News from Sunshine House January 2016

To Our Managers, Distributors, and Friends in Nature's Sunshine:

"The greater danger for most of us lies not in setting our aim too high and falling short; but in setting our aim too low, and achieving our mark." Michelangelo

As we begin a new year in 2016, we will face many challenges in both our personal growth as well as our professional growth. The important thing is to not cut our achievements short by underestimating what we can accomplish. Whether our challenges are improving our health, losing weight, beginning an exercise program, strengthening family ties, building our business to new heights, or whatever you see as a challenge that you have not met head on… Be like the little train engine climbing towards the top of a mountain who said "I think I can, I think I can." When he reached the top, he exclaimed, "I knew I could, I knew I could." Make 2016 your best year ever for reaching out and attaining your goals.

Remember the "pending rules" for November/December and December/January:
If a Manager has 2 consecutive pends in November and December or December and January, they will automatically be credited with 1 pend against them for 2016. This is not a pleasant way to begin a new year. So please watch your successline managers QV and alert them if they are in danger of falling into either of these categories.

***** RED FLAG ALERT: This is a critical month regarding pends that will carry over into 2016. If you or a manager in your successline pended in December, it is imperative that they not pend in January 2016. Pending again in January will place them in the category of carrying over 1 pend into 2016. (The same rule applies for any manager who pended consecutively in November & December 2015 ---Those managers will carry over 1 pend into 2016).**

Health Freedom Info:

On November 2, the FDA approved the first genetically modified food animal—an Atlantic salmon that grows twice as fast as natural salmon, thanks to the insertion of genes from Chinook salmon and eelpout (an eel-like fish). Contrary to FDA claims, the AquAdvantage® salmon is *not* the same as farmed salmon that has not been genetically engineered. "frankenfish" is less nutritious than normal salmon, more likely to trigger an allergy, and could increase cancer risks by raising levels of IGF-1, a hormone linked to prostate, breast and colon cancers in humans. Currently, the only states where GMO salmon will have to be labeled are Alaska and Vermont. But those laws could be wiped out by a last-minute "sneak attack" rider to the appropriations bill preempting states from enacting laws on *any* foods containing GMOs, including frankenfish. The FDA is talking out of both sides of its mouth with this twisted decision. First, the FDA regulates GMO salmon as a drug, not a food—"because the recombinant DNA (rDNA) construct introduced into the animal meets the definition of a drug." Then shouldn't this new "drug" be labeled? But it won't be, because out of the other side of the FDA's mouth, it has declared GMO salmon to be nutritionally equivalent to conventional farm-raised Atlantic salmon.

A citizens' tribunal will investigate Monsanto for "crimes against nature and humanity."
Agrochemical giant Monsanto will be investigated by a tribunal of environmentalists, activists, and scientists next year against charges of "ecocide". The citizens' trial was announced at a press conference on December 3 in Paris, to tie in with the UN Conference on Climate Change. The Monsanto Tribunal Trial is scheduled for October 12-16, 2016, in The Hague, Netherlands, with the final day falling on World Food Day. The Tribunal, a crowd-funded group will evaluate allegations made against Monsanto with regards to damage caused to the environment and human health. Regardless of the outcome, they won't be able to sentence or charge the agriculture giant. Supporters say the trial is more than just a symbolic act, with the larger goal of establishing 'ecocide' as a crime for the first time. The assumption is that if the tribunal can raise enough evidence to support allegations against Monsanto, a criminal court may decide to pursue the matter further.

4 Surprising Ways Science is Battling Aging

Jeffrey Kluger is Editor at Large for TIME magazine and TIME.com, overseeing coverage of science and human behavior.

Battling Aging: It's not this hard: New studies show better way to turn back the clock

New strategies could mean big advances in staying young

For humans, death in old age has always been life’s great punchline. It takes 70 or 80 years to get really good at the whole business of being alive, and no sooner does that happen than mortality begins

looking your way, tapping its watch and discreetly reminding you that there's a line waiting for your table.

It's the job of aging—and the multiple diseases that accompany it—to make sure we eventually get out of the way, an unhappy fact humans have been battling practically as long as we've been around. But some experts argue that aggressively treating the age-related diseases—heart disease, cancer, diabetes, dementia—instead of aging itself has been a mistake.

A collection of studies just published in *Science* aims to explore some promising new strategies for getting down into the machinery of the cells themselves to stop or at least slow the aging process. "Age is the greatest risk factor for nearly every major cause of mortality in developed nations," wrote Matt Kaeberlein, University of Washington professor of pathology, and his colleagues in an introduction to the studies. "Despite this, most biological research focuses on individual disease processes, without much consideration for the relationship between aging and disease."

The effort to change this is a war being fought on multiple fronts. Here are the places science is making some of the greatest advances.

Gut microbes: Whether you like it or not, your body is home to many trillions of bacteria that are essential to digestion and other bodily processes.

In the aged, however, the makeup of that population changes, with higher concentrations of a bacterial species known as bacteroides, which are harmless and helpful as long as they remain in the gut, but can cause infections and other problems when they infiltrate other tissues. Overall, researchers have found, the changing makeup of the microbiome can have an impact on immunity, cognitive function and maintenance of muscle tissue—all of which decline in older people.

The problem is exacerbated by antibiotics, which tend to be prescribed at higher rates as people age, and generally kill good bacteria as well as bad. Studies have shown that long-term stays at assisted living facilities or nursing homes are associated with both increased frailty and further deterioration of the microbiome—though it's not certain whether this is a matter of causation or mere association. Either way, the microbiome is one of the easier parts of the human system to manipulate. It's too much to say that we can eat our way to immortality, but better health and, perhaps, more years are hardly out of the question.

Telomeres: Telomeres are cuff-like structures at the ends of chromosomes that grow shorter over the course of a lifetime, leaving the body susceptible to a range of age-related breakdowns.

According to Nobel Laureate Elizabeth Blackburn of the University of California, who wrote one of the papers in the *Science* release, the rate at which any one person's telomeres burn down is from 30% to 80% determined by genetics, with the rest most heavily influenced by external variables such as diet, environmental toxins, exercise and stress.

The low-hanging fruit here are lifestyle variables: improving diet, increasing exercise, doing what you can to reduce stress and limit exposure to environmental toxins. No matter the reason for telomere shortening, boosting the levels of the body's own telomere-building enzyme, known as telomerase, may help. That can be done, but it's risky. According to Blackburn, who is one of the discoverers of telomerase, "in 80 to 90% of fully malignant human tumors, cancer cell telomerase is up-regulated compared to normal tissue counterparts."

Still, the enzyme remains one of the great hopes of anti-aging scientists, provided the dangers can be controlled. That's no easy feat, which is why a hope—but a promising one—is what telomerase will remain for now.

Stem cells: The body's best little construction workers are stem cells, the versatile progenitor cells that have the power to rebuild organs and other systems by becoming whatever kind of specialty tissue they need to be.

No surprise, stem cell production and performance decline as we age—and organ decline follows. Environmental factors such as toxins and poor diet can further damage stem cells, as can sun exposure, in the case of the skin. Two approaches can help reverse, or at least slow, the aging and death of stem cells. In numerous experiments, stem cells from an older organism injected into a younger one have been shown to revert to a more youthful state, and the reverse is true for young cells place in an aged body. Introducing plasma or other blood factors from younger people into older ones may work a similar rejuvenation. Simpler interventions may also help: if a person with a poor diet and little exercise or a high stress level is exhibiting stem cell decline too early in life, reducing the stressors and otherwise changing the lifestyle may reduce the problem too.

Mitochondrial breakdown: There's a little tiny engine room deep inside your cells that is responsible for metabolizing energy and keeping the cell alive.

It's the mitochondria, and it's so important it's thought of as its own tiny organ. It even has its own DNA profile. But the engine starts to falter as we age, and that has an impact across the entire power grid that is the body. The good news is, researchers have definitely determined that yes, this plays a direct role in aging. The bad news is that reversing the process doesn't seem to reverse aging—at least not by itself.

The breakdown in the mitochondria has to do with how key proteins—which are densely packed inside the organelle—unfold as they go about their work. This process is less efficient in older organisms. Investigators working with roundworms have figured out ways to intervene in this process and improve the unfolding, but that hasn't had an impact on the apparent age of the animal. Still, the authors of the *Science* paper have concluded that while mitochondrial health does not, on its own, determine aging, it all but surely plays an important role. Determining that role—and making the most of it—is where anti-aging therapy might lie.

Planning to expand your family in 2016?

Pregnancy is more than just a woman's job. The husband plays an important role also. Make sure he is in on the pre-planning of preparing the body for a safe pregnancy before you get started on the production:

Men Should Take Folic Acid Prior to Conception to Prevent Birth Defects

By Byron Richards, Board Certified Clinical Nutritionist

A new animal study shows that when fathers lack folic acid prior to conception, there is a 30% increased risk for birth defects. This is the first study to analyze the sperm epigenome and the consequences a lack of folic acid has on the epigenome that is passed along to the offspring. This information is highly important to having healthy children.

The advice for women to take folic acid before and during pregnancy is now well established. This is because folic acid influences how genes express themselves (epigenetics) through a process called methylation. The impact of healthy methylation on DNA is to turn on or off the light switches in the proper way to support healthy cell replication, and thus, a lack of birth defects. Without folic acid methylation issues can impact DNA settings in a way that causes faulty expression of genes with serious health ramifications.

"We were very surprised to see that there was an almost 30 percent increase in birth defects in the litters sired by fathers whose levels of folates were insufficient," said Dr. Romain Lambrot, of McGill's Dept. of Animal Science, one of the researchers who worked on the study. "We saw some pretty severe skeletal abnormalities that included both cranio-facial and spinal deformities." This study demonstrates that the sperm epigenome is passed to the offspring with a significant impact on cell division in the child. Men must be adequate in folic acid before conception.

Nature's Sunshine Folic Acid Plus Stock #1585-8

This information comes from our Health & Science Dept. on questions that have come from our customers:

1. What is the source of Folic Acid? Folate is the form found naturally in foods. This form is not found in supplements because it is very unstable; natural folates rapidly lose activity in foods over periods of days or weeks. For this reason, folic acid—the more stable form of this vitamin—is used in supplements and fortified foods. During digestion, folic acid is converted by the body into the folate form.

2. Is the Folic Acid dose of 1 or 2 tablets on the bottle too high? One or two tablets provides 400 or 800 mcg of Folic Acid. Unless treating a specific folate deficiency or malabsorption disorder, folic acid doses should be less than 1000 mcg per day. (Health Sciences, Feb. 2012) According to some clinical research, excessive amounts of folic acid over prolonged periods of time may be associated with adverse health effects. NSP products are formulated with daily intake in mind. For example, Nutri-Calm provides 375 mcg of folic acid per day when taking the maximum recommended dosage. This is within a safe and healthy range.

How Zinc Helps Your Bones

By Byron Richards

You may not think of zinc as a vital bone nutrient, yet without adequate zinc your bones cannot maintain themselves. The status of zinc in bone is known to decline with age and especially for women following menopause. Additionally, individuals with a history of smoking have an added risk for complications involving zinc status and bone health.

It has been known for a long time that the intake of zinc has a positive influence on bone mass. The newer science has helped to clarify the multiple mechanisms involved with zinc and bones. In general, zinc is required to activate genes involved with protein synthesis – which applies to your overall body as well as bones. Zinc is an important co-factor in the stimulation of bone building osteoblasts, even helping to stimulate the production of new osteoblasts. Conversely, zinc suppresses the excessive activity of the demo-crew osteoclasts that are out-of-control in situations of bone loss. Zinc also activates death signals in old osteoclasts, preventing them from acting inappropriately to remove bone. Zinc helps to regulate the key inflammatory gene signal in bone marrow, NF-kappaB, which is required for optimal balancing of osteoblast and osteoclast formation and function.

The toxin cadmium is ingested during cigarette smoking and accumulates in bone while directly displacing zinc from bones. This is one reason why smokers have poor bone strength, especially as they age. When individuals begin to lose bone mass after age 50 then cadmium, which was sequestered in bones for many years, now comes back into the general circulation and can enter the brain. It is highly toxic to nerves. Interestingly, zinc is required to run the metalloenzyme system that clears toxic metals such as cadmium out of the body. This means former smokers have a higher need for zinc in older age simply to prevent nerve poisoning from cadmium. They also need the zinc to help improve existing bone health.

Adequate zinc is required for many healthy functions in your body. Women may need 50-75 mgs of zinc per day (total in diet and vitamins) whereas men may need up to 100 mgs of zinc. Not every one needs that much but many people do. Reading my other articles on zinc can help you understand other factors that may indicate zinc supplementation is a good idea for you.

Stock #1657-9 Zinc (150 tabs)

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Dick & Joy's Calendar January 2016

January 1, 2016 **HAPPY NEW YEAR EVERYONE! WELCOME TO 2016.**

January 16 – 24 **Dick & Joy will be in Myrtle Beach, SC**

Listen to the voice within you and make 2016 your best year ever, both personally and professionally.

"Your time is limited, so don't waste it living someone else's life. Don't be trapped by dogma – which is living with the results of other people's thinking. Don't let the noise of other's opinions drown out your own inner voice. And most important, have the courage to follow your heart and intuition. They somehow already know what you truly want to become. Everything else is secondary."

~Steve Jobs
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