

## Shaklee Research Update

Shaklee is unique among supplement manufacturers because for the last 30 years they have funded basic-science research. They also regularly conduct clinical trials to demonstrate the health benefits of their products. These studies have been published in *peer-reviewed journals*, following critical scrutiny by leading researchers within the nutrition field. **Each study costs tens to hundreds of thousands of dollars**, and may take as much as three years before publication. That's why other supplement manufacturers don't produce these studies.

At this year's Shaklee convention in St. Louis, Dr. Jaime McManus and Dr. Carsten Smidt (Chief Scientific Officer) announced the completion of **four new and exciting research studies** that warrant our attention.

You may recall the excitement two summers ago, generated by the publication of the **Landmark Study**. Landmark clearly demonstrated the **vast superiority of Shaklee supplements over conventional vitamins**. The Shaklee group's blood analysis revealed that they maintained much higher blood levels of all the essential vitamins, and contained healthier levels of iron and several other key minerals. The Shaklee users all also maintained lower levels of the key *biomarkers for disease*, including completely normal levels of cholesterol, homocysteine (associated with vascular disease), and C-reactive Protein (an indicator of inflammation associated with many forms of disease). The Shaklee group also maintained normal blood pressures, and experienced a much lower (or no) incidence of diabetes, stroke, heart attack, or cancer.<sup>1</sup>

The first of the four studies we will discuss in this issue of *HealthQuest* is now being referred to as **Landmark, Phase II**.<sup>2</sup> The objective of this study was to compare the vitamin D blood levels in Shaklee users with participants who used other supplements, or didn't supplement at all. In early May, the authors showcased this study as a poster presenta-

tion at the *National Lipid Association* Convention, where it was very well received. Then it was presented to the prestigious *Journal of Clinical Lipidology*, where it was immediately accepted for publication, without any recommended changes in the article. This is very uncommon in the peer-review process, and speaks volumes for the quality of the paper's writing and the validity of their conclusions. Most commendable!

### The important points of this study are:

- Supplementation with larger doses of vitamin D immediately translates into higher circulating blood levels of vitamin D. This may sound obvious, but it had never been proven before.
- The study also helped demonstrate the target dose required to maintain optimum blood levels ... **and this had never been determined before.**
- Increased vitamin D intake was directly associated with higher circulating blood levels of *high density lipoproteins* (or HDL, the "good" cholesterol), thus reducing the risk of cardiovascular disease (CVD), and
- It revealed an inverse relationship between vitamin D levels and the incidence of *Metabolic Syndrome* (a pre-diabetes condition). Subjects who maintained the highest blood levels of vitamin D (Shaklee users) had the lowest incidence.

This is very important, because *Metabolic Syndrome* is a condition characterized by hypertension and disturbed glucose and insulin metabolism. The syndrome has been linked to increased risks of both Type-2 Diabetes and Cardiovascular Disease (CVD). Shaklee is already working on Landmark Phase 3, to further explore the relationship between vitamin D levels and the incidence of *Metabolic Syndrome*.

Another recent study demonstrated that **vitamin D supplementation had immediate and dramatic**

**impact on the prevention of stress fractures in military recruits.**

Vitamin D supplementation during basic training **reduced injuries by 21%**, saving the military \$34,000 for every recruit that wasn't "washed out" of the program.<sup>3</sup>

It's well documented that **deficiency of vitamin D appears to have an effect on numerous diseases and disorders**, including chronic musculoskeletal pain, diabetes (both types 1 and 2), multiple sclerosis, cardiovascular disease, osteoporosis, and cancers of the breast, prostate, and colon. That's why knowing the proper dosage of vitamin D is so extremely important.<sup>4, 5</sup> Want to hear some Good News? **Shaklee has since increased the vitamin D levels in the whole Vita-Lea line.**

**The second Shaklee study involved Vivix** (product #21000). Did you see the Oscar-nominated movie *Superzize Me*? If so, you will recall how Morgan Spurlock's health declined during the month he lived on fast food. The saturated and trans-fats, preservatives, and other food additives contained within fast-food meals, depress immune function, cause arterial constriction, deposit plaque in the arteries, and increase cortisol production, leading to stress reactions and accelerated aging. That's why Morgan's health declined! And you saw how quickly that happened.

# Update

Continued from page 1

In this randomized, placebo-controlled clinical study, performed by scientists at *State University of New York at Buffalo*, participants were fed a 910-calorie, fast food breakfast, including sausage, cheese and fried potatoes (Burger King breakfast). Half the group received a resveratrol and polyphenol supplement (Vivix). Everyone's blood was tested for the activity levels of a key genetic molecule, called **Nrf2** (pronounced Nerf 2), which is **the coordinator of antioxidant protection within every cell in our body**. The Nrf2 defense system mobilizes antioxidant enzymes, but it also choreographs immune response, and enhances cellular detoxification. So disruption of this system spells disaster for the body. Because the Vivix study has been submitted for publication, full details are not available, but what Shaklee has shared so far is quite interesting.

**Nrf2** activity was immediately depressed in the control group, while the Vivix group demonstrated **dramatic increases in Nrf2 activity**. And YES, this is very important because it helps to explain why poor dietary choices dramatically affect our health. It happens by suppressing the body's natural inborn defense mechanism.

Let's discuss the amazing characteristics of the Nrf2 defense system.

**Nrf2 manages Phase II detoxification within the liver**. Phase II detox enables the body to excrete *xenobiotics*, or non-human compounds, like drugs and other toxic chemicals, that Phase I liver detox cannot eliminate. Depression of Nrf2 activity leaves the body incapable of removing these toxins.

**Disruption of the Nrf2 gene leads to severe allergen-driven airway inflammation** that contributes to the development of asthma. Nrf2 has also just been found to inhibit the development of **emphysema** by researchers at *Johns Hopkins School of Public Health*. Four years ago, this same group at Johns Hopkins demonstrated that Nrf2 protected against developing **pulmonary fibrosis**, a frequently fatal lung disease.

Because oxidative stress is associated with the onset of so many different disease processes, the Nrf2 antioxidant system has recently been found to be associated with reduced risk for developing Parkinson's and Huntington's disease, lung cancer and other inflammatory and autoimmune diseases. It's also been shown to provide protection against a variety of pathologies in numerous organs, including the liver, intestine, lung, skin, and nervous system.

A year ago, when Vivix was first released, Shaklee scientists anticipated that these polyphenols could

repair cell damage, thus reducing the risk for heart disease, Alzheimer's, and diabetes. This new study suggests that stimulating the Nrf2 system with Vivix may have a much more profound impact on our health. I can't wait to read the full study!

I'd like to finish this section with an insightful comment from Dr. Steve Chaney, from a recent e-mail he sent to the Shaklee Field: "Just think how much more beneficial it will be to keep your natural antioxidant defense mechanisms, your detoxification systems, your immune system, and your anti-stress systems in tip-top shape, without having to waste those resources compensating for the effects of a bad diet."

**The third Shaklee Study involved CINCH Shakes** (Vanilla #20340, Strawberry #20336, Chocolate #20341, and Cafe Latte #20339). The objective of the study was to explore the effects of a strength-training program – with and without meal replacement drinks – on the whole body composition of healthy adults. It's previously been shown that significantly greater gains in muscle mass and strength occurs when protein is ingested shortly after a resistance-training session. It has also been documented that after the age of 35, adults lose between three to eight percent of their muscle mass every decade! That equates with losing five pounds of muscle every 10 years!

For this study, 68 middle-aged and previously sedentary men and women, were recruited into a supervised, 23-week strength-training program at the *South Shore YMCA*. Under direct supervision of exercise physiologists, half the group received a CINCH Shake drink just after their workouts. The subjects who ingested CINCH increased their lean muscle mass by 5.5 pounds, and decreased their fat weight by 9 pounds – a 14.5 pound improvement in overall body composition. The non-protein group didn't do as well. Overall, the **Shaklee group amassed 25% more lean muscle mass, and lost 50% more body fat**. Another way to look at it is that they gained the same muscle mass that others would have lost over a 10-year period... that's like subtracting 10 years from their age! Not bad, eh?

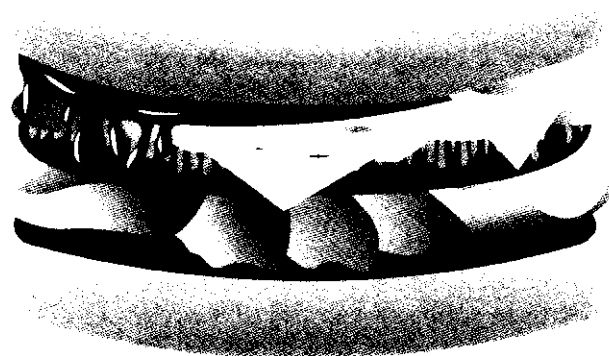
Increasing fat loss is profoundly important for another reason... diabetes is now the seventh leading cause of death in the United States.<sup>18</sup> Further, diabetes rates has risen hand-in-hand with the soaring obesity rates during the last 30 years. Fortunate for them, CINCH users have lost millions of pounds and millions of inches of fat during the three short years that it has been available. This study truly demonstrates

the effectiveness of a CINCH Inch Loss Program, especially when coupled with a sensible exercise program.

**The fourth Shaklee Study involves Nutriferon (#20960)**. Dr. Ann Moscona, one of the country's leading virologists, just developed a unique new method for studying viral attack, called the *Human Airway Epithelial Model*. Previous cell models, used to investigate viral assault, were only one-cell layer thick, and could not reproduce human biologic conditions. This new, *multi-layer model* accurately reflects the functional characteristics of normal lung epithelia (the tissue that lines our lungs). This is important because the epithelial layer is the *entry point* for inhaled viral infection. This new technique also provides the additional benefit of allowing clinical testing without injury to animals.<sup>19</sup> YAY!

During the Phase II portion of this study, they explored Nutriferon's impact on viral activity with this human airway model. The stunning result was that Nutriferon increased the activity of *Natural Killer Cells*, an immune cell line that targets tumor cells and cells infected by bacteria or viruses. This is great news, considering the dire predictions for an H1N1 Swine flu epidemic predicted for later this fall. **Acute respiratory infection is the leading cause of death for children under the age of five**, and unfortunately there are no adequate medical treatments or vaccines available. For that reason, this is a very good time for stocking up your "medicine cabinet" with these immune defenders: Nutriferon (#20960), Sustained Release Vita-C (#20095), Defend and Resist (#20613), and Shaklee's Garlic Complex (#20084) before flu season takes hold.

I have great admiration for Shaklee. They have invested many hours and dollars to advance our understanding of their products and of basic science relationships. They are a truly unique humanitarian organization. My hats off to them!



# Back To School Supplies

There are many layers to achieving success in school. First and foremost, you have to stay healthy, so you can attend class. Second, they need to maintain their energy and attention span. They also need to know what to avoid.

Let's review the **Basic Nutrition Insurance Program** for students of all ages. This is assuming your day starts with a healthy breakfast, free from added-sugars and preservatives.

**Vita-Lea or Vitalizer: A high quality multi-vitamin is core to any basic nutrition program.** It helps fill in the nutritional gaps in our daily diet.

Vita-Lea is the most complete and balanced multi-vitamin available. It contains 23 essential vitamins and minerals, including high levels of immune building beta-carotene, vitamin C, vitamin E, and selenium. Beta-carotene is essential for rebuilding and maintaining the health of the mucosal linings within our respiratory and digestive tracts.

The Vitalizer system contains **80 optimized nutrients**, including an amazing **26 different antioxidants**, to counteract the free radical damage most associated with allergic reactions and respiratory disorders. The patented, sustained-release gel-diffusion system also provides 12 hours of time-release vitamin C. The triple-layered OptiFlora guarantees delivery of friendly bacteria to strengthen intestinal immunity.

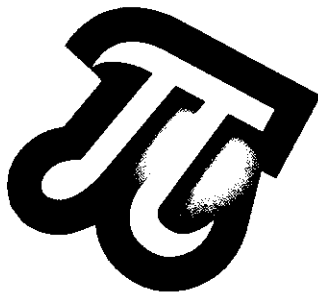
Shaklee also just introduced the new **Incredivites (#20002)**, a **chewable multivitamin for children**. It is unique because it is the first and only child's supplement to contain *lactoferrin*. That's important because lactoferrin has been shown to **exert antibacterial and antiviral activity** in the intestine, especially by **interfering with the transport of viruses across cell membranes**.<sup>20</sup> Incredivites also contains a healthy 600 IU dollop of vitamin D, and 23 other essential nutrients, so required for healthy growth and bone development.

Shaklee's new **Mighty Smart™ (#20058)** is a *certified organic* citrus-flavored chew that contains **100mg of ultra-pure DHA**. Recent studies with infants, fed with DHA-enhanced formulas, have shown that supplemental DHA is associated with higher testing scores for intelligence and neural development in both infants and young children.<sup>21</sup>



**Soy Protein: Protein is an essential building block for health.** It makes up 50% of the dry weight of our cells, and more than 30% of our muscles. The average child requires 160 grams of protein per day (based on a 1600 calorie diet). **The ideal fat-free source of plant-based protein is soy.** Shaklee uses *non-genetically modified* soybeans and patented water processing to capture those critical isoflavones necessary to provide soy's numerous health benefits.<sup>22</sup>

Shaklee has a varied selection of soy products to suit your student's tastes. The most delicious is **CINCH Shakes** (Vanilla #20340, Strawberry #20336, Chocolate #20341, and Cafe Latte #20339). Another Shaklee favorite is **Energizing Soy Protein**, packed with 14 grams of heart-healthy, non-GMO protein per serving. **Energizing Soy Protein** comes in delicious vanilla (#20665) and creamy coco (#20670) flavors. Finally, for those who must limit their dietary intake of carbohydrates, Shaklee's original **Instant Protein Soy Mix (#20661)** provides 16 grams of non-GMO protein per serving, in a 30-serving container.



## Memory Enhancement

Numerous studies have found that the herbal medicines *vinpocetine* (Memory Optimizer #20675) and *Ginkgo biloba* (Mental Acuity Plus #20637) improve memory recall and significantly improves blood and oxygen flow to the brain.<sup>23</sup> A recent study from the *Scripps Institute* supplemented a group of normal adults with Ginkgo and *vinpocetine* during a 14-day trial. Pre- and post-testing revealed significant improvements in memory scores and response times in the supplementation group, and the authors concluded that these products speed short- and long-term memory processing in normal adults.<sup>24</sup>

## Attention Span

It's impossible to concentrate if you are suffering from allergies. Shaklee's **Nutriferon (#20960)** and **Alfalfa Complex (#20160)** are both very effective at managing and preventing allergies.

Shaklee's **Lecithin (#20182)** provides high levels of choline, a precursor for brain neurotransmitters. It has also been shown to improve memory and brain function, and to reduce anxiety, headaches, tension, and even eczema.

The essential fatty acids found in **OmegaGuard (#20244)** and **GLA Complex (#20608)** are important for regulating hormonal balance and reducing inflammation. They also support normal brain and nerve function through production of prostaglandins to regulate many bodily processes.

## Avoidance of Toxins

Whether you get toxic through eating processed foods, or by absorbing them from your environment, numerous studies have shown how they adversely effect mental function. Shaklee's **Get Clean** and **Personal Care** lines can help your student avoid the fragrances and chemical additives found in conventional products. And, because Shaklee products are concentrated, you will save money while you also save our environment!

My best wishes to your students. Education can be hard or easy, depending on your environment, and the fuels you put into your body. Shaklee products are designed for potency and purity in mind, to help you meet all your educational and health goals!

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In This Issue: Volume 25 Number 5



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