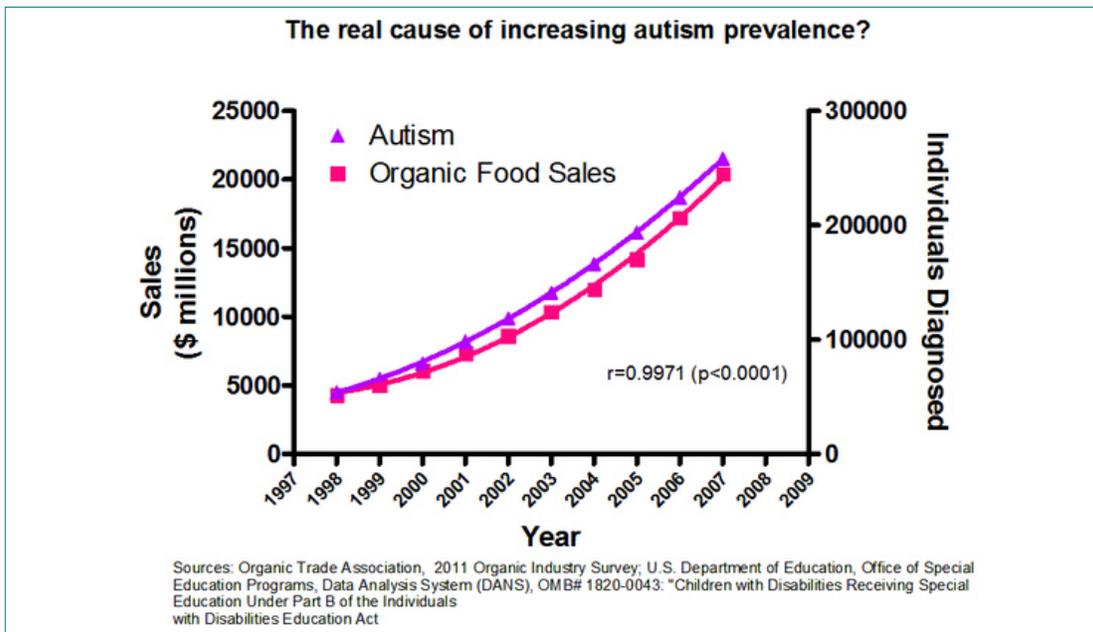
1. Most people don't get all the nutrients they

need from their diets alone, and science keeps reaffirming that adequate levels of all these vitamins and minerals are critical. We need to fill in those nutrient gaps.

2. The research also keeps reaffirming just how safe multivitamins are. None of the highlighted studies raised any safety questions about multivitamins.
3. Multivitamins have benefits beyond just good nutrition. Recent findings from the Physicians' Health Study II indicate benefits for both reduction of risk of cancer and cataracts. The inability of vitamins alone to be a cure-all is not a reason to throw them out.

Why are scientists so confused?

Consider this: on a day when you see windmills rotating very fast, you will also notice very high winds. Does this mean the rotation of windmills causes high winds? Or how about this: over a 10-year period, the rates of autism and sales



of organic foods climbed hand in hand. Does this mean that organic food causes autism? Of course not. Correlation does not equal causation. 'Associated with' does not necessarily equal 'caused by'. But scientists and journalists alike continue to miss that point.

Overwhelming basic science and experimental data support the use of a nutritional approach for the prevention of disease and the support of optimal health. The Lewin Group estimated a \$24 billion savings over five years if a few basic nutritional supplements were used in the elderly. Extensive literature reviews in the Journal of the American Medical Association and the New England Journal of Medicine also support this view. Interventional trials have proven benefit over and over again. Recent trials published within the past two years indicate that with modest nutritional supplementation, the telomeres of middle-aged women didn't shorten. Keeping your telomeres (the little end caps on your DNA) long is the hallmark of longevity and reduced risk of



disease. A plethora of experimental controlled nutritional studies – which are the gold standard for proving cause and effect – have found positive outcomes in many diseases. This is but a handful of examples. There are thousands more.

Nature doesn't work by giving you only one thing. We all agree that broccoli is good for you, but if that were all you ate you would die in short order. The same is true of vitamins or any individual nutrient. Nutrients are not drugs and they can't be studied as drugs. They are part of a biological system where all nutrients work as a team to support your biochemical processes. *Michael Jordan may have been the best basketball player in history, but he couldn't have won six NBA titles without a team.*

If only we all lived in a perfect world, like the five doctors who have determined from 'on-high' via their editorial, that no one needs to take a multivitamin. A world where all we have to do is get our nutrients from food. A world where these doctors would have definitive answers for how to prevent cancer and heart attacks. How about letting us know what to do, versus what not to do?

So, ISM agrees...“enough is enough”. Stop the reductionist approach to nutritional research. Stop insinuating there is evidence of harm. Stop ignoring the scientific evidence that demonstrates there is great value to ensuring you have balanced targeted nutrition.

“Source of Aggravation”:

Editorial: Enough Is Enough: Stop Wasting Money on Vitamin and Mineral Supplements Volume 159, Number 12, Pages 850-851. Authors: E. Guallar, S. Stranges, C. Mulrow, L.J. Appel, E.R. Miller III

PSYCHOTHERAPY AT ISM: Whole Person Care



The dedicated staff at ISM have always been committed to supporting the foundations of

every client's fundamental health. By providing psychotherapy services to our clients, we extend this commitment to recognizing the benefits of providing whole person care.

Jennifer Turner is a registered psychotherapist with a master's degree in counselling psychology. She is certified with Health Coaching Australia, and the National Association of Professional Cancer Coaches, and she specializes in working with individuals who are struggling to cope with the physical, emotional, and spiritual challenges that often result from a health crisis, or terminal diagnosis. Coping with these demands can leave patients and their families bewildered and isolated.

Psychotherapy creates a therapeutic relationship that helps people address personal difficulties. It allows individuals, couples, families and groups to talk openly and confidentially with the support of a trained therapist.

By recognizing that physical illness occurs within the context of who a person is – their beliefs, relationships, and habits – ISM is able to provide holistic care for the person, and not just treatment for a physical illness. Our clients are supported to develop skills

to help reduce distress, process fear and grief and live authentically at each stage of illness and healing. Support is provided for people to stay focused and to access their personal motivation to grow and heal.

Many of our clients have metastatic cancer. Their challenges can be particularly difficult – they are often torn between trying to stay alive and trying to deal with the fear of death – all in a culture that doesn't really provide many opportunities to openly discuss these matters. Patients often say that there is no one for them to talk to completely honestly. Families and friends often want them to stay "positive", and many healthcare professionals are focused more on the clinical aspects of the disease and find it challenging to find the time to deal with the more existential aspects of the patient's experience.

One client described the role of psychotherapy poignantly by saying that this therapy helped her to learn to live in the "spaces" between diagnosis and treatment, and between treatments and scans. It was insightful that, while these are traumatic and sometimes devastating events, in between there can be love, life, community and people who will walk with you when it gets tough.

At ISM, Jennifer provides individual, couple and family therapy to help people deal with often unspoken fears and concerns. Physical healing is supported by emotional health and emotional healing can happen on many levels.

Clients often find great comfort in being able to speak freely without feeling that they need to protect everyone around them. Loved ones also benefit from the opportunity to explore and find peace with their role, and to learn how to care for someone with serious health challenges and still maintain their fundamental relationship.

Coaching services are also available to help clients navigate and co-ordinate conventional, complimentary and alternative care options. Clients have the opportunity to explore their own definitions of health, and to learn to advocate for themselves and make informed decisions. Clients and caregivers can improve communication and develop an enhanced

ability to negotiate the healthcare system – including, for example, understanding second-opinion options, and when necessary, palliative care resources.

A health crisis can create chaos in people's lives and psychotherapy gives them a chance to take a deep breath and figure out a way forward, acknowledging the physical and emotional losses inherent in diagnosis and treatment, while still respecting the individual's unique experiences and needs. Supportive care is fundamentally about respect and presence – a commitment to walk with clients and to be present for the full range of their experiences.

TAKING A BREAK: Putting Faith in Mother Nature

An ISM client recently said, *"I'm feeling great. I think I'll take a break from my ISM Aminomics program"*. (Note: the client's chronic disease was in remission, had a history of hypertension and immune suppression).

In a perfect world, "taking a break" is a great strategy if you are able to maintain a healthy, stress-free lifestyle and maximize your nutrition. But you don't stop eating to see how you manage without food!

"If Mother Nature felt I needed extra nutrients, wouldn't she have put them in my food?"

Unfortunately, Mother Nature has never cared about optimum health. Nor has she concerned

herself with longevity. Her main objective is survival and propagation of the species. So she programmed us humans to survive on even the crummiest diet, nutrition-wise, into our reproductive years. Beyond that, we're on our own!

ISM's goal is to help you achieve a state of reasonable health and stability by supporting and maintaining a healthy immune and metabolic system to prevent against future attacks on your health. We aim to restore and keep the body in a place of balance. When you are feeling fine, or in many cases just stable, that is a GOOD thing!

So, why are we at ISM concerned about taking a 'holiday' from nutritional support? Because it takes years for the body to reach a breaking point and

this cannot and will not be turned around quickly by drugs or any other known treatment. Even if you do everything right – eat right, exercise, get adequate sleep, and keep stress levels down – targeted nutritional support is still necessary. Here are six reasons why this is true:

1. Poor Food Choices
2. Food Production and Preparation
3. Age and Lifestyle
4. Medications
5. Toxins
6. Protein, Protein, Protein

(1) Poor Food Choices

We have greater access to affordable food than at any time in human history, and we’re eating more than ever. Yet the quality of that food is, to say the least, lacking. According to the most recent National Health and Nutrition Examination Survey, the foods that contribute the most calories in the North American diet are, in descending order:

- Grain-based foods and desserts
- Breads
- Chicken
- Soda
- Pizza
- Alcohol



With a diet like this, it’s no wonder that only a third of people get enough calcium or vitamin D, and over half have an inadequate intake of magnesium. Furthermore, even if you’re making good choices, it’s hard to achieve therapeutic levels of nutrients from what you’re eating. As an example, to meet the Optimum Daily Allowance of Vitamin E, you’d have to eat one of the following every day:

- More than 2 pounds of wheat germ
- More than 3 pounds of almonds
- 10 pounds – about 40 ears – of fresh corn
- More than 33 pounds of spinach
- 50 pounds of broccoli or butter

Hmmm... hope you’re hungry!

2) Food Production and Preparation

Even if you try to eat good food, it’s likely been stripped of many beneficial nutrients. Here are some of the contributing factors:

- **Soil quality.** The nutritional profile of any food is linked to the quality of the soil in

Bill-ISM

“ When it comes to your health, everything stays on the table ”

~ Bill O’Neill, 2005

which it is grown. According to the Nutrition Security Institute, agricultural soils have been depleted of 85 percent of their minerals in the last century.

- **Processing and storage.** No matter how fresh it may look, the truth is that supermarket produce may be months old. Nutrient losses begin as soon as fruits and vegetables are picked and continue through processing and storage.
- **Cooking.** Nutrient losses are extremely common during food preparation, and the most vulnerable are heat-sensitive and water-soluble vitamins. The majority of vitamin C, for example, is lost during boiling, and even steaming wastes nutrients. Unless you're a raw food enthusiast, count on nutrient deterioration during cooking.

Bottom line: Don't make the mistake of assuming that you're getting all the nutrition you need from the food you eat. You need to make up for any shortfalls.

(3) Age and Lifestyle

As we age, both our immune system and digestive systems naturally weaken. Our nutritional needs increase and our ability to absorb crucial nutrients decreases.

Let's take vitamin B12, as just one example. No matter how good your diet may be, older people are likely to be deficient in this nutrient. Why? This vitamin's absorption depends on hydrochloric acid, pepsin (an enzyme that breaks the bonds that bind B12 to protein), and Intrinsic Factor (a substance also required for B12 absorption).

Production of all three of these biochemicals declines dramatically with age. The problem isn't limited to vitamin B12, either. Studies have found well-fed, independent older people to be deficient in many nutrients.

We live highly stressed, "on-the-go" lives with no time to truly take good care of ourselves. We skip meals. We don't exercise. We don't get enough sleep to rejuvenate the body's systems. All these variables are a further intense assault on our immune systems.

(4) Medications

Prescription drugs increase our risk of nutritional deficiency. For example, ACE inhibitors – commonly prescribed for cardiovascular disease – deplete the body of zinc and sodium. Diabetes drugs, such as Glucophage and Avandia, reduce levels of vitamins B12 and B6, folic acid, coenzyme Q10, sodium, zinc, magnesium, potassium. Statins are a proven immuno-suppressor and have been shown to significantly increase the risk of developing diabetes. Other adverse effects of statin drugs include muscle problems, nerve damage in hands and feet, immune depression, pancreas and liver dysfunction, sexual dysfunction, cataracts, memory loss, and an increased risk of cancer. Anti-depressants (i.e., SSRIs such as Paxil) are severe immuno-suppressants and have an extensive list of long-term adverse health effects.

(5) Toxins

We live in a world where we are immersed in dangerous environmental toxins.... in our food, our air, our water, even our toothpaste, under-arm deodorant and bottled water!

(6) Protein, Protein, Protein

1. Chronic health conditions are a collection of body reactions to an underlying biochemical imbalance.
2. Your body is 70% protein. EVERY activity in every life system is dependent on protein. Protein is completely made from Amino Acids.
3. Health symptoms occur when your body isn't building protein properly.

The body needs the exact right proportion of amino acids to build the right protein for your individual needs.

Here's the kicker: **Our bodies don't store amino acids.** We must daily fuel our bodies with the specific amino acids that we need to properly build the exact protein molecules that will keep our metabolic and immune systems functioning properly.

"But I'm feeling 'not too bad'"

Initially, the body hints of a nutrient shortfall with any of a hodgepodge of minor symptoms: fatigue, weakness, insomnia, irritability, nervousness, depression, poor concentration, memory loss, aches and pains, recurrent infections, allergies, circulatory problems, and just not feeling good. These are the vague symptoms that drive people to doctors, and drive doctors up a diagnostic tree. Because most conventionally trained physicians have little education or experience in the power of nutrition, they're unable to make the connection between a patient's complaints and an amino acid or micro-nutrient deficiency. Then when the test results come back normal (as they usually do in such cases), the symptoms tend to be dismissed as "all in your head" – or, even worse, as "a natural part of aging."

If doctors do prescribe treatment, they usually bypass integrated nutritional support in favor of drugs such as cholesterol 'busters', anti-inflammatories, antidepressants, tranquilizers, and the like. These not only mask symptoms but also suppress the immune system and deplete nutrient stores even further. This accelerates the degenerative process, which is the forerunner of disease and aging.

Chronic amino acid and nutrient deficiencies invariably lead to serious health problems. Unfortunately, when heart disease, cancer, diabetes, osteoporosis, arthritis, or some other serious deficiency-driven condition develops, neither doctor nor patient is likely to realize that the symptoms had begun years before.

The question is not what you need to avoid illness, but what you need to be optimally healthy!

If you feel you have reached a stage of apparent stable health, we encourage you to talk to one of ISM's Case Managers about ISM's targeted "Maintenance Program".





NATURAL PERSPECTIVES: `Tis the Season of Coughing and Wheezing

Bacterial and viral infections can cause similar symptoms such as coughing and sneezing, fever, inflammation, vomiting, diarrhea, fatigue, and cramping – all of which are ways the immune system tries to rid the body of infectious organisms.

It's a widespread misconception that colds are caused by bacteria. Colds are actually triggered by viruses, which means if your physician prescribes you an antibiotic, it will be absolutely useless. More than 300 different viruses can cause colds, so each time you have a cold it is caused by a distinct virus. There are currently NO drugs available that can kill these viruses.

The key to remember is that just being exposed to a cold virus does not have to mean that you'll catch a cold. If your immune system is operating at its peak, it should actually be quite easy for you to fend off the virus without ever getting sick. On the other hand, if your immune system is impaired, it's akin to having an open-door policy for viruses – they'll easily take hold in your body. So the

simple and short answer is, you catch a cold due to a poorly functioning immune system.

Ideally, you must address nutrition, sleep, exercise, and stress the moment you first feel yourself getting a bug. This is when immune-enhancing strategies will be most effective. Avoid taking over-the-counter pain-relief medications. Studies show that people who take aspirin and Tylenol (acetaminophen) suppress their body's ability to produce antibodies to destroy the cold virus. You should use these medications only when absolutely necessary, such as if you have a temperature greater than 105 degrees F (40.5 degrees C), severe muscle aches or weakness.

Wheezing and the Prescription of Steroids

Steroid type sprays are often prescribed for that nagging wheeze from a cold. The effectiveness is questionable for wheezing. It is an especially interesting and controversial subject for children.

Glucocorticoids are the cornerstone in the management of acute asthma. However, they

do not appear to be effective in young children for viral-induced wheezing. Despite the lack of evidence for efficacy, glucocorticoids are used in up to 60% of patients.

The New England Journal of medicine says:

“For children who have no history of atopy (genetic wheeze) and no family history of asthma, treatment with oral steroids or inhaled corticosteroids is not warranted.”

Of course, any use of steroids comes with a long list of possible side effects but most are not an issue if not used for a long period of time.

Some possible **natural solutions/ aids specifically for wheezing:**

- Cool mist vaporizer by the bed (use peppermint oil in water as the vapour source)
- Load up with anti-inflammatories (i.e., bromelain, capsaicin, extra fish oil)
- Load up on Vitamin B12 (1-4 mcg)
- Cover all your heating ducts with cheese cloth to catch any dust that may be aggravating the situation
- DON'T use cough syrups
- Dark buckwheat honey has been shown to reduce coughing/ wheezing (1/2 - 1 tsp)
- Lemon & honey tea
- Ginger tea – relaxes airways
- NO dairy, bananas, sugar (adds to mucous production)
- Eucalyptus or sage into the tub to open up the chest.
- A mix of honey, turmeric, pepper and menthol on the chest at night OR 2 drops peppermint oil, 2 drops lavender oil and 2 drops eucalyptus oil. Placing a warm wet towel

over the chest will maximize the benefit.

- All liquids should always be lukewarm
- Lemon or lime juice several times daily
- Take a hot shower and breathe deeply for 15 minutes. The heat and steam from the hot water can help ease your wheezing by relaxing air passages and soothe your chest.
- Take over-the-counter drug Primatene tablets. This drug helps you breathe better by reducing the spasms of your bronchial muscles. It temporarily relieves wheezing, tightness of chest and coughing.

When Should You Call Your Physician?

Sinus, ear, and lung infections (bronchitis and pneumonia) CAN be bacterial, and if so, may respond to antibiotics. If you develop any of the following symptoms, these are signs you may be suffering from a bacterial infection rather than a cold, and you should call your physician's office:

- Fever over 102 degrees Fahrenheit (38.9 degrees Celsius)
- Ear pain
- Pain around your eyes, especially with a green nasal discharge
- Shortness of breath or a persistent uncontrollable cough
- Persistently coughing up green and yellow sputum

Generally speaking, however, if you have a cold, medical care is not necessary. Rest and attention to the lifestyle factors noted above will help you to recover quickly and, if you stick to them, will significantly reduce your chances of catching another one anytime soon.

ISM's SCIENCE CORNER: Autoimmune Disease and Safety of Long-term Use of Immunosuppressants

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

The long-term safety of immunosuppressive drugs (immunosuppressants) used to treat autoimmune conditions has not been evaluated. Shorter-term evaluations in some cases indicated an enhanced risk of serious infections by three months. Using a newly identified autoimmune condition, narcolepsy, ISM argues that autoimmune conditions might arise when there is failure to clear pathogens, such as pig flu in immunosuppressed hosts. Accordingly, the rationale for using immunosuppressants to treat autoimmune conditions is questioned. A better way to treat might be to block immunosuppression and rebalance the functioning of the immune system.

When we think of autoimmune disease, a number of conditions come to mind: multiple sclerosis (MS), psoriasis, thyroid diseases, rheumatoid arthritis, inflammatory bowel disease, as well as others. Even certain ill-defined conditions like chronic fatigue syndrome - myalgic encephalomyelitis (CFS-ME) and fibromyalgia are considered autoimmune diseases as they commonly display autoantibodies. Autoantibodies to cardiolipin or heat shock protein 60, which are cross-reactive with mitochondria and bacteria, are frequently found in many autoimmune diseases.¹ Interestingly, about 75% of autoimmune diseases occur in females. It is not known why or how estrogen or other female hormones would contribute to autoimmune disease,² but since females live longer, it seems the "autoimmune risk" may also come with significant health benefits on longevity, at least at the population level.

Presently, there are at least 80 different autoimmune diseases recognized and the list keeps on growing. Indeed, on December 18, 2013,³ a new autoimmune disease was



recognized: *narcolepsy*. Apparently, there may be T cell cross-reactivity between the hormone which keeps us awake (hypocretin) and the H1N1 pig flu H1 antigens. Rates of narcolepsy increased with the pig flu of 2009 and also with use of the corresponding vaccine.⁴ Although the incidence remained still quite rare (<1/50,000 doses), the risk of narcolepsy was found to be 16 times higher for those children aged 4-18 who had been immunized within six months of onset of narcolepsy.⁵ It is known that narcolepsy is strongly associated with DQ0602 (*human leucocyte antigen, HLA Class II genetic marker*)²

which suggests the cause of autoimmunity relates to disturbed T helper cell (Th) immunoregulation rather than genetic or phenotypic alterations in hypocretin or its signaling pathways, respectively.

As an immunologist, I have often wondered whether there is something special about autoimmune diseases versus those diseases that, although not considered 'autoimmune', clearly involve immune auto-reactivity. Every time our bodies fight against tumors, or rid our bodies of viruses or other intracellular pathogens, the immune system is actually trying to kill our own cells. Of course the anti-self reactivity is generally geared against only those cells that are modified by tumor transformation (genetic mutation) or those directly or indirectly hijacked by microbes such as viruses or certain intracellular bacteria. So T cell responses which target cells (rather than B cell responses which target soluble antigens, such as most bacteria, toxins, etc.) invariably involve some level of autoimmunity. There are several types of T helper cells (Th1, Th2, Treg and Th17) involved in the generation of cytotoxic T cells, and there is a delicate balance between Tregs which down-modulate or suppress immune responses to self antigens and Th17 cells which contrasuppress these Tregs (see Figure 1). The balance between the two is believed to result from the type and levels of cytokines liberated in the local environment. Accordingly, an immunosuppressive environment relating to the TGF- β cytokine will encourage Treg development while TGF- β with IL-6 will encourage Th17 autoreactive responses. More information about Th17 and Treg balance in autoimmunity can be found in a recent review.⁶

Certainly, no one considers that people who came down with pig flu in general had an

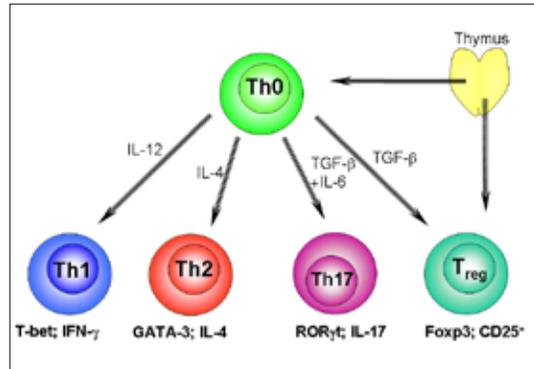


Figure 1 Basic Cytokines Influencing T helper Cell Responses. From: www.wikipedia.org Note: T cells get their name from development in the thymus.

autoimmune condition. However, those who subsequently developed narcolepsy are now considered to have an autoimmune disease. So what is the difference? While this may be an oversimplification, it would seem a major difference between the two is that the people developing narcolepsy were not able to clear the pig flu virus and this may be how the illness became a chronic disease. Presumably in part this was due to genetics of the individual or the virulence of the pig flu strain, but also in part due to coincidental immunosuppression resulting from or causing an immune imbalance.

Newer lines of thinking of the cause of autoimmunity include failed pathogen clearance.⁷ Autoimmune diseases are most aptly described as a condition of "immune dysregulation" because there are features of inflammation in certain effectors of immunity while other effector mechanisms are suppressed.⁶ It should be noted that inappropriate or imbalanced effector responses can be the source of illness. For example, allergies have been successfully treated by switching the effector response from IgE (allergic) to IgG (non-allergic) and at the

same time, decreasing Th2 cytokine production the latter which is also associated with allergies/ autoimmunity.⁸

It has been said there is no cure for autoimmune diseases.⁹. Nevertheless, treatments for autoimmunity typically involve various means to immunosuppress these patients in order to minimize damage. This approach commonly works in the short term. The question arises, how long can one safely immunosuppress a person before the adverse effects of such lead to more serious problems? This is a particular conundrum because as mentioned above, immune dysfunction involves immunosuppression of some component of the immune system. How wise then, is it to immunosuppress a person who is already immunosuppressed and not able to clear a pathogen?

While I worked for Health Canada, a unique opportunity arose to study the longer-term effects (clinical signs and symptoms) of immunosuppression by biologic modifiers, such as monoclonal antibodies. This was done through the review of post-market adverse event reports which were submitted by companies. A recommendation for suspension of a monoclonal antibody to treat plaque psoriasis was issued in Canada on February 23, 2009.¹⁰ While the announcement concerned the increased risk of a very rare but serious reactivation of a virus in the brain, known as Progressive Multifocal Leukoencephalopathy (PML) in patients treated for more than three years, the increased risks of infection were well known and had been established even during the 3-month randomized clinical trials. Here a four-fold increased risk

of serious infection had been established over placebo.¹¹One of the obvious issues seemingly missed by all, was how long could one safely administer a pan immunosuppressive agent.¹² Remarkably no limits on duration of use were ever mentioned for Raptiva (efalizumab) despite safety evaluations only covering three months.¹¹ Eventually, Raptiva (efalizumab) was voluntarily removed from the market. While this is only one immunosuppressive agent used for one autoimmune disease, clearly the approach of immunosuppression as a treatment places patients with autoimmune diseases at far greater risk when given longer term.

Multiple sclerosis is a well recognized autoimmune condition where the myelin sheath surrounding nerves becomes attacked. Immunosuppressants as well as immune modulators (such as interferons and immunoglobulins) have been used to prevent relapses. According to a recent Cochrane Summary,¹³ from 44 randomized clinical trials, certain agents appeared to be more effective over two years of study whereas many others had unfavorable risk-benefit balances. The single immunosuppressive monoclonal antibody tested (Natalizumab) was effective but carried a demonstrable risk of progressive multifocal leukoencephalopathy (PML) especially with more than two years of treatment. It should be noted that the authors of this review remarked on the lack of clinical trial evidence on the risk-benefit balance beyond two years.

Thus, the question remains as to whether there is any suitable, longer-term intervention for autoimmune diseases. At Immune System

Management (ISM), we take the same approach that we developed and use for cancer patients, and apply it to all chronic diseases including autoimmune conditions. **Our approach is to eliminate the immunosuppression, and rebalance the individual biochemically and immunologically, by monitoring and adjusting plasma amino acid profiles, through our proprietary custom supplements.** For example, we recently had an elderly patient who had severe psoriasis all of her life, who after one year of ISM supplements as therapy, self-declared a complete remission, which was visually confirmed. In cases of chronic fatigue syndrome - myalgic encephalomyelitis seen at ISM, painful polyneuropathies typically resolve in 11 days, and residual associated fibromyalgia pain by six weeks. Recent evidence reaffirms the notion that CFS-ME relates to bacterial infection-elicited autoantibodies which cross-react with mitochondria¹ which is the organelle within cells which supplies energy. It has been said this may be one of the reasons fatigue might be associated with some chronic diseases.

At ISM, our therapies appear to re-establish immune balance and competence without long-term cumulative immunosuppression which has a favorable risk-benefit balance for the treatment of autoimmune diseases.

1. Elfaitouri A et al, PLoS One 3013 8(11):e81155.
2. Avidan N et al, J. Autoimmun 2013 Dec 19.
3. De la Herran-Arita, AK et al. Sci Transl Med 2013, 5:216ra176.
4. Yong E, Nature Dec 18, 2013.
5. Miller E et al, BMJ 2013 346:f794
6. Abe M et al, Clinical and Developmental Immunology 2013 Article ID 607073
7. Ludvigsson j. Acta Paediatr 2013 Oct 8.
8. Wang J and Sampson HA. Asian Pac J Allergy Immunol 2013, 31:198-209.
9. Roddick, J, Healthline. <http://www.healthline.com/health/autoimmune-disorders>
10. http://www.emdserono.ca/cmge.emdserono_ca/en/images/20090223_en_tcm463_38050.pdf?Version=
11. http://www.accessdata.fda.gov/drugsatfda_docs/label/2009/125075s1301bl.pdf
12. <http://www.fda.gov/Forconsumers/ConsumerUpdates/ucm049338.htm>
13. Filippini G et al, June 6, 2013 (www.cochrane.org)

“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