BIOMEDICINE

AGING and THE SINGLE TARGET APPROACH

Way too Simple of Mind

By

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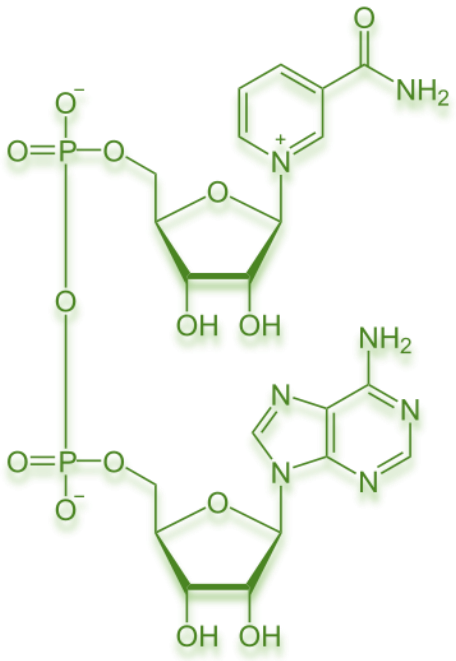
Science has enabled us to focus on the cellular level to achieve optimal health, beyond what can be accomplished with diet and exercise alone. Embryonic plant extracts (EPE) are designed by nature to optimize nicotinamide adenine dinucleotide, (NAD) + levels and to increase sirtuin function in our cells to support our most critical metabolic processes like cellular detoxification, DNA repair and energy production.

Scientists have shown they can reliably extend the life of laboratory mice by feeding them less, a process known as “caloric restriction.” That process seems to be mediated by biological molecules called sirtuins. NAD is important because it’s a chemical that sirtuins require to do their work and is also involved in other aspects of a cell’s metabolism. In worms, mice, and people, NAD levels decline with age, so the idea is to increase levels of this molecule. EPE contains various phytochemicals that are a precursor of NAD a compound that cells use to carry out metabolic reactions like releasing energy from glucose. The compound NAD is believed to cause some effects similar to a diet that is severely calories deprived—a proven method in mice not humans that extend life span by 20%.

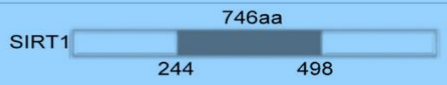
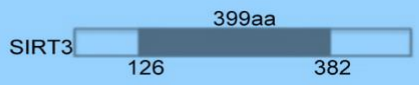
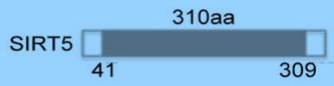


Nicotinamide Adenine Dinucleotide (NAD)

The sirtuins are a class of proteins of highly conserved NAD^+-dependent deacetylases that act as cellular sensors to detect energy availability and modulate metabolic processes. Two sirtuins that are central to the control of metabolic processes are

mammalian sirtuin 1 (SIRT1) and sirtuin 3 (SIRT3), which are localized to the nucleus and mitochondria. Both are activated by high NAD^+ levels, a condition caused by low cellular energy status. By deacetylating a variety of proteins that induce catabolic processes while inhibiting anabolic processes, SIRT1 and SIRT3 coordinately increases cellular energy stores and ultimately maintains cellular energy homeostasis. Defects in the pathways controlled by SIRT1 and SIRT3 are known to result in various metabolic disorders. Consequently, activation of sirtuins by genetic or pharmacological means can elicit multiple metabolic benefits that protect humans from diet-induced obesity, type 2 diabetes, and nonalcoholic fatty liver disease (Nogueiras et al., 2013).

SIRTUINS

Classes		Enzymatic activity	Targets and Substrate	Localization	Function	Involvement in cancer
I		Deacetylase	p53, FOXO, MyoD, Ku70, PPARγ NFκB, PCAF, H3K9, H3KI4,	Nuclear/ cytoplasmatic	Glucose metabolism, differentiation, neuroprotection, insulin secretion	Acute myeloid leukemia, colon, bladder, prostate, glioma, nonmalig-nant skin, ovarian
		Deacetylase	α-Tubulin FOXO	Nuclear/ cytoplasmatic	Cell-cycle control, tubulin deacetylation	Glioma
		Deacetylase	GHD complex 1, AceCS2	Mitochondrial	ATP-production, regulation of mitochondrial proteins deacetylation, fatty-acid oxidation	Breast cancer
II		ADP-ribosyl-transferase	GHD, ANT	Mitochondrial	Insulin secretion	Breast cancer
III		Deacetylase	CPSI	Mitochondrial	Urea cycle	Pancreatic, breast cancer
IV		Deacetylase ADP-ribosyl-transferase	Hif1α, helicase NFκB, DNA polimerasi β	Nuclear	Telomeres and telomeric functions, DNA repair	Colon, breast cancer
		Deacetylase	RNA polymerase type 1, EIA SMAD6	Nuclear	RNA pol I transcription	Breast cancer

However, these are only SINGLE aspects of aging and single target. Embryonic plant extracts do so much more than just NAD target or activating sirtuin. Have we NOT learned ANYTHING from the single-minded target approach failing us miserably?

EPE does not only address NAD and sirtuin; they are the expert's rejuvenator of dying cells. But again none of this can occur with any one single compound that approach as being pursued for ions and are we any better off with our health today? The answer is NO; we have more conditions and diseases than ever before, and most are caused by increasing pollution and singular chemical approach cause more homeostatic (imbalances) than are worth taking. The same is true for manmade unnatural isolated dietary supplements that claim to be natural. The causes of aging remain still unknown; current theories are assigned to the damage concept, whereby the accumulation of externally induced damage (such as DNA point mutations) may cause biological systems to fail, or to the programmed aging concept, whereby internal processes (such as DNA telomere shortening) may cause aging. Our best hope for antiaging medicine is to target homeostasis and not that of any one single isolated target, mechanism or pathway.

Critical thinking, also called critical analysis, is clear, rational thinking involving critique. The process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and evaluating information to reach an answer or conclusion.

Let me give you more examples about antiaging phytochemicals present in Medicinal Embryonic Phytotherapy (MEP^{TM})

Resveratrol ($C_{14}H_{12}O_3$) (trans-3, 5, 4′-trihydroxy-stilbene). It is a stilbenoid, polyphenol, and a phytoalexin. Bilberry 10% and Cowberry contains 10.6% of *trans*-resveratrol (Ogawa et al., 2014) but the *polycrest* for resveratrol content, is Grape Vine – Vitis Vinifera (buds) 1:10 contains 90,400 ppm.

Resveratrol (stilbenoid) inhibits phosphodiesterase type 4 (PDE4) and triggers a series of events within a cell that ***indirectly activates sirtuin 1***, whereas kaempferol ***directly activates sirtuin 1***. (Rasbach et al., 2008). In a study, ***kaempferol*** was demonstrated to have a stronger impact than resveratrol by also ***attenuating the accumulation of the aging marker lipofuscin***. Kaempferol is considered to be one of the aging "wear-and-tear" pigments found within the liver, kidney, heart muscle, retina, adrenals, nerve cells and ganglion cells, suggesting an anti-aging and life-prolonging activity (Kampkötter et al., 2007).

Astragalin, like ***all kaempferols***, is known to promote longevity (increasing lifespan), and, like resveratrol, activates sirtuin (SIRT1). Resveratrol (stilbenoid) inhibits phosphodiesterase type 4 (PDE4) and triggers a series of events within a cell that *indirectly activates Sirtuin 1*, ***whereas kaempferol directly activates Sirtuin 1***. (Rasbach et al., 2008). In a study, ***kaempferol*** was demonstrated to have a stronger impact than resveratrol by also ***attenuating the accumulation of the aging marker lipofuscin***. Kaempferol is considered to be one of the aging "wear-and-tear" pigments found within the liver, kidney, heart muscle, retina, adrenals, nerve cells and ganglion cells, suggesting an anti-aging and life-prolonging activity (Kampkötter et al., 2007).

All kaempferols have been shown to increase ***mitochondrial function*** and ***energy expenditure***. Furthermore, they reduced the intracellular reactive oxygen species (ROS) accumulation at lethal thermal stress, and diminished the extent of induced oxidative stress (da-Silva et al., 2007). Kaempferol had a stronger impact than resveratrol. Kaempferols function in the prevention of developing disorders such as cancer (e.g.

breast, gastric, lung, ovarian, and pancreatic cancers), and for the treatment of cardiovascular diseases being an anti-atherogenic agent (Kong et al., 2013).

Kaempferol activates Sirtuin-3 (SIRT3), more specifically a therapeutic target with oncogenic and tumor-suppressive function in cancer (Chen et al., 2014).

Phytochemicals that are known sirtuin activators (direct and indirect) include: Anthocyanins, Apigenin, Daidzein, Dehydroabietic acid, Epigallocatechin, Fisetin, Formononetin, Hydroxytyrosol, Isoliquiritigenin, Isorhamnetin, Kaempferol (all), Luteolin, Myricetin, Piceatannol, Quercetin (aglycone), Quinic acid, Resveratrol and Syringaresinol.

Polyphenols are considered to be responsible for some of the health benefits derived from the consumption of plants, e.g. anthocyanins. These protective effects can be explained in the context of the ***xenohormesis theory*** that considers plant secondary metabolites as interspecific chemical signals. Xenohormesis explains how certain plant phytochemical such as polyphenols that indicate stress in plants, can activate a life-extending genetic effect in humans who consume such plants. The founding member of the sirtuin family of deacetylases molecules greatly extends human lifespan by mimicking caloric restriction (CR). This has been described in *Small Molecules that Regulate Lifespan: Evidence for Xenohormesis*, by Dr. David Sinclair and colleagues from Harvard Medical School. Further studies are now using the term xenohormesis (Lamming et al., 2004).

Cluster of differentiation 38 (CD38) is a multifunctional ectoenzyme, which is ubiquitously distributed in mammalian tissues. It is involved in the conversion of NAD(P)(+) into cyclic ADP-ribose, NAADP(+) and ADP-ribose and the role of these metabolites in multiple $Ca(2^{+})$ signaling pathways make CD38 a novel potential pharmacological target. The dire paucity of CD38 inhibitors, however, renders the search for new molecular tools highly desirable. We report that human CD38 is inhibited at low micromolar concentrations by flavonoids such as ***kuromanin*****, *luteolin, luteolinidin***, and ***pelargonidin***, (IC_{50}) <10 μM). Docking studies provide some clues on the mode of interaction of these molecules with the active site of CD38. (Kellenberger et al., 2011).

CD38 is a multifunctional enzyme that uses nicotinamide adenine dinucleotide (NAD) as a substrate to generate second messengers. Recently, CD38 was also identified as one of the main cellular NADases in mammalian tissues and appears to regulate cellular levels of NAD in multiple tissues and cells. Due to the emerging role of NAD as a key molecule in multiple signaling pathways, and metabolic conditions it is imperative to determine the cellular mechanisms that regulate the synthesis and degradation of this nucleotide. In fact, recently it has been shown that NAD participates in multiple physiological processes such as insulin secretion, control of energy metabolism, neuronal and cardiac cell survival, airway constriction, asthma, aging and longevity. The discovery of CD38 as the main cellular NADase in mammalian tissues, and the characterization of its role on the control of cellular NAD levels indicate that CD38 may serve as a pharmacological target for multiple conditions. ***CD38, is involved with NAD, SIRT1, aging, obesity, and metabolic syndrome also some cancers*** (Chini, 2009).

Targeting sirtuin-1 to improve metabolism: all you need is NAD^{+}. Flavonoids CD38 inhibitors could provide an effective way to achieve such goals (Cantó et al., 2011).

Phenolic compounds such as the ***anthocyanins delphinidin*** and ***peonidin*** are capable of stimulating autophagy by activating the NAD-dependent deacetylase Sirtuin 1 (Pietrocola et al., 2012). Another study demonstrated that anthocyanins increased the activities of Sirtuin -1, -3, -4, and -5 mRNA expression and decreased Sirtuin-2 mRNA expression. This study suggested an association of epigenetic changes and cholesterol transport upon exposure of intestinal cells to anthocyanins from berries. Specifically, the ability of cyanidin-3-O-galactoside, cyandin-3-O-glucoside, cyanidin-3-O-arabinoside, and peonidin-3-O-galcatoside to lower cholesterol appears to be governed by intestine, rather than hepatic changes in gene expression. The antiinflammatory activity of the anthocyanins inhibited lipopolysaccharide-induced IL-6 (Kim et al., 2012a; Kim et al., 2012b).

Anthocyanins interact with important signaling pathways that are associated with life-span determination and initiation of age-related degenerative diseases, such as those involving AMP-activated protein kinase, TOR, and SIRT1 (sirtuin 1). A more recent suggestion is that anthocyanins may stimulate the synthesis of long chain omega-3 polyunsaturated fatty acids (PUFAs), so increasing the production of antiinflammatory eicosanoids, compared to pro-inflammatory eicosanoids produced from omega-6 PUFAs (Glover et al., 2012).

Dehydroabietic acid (abietane diterpene acid), was shown as an anti-aging reagent that mediates the ***direct activation of sirtuin (SIRT-1)***. Dehydroabietic acid (DAA) induces various biological actions including antimicrobial, antiulcer, and cardiovascular activities. The cellular targets that mediate these actions are largely unknown yet. In this report, it was suggested that DAA is an antiaging reagent. DAA increase lifespan in Caenorhabditis elegans, attenuates lipofuscin accumulation, and prevents collagen secretion in human dermal fibroblasts. It was found that these antiaging effects are primarily mediated by SIRT1 activation. Lifespan extension effects by DAA were ameliorated in sir-2.1 mutants and SIRT1 protein expression was increased, resulting in the deacetylation of SIRT1 target protein PGC-1α. Moreover, DAA binds directly to the SIRT1 protein independent of the SIRT1 substrate NAD(+) levels. Through a molecular docking study, we also propose a binding model for DAA-SIRT1. Taken together, these results demonstrate that the antiaging effects are the first identified biological property of DAA and that the direct activation of SIRT1 enzymatic activity suggests the potential use of this natural diterpene, or related compounds, in age-related diseases or as a preventive reagent against the aging process (Kim et al., 2015).

Cinnamon polyphenol cinnamtannin D1 significantly enhanced secretion of S100β, a $Ca2^{+}$-binding protein, and increased intracellular S100β expression after 24 h of incubation, in rat C6 glioma cells. Cinnamon polyphenols also ***enhanced protein levels of sirtuin 1, 2, and 3***, deacetylases important in cell survival, and the tumor suppressor protein, p53, and inhibited the inflammatory factors, tumor necrosis factor alpha (TNF-α, and phospho-p65, a subunit of nuclear factor-κβ. Cinnamon polyphenols also up-regulated levels of phospho-p38, extracellular signal-regulated protein and mitogen-activated protein and kinase-activated protein kinases that may be important for prosurvival functions. This study's results indicate that the effects of cinnamon polyphenols on upregulating prosurvival proteins, activating mitogen-activated protein

kinase pathways, and decreasing proinflammatory cytokines may contribute to their neuroprotective effects (Bolin et al., 2013).

The isoflavone daidzein was a most potent candidate that regulated mitochondrial biogenesis. When C2C12 myotubes were treated with 25-50 μM daidzein for 24h, there were significant increases in the expression of mitochondrial transcription factor A (Tfam) genes such as COX1 and Cytb as well as the mitochondrial content. Using several mutant Tfam promoter fragments, they found that the transcription factor, nuclear respiratory factor (NRF) and its coactivator, peroxisome proliferator-activated receptor gamma coactivator 1-alpha (PGC-1α), were necessary for the effect of daidzein on Tfam expression. Finally, silencing of sirtuin-1 (SIRT1) by shRNA resulted in inhibition of the daidzein effects on mitochondrial gene expression. In conclusion, daidzein regulates mitochondrial biogenesis in muscle cells by regulating transcriptional networks through a SIRT1-associated pathway. These results suggest that daidzein would be beneficial to protect against a wide range of diseases caused by muscle mitochondrial dysfunction (Yoshino et al., 2015).

Another study has shown that both ***leucine*** metabolites (α-ketoisocaproic acid and HMB) are ***activators of SIRT1*** in the range of 30-100%, 13% (adipose) and 43% (muscle tissue), suggesting biological plausibility. Sirtuin proteins (silent information regulator transcript = SIRT) are NAD+ dependent enzymes that are sensitive to a cellular NAD+/NADH ratio, and the energy status of a cell. Of these, SIRT1 is a histone deacetylase that can modify signaling of the nuclear proteins p53, NF-κB and FOXO, and can induce the mitochondrial biogenesis factor PGC-1α (Bruckbauer et al., 2009, 2011).

Quinic acid (QA), ($C_7H_{12}O_6$) increased nicotinamide and tryptophan production by QA is important for antiinflammatory, anxiolytic, ***activator of sirtuins***, apoptotic activities etc.…

One study led to the discovery of the first small-molecule activator of sirtuin 1 (SIRT1) gene expression. Increased expression of SIRT1 by the lignan ***syringaresinol*** was mediated by FOXO3, which resulted in delayed cellular senescence and enhanced endothelial function, suggesting possible utility of the compound in therapeutic intervention of age-related diseases. Syringaresinol also was reported to exhibit antimalarial activities and anti-platelet aggregation activity (Cho et al., 2013).

Why not instead of taking any one single manmade isolated compounds of sirtuin activator use instead a plant that contains many? You are more likely to win a battle against aging, which is a complex matter. You are more likely to conquer a war with a regiment of a thousand soldiers as opposed to one.

It seems simple, but it is not so simple. You cannot even think of addressing the anti-aging process until you first debris your body of things that you should never be found present in the body in the first place. Furthermore, this will require a stellar lifestyle food intake, mindful breathing and exercise at least three times per week one hour at a time. Getting a regular massage is not a luxury in today's world it became ***a necessity***. We all need to be reminded to reduce our stress level, which we all have way too much of.

The hypothesis of phytochemicals contributing to increasing lifespan and its antiaging effects are numerous: all of which is not attributed to any one single compound but its total sum synergistic or modulatory activities. Detoxification of xenobiotics and toxic

metals, will debris the cells and tissues regaining optimal organ functions or at the very least improving them. Some phytochemicals increase cells (mitosis) renewal and/or autophagy, which allows the orderly degradation and recycling of cellular components. Some phytochemicals reduce oxidative stress; by their antioxidant properties, others reduce inflammation by either modulating pro-inflammatory cytokines, or by increasing blood pH, which should be alkaline 7.2-7.4 thereby increasing blood oxygen levels and inhibiting reactive oxygen species (ROS) and reduce free radicals. Some phytochemicals intervene with defective gene's inherent factors while others optimize nicotinamide adenine dinucleotide, (NAD) + levels and others activate or increase sirtuins function. Modulators of the endocrine system hormones and neurohormones helps in increasing quality of life and longevity. Some phytochemicals help in maintain metabolic enzyme's activities or intervenes with the various pathways found in the human body. While others simply nourish the body with necessary essential nutrients such as vitamin C-complex, that increases collagen and elastin production reducing aging.

SOME OF THE MOST ANTIAGING EMBRYONIC PLANTS (this is not a complete list).

Arnica - Arnica Montana (buds of flowers) 1:10 for congestive heart failure (CHF) in need of innervation.

Ash – Fraxinus Excelsior (buds) 1:10 for ligament and tendons preservation.

Beech – Fagus Sylvatica (buds) 1:10 *polycrest* contains 11 phytochemicals that are sirtuin activators.

Betulinic Acid Concentrate (BAC) 1:10 *polycrest* for apoptosis (program death cell) proper execution and function. It is also the *polycrest* for restoring kidney functions even when all else seem to have failed in renal failure. BAC can prevent a person graduating to dialysis in renal failure, but this is contingent on the necessary dietary restriction required for renal failure management. This is also an antiviral agent for HIV infections, which has been confirmed by HIV-PCR quantitative viral load analysis. Either as a first management for HIV infections or when becoming resistant to conventional treatment drugs.

Bilberry – Vaccinium Myrtillus (young shoots and embryonic fruits) 1:10 high in anthocyanins and a potent antiinflammatory modulator of pro-inflammatory cytokines, with the highest content of quinic acid 20,000 - 50,000 ppm.

Black Currant – Ribes Nigrum (buds) 1:10, highest in vitamin C-complex = 1,500 mg per 15 drops, increases the production of collagen and elastin and also contain many anthocyanins, which are plant pigments that help vascullar function and cell wall intergrity.

Black Elder – Sambucus Nigra (buds) 1:10 highest in vitamin A and contain many anthocyanins.

Black Poplar – Populus Nigra (buds) 1:10 is the *polycrest* for every toxic metal detoxification. This plant high content of the phytochemical apigenin, and quercetin aglycone, which are known activators of the sirtuin proteins. Furthermore, many bee's forages on Poplar species for making their propolis. One of the best plants for inflammation cause by primary immunodeficiency erroneously referred to autoimmune disease, which, in fact, is a lack of immune response allowing pro-inflammatory cytokines to remain elevated. Black poplar is one of the most reliable agents for the treatment of

systemic lupus erythematosus (SLE) edema; adult dose could require as much as 15-50 drops, tid, qid, PRN, QD.

Bramble – Rubus Fruticosus (young shoots) 1:10 high in anthocyanins.

Cedar of Lebanon – Cedrus Libani (young shoots) 1:10 *polycrest* antiaging for the skin.

Dog Rose – Rosa Canina (young shoots) 1:10 *polycrest* for increasing the immune system natural killer cells (NK) production in its antitumor activities against cancer.

Chaste Tree – Vitex Agnus Castus (young shoots) 1:10 high in anthocyanins and best plant to increase our own production of progesterone. *Polycrest* to restore the pituitary gland function.

Cowberry – Vaccinium Vitis Idaea (young shoots) 1:10 high in anthocyanins.

Crab Apple – Malus Sylvestris (buds) 1:10 double strength: contains high content of the dihydrochalcone ***phlorizin*** ($C_{21}H_{24}O_{10}$) 54,000 – 140,000 ppm the 2'-glucoside derivative of phloretin the aglycone. Phlorizin when orally consumed is nearly ***entirely converted into phloretin*** ($C_{15}H_{14}O_5$) by hydrolytic enzymes in the small intestine (Crespy et al., 2001; Idris et al., 2009). Phloretin is a well-known polyphenol that has been shown to also age the aging process it inhibits advanced end products glycation (AGE). A study demonstrated that ***phloretin inhibits*** the active transport of glucose into cells by sodium/glucose cotransporters 1 (SGLT1 and SGLT2), although the ***inhibition is weaker than by its glucoside phlorizin*** (Chan & Lotspeich. 1962). Best for increasing catalase enzymes and most effective for reducing elevated fibrinogen preventing ischemia. Also best for restoring the detoxifying enzymes in the liver and also restore peristaltic action of the colon motility.

Dandelion – Taraxacum Officinale (embryonic roots) 1:10 double strength, preserve the liver.

European Alder – Alnus Glutinosa (buds) 1:10 *polycrest* for mercury toxicity affecting cognitive function and increase cerebral circulation.

Eyebright – Euphrasia Officinalis (buds of flowers) 1:10 antiaging of the eyes.

Fig – Ficus Carica (buds) 1:10 *polycrest* for fisetin content which increase sirtuin protein.

Giant Redwood – Sequoiadendron Giganteum (young shoots) 1:10 best for male cognitive decline, prostate enlargement and one of the best source of vitamin D.

Grape Vine – Vitis Vinifera (buds) 1:10 highest concentration of resveratrol.

Hazel – Corylus Avellana (buds) 1:10 best for preserving the liver function,

Holly – Ilex Aquifolium (young shoots) 1:10 best for inhibiting defective genes inherent factors.

Hornbeam – Carpinus Betulus (buds) 1:10 best for restoring the olfactory system.

Horse Chestnut – Aesculus Hippocastanum (buds) 1:10 best for restoring the venous system and vascular tone.

Lemon Tree – Citrus Limonum (bark) 1:10 *polycrest* for reducing elevated C-Reactive protein and a blood pH alkalinizer.

Lilac – Syringa Vulgaris (buds) 1:10 *Polycrest* for coronary arteries chelation, it can pounch a hole in biolfim fomration accumulated plaque and regulates 26 hormones in the human body at a small dose of onlty 15 drops 3 x a day

Maidenhair Tree – Ginkgo Biloba (buds) 1:10 double strength an effective *adjuvant* for increasing cognitive function and very potent when combined with Rhodiola.

Mountain Pine – Pinus Montana (buds) 1:10 best for increasing our own production of glucosamine and chondroitin preserving connective tissues and a natural profen. Furthermore, this plants correct defective essential fatty acids (EFA) metabolism and Juniper – Juniperus Communis (young shoots) also does this.

Nigella – Nigella Sativa (germinating seeds1:10 best to preserve the pancreas.

Oak – Quercus Pedonculata / Robur (buds) 1:10 best to maintain testosterone level and for iron and copper anemia.

Passion Flower – Passiflora Incarnata (buds of flowers) 1:10 double strength *polycrest* for decalcifying the pineal gland and with sour cherries in time one or two years will completely restore the level of melatonin back to normal. But this does take time to completely restore.

Propolis Blend 1:5 double strength *polycrest* for the ***prevention of thymus gland senescence*** a most effective aromatize inhibitor and best for the treatment of any bone loss osteoporosis and for this purpose is best when combined with Horsetail – Equisetum Arvense (young shoots). Propolis blend is an all-around most incredible antiaging agent, that is provided by bees which forages on different plants.

Raspberry – Rubus Idaeus (young shoots) 1:10 best for preserving the ovaries.

Rhodiola – Rhodiola Rosea (buds of flowers and embryonic roots) 1:10 double strength best for cognitive function.

Rosemary – Rosmarinus Officinalis (young shoots) 1:10 *polycrest* antiaging liver.

Service Tree – Sorbus Domestica (buds) 1:10 best for the prevention of senile hearing loss and also restore some of its function only if initiated early on.

Silver Birch – Betula Verrucosa (buds) 1:10 best for increasing brain concentration.

Silver Birch – Betula Verrucosa (germinating seeds) 1:10 best for preserving the amygdala.

Sour Cherries Montmorency – Prunus Cerasus (buds) 1:10 double strength *polycrest* for restoring melatonin levels in the pineal gland. High in anthocyanins and phlorizin.

St John's Wort – Hypericum Perforatum (buds of flowers) 1:10 best for regenerating nerve growth factor, and for repairing nerve damage.

Sweet Chestnut – Castanea Vesca (buds) 1:10 *polycrest* for the lymphatic system preservation and to prevent HPV related cancers. Most HPV antiviral agent.

Tamarisk – Tamarix Gallica (young shoots) 1:10 best to preserve the spleen, helps increasing low platelets and bone marrow productions effective for iron in anemia.

Virginia Creeper – Ampelopsis Veitchii (young shoots) 1:10 best to arrest all joint malformation including Dupuytren's contracture.

Wayfaring Tree – Viburnum Lantana (buds) 1:10 best lung restorer and preserver and replace any synthetic drug inhaler, when you use 50 drops into a nebulizer and taken in this way.

INFLAMMATION TARGETS

Inflammation also cannot be addressed by solo target. It requires to modulate pro-inflammatory cytokines immune response, blood pH, metabolic enzymes and the cortico steroidal production (natural antiinflammatory) produced by the adrenal glands.

Beware of new articles about Turmeric as an antiinflammatory panacea of sort. I've got news for you! Turmeric is a condiment that was never intended to be used as a medicinal plant taken in high amounts. Turmeric's high pigment content causes melanosis (darkening) of the colon just like that of anthraquinones found in natural herbal laxative as well. Now you have a new problem with melanosis interfering with the colon microbiota ability in the conversion of B-complex vitamins now you can over time end up with a new condition called neuropathy. It's not because a plant exist naturally that it is always safe to consume internally, it requires the study of its entire plant phytochemistry before we can possibly understand it. They are also many poisonous plants in the world that are not safe for human consumption since one of their role is to filter environmental atmospheric pollution..

Staggering statistics:

- 20 billion dollars a year is spent in the U.S. Weight loss industry, including diets, diet books, diet drugs and weight-loss surgeries.
- $37 billion is spend in the U.S. nutritional supplement industry, including sport supplements, meal replacements, vitamins and minerals.

Baffling is the diet and nutrition industry who has never met you, doesn't know your name or looked at any of your blood results but claims to know what everyone should be eating and what supplements everyone should take!

All those diets that are in existence today all those multivitamins, and all those single isolate nutritional supplements and synthetic drugs. They have no idea how your health is, what your medical history is or what you may or may not be genetically dealing with. Yet, they claim to know what exactly you need to lose weight and feel great. This makes absolute no common sense to me.

Why as no one, even once, ever reported in the news these two illogical point views about any diets or multivitamins, this is even more mind-boggling to me. The lack of clarity is so dense and probably due to the increasing pollution smog fogging people brain even more into oblivion. It just does not make any sense whatsoever. I could finally use a formula or protocol that *fits all* and no longer having to spend my weekends customizing biotherapeutic programs, now wouldn't that just be too good to be true!

EPE are the most effective anti-senescence agents in the world. They address the many root causes of aging, which also includes a lack of homeostasis.

Happy cogitations,

Dominique