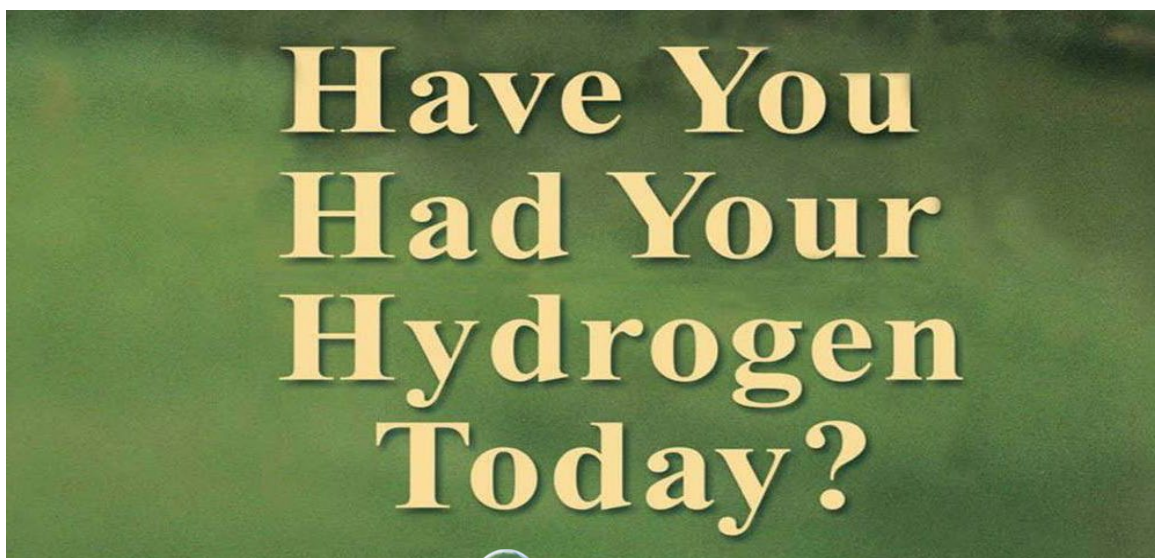


# NEGATIVE HYDROGEN

Unlocked

*The Secret of Longevity &*

*Fountain of Youth*



Stay young, physically fit, healthier naturally and with a longer life-span with negative hydrogen

Written by Lim Cheu Song and edited by Lee Geok Thor

## Preface

A special word of gratitude and thanks to Dr. Patrick Flanagan for his profound discovery to unlock the secret of Himalayas Hunza water. I would also like to thank Mr. Yeap Kok Hoe and Mr. Cham Lim Tek, Managing Director and ex-CEO respectively of Flantech Asia for providing me the six Peer Reviewed Published Papers on scientific research of Hunza water done by Dr. Patrick Flanagan. I was a secondary school science teacher for more than 27 years. I am writing this book to highlight the benefits of Flanagan Microcluster<sup>®</sup> silica and another **nutraceutical** ingredient **Silica-Hydride** or **S(H)<sub>n</sub>** formulated by Dr. Patrick Flanagan. Flanagan Microcluster<sup>®</sup> silica is a NEW INVENTION and TECHNOLOGY used to trap H<sup>-</sup> (Negative Hydrogen) for stability, then dubbed silica-hydride or S(H)<sub>n</sub>.

Hunza water containing very tiny, almost untraceable, silica colloids that trap H<sup>-</sup> was discovered by Dr. Patrick Flanagan 30 years ago. H<sup>-</sup> is NATURE'S given LIFE FORCE. In the year 1983, Dr. Patrick Flanagan finally succeeded in synthesizing Flanagan Microcluster<sup>®</sup> silica resembling exactly the tiny Hunza silica.

S(H)<sub>n</sub> is classified as Nutraceutical abridge Pharmaceutical. When S(H)<sub>n</sub> was first trademarked to market in the USA, the US Authority graded it to be functional and can be positioned under either pharmaceutical or food-grade nutraceutical.

If S(H)<sub>n</sub> is classified as pharmaceutical, then only medical doctors and pharmacists can prescribe it to benefit only the sick. In which case, the general public, like me, will be deprived of the chance to take S(H)<sub>n</sub>.

A word of sincere thanks to Dr. Patrick Flanagan who did not register S(H)<sub>n</sub> as pharmaceutical. Dr. Patrick knew exactly S(H)<sub>n</sub> is food-grade made from natural food source and hence he registered it as nutraceutical. To qualify as nutraceutical, the quantity of S(H)<sub>n</sub> for therapeutic efficacy must comply. Nutraceutical means emphasis on safety, efficacy, stability and scientific validation. Its efficacy, non-prescriptive and non-toxic nature is beyond dispute if the Government of China can sign a contract with Dr. Patrick Flanagan to supply S(H)<sub>n</sub> to the Olympics Team of China for stamina training.

According to the **D**ietary **S**upplementary **H**ealth & **E**ducation **A**ct (DSHEA) of USA, any functional food that has therapeutic effect is classified as NUTRACEUTICAL only when its amount for clinical effect is stated clearly. This nutraceutical classification is applied to functional food-grade like S(H)<sub>n</sub> as well.

S(H)<sub>n</sub> is the only supplement in the market to supply pure H<sup>-</sup>. When S(H)<sub>n</sub> is added to water, it instantly releases large quantities of pure H<sup>-</sup> which then react with H<sup>+</sup> found in water to form H<sub>2</sub> gas (hydrogen). Dr. Patrick collected the gas and tested it. It exploded when a splinter is applied showing the gas to be hydrogen. No product can directly release large quantities of H<sup>-</sup> like S(H)<sub>n</sub> to form H<sub>2</sub> gas that explodes the flame.

S(H)<sub>n</sub> is the number one functional supplement to enhance cell respiration as a result of which has therapeutic effects to lower blood glucose. **Health Ministry of Malaysia classified S(H)<sub>n</sub> as 'X' to validate** the ingredient is **nutraceutical**. That means the value of S(H)<sub>n</sub> for health is 100% money back guaranteed.

**Microcluster<sup>®</sup> is the nutritional breakthrough of the 21<sup>st</sup> century used to transport nutrients that leads to nutrient absorption.** S(H)<sub>n</sub>, formulated in 1989, has passed the five toxicity tests showing it to be very safe and suitable for long term consumption. All the scientific safety tests are published in the six Peer Reviewed Published Papers. The safety of Microcluster<sup>®</sup> and S(H)<sub>n</sub> is fully endorsed by the Consumer Health Organization of Canada, Volume 24 Issue 1st January 2001. Microcluster<sup>®</sup> is a nano silica colloid synthesized via the 33 steps of Microcluster<sup>®</sup> Technology founded by Dr. Patrick Flanagan. Microcluster<sup>®</sup> silica colloid is a monomer unique in its chemistry, and one of its kind unlike most silica which is either crystalline or polymer. Microcluster<sup>®</sup> is a monomer silica resembling the silica found in Hunza water. With more than 30 years of history, time has proved Microcluster<sup>®</sup> to be very safe for consumption.

Biology is the study of what a substance is, chemistry studies how and physics probes why it is such. To understand Microcluster<sup>®</sup>, you need to study all.





Many years ago, we learnt too many "what" but when comes to **H<sup>-</sup>** and tiny **Hunza silica** found in Himalayas' Hunza water, but miss researching not, because there was no advance technology available then to detect it. Hunza's silica that traps H<sup>-</sup> is NOT WHAT most nutritionists, doctors, pharmacists, biochemists, chemists and intellectuals know. But it does not mean that the scientific world does not know its existence. In fact, it is the missing link....the secret to health and longevity.

This missed out "what" not detected is by far the most important life force to monitor human biological terrain. Biological terrain is measurable and can be revealed by three parameters: pH buffering, oxidative stress and electrical resistivity.

To get to know THE TWO UNKNOWN, H<sup>-</sup> and silica colloid found in Hunza water, is always not an easy job. It took Dr. Henri Coanda 60 years of research and Dr Patrick Flanagan another 30 years' research engaging all sorts of high-tech technologies involving nuclear magnetic resonance, ion beam analysis, spectrophotometry analysis, photo-autofluorescence detection, photon dissociation method, FTIR, to finally discover the two secrets of Hunza water.

**Himalayas Hunza water contains two wonders: nano-colloid silica and H<sup>-</sup>.** Silica is neither silicon, silicone nor silicate. These two **SECRET NATURE INGREDIENTS**, silica and H<sup>-</sup> are the missing link which prevail the secret of longevity that you DO NOT KNOW - they heal the impossible simply because H<sup>-</sup> works very independently in the body to enhance cell respiration for ATP production. H<sup>-</sup> is not a gas, it is an ion which diffuses into the body so fast simply because it is the smallest ion. Hunza silica and hence, Microcluster<sup>®</sup> silica has high negative zeta potential, as a result of which it improves human blood colloid and the lymphatic system. By size, H<sup>-</sup> is an element, the smallest atom-size antioxidant far excels most food antioxidants which are molecules or compounds. The human body does not have to digest S(H)<sub>n</sub> for absorption. S(H)<sub>n</sub> has a direct ability to release its many H<sup>-</sup> which then diffuse very fast into the body; even breaking through blood brain barrier protecting brain cells the fastest in terms of speed and the richest in terms of quantity.. There is no other antioxidant which can work in this way.

**Biography of Dr. Patrick Flanagan:**

At Age of 11	At Age of 14	At Age of 17	Achievement
 <p>At the age of 11, invented a missile detector which could track &amp; record missile launches worldwide.</p>	 <p>At the age of 14, invented a Neurophone that assists a deaf person to hear audio tape using his skin nerve.</p>	 <p>At the age of 17, worked as a "Think Tank" for U.S. Defense &amp; NASA Department. He was featured in the Life Magazine as one of the one hundred most important men and women in the United States.</p>	 <ul style="list-style-type: none"> <li>• Discoverer &amp; Owner of the Flanagan Microcluster® Technology</li> <li>• A Nobel Prize Nominee</li> <li>• 1997 Scientist of the Year</li> <li>• A Contemporary Scientist</li> </ul>

Achievement of Dr. Patrick Flanagan with reliable sources:

1. Microcluster® Technology was forwarded to the **Nobel Prize Committee in 1994**
2. Live Blood Analysis (LBA) public broadcast on TV of USA, organized by Basil Gold.
3. Clinical test reports published on 6 Peer Reviewed Published Papers telling safety, efficacy and scientific validation.
4. Ever to be the first non-civilian to receive award and honored by the Government of China in history. The Olympic Team like Tae Kwan Do and Boxing Team in China are using silica hydride for stamina and endurance training. The training shows excellent performance and passed the toxicity test.
5. Product is endorsed by the Consumer Health Organization of Canada.

## **Why you should consider taking silica hydride, $S(H^-)_n$ ?**

### **Medical expenses are very scary**

Are your earnings for supporting the pharmaceutical industry? All your income will finally benefit the pharmaceutical industry if you neglect your health.

### **Physical Fitness is more than just health**

Earning is important but learn to love your body and your health if you are smart.

Smart people always reserve their energy for building a physically fit body more than just gaining wealth. Making money for wealth at the expense of health is not advisable and you are merely feeding the medical and pharmaceutical industry.

The wellness industry is an everlasting business which exploits every generation for wealth. Unfortunately, when health gives way to wealth; the actual winner is the medical and the pharmaceutical industry. Whatever you endure, it is only worth if the physical body stays healthy. Whatever you own, health is better than wealth no matter what assets you may have.

Money you earned to reward yourself a luxurious lifestyle but do spare some funds for your health as well. The wealth accumulated may not worth at all if you are sick.

### **Something for you to ponder!**

Engage Flanagan Microcluster<sup>®</sup> to safeguard your life savings. Do not spend what you earn to support the medical industry. Are you pre-opening a savings account which will be taken over by future medical suppliers?

We earn and spend for a luxury lifestyle but without being health conscious, we are ruining our life. We are actually making contributions to the pharmaceutical industry to be stronger. The final winner is the medical industry.

Is it not absurd that whatever money we make today is actually investing profit for the pharmaceutical and medical industry to grow stronger and stronger?

You should consider Flanagan Microcluster<sup>®</sup> embedded  $H^-$  to protect your health and wealth.

### **Energy Conservation Theory**

Energy can never be created nor destroyed. That means the total energy in a body system is always constant.

If you were to exhaust your body total energy into just making money alone, you are transforming your body energy into earning money for the medical industry. In the end, what you gain is at the expense of the body; you pay the price for your health.

Whatever you earn today is what your body makes for you. Without your body, you are left with nothing. Earn to spend but contribute to your health as well.

Smart people always reserve their energy into making a physically fit body to gain health and wealth. Making money is not just for wealth but for health as well.

## What Makes Mystery Life Force That Sustains Life?

Dare to accept a challenge!

### Make a guess

Besides the Sun, what is the mystery that sustains life in all living things on *Earth*?

Guess you cannot answer this question correctly. To answer this mysterious question, you have to imagine and truly ask yourself, whether we can survive without the Sun?

Is there something exceptional such as **LIFE FORCE** that can best match the power of the Sun and yet influence the life-span of every living thing on *Earth*?

Some of you may think the answer is oxygen. **The answer is neither oxygen nor water** because **oxygen is not a fuel** while water is the byproduct of oxygen and hydrogen. Oxygen only supports the combustion of fuels. Therefore, oxygen is NOT a source of life force to increase the lifespan of a cell.

**The answer is Negative Hydrogen (H<sup>-</sup>).**

All living things possess Negative Hydrogen and it is **NOT A PRIVILEGE** of any single living thing. It belongs to NATURE. Fruits, meat, plants, vegetables, fish, prawns etc. when they are RAW & FRESH all contain Negative Hydrogen. Negative Hydrogen is an invisible substance that belongs to Nature. The human body depends on nature for survival. I would rather describe it as life WITHOUT NEGATIVE HYDROGEN in our biological terrain is JUST LIKE OUR SOLAR SYSTEM WITHOUT THE SUN. Without either one of them we are dead. Nothing can survive if there is no **H<sup>-</sup>** found in a living body or absence of sunlight falling onto *Earth*. This is proved when we refer to the Krebs's Cycle of energy production showing that there is "Hydrogen Cycle" (also called Citric Acid Cycle) in our body.

Is there an exceptional thing such as **Life Force** that can best match the power of the Sun and yet influence the lifespan of every living thing on *Earth*?

**A Biological Terrain without Negative Hydrogen** is just like the Solar System without the Sun..

**We are `dead`.**

**Negative Hydrogen serves as the Life Force** that brings **CHANGES** to our biological terrain.

**Biological Terrain is**

- **pH buffer**
- **oxidative stress**
- **electrical resistivity**

## Biological terrain Is The Body Internal Environment



“The microbe is nothing, the terrain is everything”, acclaimed Professor Claude Bernard. Parameters measuring biological terrain are pH, electrical resistivity and oxidative stress.

### MANAGING BIOLOGICAL TERRAIN

pH Buffer

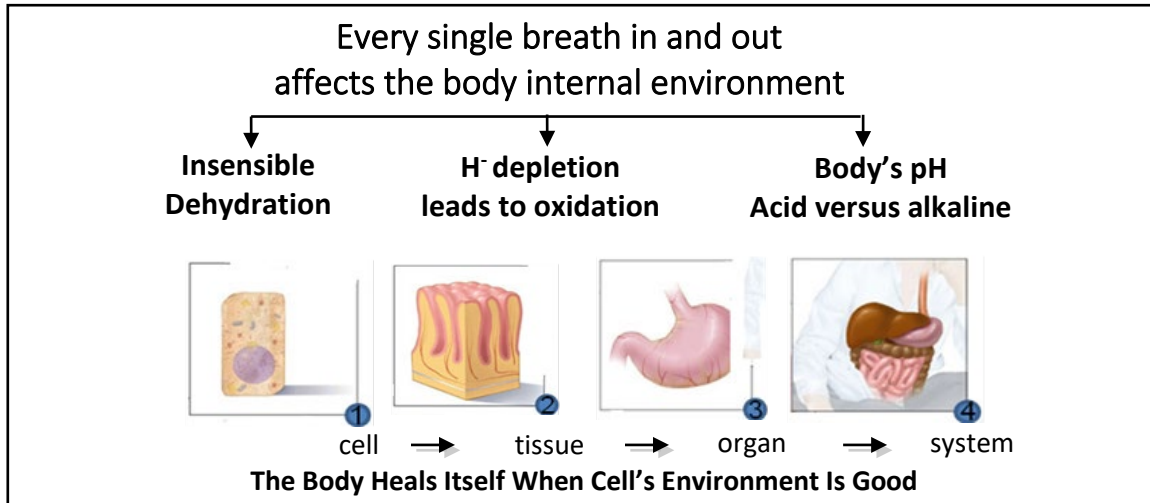
Oxidative Stress

Electrical Resistivity

What is the difference between a live and a dead body? Quotes Dr. Patrick Flanagan, “Dead body has no charge.” ATP is the battery inside the cells and  $H^-$  is to recharge the ATP. The cell is alive just like an electric bulb lights up when it receives enough electrons.  $H^-$  prolongs the lifespan of cells.  $S(H)_n$  improves human bioelectricity.

## ALL SYSTEMS START FROM CELL RESPIRATION

Many products are claimed to enhance various functions of systems but do not forget all systems start from cell respiration. Anti-cancer therapy begins from proper cell respiration. While oxygen supports breathing to support life, hydrogen protects life. Hydrogen protects DNA of cells. Without hydrogen, there is no electron flow and hydration in the body.

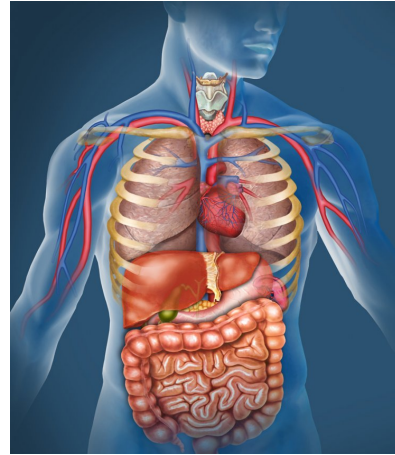
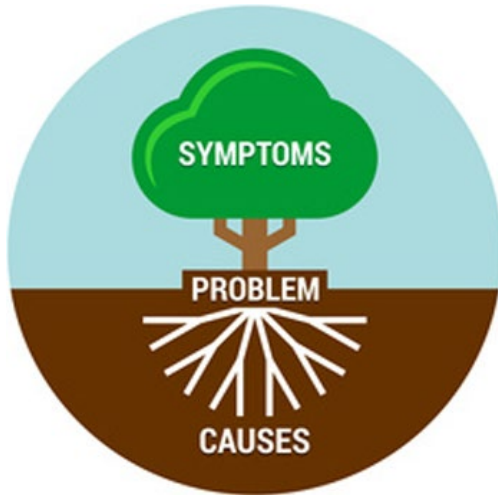


## Oxygen versus hydrogen

*The Secret of life...breathe in breathe out...that is how body cell survives utilizing hydrogen to bond with oxygen during cell respiration for energy production.*

Oxygen uses up electron, hydrogen gives electron. They are mutual compatible to support cell respiration. Without hydrogen and oxygen, the cell cannot carry out respiration. This explains why people suffering from breathing difficulties such as asthma and heart problems recover faster after taking negative hydrogen. Eating alkaline food and drinking alkaline water cannot neutralize carbon dioxide.  $H^-$  monitors blood carbon dioxide via pH buffer blood carbonic acid versus bicarbonate. Microcluster<sup>®</sup> improves blood colloid to make many discrete red blood cells.

**Biological Terrain** can reflect the internal environment of a human body.



The soil terrain affects the root system of a tree. Without a healthy root system, the tree cannot blossom. Likewise, the biological terrain of the intestine and colon affect the absorption of nutrients. The blood terrain will affect every single cell. Managing the biological terrain means administering one's personal total health management.

**S T E M** is to indicate the **VALUE** of Silica Hydride:

S(H)<sub>n</sub> is an ingredient backed by **S**cience, **T**echnology, **E**ngineering and **M**athematic to validate its value. It is nutraceutical food grade, very safe for long-term consumption.

<b>S</b> c i e n c e	<b>T</b> e c h n o l o g y	<b>E</b> n g i n e e r i n g	<b>M</b> a t h
1. Peer Reviewed Published Papers	1. Lower the surface tension of water. 2. Philosophy of Microcluster <sup>®</sup> Technology: QQSSP	1. Engineering cell to conduct respiration for energy production.	1. ORP reading. 2. Using Nernst Equation to calculate the rH VALUE of silica hydride. 3. ONE capsule of Mega H <sup>®</sup> contains the electrons equal to electrons found in 10,000 glasses of fresh organic orange juices
2. Clinical Paper on Cardiovascular Blood Volume Oxygen test and tricycling test.	3. Transport nutrients and wet nutrients to make absorption three times higher.	2. Engineering blood bioelectricity to improve blood zeta potential. Recycle vitamin C.	
3. Product demo: pH buffer test, tea leaf test and oil emulsification test.	4. Stabilize H <sup>-</sup> to make oral intake become possible. 5. For hydration and rehydration.	3. Reduce oxidative stress and pH buffering to restore the Biological Terrain.	



# Our Immune System Offensive and Defensive Are Equally Important

The Art & Science of  $S(H)_n$  for Secret of Longevity

Demo is art. Theory is science. When the demo can be explained by science, then the demo is a scientific demo.  $S(H)_n$  is the most powerful Biological Antioxidant



Electrons released from 1 capsule is equal to electrons in 10,000 glasses of raw, fresh organic orange juice.



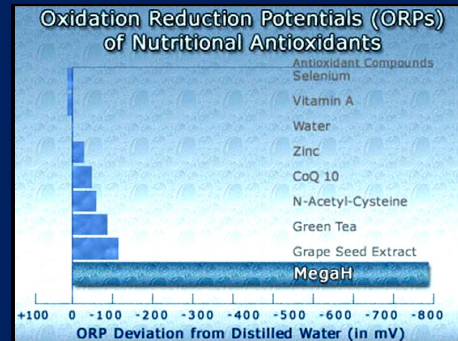
ORP meter is use to measure the number of electrons in an aqueous solution

## ORP Conversion Chart<sup>®</sup>

ORP	Calculation	Electrons
+400	0	1
+341	1	10
+282	2	100
+223	3	1,000
+164	4	10,000
+105	5	100,000
+46	6	1,000,000 million
-13	7	10,000,000
-72	8	100,000,000
-131	9	1,000,000,000 billion
-190	10	10,000,000,000
-249	11	100,000,000,000
-308	12	1,000,000,000,000 trillion
-367	13	10,000,000,000,000
-426	14	100,000,000,000,000
-485	15	1,000,000,000,000,000 quadrillion
-544	16	10,000,000,000,000,000
-603	17	100,000,000,000,000,000
-662	18	1,000,000,000,000,000,000 quintillion
-721	19	10,000,000,000,000,000,000

To win a football game, every player must learn to offend when he has an opportunity to attack and to defend when he is under attack.

Just like a football game, Mega H<sup>®</sup> always ensures that our immune system work offensively before we are being attacked and defensively when we are under attack.



**The human body** is made up of 60 trillion cells. In physics, a cell means a simple dry battery. That means the human body stores 60 trillion dry cell batteries to supply negative charges (electron) to the mitochondria. Can a car with a full tank of petrol start without battery? Human beings actually depend on cells to break down glucose to obtain  $H^-$  (supply electron) for the body. Cells also get negative charges from the air, water and food. When these are fresh, they provide negative charges especially  $H^-$  to the cells.  $H^-$  is the basic key element found in fresh air, water and organic food that **support cell respiration to generate energy**. Indeed the word '**CELL**' is the abbreviation for **C**reate **E**nergy **L**onger **L**ife. What is in the air, water and food that makes cells acquire energy? To create energy, the cell needs electrons. It is the  $H^-$  ion that transports electrons to the mitochondria where energy is created. Therefore  $H^-$  is the fuel of cells. The body has to digest carbohydrates to obtain  $H^-$  as a main source to provide electrons to the mitochondria. Besides carbohydrates, getting directly  $H^-$  from **S(H<sup>-</sup>)<sub>n</sub>** is an instant source to make the body work. It makes the body work on whatever food supplements consumed. All forms of supplements, in fact, depend on the body to work on them. Unlike supplements, air/water/food contains  $H^-$  when it is fresh, it is **beyond nutrition and supplements**. Therefore, to **take health supplements without complementing  $H^-$** , the job is **incomplete**. There are some products claiming to be negative ions but the nature of ions is



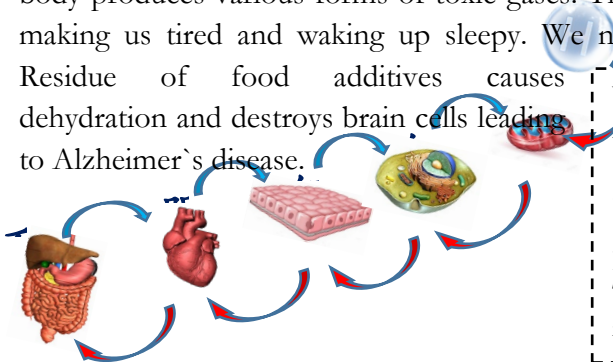
**What are they giving you?**

not defined. **The supply of negative ions from Mega H<sup>-</sup>® is precisely defined as  $H^-$ .  $H^-$  is the best species among all types of negative ions** because it is the fuel that engineers human blood bioelectricity.

Due to air pollution, water pollution, and food contamination, air and water are no longer a natural resource to provide abundance of  $H^-$ . We cannot depend on supplements to acquire  $H^-$  because they are processed oxidized products. You need a paradigm shift to oral intake  $H^-$  instead of just taking supplements for health. Only through Microcluster<sup>®</sup> Technology can  $H^-$  be

stabilized for oral intake.

**When the body procrastinates to consume  $H^-$ ; it has to pay the price.** To stop and to avoid inflammation from further aggravation, the body needs a lot of  $H^-$ . The human body produces various forms of toxic gases. These toxic gases sometimes occupy the brain making us tired and waking up sleepy. We need  $H^-$  to detox and inert the toxic gases. Residue of food additives causes dehydration and destroys brain cells leading to Alzheimer's disease.



Without  $H^-$ , respiration of cell cannot take place inside the mitochondria. A **liver cell, on average, has 2500 mitochondria**. Imagine! if each mitochondrion takes up one  $H^-$  per second, the amount of  $H^-$  needed to conduct REDOX reaction will be tremendous.

To prevent cancer, the best start will be to improve aerobic respiration.

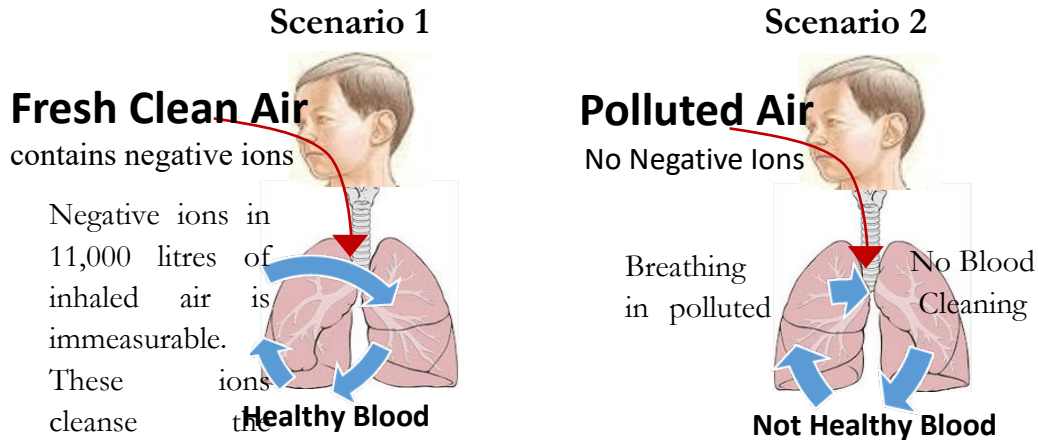
**BED** reflects **B**reathing, **E**ating, **D**rinking, which shows that quality sleep is important to refresh our brain for energy recovery. The human body produces various forms of toxic gases. These toxic gases sometimes occupy the brain making us tired and waking up sleepy. We need sleep to detox these gases. Breathing means getting quality air to refresh one's brain for energy recovery, to get negative ions for detox and for physical fitness. Eating means ingesting organic food to maintain health. Drinking means to make daily drinking water be the first fresh drink to cleanse the colon.

Only  $H^-$  can break through the blood brain barrier and produce quality sleep. This explains why many people wake up fresh after consuming  $S(H^-)_n$ . When there is not enough  $H^-$  to work in the brain, we wake up tired and still feeling sleepy.

Air, water and food contain  $H^-$  when they are fresh. Air gives us the most free-form  $H^-$  ions more than water which has only a limited amount of free-form  $H^-$  ions and even lesser in fresh organic food. But when food is cooked,  $H^-$  is lost. Polluted air has less  $H^-$ . Dr. Patrick Flanagan says, "If you eat fresh, raw organic foods, you do not have to take  $H^-$ ." Air, water, food contain  $H^-$  when they are FRESH.

The role of air / water/ food on health is beyond what nutritional supplements can complement for you. Taking  $S(H^-)_n$  is to address the incompetency of nutritional supplements which are unable to deal with cell hydration and to supply  $H^-$  for cell respiration. Taking  $H^-$  is beyond common nutritional knowledge. You need to 'empty' your nutritional knowledge before you can understand  $H^-$ .  $H^-$  is the fuel of cells that supports cell respiration. The body has 13,000 chemical reactions, discovered till date and many thousands of these reactions involve the participation of  $H^-$ . The body needs minerals in ionized state with positive charged particles to create a positive potential for the body. These positively charged particles versus  $H^-$  as negative charges create a zeta potential in the blood electrolyte.  $H^-$  therefore, serves to maintain blood zeta potential, the body needs a lot of  $H^-$ . Blood without free electron flow is blood deprived of bioelectricity. Self-healing and anti-inflammation of artery is weak when blood bioelectricity is poor.

## AIR:



### Scenario 1:

When the lungs take in fresh, clean air, it contains negative ions that may help to cleanse the blood that travels through the lungs. Fresh air contains the most negative ions. Therefore, the lungs offer the best mechanism to cleanse the blood. Whatever we eat, they go to the blood. Therefore, the blood needs to be cleansed because food ingested may affect the blood terrain.

### Scenario 2:

When lungs take in polluted air, no ions help to cleanse the blood and protect the lungs. This tells why air is the number one factor affecting our health.

Inhaled air is the most in terms of volume, as compared to the water we drink and the food we eat, that goes into the human body. Because the body takes in large volumes of air, hence, air predominates life span and health more than water, food and any nutritional supplements. The amount of  $H^-$  (negative ion) inhaled from air plays a key role to cleanse the blood. That explains why quality of air affects more than just health; people get sick and die when quality of air is bad. **Taking  $S(H)_n$  is for physical fitness more than for health.** That is why exercise maintains physical fitness more than just health. It is the air environment which contains  $H^-$  that makes exercises worthwhile to gain health. Quotes Dr. Patrick Flanagan, "If you eat fresh, raw organic foods, you do not have to take  $H^-$ ." Air contains more free form  $H^-$  ions that are hardly found in water and food. Supplements, contrary to fresh air, contain no free  $H^-$  at all simply because they are compounds and processed oxidized compounds. Therefore, taking nutritional supplements cannot replace the function of  $H^-$  to restore the biological terrain of a person.

**AIR** reflects **A**gent **I**mproving **R**espiration. What agent is it?

The agent is H<sup>-</sup> ion besides oxygen and negative ions. Every day we breathe in 11,000 liters of air contributing a lot of free state H<sup>-</sup> and negative ions to cleanse our blood and lymph, thus, protecting the brain and body. When air is fresh, it contains 4000 negative ions/cm<sup>3</sup>. There are many types of negative ions of which, **H<sup>-</sup>, by nature, is the best**. When air is polluted, H<sup>-</sup> is depleted. Can we drink 2.5 litres of water to replace the same amount of H<sup>-</sup> found in 11,000 liters of air that we breathe? Water itself contains limited H<sup>-</sup>, not to mention 2.5 liters of water will be less than 11,000 litres of air we breathe in. This is how the birth of **Flanagan Microcluster<sup>®</sup> Technology** to resolve the issue of not getting sufficient H<sup>-</sup> from the air. Flanagan Microcluster<sup>®</sup> makes oral intake of H<sup>-</sup> impossible becoming possible.

**WATER** reflects **W**onderful **A**tom **T**ransforming **E**nergy **R**ecovery. What atom is it? The atom is hydrogen and it is only useful to the body when it is in the form of H<sup>-</sup>.

Water is the **simplest primitive molecule on earth**, but prominent in its role to support life. **Water is next in importance to oxygen but without hydrogen, there is no water.** Water always self motivates into motion as a result of which is the best medium to transport nutrients.

70% of the human body assets is water. Therefore the body needs water for hydration. Albert Szent-Gyorgyi said, "Whatever the reason, oxidation and dehydration are two primary causes of aging." To counter dehydration, the body needs both hydration and rehydration. Hydration and rehydration are two processes run by different mechanisms in the body. Both bring different benefits to the body. Hydration is run by drinking water but rehydration is run by H<sup>-</sup> to generate ATP for the cells. Drinking tea, coffee and juice is not hydration but when it is organic juice, it has H<sup>-</sup> to support rehydration.

Water molecule is an **electronegative** dwi-polar molecule. Electronegativity is a distinguished feature of water molecule to attract H<sup>-</sup> and transport it to the cell. **Flanagan Microcluster<sup>®</sup> is to disintegrate big cluster-water with an aim to produce more free state independent water molecules so that they can portray more electronegativity.** Due to the fact that water has electronegativity, it attaches to ionic minerals bringing minerals into colloidal action and hence improves osmotic flow.

H<sup>-</sup> is the **KEY INGREDIENT** that makes future drinking water with health value; more than just water containing H<sub>2</sub> or OH<sup>-</sup>.

**FOOD** reflects **F**eeding **O**neself **O**rganic **D**iet lies the secret yet to be explored. What secret makes it organic? Simply because **only pure raw organic food contains H<sup>-</sup>**, quotes Dr. Patrick Flanagan.

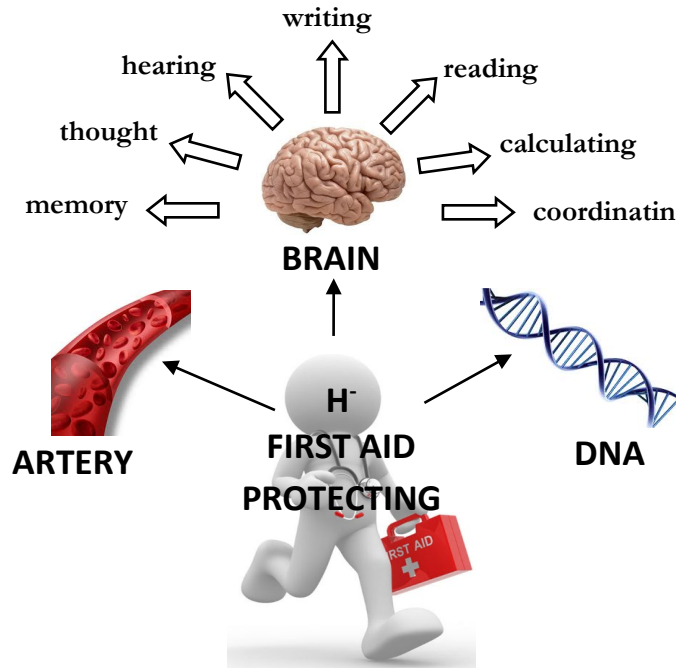
Carbohydrates, proteins and fats are food we need to eat every day. However, only carbohydrates, but not proteins, are the main source of hydrogen as fuel for cells to generate energy. That explains the ketone body as a result of gluconeogenesis when daily food is devoid of carbohydrates. Most adults do not like carbohydrates for fear of weight gain and blood sugar problems. Without taking carbohydrates, the body faces a hydrogen deficiency. SH is recommended for people who take little carbohydrate.

## The era of $H^-$ excels most nano-molecule antioxidant

No antioxidant can be smaller than  $H^-$ .

Unlike most antioxidants which are compounds,  $H^-$  is an elemental antioxidant.

Not all antioxidants can break through blood brain barrier to protect brain cells and able to work in the mitochondria.



$H^-$  is released directly by  $S(H)_n$  when in water.  $H^-$  is the NUMBER ONE ingredient protecting the brain, artery, DNA of nucleus and mitochondria.  $H^-$  is the smallest by size, diffuses speedily, and the richest in quantity, hence, able to break through blood brain barrier protecting the brain cells. It cleanse blood, hence, protecting the artery. It destroys free radicals, hence, protecting the DNA. There is no product like Microcluster<sup>®</sup> which can cage (embed)  $H^-$  in large quantities and then time release it to supply  $H^-$  harnessing water molecules as a bridge to transport  $H^-$ .

We need to inhale air with negative electrical charges everyday especially  $H^-$ . Lightning contains electrical charges. The human body gets a lot of negative electrical charges such as  $H^-$  from fresh air. We are getting less  $H^-$  nowadays because the air is polluted. Unfortunately, water, food and health supplements cannot complement negative electrical charges in our body.  $H^-$  is the only negative ion which can provide free state independent electrons. Electron attaches to other negative ions, except  $H^-$ , being an integral part of the ions. Unlike  $H^-$ , most negative ions cannot release their electron. Most people think they need supplements, but they seldom realize that they are actually lacking in  $H^-$ . Supplements cannot function like  $H^-$  to supercharge the body.

**Life Force** by Dr. Patrick Flanagan, “ $H^-$  is the *life force* scanning and repairing DNA of cell which could increase cellular lifespan” Dr. Patrick Flanagan is revered by Japanese scientist as ‘Father of Negative Hydrogen’.

*“If you really understand negative hydrogen, you cannot afford not to take negative hydrogen. Taking silica hydride (250mg) x 4 capsules for two weeks, you reverse your physical age by 5 years younger.” Source Reverse Aging by Dr. Patrick Flanagan.*

## *Hydrogen is the fuel of life*

Never treat yourself to YOU ARE WHAT YOU THINK YOU ARE when it comes to Flanagan Microcluster® silica. For years, we have learnt what to eat but did not understand **how it is absorbed**. Food manufacturers and advertising agents impart negative concepts on nutrient deficiency related to health problems. Through advertisements, marketers come out with a highly effective strategy to supersede our opinions regarding health food supplements. With Microcluster® Technology via Microcluster® silica, it improves hydration resulting in better circulation. It guarantees that the food we eat is 100% absorbed and at the same time gets rid of toxins from the body. Microcluster® Technology offers you an exclusive means to gain both Health and Wealth.

In my opinion, there is NOTHING on *Earth* that can replace **Negative Hydrogen** as far as to support all biological functions in our body. Oxygen is only involved in the function of food metabolism through cellular respiration. We have other biological functions besides metabolism. All these functions depend on the presence of **Negative Hydrogen** and adequate hydration. One thing certain is that while oxygen supports oxidation, hydrogen is the only matching element that supports REDUCTION. Reduction, an equivalent force that is opposite to oxidation, is an important biological process to rejuvenate you. We are constantly depleted of **Negative Hydrogen** because dehydration and oxidation keep taking place in our body. When **H<sup>-</sup>** is depleted, we are easily susceptible to dehydration, tired, sick, age, and eventually die. The body needs hydration and rehydration to resolve dehydration. Dehydration is a spontaneous process that jeopardizes health.

### Role of Negative Hydrogen in the body

“Electron never transports in a living organism unless it is coupled by hydrogen,” Albert Szent-Gyorgyi.

### What is Negative Hydrogen?

It is a **PURE CLEAN FUEL** of *Life Force*. This **LIFE FORCE** generates *electricity* hence **Energy** (or *Qi* in Chinese) when it transfers its electron to oxygen during respiration in the mitochondria and finally synthesise into water for **Rehydration** purposes.

- Pure means 100%
- Clean means no carbon
- Fuel means energy

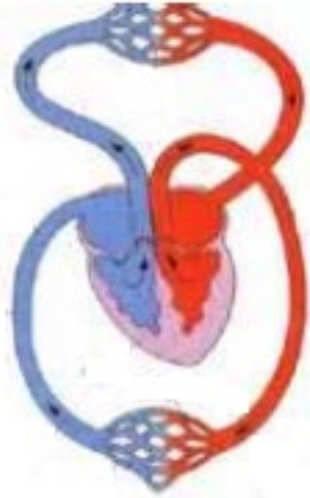
### Characteristics of H<sup>-</sup>

1. The smallest, lightest, richest, invisible and fastest moving atom bonding with anything wherever it goes.
2. Can DIRECTLY TRANSFER its electron making it work as the **BEST**
  - **Biological Antioxidant**
  - **Biological Reducing Agent**
  - **Biological Free Radical Scavenger**

## **PURE CLEAN FUEL functions as reducing agent**

**Only reducing agents can restore our BIOLOGICAL TERRAIN.** Pure Clean Fuel helps to manage weight control by reducing fat, eliminating bad cholesterol, lowering blood sugar, hence, protecting the blood vessels.

Oxidation, dehydration, and plugging which cause artery inflammation are activities **beyond cell**



**inhibition**. Only *negative hydrogen as life force* works independently to stop these activities. It is the best active element to cleanse our body fluids and to prevent vessel

blockage.

Carbohydrates, proteins and fats

when digested, pollute our body with carbon dioxide which lowers our blood zeta potential. Due to low zeta potential, oxidation, dehydration and cationic action occur. Cationic action causes calcium, iron, cholesterol, fat to oxidize and deposit on arterial walls as plaque. Negative hydrogen not only increases zeta potential; it also works as a reducing agent to remove plaque. It not only increases glucose metabolism to effectively control weight but also does **NOT** increase metabolic free radicals such as Reactive Oxygen Species (ROS). . It hydrates body tissues as well. No other antioxidants can match negative Hydrogen.

Colon Cleansing and Liver Detoxification ARE NOT enough, **as all foods we eat go to the blood** hence blood-care after eating is important to prevent artery blockage.

**All antioxidants** are ingredients to supply H- but the body has to digest the antioxidants to get their H-. You don't have to digest Mega H<sup>®</sup> since it directly gives H- to the body.

**The Food we eat contains carbon. It acidifies our blood with carbon dioxide.**

**Negative Hydrogen is just like the sun; it provides energy and does not pollute our body with any carbon dioxide.**

**Carbon dioxide makes our body tired, weak and acidic.**



## Where Is H<sup>-</sup> Found In The Body?

H<sup>-</sup> is found in every cell. Medically, H<sup>-</sup> is called the **hydride ion**. Hydride ion is richly found in the liver. Hydride ion is carried by NAD<sup>+</sup>, a co-enzyme richly found in mitochondria, to become NADH.

## Pool of H<sup>-</sup> In The Body

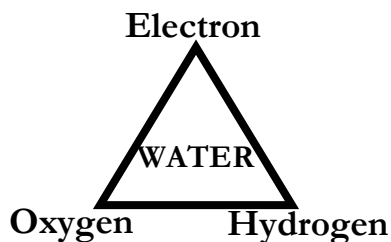
*Albert Szent-Gyorgyi*, "Pool of Hydrogen in human organs in descending order."

Liver → Intestine → Kidney → Heart → Lung → Spleen

## Life Starts With Hydrogen

Without the sun there is no life on earth. 90% of the sun is hydrogen. The journey of our life starts with H<sup>-</sup>. H<sup>-</sup> is the basis, a source to supply electrons which initiate oxidation-reduction to take place. The process is called redox reaction which occurs in the liver. Hydrogen makes hydrogen bonds which attracts atoms grouped together to become molecules such as carbohydrates, proteins, fats and vitamins. When two hydrogen atoms bond with an oxygen atom, energy and water is produced in the body (rehydration).

## Rehydration



Without electrons, oxygen will not bond with hydrogen to form water.

Chinese Qi Gong believes allowing electron flowing through mitochondria means generating Qi to bring hydrogen and oxygen bonds together to form water (**rehydration**). H<sup>-</sup> carries an extra electron, hence, strengthens the body electromagnetism force, therefore, H<sup>-</sup> is the *life force of Qi*.

**Although our modern diet is flooded with so many kinds of nutrients. we are still living in a negative hydrogen depleted environment.**

**Only Pure Raw Fresh Natural Organic foods (meats, veggies & fruits) contain large amounts of H<sup>-</sup>.**

**The products we eat are grown with fertilizers, antibiotics and growth hormones as well.**

**They are NOT NATURALLY GROWN. They are depleted with**

## Life is Hydrogen Symbolizing Energy and Health

Life has value and if you are fit, you have value. *Life is Energy* which comes from Hydrogen (aka Krebs's Cycle or Citric Acid Cycle). Therefore, hydrogen is the fuel of life while  $H^-$  is the life force for REDOX reaction.

Different systems with different functions are carried out in the human body. The energy system is the basic system that runs all the systems and functions. Without energy, the heart will not beat, the brain will not think, the legs will not move etc.

Energy is generated in the mitochondria. When young, our body is fully charged with  $H^-$  which creates ATP, the energy currency for the body to spend.

Due to varying degrees of  $H^-$  in each individual, therefore every individual is differentiated by different energy levels. To obtain  $H^-$ , the body has to digest food from carbohydrate metabolism. But the process to metabolize carbohydrates encounters complication subjected to a rate-limited production.

Aging is a process caused by a decline in  $H^-$  in the body, resulting in dehydration and oxidation.

Taking  $S(H^-)_n$  is to increase glucose metabolism to **2.5 times** faster to enable the body to get  $H^-$  and also to serve as an alternative source to direct supply  $H^-$  for urgency needs. Without  $H^-$ , ATP cannot materialise. Hence, taking  $S(H^-)_n$  is to help the body to get ATP **5 times** higher (Peer Reviewed Published Papers) since  $H^-$  supply from taking  $S(H^-)_n$  is direct and not confined by a rate-limited process.

When ATP decreases, all biological functions are affected, jeopardizing health, as diseases and age speedily appear.

For the body to acquire energy, cells need ATP to convert the food we eat into more ATP. ATP is called **A**denosine **T**ri**P**hosphate. ATP is the energy currency of cells. Cells need to expend ATP in order to work :

- chemically
- mechanically
- transporting ions (active transport)

### What is the ingredient in food that helps a cell to make its own ATP?

It is hydrogen that is stored in the food but the body must convert it into  $H^-$ .

How do cells make ATP from the food we eat? Of course  $H^-$  is the life force that makes ATP for the cells to expand. The body also requires vitamin B<sub>1</sub>, B<sub>2</sub>, B<sub>3</sub>, B<sub>5</sub>, C, alpha-lipoid acid, CoQ10 and minerals like zinc, magnesium, manganese, iron, potassium, phosphorus and sulfur to make ATP. All these requirements make it a complicated process.

Without  $H^-$ , minerals and vitamins, the human body will not be able to conserve energy in the form of ATP and without ATP, there is no life. Therefore, the process of manufacturing ATP in the body is more important than what we eat. Hence, taking  $H^-$  is more for functional requirement while food is for nutritional purpose.

## Is Physical Exercise A Means To Acquire H<sup>-</sup>?

H<sup>-</sup> cannot be created nor exercise can create it. Instead, H<sup>-</sup> is supplied from an exogenous source such as air, water and food. Therefore exercise is not a guaranteed means to get H<sup>-</sup> unless the air you breathe in during exercise contains H<sup>-</sup>. Exercise, besides gaining health, is more for **physical fitness**.

Heart attack commonly happens during exercise due to absence of H<sup>-</sup> supply to the stressful heart. People seldom realize that H<sup>-</sup> in fact, expedites blood oxygenation which is useful to prevent heart attack. S(H)<sub>n</sub> not only plays a key role to prevent heart attack; it also enhances athletic performance and endurance.

After a bout of strenuous exercise, the body needs an aftermath to resolve the following five issues:

1. Dehydration.
2. Production of free radicals .
3. Weakening of the muscles due to formation of lactic acid.
4. ATP burnt out needs instant replenishment.
5. Decline in blood oxygen resulting in breathlessness

We do know that CoQ10 is good for cardiac cells but CoQ10 is of no remedy to the above five issues. S(H)<sub>n</sub> and Microcluster<sup>®</sup> are two effective ingredients to counteract the aftermath of the above five issues.

### Performance Test of S(H)<sub>n</sub> on exercise

If you take two capsules S(H)<sub>n</sub>, 250mg per capsule, before and after exercise, you will experience you perform better and recover faster.

### **A real and interesting fact**

A horse trainer gave a racing horse S(H)<sub>n</sub> for three months. The outcome was astonishing. This horse which has never won a single race became a champion after taking S(H)<sub>n</sub>. The test outcome implies that the horse is cooperative, obedient and patient to training instructions. This is the best testimony because the horse is a participant without knowledge of S(H)<sub>n</sub> nor prior bias of the product.



**Exercise is important but recovery from exercise is even more important. Do you know that you are dehydrated after exercising?**

**Add Microcluster<sup>®</sup> and silica hydride to your drinking water after a bout of exercise. This is a wise move to recover your cellular energy**

## Is There a Hydrogen Cycle In The Human Body?

Plants absorb sunlight to ionize water photo-chemically and reacting with carbon dioxide to make glucose. Human cells recycle hydrogen in glucose to acquire energy.

The hydrogen cycle in the cells is actually using  $H^-$  and oxygen to carry out respiration for energy production. This is what scientists believe that a body without  $H^-$  is just like the solar system minus the sun, we are then

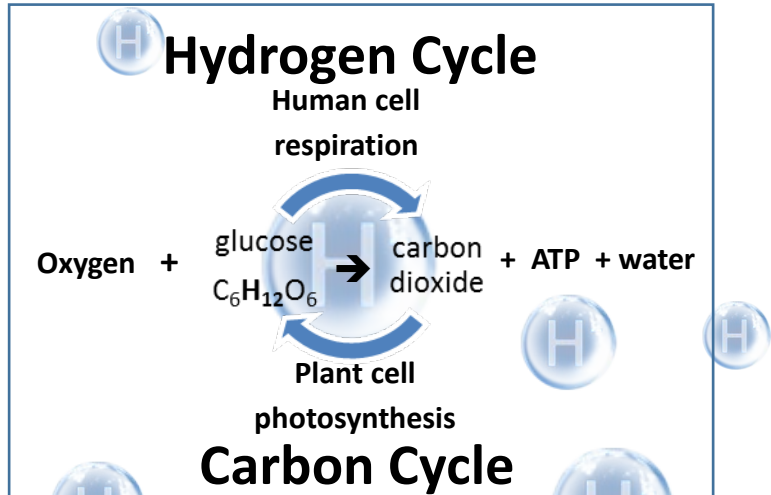
'dead'. Dr. Patrick Flanagan quotes, " $H^-$  is the mini version of the sun and starts working in the human body providing energy". Therefore, **eating the ingredient hydrogen** is beyond nutritional supplement. Eating hydrogen, especially  $H^-$ , **should consider as functional approach to complementing food supplement that beyond nutritional supplement.**

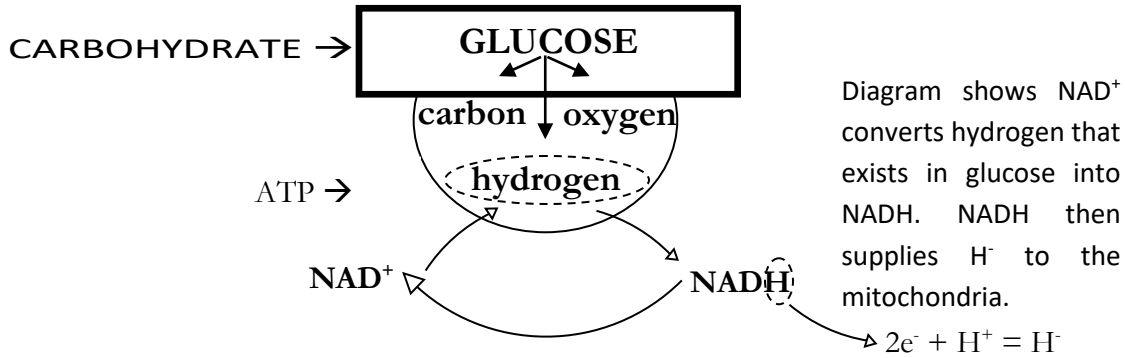
"Yang" is  $H^+$ , "Ying" is  $H^-$ . When they buffer each other, the result is qi. Qi actually is electromagnetism. To create electromagnetism, the body needs minerals as positive potential (anode) to pull electron flow towards it.  $H^-$  is the negative pole (cathode) which opposes the anode as a result of which there is electric potential generated. Because of the potential difference, electricity is created. However, the body has a lot of iron with magnetic field and when this electric field (built by electricity flow) overlaps the magnetic field, there is flux (means movement) manifested as electromagnetism called qi. Just as if a battery becomes hot when it generates electricity, here, the body gains heat. Qi is the symptom manifested. Electron, is matter, has mass and travels very fast producing unseen energy as non-matter which we equate with electromagnetism and called 'qi' by the Chinese. When qi exists, heat energy exists. When the body has heat energy, it is in perfect healthy.

### Hydrogen is Non-Caloric Energy Fuel

Carbohydrate is composed of many smaller units of glucose. Digestive enzymes break down carbohydrates into glucose. Glucose is made from a combination of carbon, oxygen and hydrogen. The human body has to work on glucose to obtain hydrogen and changing it to hydride ion that is stored as NADH. To break down glucose, the cell needs initial input of 2ATP which then multiplies to 38ATP. ATP is called **A**denosine **T**ri**P**hosphate. ATP is the energy currency of cells.

Eating 30% less caloric food (carbohydrate) and increasing intake of low glycemic food promotes a healthy diet. It does not mean eating less carbohydrates will reduce hydrogen intake. Instead, one should look for an alternative source to get  $H^-$  instead of depending on caloric food for energy.





Metabolizing carbohydrates to get H<sup>-</sup> is a rate-limited process. The demand for H<sup>-</sup> is always higher than supply, as a result of which the body is always lack of H<sup>-</sup>. If the rate-limited process is beyond control, then production of ROS from metabolism of glucose may increase to more than 2%. Uncontrolled production of ROS favours growth of cancer cells. Taking S(H)<sub>n</sub> is a pure source supplying H<sup>-</sup> that can reduce oxidized NAD<sup>+</sup> to NADH directly. The reduction by speed is not a rate-limited process while at the same time also provides free state H<sup>-</sup> to various parts of the body to counter ROS produced in the mitochondria.

### Blood Sugar : Glucose

Carbohydrates provide sugar (monosaccharide: glucose/galactose/fructose). Sugar gives us energy. Severe low blood sugar levels can cause problems including loss of consciousness or even death. Too much sugar in the blood for long periods can cause heart disease, stroke, kidney disease, vision and nerve problems.

The real threat to one's life at any instant is severe low blood sugar. Therefore, the body needs sugar (carbohydrate) indefinitely. But most people reduce ingest carbohydrates as they age. Gluconeogenesis, a proven biological process, shows that the body needs glucose without compromise. Prolong periods of gluconeogenesis will turn the body into a ketone body which would result in weight loss and muscle mass loss. A body which is totally cut off from carbohydrates intake will be under supply of NADH and hence lack of H<sup>-</sup>. That is why people who do not take carbohydrates will feel tired and experience weight loss. Glucose plays a more important role than amino acids and fatty acids in protecting the brain cells simply because NADH is the product of glucose metabolism (refer equation below).

1. Carbohydrate → Glucose → NADH → H<sup>-</sup> → H<sup>+</sup>
2. Protein → Amino acid → H<sup>+</sup> (no H<sup>-</sup> supply)
3. Fat → Fatty acid → H<sup>+</sup> (no H<sup>-</sup> supply)

The three equations show carbohydrates or simple sugar is the only source making NADH for the brain and body. Therefore, **NADH works like the brain sensor** to administer and to regulate blood glucose and this makes the brain function. Parkinson's and Alzheimer's disease are two consequences of low NADH.

Glucose possess a special characteristic enable scientist to harness a mean to test the presence of glucose in the urine. Scientist develop a method to test the presence of glucose

in the urine using blue copper (II) sulphate solution (Fehling solution). If the urine contains glucose, the blue copper (II) sulphate solution will reduce to reddish brown. Glucose has the characterister to supply active hydrogen to complement reduction. The color change is the attribution of hydrogen that makes glucose is a reducing agent. The color change is the attribution of hydrogen taking part in the reduction that complement by glucose. That means glucose provide hydrogen to reduce the copper (II) sulphate solution. This implies taking carbohydrate for glucose is to provide hydrogen to the cells for energy currency production. This explains why a person who has very low blood glucose, he may instantly coma and perhaps die due to brain damage because there is no hydrogen supply to the brain. Hence, there is no doubt we need hydrogen for life sustainability and longevity. Hence, take  $S(H)_n$  is to protect life for survival, longevity and physical fitness; the verdict is something beyond the reach of most health supplements.

To metabolize glucose, the body depends very much on the availability of oxygen,  $NAD^+/NADH$ , ATP, hexokinase, magnesium and lastly, insulin to transport the glucose. Metabolism of glucose also produces carbon dioxide which raises the level of carbonic acid; therefore, the metabolism of glucose is a rate-limited process. To digest carbohydrates to glucose and then to metabolize it, the body not only has to undergo many rate limited bioprocesses which are complicated as well mutually dependent. Taking  $S(H)_n$ , which supplies pure  $H^-$ , has an advantage in that it will not fill the blood with a high sugar level since  $H^-$  is a non-sugar fuel.

Breathing is a physiological process which helps the blood to take in oxygen. However, for cells to uptake oxygen, blood pH buffering is necessary (Bohr Effect). Hence, oxygen intake and oxygen uptake are two different processes.  $S(H)_n$  speeds up intake of oxygen in the blood and uptake of oxygen in cells while Microcluster<sup>®</sup> speeds up delivery of oxygen in the blood.

$S(H)_n$  also makes the body absorb iron from food and to make oxyhemoglobin in the red blood cells to carry oxygen. Only  $S(H)_n$  can release many free random independent  $H^-$ . Because  $H^-$  is a reducing agent, it turns oxidized food iron into non-oxidized form to facilitate easier absorption. Not all antioxidants can provide free  $H^-$  to reduce the oxidized food iron.

**Reference** : Peer Reviewed Published Papers



**Clinical report** on silica hydride is a biological reducing agent

*Free Radical Biology & Medicine, Volume 35, Number 9, 2003 (Peer Reviewed Published Papers)*  
*Paper Titled – Antioxidant capacity of silica hydride: a combinational photosensitization and fluorescence detection assay*

Excerpted:

$S(H)_n$  was shown specifically *to reduce* Fe (III) cytochrome c to Fe (II) cytochrome c and  $NAD^+$  to NADH as well as the superoxide radical. p. 1135

Excerpt:



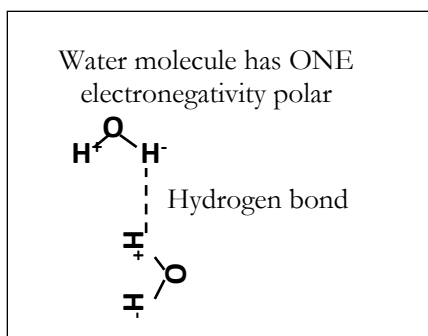
Ferric iron was reduced to ferrous iron which helps to increase oxygen transport.

Discussion: S(H)<sub>n</sub> reduces oxidized iron (Fe<sup>3+</sup>) to its reduce form, Fe<sup>2+</sup>. It also reduces oxidized NAD<sup>+</sup> to its reduce form, NADH. We conclude that S(H)<sub>n</sub> is a biological reducing agent. It is the ONLY biological antioxidant that has positive effect on glucose metabolism and hence contributes towards weight control.

### Why water is the most important nutrient?

- 1 It transports nutrient.
- 2 It contains colloids carrying negative charge ions which motivate water into self-motion.
- 3 The nature of water is such that rainwater slightly dissolves carbon dioxide in the air to become carbonic acid. This is a natural force to rid of carbon dioxide from the air. Similarly, water in the body regulates carbon dioxide in the blood, turning it into carbonic acid. The body then uses H<sup>-</sup> to pH buffer carbonic acid, a source to relinquish bicarbonate ions to quench the needs of the body. Dehydration takes place when carbonic acid forms in the body. You need hydration and rehydration to counter the effect of dehydration. Hydration and rehydration are totally two different bio-mechanisms in the body. They bring different health aspects to benefit the body. Drinking tea, coffee and juice is not hydration. Hydration is only possible with drinking water. Rehydration is the result of cell respiration in mitochondria that makes H<sup>-</sup>, H<sup>+</sup> and oxygen bond together to form as water acquiring ATP. To break ATP into ADP, the body needs hydration. Hydration means effecting hydrolysis to break ATP so that it releases an orthophosphate (P<sub>i</sub>) into free state which then the ATP itself changes to ADP. The free state phosphate is used to phosphorylate a glucose molecule changing the glucose into pyruvate form. Hence, hydration is a process of hydrolysis on ATP to initiate energy release that result NADH form during glucose metabolism.

- 4 Water is the EARTH'S **first premier/premium simplest molecule**, but prominent in



its role to support life due to its **electronegativity polar bond**. To protrude more electronegativity polars, the body should have more free random state individual water molecules to exhibit its originality as a polar molecule. Water is H<sub>2</sub>O made of H<sup>+</sup> and OH<sup>-</sup>, therefore, it can be split into H<sup>+</sup> and OH<sup>-</sup>. Normally the H<sup>+</sup> is prone to attach itself to a single molecule H<sub>2</sub>O forming H<sub>3</sub>O<sup>+</sup> (hydronium). This means the body is facing insufficient bio-available free random single H<sub>2</sub>O.

**Flanagan Microcluster<sup>®</sup> works in freeing many water molecules (H<sub>3</sub>O<sup>+</sup>) in big micro-cluster into free random state individual water molecules (H<sub>2</sub>O).** Flanagan Microcluster<sup>®</sup> carries H<sup>-</sup> to convert H<sub>3</sub>O<sup>+</sup> into H<sub>2</sub>O and H<sub>2</sub> gas. That means Flanagan Microcluster<sup>®</sup> helps the body to acquire more individual free state H<sub>2</sub>O that as a result improves the osmotic rate in the body. Hence, Flanagan Microcluster<sup>®</sup> is an osmotic product.

Flanagan Microcluster<sup>®</sup> is tiny colloid with 125mV, therefore, it **resonates (transforms) energy** to agitate free water molecules into high frequency with harmonic motion. With the same harmonic motion, water molecules flow faster resulting in a higher osmotic flow.

70% by mass of the human body is water. Every chemical reactivity of molecules including emulsification of fats interacts with the electronegativity polar of water, as a result of which the human body only works when it has sufficient water carrying electrical charges. H<sup>-</sup>, due to its uniqueness, can provide free random electrons, therefore, supplies the body with sufficient electrical charges. These electrical charges supercharge nutrients, then wet by the water (H<sub>2</sub>O) to facilitate transport of nutrients.

### Invisible Vacant Spaces Exist in Water

**Water is the medium to transport nutrients in the blood. To play the role as an ideal medium to transport nutrients, water containing many vacant spaces conceal within itself to facilitate nutrients uploading** is of utmost importance. Creating more space inside water is achievable only when many free random water molecules exist in the water.

Adding Microcluster<sup>®</sup> creates more vacant space in the water and also lowers the surface tension of water by 35%, hence, makes the water you drink has health VALUE. To prove that there are more spaces in the water, just shake the bottle of water after adding Microcluster<sup>®</sup>. You can see more tiny air bubbles appearing in the water. If air cannot penetrate the water you drink, then how do you expect the water you drink to carry nutrients and be absorbed by your body. Drinking such water with little vacant space available has NO HEALTH VALUE at all. Drinking such **low-quality water** enables only 30% **absorption**. For lack of hydration, dehydration will occur.

Water has value when it has

1. More vacant space for nutrients to upload.
2. Low surface tension.
3. Lots of H<sup>-</sup>.
4. Structured '**Liquid Crystal Water**' to resonant energy transform.

### What Is Hydrogen?

Hydrogen or H<sub>2</sub>, a natural neutral gas molecule which is non-toxic element made of two atoms 'H' sharing two electrons in covalent bond. 'H' is the richest, lightest and smallest atom. H<sub>2</sub> is invisible because it has no color nor smell. When hydrogen is in the form H<sup>-</sup>; it is no more a gas but an active ion carrying an extra loose electron (1s<sup>-</sup>). The scientific name is hydride ion (H<sup>-</sup>). The body stores it as NADH.

The Japanese refer to hydrogen as 'Water Nutrient'. **Hydrogen** is '**hydro**' and '**gen**'. In Latin, 'hydro' means water while 'gen' means forming and hence hydrogen is water forming.

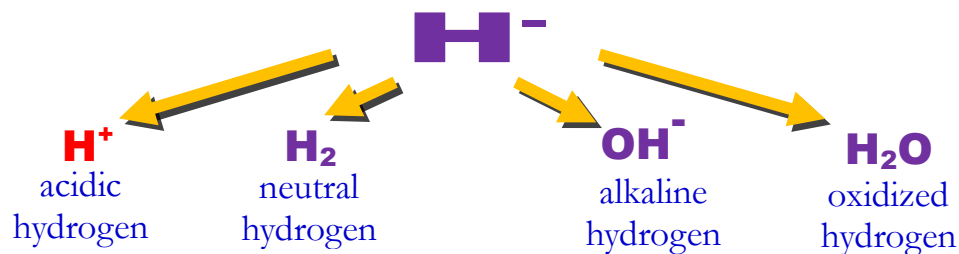
H<sub>2</sub> is not a charged hydrogen since it is neutral. What the body needs is charged hydrogen such as H<sup>-</sup> which functions to back up all the activities of antioxidants in the body.



Of course, to trigger bowel motion, the colon needs to produce  $H_2$  gas in sufficient quantity to exert pressure on the colon. Good bacteria (probiotic) in the gut play a key role in making  $H_2$  gas in the colon. Unfortunately,  $H_2$  has been exploited as a marketing sales product misleading the public. The body and colon have to produce their own  $H_2$  through pH buffering mechanism. Since production of  $H_2$  involves mechanism pH buffering in the body, therefore drinking water containing dissolved  $H_2$  has nothing to do with the body's self process mechanism, therefore the body needs  $H^-$  indefinitely to make the process complement. Besides, due to  $H_2$  is a byproduct of pH buffering mechanism, therefore it has nothing to do with  $H_2$  deficiency. Drinking dissolved  $H_2$  water cannot complement the pH buffering bio-mechanism.

Good bacteria in the colon ferment the fibre to produce short-chain fatty acids such as butyric acid. The butyric acid is then buffered to become  $H_2$  gas if there is  $H^-$  in the gut and colon. But to assure bioavailability of  $H^-$ , the redox potential of colon should at least be maintained at  $-400mV$ . Butyrate is the byproduct of butyric acid when  $H^-$  buffers on it. Butyrate is the fuel for colonocytes which may prevent colon cancer.

## Forms of Hydrogen



$H$ ,  $H^+$ ,  $OH^-$ ,  $H_2$  and  $H_2O$  are five forms of hydrogen exist in the human body, of which  $H^-$  has the most optimum benefit for human beings.

A glass of water always contains  $H^+$ ,  $OH^-$ ,  $H_2O$  and  $H_3O^+$ .  $H^-$  is nascent hydrogen, a precursor of  $H^+$ ,  $OH^-$  and  $H_2O$ .

The KEY VALUE to future drinking water is water containing  $H^-$ . Due to human body needs an insatiable demand of  $H^-$ , thus, we should drink water containing  $H^-$ .

## What is $H^-$ ?

$H^-$  is the safest electron donor. In the event  $H^-$  loses its electron, it does not become another new free radical (no cascading effect). This special gift of  $H^-$  is somewhat different from other antioxidants. All antioxidants are compound except that  $H^-$  is an element.  $H^-$  donates free state electron but the electron in a compound is an integral part of the compound molecule itself. When the compounds lose their electrons except  $H^-$ , they become another new free radical creating a cascading effect. Because of this,  $H^-$  is the safest, the best and the most powerful antioxidant.

$H^-$  is safe because the electron it donates is less than  $1eV$  and therefore it will not harm the integrity of cell's membrane electric potential.

H<sup>-</sup> has another advantage to complement the reduction process complete only when the ROS (Reactive Oxygen Species) become water as byproduct. Electron alone cannot reduce ROS into water unless there is hydrogen accompanying the electron in the reduction process.

H<sup>-</sup> **backups all the antioxidants programme** because when antioxidants lose their electrons, they are oxidized. Oxidized antioxidants create cascading effect of producing weaker free radicals. H<sup>-</sup> stops the cascading effect through recycling the oxidized antioxidants, that means backups to restore their originality (non-oxidized state/reduced state) for re-use. When H<sup>-</sup> donates electron to any free radical, it does not become a new free radical itself. Therefore, H<sup>-</sup> is the safest biological antioxidant since the byproduct of H<sup>-</sup> is hydrogen gas, water, NADH and ATP is synthesized.

### **Are You Getting Enough H<sup>-</sup>?**

Dr. Patrick Flanagan quotes, “Human needs half a pound of hydrogen every day for ATP production” and “Let say you weigh 160 pounds, that means your body manufactures in 24 hours a 160 pounds of ATP in order to survive.” That means to maintain the body weight is to make ATP for the body. This explains why a cancer patient dies if he loses control of his body weight. He actually dies of no ATP recovery. That means lifespan is 100% depending on ATP production. In this way, to claim that H<sup>-</sup> is the life force is not an exaggeration.

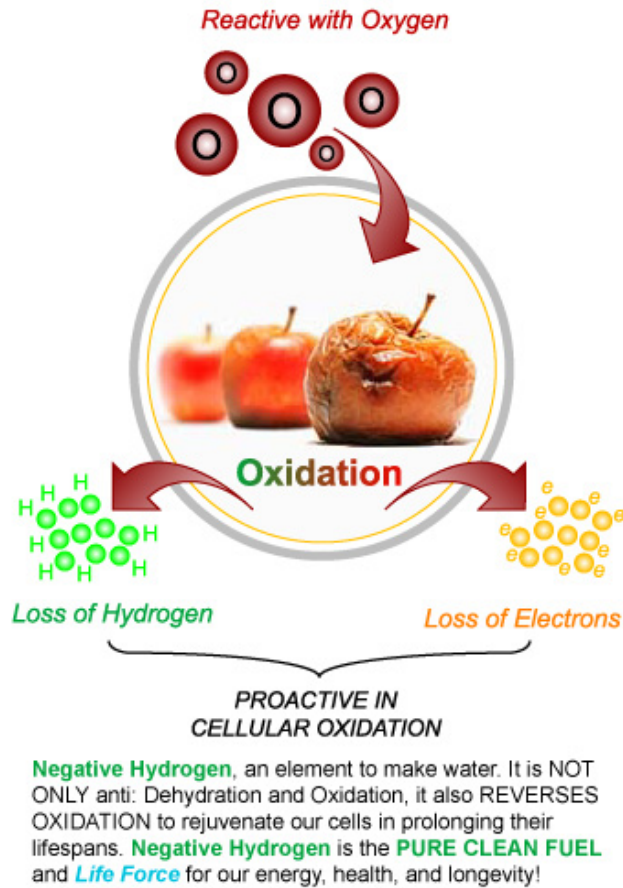
The human body takes in an average of five and a half pounds of food and drink each day which amounts to one ton of solid and liquid nourishment annually. So in seventy years a man or woman eats and drinks 1000 times his or her weight. We can imagine how much acidic waste is created in a life time. But do we have sufficient H<sup>-</sup> to manage the acidic waste? Lack of H<sup>-</sup>, pH buffering in the body may slow down will turn the body into pro acidic nature. Lack of H<sup>-</sup>, free state electrons supply may reduce that result poor bio-electromagnetism. The immune system is low when the bio-electromagnetism is weak.

A lack of H<sup>-</sup> can lead to dehydration causing extreme dryness that may inflame the nerves. Because of this, you experience pains in the body.

Due to dehydration, fatty nutrients may not be well assimilated. This may result in brain shrinking, drying of mucus, and tendon/nerve cramping. Other symptoms exacerbated by a lack of H<sup>-</sup> include: gout, muscular rheumatism, mental confusion, neck stiffness, sore joints and skin irritation.

## Aging Starts with H<sup>-</sup> Depletion

“Aging is process due to Dehydration & Oxidative Stress”, *Albert Szent-Gyorgyi*. We can define our age in three aspects. They are our biological age, registered official age and gene age. Ordinary people use their date of birth to know their exact registered official age. Gene age is descended from our ancestors. Therefore, it can be a thousand to a million years old. Only God knows. What I am more concerned here is our biological age. Biological aging is due to **dehydration** and **oxidation**. Scientists believe if we can avoid dehydration and slow down the oxidation process, then we will not age biologically.



Most people think that **oxidation** is due to the **\*reaction with Oxygen**. Nevertheless, this is **only one-third true**. There are another **two-thirds neglected causes** that may result in oxidation to take place as well. They are **\*Hydrogen and Electrons Depletion**. These neglected causes are **PRO-ACTIVE** to aging our cells. That is because they are mainly used up to destroy **Reactive Oxygen Species (ROS)**. These **ROS free radicals** are produced through cellular metabolism. Our **Basic Life Process** is to breathe in Oxygen and to obtain **Hydrogen** from the food we eat for electrons. We need to *eat Hydrogen* for electrons to reduce Oxygen into **water** during cellular respiration. **Qi** is generated when an electron is transferred from **Hydrogen** to Oxygen during this biological process. **Energy** and **water** are the two by-products when **Hydrogen** is oxidized by Oxygen in the mitochondria.

**Hydrogen** is a **PURE CLEAN FUEL** of **Life** while **Negative Hydrogen (H<sup>-</sup>)** serves as the **Life Force** that brings **CHANGES** to our Biological Terrain.

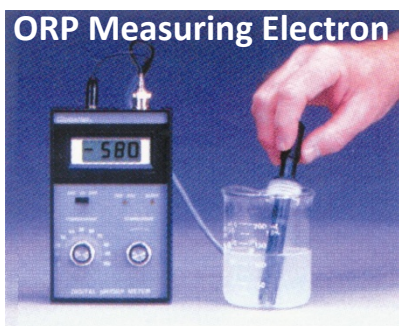
### **REDuction & OXidation (REDOX Reaction)**

Most people regard oxidation as being related to oxygen only. But in organic chemistry, oxidation has three difference versions. The gaining of oxygen is oxidation. The loss of electron is also oxidation. Lastly, the loss of hydrogen is also oxidation.

## ORP measuring electrons

### An Abrupt Change in ORP, What Does It Mean?

ORP measurement provides art and science that validate the scientific value of  $S(H)_n$ . The measurement is an art but the theory to explain the reading provides scientific back up. The ORP reading of  $S(H)_n$  is negative mV and upon adding  $S(H)_n$  on fruit juices, the dark fruit juice changes to a lighter colour, showing that  $S(H)_n$  is a reducing agent.



ORP does not tell the reading is  $H^-$  and  $OH^-$ . If someone said the reading shows the presence of  $H^-$ , he is misleading you. It tells only the number of electrons in the solution.

An abrupt change tells there is a release of a lot of electrons into the water. A highly negative ORP reading means  $S(H)_n$  provides a lot of electrons. Since the electrons are produced by  $H^-$ , you see a lot of bubbles gas  $H_2$  (hydrogen) in the water. Upon a test, the gas exploded the flame proving it to be hydrogen gas. Hence,  $S(H)_n$  is a genuine source supplying 100%  $H^-$ . There is a machine in the market making hydrogen water, but the ORP is not negative, which means the hydrogen water does not have  $H^-$ .

A special emphasis on the **instant release** of  $S(H)_n$  does not require enzyme but works independently to release the  $H^-$ . Normal food molecules react in the human body require enzyme participation. But REDOX (**re**duction **ox**idation) that takes place in the body does not depend on enzyme. Redox reaction involves electrons transfer among 'active element' (called ionic mineral) that generates bioelectricity.

Shirahata once conducted BOTH studies on (i) hydride ion and porphyrin response (ii) theory of reduced water, he described this hydride transfer and provided evidence that physics involves a **direct transfer** of a hydrogen anion, known as a hydride ion ( $H^-$ ). Reactions ranging from electrolysis to the reduction of **nicotinamide adenine dinucleotide** ( $NAD^+$ ) to reactive oxygen species neutralization involves the hydride ion. It is hypothesized that the redox control and trigger for these reactions may not be entirely enzymatic, but rather redox control through electron rich ions. Conventional science teaches the biological transfer of an electron as being described as a proton plus an electron that are simultaneously carried to the oxidized species. It was discovered later that electron is carried by hydride ion to reduce  $NAD^+$  to  $NADH$ .

$H^-$  has a negative pole being opposite to ionic mineral with a positive pole as a result builds up bioelectricity.  $H^-$  is therefore an active life force that initiates redox reaction in the body.  $H^-$  sets up redox which is important to destroy free radicals in the body.

### Why does the body suffer $H^-$ insufficiency?

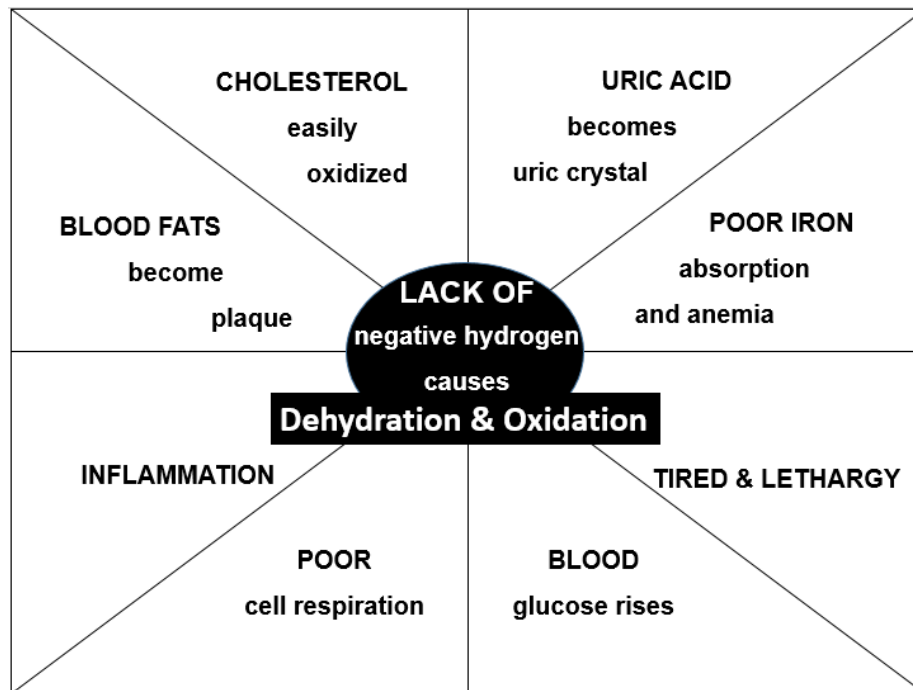
1. Air pollution is the main cause.
2. Tap water is treated with chlorine.
3. Food is not organic and is cooked.

4. Rate-limited process to obtain  $H^-$  from carbohydrate metabolism.
5. Health supplement is not the right source to provide  $H^-$ .

Age factor that takes less carbohydrate. Organs, tissues and cells have to work on the glucose at their own rate to acquire  $H^-$ . But we age the cells, tissues and organs fail to make the glucose works for the body, they suffer  $H^-$  deficiency. Then these organs, tissues and cells turn to liver as alternative source to acquire  $H^-$  for substitute yet facing blood transporting  $H^-$  inability. Before reaching the target, most  $H^-$  in the blood are already destroyed by free radicals. That is the reason we need Flanagan Microcluster<sup>®</sup> as medium not only to stabilize  $H^-$  to stay in the blood but also to function as vehicle to transport the  $H^-$  to the target organs, tissues and cells. Only  $S(H)_n$  can direct supply quantity of  $H^-$  to cater the body needs that as a result the product makes the body works whereas supplements very much depend on the body to make them work.

### Sign of electrons deficiency due to lack of $H^-$ in the body

Bad breath, sore throat, mouth ulcer, dark brown fecal smell, joint inflammation, infection, acidosis, lethargic, skin freckle, pimple, skin disease, high cholesterol and uric acid are all indications of body lacking free electrons. Taking a high dosage of  $S(H)_n$  at 1g per 4 capsules a day will resolve this issue. But if you take 1.5g of  $S(H)_n$  per day, it is therapeutic treatment.



### Do you have enough negative electrical charges in the blood plasma?

If you keep feeling tired and exhausted, perhaps you are dehydrated and not having enough negative charges in your blood plasma. Negative electrical charges affect our blood flow. Red Blood Cells (RBC) will cluster when the membrane of RBC does not have enough negative charges. Poor blood circulation due to clustering of red blood cells may lead to

heart disease in the long run. Healthy blood has 2/3 anions (negative charge) to 1/3 cations to maintain homeostasis. However, due to air and water pollution, food preservatives and excess of medication, the ratio is reversed to the point that many of us have about 2/3 cations and 1/3 anions in our blood. When a person is eating electron-rich food, they are building healthy red blood cells and healthy body cells. The body stays energetic and at a healthy weight. When the bowels become congested or damaged from proton-rich acidic food, red blood cell production is impaired and body cells are reverse transformed into red blood cells. It must be understood that red blood cells not only deliver oxygen and remove cellular wastes, they are the primary foundational stem cells for creating new bone, muscle, and nerve cells, etc.

**Our blood should have two-third anion (negative charges) to one-third cations (positive charges).**

Ratio of anions to cations is 2:1. When LDL (low density lipoprotein) is oxidized, it brings cationic action that may narrow the artery walls. To avoid the oxidized LDL from plaguing the artery walls, the best way is to reduce the cationic action with the help of negative charges through intake of S(H). At the same time, increase intake of Microcluster<sup>®</sup> that works like chylomicron to transport the LDL to the liver for disposal by bile acid. If the LDL is high, then check the HDL to maintain a proper ratio. For healthy ratio, HDL should be at least 20% of LDL. Even though how healthy the ratio is, it indicates the amount of cholesterol in the blood. What people seldom realize is that normal blood test cannot show the presence of oxidized LDL forming plague on the artery walls. Your heart condition is affected by that cholesterol that plagued the coronary artery wall. Perhaps a better way to know the heart condition is the blood has a normal CRP level.

### **How does H<sup>-</sup> work inside the body?**

- (a) H<sup>-</sup> works directly inside the cell providing free state electron to destroy hydroxyl free radical and hence able to protect nucleus DNA and mitochondria DNA.
- (b) H<sup>-</sup> also buffers pH of cells. When H<sup>-</sup> is in the blood, it buffers carbonic acid to make bicarbonate ions and cleanse the blood. It turns excess H<sup>+</sup> into H<sub>2</sub> gas, as a result retains more OH<sup>-</sup> to neutralize acid wastes. The OH<sup>-</sup> then changes tryptophan (amino acid) into 5-HTP (5-hydroxytryptophan) which is a precursor of serotonin. Serotonin changes to melatonin which makes you sleep better. Therefore, if you suffer insomnia, take S(H)<sub>n</sub> to improve your sleep quality.
- (c) H<sup>-</sup> is the fuel to make NADH which is important for ATP production. 1 NADH = 3 ATP.
- (d) H<sup>-</sup> improves blood bioelectricity and hence monitors body electrical resistivity.
- (e) H<sup>-</sup> is the main key to restore the biological terrain of a human body.

## Why H<sup>-</sup> Works For The Body?

- (a) Because H<sup>-</sup> is atom size that therefore like gas can diffuse very fast throughout the body by speed the fastest to destroy free radicals.
- (b) Because H<sup>-</sup> is not a compound instead an atomic element and hence it possesses the physical advantage to destroy all species of free radicals. Because of its superior physical state, it is the best primordial antioxidant to qualify as the best reducing agent. Only reducing agent can destroy all forms of free radicals. When S(H)<sub>n</sub> is added into blue copper sulphate solution, the dark brown copper is seen instantly. This proves S(H)<sub>n</sub> is a powerful reducing agent that reduces copper sulphate to copper and sulphuric acid is produced.
- (c) Because H<sup>-</sup> is the fuel for cell to generate ATP, therefore it restore human energy system. Healing is the result of energy recovery.

## When Does The Human Body Need H<sup>-</sup> Ion?

Quotes Dr. Patrick Flanagan, “Our bodies have to manufacture every single day our entire body weight and ATP for us to survive. Let say you weigh 160 lbs, that means your body manufactures every 24 hours a 160 lbs of ATP in order to survive.” You can imagine how important H<sup>-</sup> is for ATP production. Without H<sup>-</sup>, you have no ATP left in the body, you loss your weight. This reflects when cancer patient fails to resume his weight, he actually dies of no ATP production. This reflects the body cells are constantly using H<sup>-</sup> to generate ATP at any instant in order to maintain the body’s weight. Because ATP is related to NADH production, a person needs to take at least 1g of S(H)<sub>n</sub> equals to 4 capsules that allow NADH production twofold.

## Where Can The Human Body Get H<sup>-</sup> Ion?

- ① H<sup>-</sup> is a gift of nature, thereby the body can get from fresh air, water and raw organic food.
- ② Human cell depends on NAD<sup>+</sup> and ATP to obtain hydrogen from glucose and stored as NADH. This is a rate-limit metabolism process. NADH is the main supplier of H<sup>-</sup> to the mitochondria cells.

$Silica-(H) + NAD^+ \rightarrow silica + NADH...$  the equation shows silica-(H) has a **direct ability to reduce oxidized NAD<sup>+</sup> to NADH** at a faster rate to resolve the shortage problem caused by rate-limited metabolism on carbohydrates . This shows taking S(H)<sub>n</sub> has a direct ability to increase the NADH twofold.

Confocal fluorescence test on NADH in the liver cell shows the fluorescence result is increased by 20% proving that after taking S(H)<sub>n</sub>, the NADH is increased twofold.

NADH is the doorway to prepare body cells to uptake oxygen to perform aerobic respiration. Aerobic respiration prevents cancer. Since H<sup>-</sup> directly makes NADH to foster aerobic respiration, therefore H<sup>-</sup> has anti-cancer effects.

- ③ Cell also gets H<sup>-</sup> from glutathione, known as hydrogen battery. Glutathione is usually depleted due to the exceptionally high demand of H<sup>-</sup>

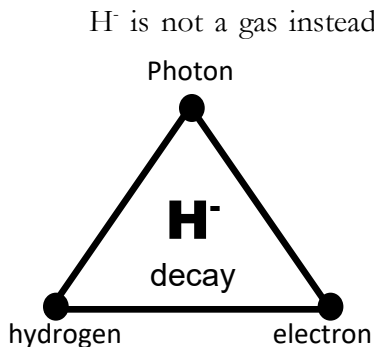
④ Silica-(H)<sub>n</sub> → silica + (H)<sub>n</sub>... 'n' is number of H<sup>-</sup> are released directly. The equation tells S(H)<sub>n</sub> is the best alternative functional ingredient to directly supply H<sup>-</sup> to every part of the body.

Without electrons, free radicals cannot be destroyed. Free radicals are actually oxidizing agents. Free radicals rob electrons. When oxidized, a free radical gets an electron, it is then reduced but the reducing agent will instead be oxidized. That means the effect of a reducing agent after reducing a free radical is reversed.

An example: Vitamin C is a reducing agent, when it loses its electron, it is oxidized to form oxalate that cause kidney stone. If vitamin C is catalyzed by zinc, can help to reduce iron to promote iron absorption, but H<sup>-</sup> is in a better position than vitamin C to improve iron absorption. This is because to reduce iron, H<sup>-</sup> does not need any cofactor. H<sup>-</sup> reduces iron for better absorption faster than vitamin C because S(H)<sub>n</sub> can directly release H<sup>-</sup> in large quantities. This explains why those who take S(H)<sub>n</sub> will not suffer anaemia.

DIFFERENCES		
H <sup>-</sup>	NEGATIVE ION	ANTIOXIDANT
Atom	Not define	Molecule
Element	Unknown	Compound
gives free random electron	No free electron	No free electron
Fuel of cells	Not fuel of cell	Not fuel of cell
Antioxidant	Antioxidant	Antioxidant
Reducing agent	Not reducing agent	Not reducing agent
Free radical scavenger	Free radical scavenger	Free radical scavenger
Buffer pH	Cannot buffer pH	Cannot buffer pH
Cell respiration improves	Does not help	Not helping
Supercharge nutrients	Cannot	Cannot
Works in the mitochondria	No	No
Lowers blood glucose	Not related	Not related
Direct anti inflammation agent	Not direct	Not direct

**Physical state of H<sup>-</sup>:**



H<sup>-</sup> is not a gas instead it is a negative ion solid. H<sup>-</sup> is the smallest negative ion, an invisible ionized atom. H<sup>-</sup> is even smaller than an oxygen molecule as a result, it can diffuse like gas. Due to the fact that hydrogen is an element, H<sup>-</sup> is therefore an elemental antioxidant. Since H<sup>-</sup> is an energized atom, it therefore can be absorbed easily without having to depend on enzyme catalysis. H<sup>-</sup> can be absorbed throughout the body through diffusion due to its small size.

H<sup>-</sup> has a **half-life of 1.73** nanosecond with very low electric potential, only **0.7542eV**, it easily decays into **three bodies: electron, hydrogen**



**atom and photon.** Even though  $H^-$  decays, it does not become a free radical.

The half-life of  $H^-$  is so short that it decays so fast with photon energy being released validating it to be a life force. It acts as an Emergency First Aid Life Saver. It prolongs the lifespan of cells.

The short half-life of  $H^-$  also explains that it is so unstable that the electron is at ease to be released as a free random electron. That means  $H^-$  can directly donate an electron to any oxidizing agent, irrespective of its nature, making it to be the best reducing agent. No antioxidant, except  $H^-$  can reduce an oxidizing agent at an instant. Because of this,  $H^-$  is the best reducing agent which can immediately reduce any oxidized radical reversing it back to its original state.  $H^-$  is very effective not just for anti-aging but to reverse aging as well.

### **Electron configuration of $H^-$ : $1s1s'$ .**

H is the chemical symbol of a hydrogen atom, has only one electron (1s) but then when two electrons share together, it becomes  $H_2$ .

However, the electron configuration of  $H^-$  is  $1s1s'$ . That means  $H^-$  has an extra loose electron ( $1s'$ ) even though it is made up of one hydrogen atom only. Both orbit 1s and  $1s'$  are perpendicular to each other (orthogonal) as a result, there is no mutual attraction and the electron is at ease to escape from the  $1s'$  orbit. This explains why  $H^-$  is the only atomic antioxidant that can supply random free state independent electron.

The mitochondria cells cannot carry out aerobic respiration without electrons. Cells depend on aerobic respiration to produce ATP. ATP is the energy currency of cells to produce energy for the body. ATP, the ingredient of charges, works as a tiny battery storing electron for the cells. Therefore, we can understand that the cell indeed needs a lot of electrons to make ATP, to enhance cell respiration and the process is called rehydration.

However, Dr. Peter Mitchell (Nobel Prize winner) made a detailed explanation, chemiosmosis, saying that ATP production is the result of higher  $H^+$  concentration gradient flow from outer mitochondria to the inner mitochondria with a lower  $H^+$  concentration gradient.

When more  $H^+$  flow into the inner mitochondria, two electrons bond with an oxygen atom to form water, a process called rehydration takes place.

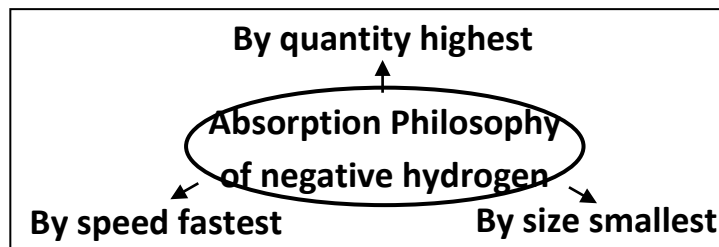
### **Minerals also donate electrons but the electron is different from $H^-$**

Minerals also provide free state electrons. The mineral electron has an electron voltage ( $>1eV$ ) higher than that of  $H^-$ , therefore mineral electron cannot access to the mitochondria. Therefore, mineral electron cannot reduce  $NAD^+$  to NADH.

Soluble minerals such as potassium, sodium, calcium, magnesium etc. are positively charged mineral ions. These metallic minerals, in fact, lose their electrons, become positively charged and being oxidized. The electrons lost from minerals cannot be sent to the mitochondria due to they have higher frequency. Electron accompanying hydrogen is the only electron that is safe due to it has low electron voltage, less than 1eV. Hence, it will not harm the cell membrane and can access the mitochondria.

The blood has positive charge mineral ions and in order to maintain the blood zeta potential, the body then needs  $H^-$ . The positively charged mineral is the positive potential of the blood. Therefore, to generate blood bioelectricity, the mineral ions need  $H^-$  ions to create potential difference. The potential difference generates blood bioelectricity, that means to regulate the electrical resistivity of the biological terrain. A poor electrical resistivity reflects lack of either  $H^-$  or mineral ions in the blood system. Poor electrical resistivity affects cell communication.

### $H^-$ complement food and mineral ion absorption



$H^-$  synergizes food supplements for better absorption.  $H^-$  improves speed of absorption.

Most foods we eat need to be digested by relevant enzymes before they can be absorbed. But when enzymes are denatured by improper body temperature and pH, they affect food absorption.  $H^-$  is very small, and is absorbed at the fastest rate in large quantities without the influence of body pH, enzymes or temperature.

$Ca^{2+}$  (ionic calcium) is oxidized because it loses its two electrons. Therefore the  $Ca^{2+}$  will look for two electrons for replacement. That is the reason  $Ca^{2+}$  takes/robs electrons from cholesterol and fatty acids. The cholesterol and fatty acids are then oxidized forming plaque in the coronary artery walls.

Taking  $H^-$  means to ‘inert’ the  $Ca^{2+}$  and stop it from attacking cholesterol and fatty acids. Instead, the Microcluster help to deliver  $Ca^{2+}$  to the bone for absorption. Because  $H^-$  is inerting  $Ca^{2+}$ , the ion stage is maintained, and is easily absorbed by bone tissue. Taking  $S(H)_n$ , therefore helps to prevent osteoporosis.

To absorb potassium, the cell needs ATP to turn on the sodium/potassium-ATP pump so that potassium can be absorbed by active transport (a mechanism of transporting potassium from low concentration to high concentration). People who have potassium sparring problem, can improve active transport by taking  $S(H)_n$  which is safe for heart patients.  $S(H)_n$  also improves heart beat function.

$H^-$  is a pH buffering agent.  $H^-$  buffers carbonic acid, which means increasing blood bicarbonate ions that make sodium ions become sodium bicarbonate. Without bicarbonate ion, sodium ion may bond with chloride ion to form sodium chloride salt, a compound that causes the kidney failure. Then you may have too much sodium salt in the blood, increasing its pressure. In the presence of bicarbonate ions, sodium ion is made into sodium bicarbonate and hence less sodium salt, therefore the blood pressure is reduced. This is an important yet positive effect of  $S(H)_n$  in lowering blood pressure. Sodium bicarbonate is

good to protect the stomach walls from gastric attack. Sodium bicarbonate is absorbed in the pancreas protecting the duodenum. Sodium bicarbonate also functions as soda to kill cancer cells.

Not all negative ions such as chloride ion, sulphate ion etc are good ions. Because they love to bind to cation positive charge calcium ( $\text{Ca}^{2+}$ ) and cation positive charge sodium ( $\text{Na}^+$ ). Any cation will suspend and rob electron called cationic action on the arterial walls. Because cation also robs electron, therefore cation is also a free radical. This cation loves to attract the anion to form a compound such as sodium chloride. That means the negative ion such as chloride ion is a bad ion because it makes the body absorb too much sodium salt. In the end, we get high blood pressure.

Taking  $\text{S(H)}_n$  is to deactivate the cationic action of  $\text{Ca}^{2+}$  and  $\text{Na}^+$  so that they do not bind as compounds with no advantage to the body.  $\text{S(H)}_n$  inerts these cations so that they are in ionic form and of use to the body. This is what I emphasize Microcluster<sup>®</sup> has the intelligence to absorb what is good for the body and discharge what is bad. No antioxidant can work like  $\text{S(H)}_n$  to handle ions in the body.

$\text{S(H)}_n + \text{cytochrome-}c(\text{Fe}^{3+}) \rightarrow \text{Silica (Microcluster}^{\text{®}}) + \text{cytochrome-}c(\text{Fe}^{2+}) + \text{H}^+$ . This equation implies that  $\text{S(H)}_n$  reverses oxidized iron ( $\text{Fe}^{3+}$ ) back to its reduced state ( $\text{Fe}^{2+}$ ) and hence  $\text{S(H)}_n$  improves iron absorption. Because of better iron absorption, the body then does not suffer from inflammation (Fenton reaction of iron cause inflammation) and becoming anemic. A person who has high level of ESR usually suffers prostate inflammation. High level of ESR reflects poor iron absorption may lead to high bilirubin that may result jaundice, just need to take 4 capsules of  $\text{S(H)}_n$  everyday for 3 months, the problem may resolve.

When the body has better iron absorption, ESR will be normal and hence less inflammation will occur, that means prevent prostate gland problem at old age.

Blood oxygenation will be good when iron absorption is good. When there is too much iron in the blood, iron causes Fenton Reaction as a result hydroxyl free radicals are produced in big quantities. Free radical causes inflammation and that is the reason too much unabsorbed iron in the liver causes liver inflammation. Inflamed liver cannot filter dead deformed red blood cells as a result bilirubin will stock up in the blood and perhaps in the liver. In the long run, the excess iron and bilirubin may cause the liver to harden and contract jaundice.

When alkaline phosphatase is too high plus excess iron and bilirubin, stones may result in the liver and damage the kidney. Take  $\text{S(H)}_n$  with Microcluster<sup>®</sup> will be the best solution to solve all the problems in one shot. Not many people realize that the liver has a heavy job to filter millions of dead red blood cells which die naturally. That is the reason why old people become more anemic due to poor iron absorption. Older people tend to suffer from stomach bloating gas, white spots on the skin (skin discolouration), prone to get tired easily; all these are actually signs of poor iron absorption due also to another reason hypochlorhydria. Nearly everyone is destined to this common problem as one get older, then start taking  $\text{S(H)}_n$  plus Microcluster<sup>®</sup> when you are young. You cannot afford not to take

S(H)<sub>n</sub> since red blood cell dies naturally inflaming the liver. Poor iron absorption also causes poor oxygenation which results in the heart having to pump harder. When the heart overworks due to poor iron absorption, poor oxygenation and high blood pressure may inflame the heart. The CRP will then be high reflecting the heart is inflamed. Take S(H)<sub>n</sub>, Microcluster<sup>®</sup>, CoQ10, omega-3 together will be the best choice to solve the swelling heart problem while at the same time treating the various root causes. You need Microcluster<sup>®</sup> because it improves blood flow due to Microcluster<sup>®</sup> improving the blood colloidal system.

Drinking water consisting of free state H<sub>2</sub>O molecules and with more OH<sup>-</sup> plays a key role in preventing stomach bloating. A water molecule has electronegativity to pull/cage the electron and H<sup>-</sup> from reacting with H<sup>+</sup> to form H<sub>2</sub> gas. Water with alkaline OH<sup>-</sup> also reacts directly with H<sup>+</sup> to form H<sub>2</sub>O.

### **Is there life in the body that dominates our existence?**

Do you know there is life living in the body that supports the body to live? Blood supports the body to live. Without blood, cells cannot acquire oxygen and we will die. If the blood is infected with virus and bacteria, contains excess toxins/cholesterol and has high viscosity etc., death accompany. To live healthily, it is important to protect the blood.

As we grow older, we lose blood due to a decline in blood production as a result, death occurs. Blood is warm but when it declines in volume, heat is reduced. This explains why old people are prone to feeling cold.

Elderly people also have a lower body temperature (cold palm and foot), which goes to show that their body heat is considerably reduced. They are unable to withstand the cold air-conditioned air for a long period of time.

Taking the high blood pressure drug especially the blood thinning variety, in fact is reduces the blood volume to control blood pressure.

Therefore, the more you are on statins, the lesser body heat is produced. This is a spontaneous shortening of one's life span.

You are advised to take S(H)<sub>n</sub> and Microcluster<sup>®</sup> as a better solution to restore blood volume. Blood transport nutrients and is a mixture of colloids containing positive charge ionic minerals and negative ions. Therefore, blood doesn't need much nutrients instead wants a lot of negative charges in order to eliminate toxins and makes the blood clean.

### **PROTEIN AFFECTS BLOOD ROULEAU**

Eating too much protein may burden your kidneys. Proteins may increase a person's blood rouleau that makes him feel tired. Blood rouleau decreases blood oxygen supply to the tissues. Poor blood oxygenation is stressful to the kidneys. This explains the reason high rouleau is a symptom of tiredness. The surface of red blood cells is covered up when too many red blood cells stack together. The pH buffer on red blood cells cannot take place when their surfaces are not exposed to blood serum. The colloidal action and motility of red

blood cells are also affected. Taking Microcluster<sup>®</sup> restores the colloidal and motility of red blood cells so that H<sup>-</sup> released from S(H)<sub>n</sub> can complement pH buffering on the red blood cells. Besides Microcluster<sup>®</sup> and S(H)<sub>n</sub>, Metazyme<sup>®</sup> is ideal for people who have high sugar level.

### **Microcluster<sup>®</sup> is Especially Good For Blood System**

Do you have any means to improve your blood colloidal system?

When Microcluster<sup>®</sup> and S(H)<sub>n</sub> are added to a bottle of water, hydrogen gas forms. You think it is oxygen but it is not. Unfortunately, you do not benefit much from this bubble H<sub>2</sub> gas. What actually the body wants is H<sup>-</sup>, H<sup>+</sup>, OH<sup>-</sup> and H<sub>2</sub>O. This is how Dr. Patrick Flanagan found Microcluster<sup>®</sup> to embed H<sup>-</sup> inside and then delivers H<sup>-</sup> to your body. Microcluster<sup>®</sup> is colloidal mineral which can improve blood colloidal system. This means enhancing blood osmotic flow as a result fosters blood capillary bed microcirculation. Microcluster<sup>®</sup> increases blood zeta potential hence, increases nutrient absorption by 300%.

Microcluster<sup>®</sup> transports H<sup>-</sup> which cleanse the blood. Microcluster<sup>®</sup> makes red blood cells discrete and prevents dead-deformed red blood cells from clotting and blocking the blood. Healthy red blood cell has a lifespan of 90 ~ 120 days. Women encounter double risk over men because they have menstruation every 28 days. That means women have more dead-deformed red blood cells than men every 28 days. How about not taking vitamin C as antioxidant or not enough to protect healthy red blood cells from being attacked by free radicals? Then the risk of getting ovarian cyst is tripled. Therefore, women suffer more liver stress than men because they encounter three phenomena such as menstruation, lack of antioxidants and free radical attack on red blood cells, as a result need triple effort to get rid of dead deformed red blood cells. H<sup>-</sup> is a reducing agent. It recycles iron in dead-deformed red blood cells to get its iron for re-absorption hence, reducing inflammation. Microcluster<sup>®</sup> then transports debris of dead red blood cells for removal. We discover that lowering of blood ESR, CRP and bilirubin result in lesser inflammation after consuming S(H)<sub>n</sub>.

How about the genetic DNA in the mitochondria? Unlike nucleus DNA, mitochondria DNA cannot be repaired. Unfortunately, only the mother's mitochondria DNA inherited to the baby during ovum-sperm fertilization. We can say human acquires health and energy from his mother. Since DNA mitochondria cannot be repaired, hence, damaged mitochondria diseases are not curable. Cancer, Alzheimer, Parkinson, Rheumatoid arthritis, Heart disease, Diabetes, High blood pressure etc. are examples of defect-mitochondria diseases originated from the mother's damaged mitochondria. The **GOOD NEWS** is all females must take S(H)<sub>n</sub> when as young as possible to protect her mitochondria and prevent her ovaries from forming cysts.

### **Microcluster<sup>®</sup> silica Reduce Plaguing of Artery Walls due to Cationic Action (positive charge or lack of negative charges)**

**"A man is as old as his arteries."** Thomas Sydenham, MD, English Physician, 1624-1689.

The human body has 10 - 40 billion capillaries. The total length of human blood vessels is 96000km. On any given day, the heart pumps about 1,800 gallons of blood through this vast network. On the average, the heart pumps approximately one million barrels of blood enough to fill more than 3 supertankers—through the circulatory system in a lifetime.

The artery walls sometimes have deposits of dead cells, proteins, excess calcium minerals, oxidized fatty acids or oxidized cholesterol (LDL) which plaque the artery walls resulting in poor blood circulation. All these are due to one simple reason, cationic action caused by lack of negative charge flow in the blood. Negative charges are richly found on the surface of red blood cells. It is the negative charges on the cell membrane that pull the positive charges and expel the red blood cells from clustering. In colloidal systems, all activities are a result of surface electrical charge. Negative charges reduce cationic action to take place on the artery walls. This is important to prevent narrowing of blood vessels.

Plaguing may be due to another reason that is Advanced Glycation End Products (AGE<sub>s</sub>). AGE<sub>s</sub> are substances formed in the human body by biochemical interaction between carbohydrates and proteins in a process known as the Millard reaction. This reaction may equal to worse than the damaging effect of free radicals.. AGE<sub>s</sub> have been implicated in many of the diseases associated with aging, including Alzheimers, cancer and heart disease. To prevent the formation of AGE, we are advised to eat a powerful nutrient called carnosine. Research shows that carnosine helps to defend the body proteins against the crippling effects of glycation. In my opinion, a person can spend lots of money on eating carnosine but without improving the sugar metabolism, the effort is in vain. Since proteins are present everywhere in the human body and the body needs ATP, therefore it is better to take S(H)<sub>n</sub> to improve sugar metabolism.

Generally, Microcluster<sup>®</sup> silica is nano colloid that carries negative charges which help to make red blood cells discrete. The negative charges on Microcluster<sup>®</sup> silica exert crystalloid interactions to improve osmotic flow. Microcluster<sup>®</sup> silica, the only ‘Osmotic Product’ in the market, has a profound effect in mediating the body fluids to flow through the lymphatic system and blood circulation system at a constant exchange rate. Microcluster<sup>®</sup> silica helps to maintain body fluids at a constant ratio: intracellular fluid 60% to extracellular fluid 40%.

We have two flow systems in our body, namely lymphatic system and blood circulation system. If either one system has osmotic blockage, the person may have edema that results in swelling of certain parts of the body (e.g. eye swollen, legs swollen etc.). Edema may lead to inflammation that manifests as pain. Taking Crystal Energy<sup>®</sup> and Mega H<sup>®</sup> may reveal whether we have any hidden obstructive fluid flow in our circulatory system. Do not panic if you experience pain after taking either product, it will subside after a few days.

## Potassium is proprietary composition in S(H<sup>-</sup>)<sub>n</sub> formulation

Potassium is included in the composition because it is involved in hydration. Potassium, K<sup>+</sup> plays a key role in buffering pH of cells and takes care of the positive electrical entity of the cell. The position of K<sup>+</sup> is at the top of the metal reactivity series. But hydrogen is positioned NUMBER ONE in the periodic table. As a result, H<sup>+</sup> can only be replaced by K<sup>+</sup> to check pH and positive electrical charge integrity of cells. K<sup>+</sup> moves into the cell to replace H<sup>+</sup> depletion due to H<sup>+</sup> being utilized in the mitochondria to generate ATP based on H<sup>+</sup> concentration gradient (chemiosmosis theory) advocated by Dr Peter Mitchell. He won the Nobel Prize 20 years later, with the chemiosmosis theory that cells need hydration and ATP. To enable K<sup>+</sup> to move into the cell, ATP is required to make the Na<sup>+</sup>/K<sup>+</sup>-ATPase pump translocated on cell membrane to work. Since S(H)<sub>n</sub> increases ATP 5 times higher, the hydride makes the pump work as a result, K<sup>+</sup> moves into the cell, this being an important factor for hydration. But when K<sup>+</sup> is in the stomach cavity, it kicks H<sup>+</sup> out of the stomach parietal cells. This H<sup>+</sup> is required for hydrochloric acid production in the stomach. Hence, S(H)<sub>n</sub> works well with potassium to produce hydrochloric acid in the stomach.

Potassium is an essential macro-mineral in human nutrition with a wide range of roles, including transmission of nerves impulses, contraction of cardiac for normal heart function, for metabolism of carbohydrate and protein, maintaining cell's electrical charge integrity, maintaining cell's pH, for hydration, strengthen skeletal muscles, and production of energy. Potassium is the predominant electrolyte within cells and essential for maintaining proper cellular tonicity. All these benefits provided by potassium only work when there is H<sup>-</sup> present. This is because both potassium and hydrogen are placed at the top of the Metallic Series and Periodic Table respectively. Fruits and vegetables are the richest dietary sources of potassium; potassium rich foods include leafy greens, fruits, and root vegetables. Potassium reduces sensitivity to the salt's blood pressure increasing qualities. It reduces stroke risk by reducing blood pressure, stabilizes arterial plaques and decreases oxidation of lipids (fats). Fatigue in muscles and joint pains after vigorous exercise indicates deficiency of potassium.

Potassium + Magnesium + H<sup>-</sup> → is the best combination to stop migraine. The combination eliminates headache due to tiredness, particularly behind the eyes. This is because potassium reduces blood pressure, which increases during tiredness.

As for the function of silica, it is mainly used to cage many H<sup>-</sup> ions which can then be released directly. Of course, organic bio-molecule silica is good for skin care radiance, strengthening artery walls, bones and cartilage, healthy nails and hair growth. Microcluster<sup>®</sup> Silica helps calcium absorption and reduces osteoporosis. Silica is a substance required for the proper functioning of the enzyme prolyhydroxylase. This enzyme functions in the formation of collagen in bones, cartilage, and connective tissues. Silica is also a natural diuretic.

Silica functions as an electrical insulator and purifies the system by controlling the normal molecular flow, keeping the organism in rhythmic balance. It gives firmness and

vibrancy to the nerves and tissue. It exerts a cleansing and healing action. Symptoms calling for silica include catarrhal conditions, of the respiratory organs with offensive pus discharge, offensive characteristic secretions, skin eruptions with discharges, supportive conditions that are slow to heal, small wounds that are slow to heal.

### **Potassium citrate & citrate**

High uric acid and cysteine causes kidney stones. Taking S(H)<sub>n</sub> proprietary will complement potassium citrate to work effectively to inhibit uric acid and cysteine from becoming stones in the kidney. This explains why the composition formulation of S(H)<sub>n</sub> contains potassium citrate.

The citrate salt of potassium has been shown to aid in the preservation of skeletal integrity. In this respect, it may function by partially neutralizing the high acid loads associated with typical Western diets, and by sparing calcium from excessive loss.

### **Time Release of H<sup>-</sup>**

To release H<sup>-</sup> from Microcluster<sup>®</sup> needs a weak acid such as citric acid to catalyse the release process. S(H)<sub>n</sub> proprietary blend provides potassium citrate, potassium carbonate and oleic acid. Citrate spontaneously becomes citric acid in the presence of H<sup>+</sup> in water. The potassium then makes potassium hydroxide that is alkaline. The Peer Reviewed Published Papers reported a slight increase of alkalinity may increase the efficiency of antioxidant S(H)<sub>n</sub> by 60%. Potassium carbonate is catabolized by gastric hydrochloric acid in the stomach. Potassium forms K<sup>+</sup> is then absorbed into the parietal cells lining the stomach walls, not only able to maintain the positive electric charge integrity of parietal cells, but also displace H<sup>+</sup> moving out of parietal cells into the stomach cavity to further support hydrochloric acid production. The carbonate reacts with hydrochloric acid producing carbon dioxide and the potassium hydroxide turns into potassium carbonate again. The biochemical reaction recycling potassium carbonate reacts with hydrochloric acid to convert potassium hydroxide again to potassium carbonate. This only ceases when all the carbonate is completely used up. The 250mg S(H)<sub>n</sub> proprietary blend provides 68.15mg potassium which looks like a big amount, but it is still suitable for people who have been advised not to take high amounts of potassium. You do not have to worry about the high potassium intake because there is the presence of H<sup>-</sup> which protects the heart and kidneys. This is the reason why Dr Patrick names it proprietary blend. But if you take potassium alone without H<sup>-</sup> complement absorption, then the potassium may be harmful. To absorb potassium, sodium<sup>+</sup>/potassium<sup>+</sup>-ATPase-pump (translocated in cell membrane) must work to pump potassium to go into the cells. In the stomach, K<sup>+</sup>/H<sup>+</sup>-ATPase-pump translocated in parietal cell must work as well to make the stomach cells absorb potassium. Then ATP is needed to make the pump work. Because S(H)<sub>n</sub> increases ATP production 5 times, it makes the pump work to bring potassium into the cell. Therefore, it is safe to take potassium under hydride's presence. Flantech has some heart patients and a few kidney dialysis patients who are better today despite the high potassium. Potassium is important for nerve functions, muscle strength and



also for a healthy cardiovascular system. Therefore, it is important to know the signs of low potassium, so that you can cover the shortage and get back on track without any major complication. Below are eight symptoms of low potassium: 1. Heart palpitations. 2. Fatigue. 3. Fitness or dizziness. 4. High blood pressure. 5. Muscle weakness. 6. Numbness and tingling. 7. Tingling sensation. 8. Constipation.

## Formula of Flanagan's Silica

The empirical formula of Flanagan's silica is  $\text{Si}_4\text{O}_6(\text{OH})_4$  which is abbreviated as 'S'. Then **S(H)<sub>n</sub>** is **silica hydride**, meaning at least 6H<sup>-</sup> are embedded in a single molecule S =  $\text{Si}_4\text{O}_6(\text{OH})_4$ .

If you calculate according to valence, the oxidation state of  $\text{Si}_4\text{O}_6(\text{OH})_4$  is zero which tells that the Flanagan's silica is a neutral monomer that cannot crystalline to become a polymer. The fact that Flanagan's silica is neutral means it will not form any ionic compound with H. S(H)<sub>n</sub> is therefore not an ionic compound bound by positive-negative valence ratio, meaning H<sup>-</sup> is trapped inside Flanagan's silica. There are 6H<sup>-</sup> which can be trapped inside every single Flanagan's silica monomer because there are six O electronegativity that can attract 6H<sup>-</sup> ions. Flanagan's silica is then made **anhydrous**,  $\text{Si}_4\text{O}_6(\text{OH})_4(\text{H}_2\text{O})_{20}$ , to become a powder form in order to stabilize the trapped-6H<sup>-</sup> then dubbed **Silica-Hydride**, S(H)<sub>n</sub> carrying formula  $\text{Si}_4\text{O}_6(\text{OH})_4(\text{H}_2\text{O})_{20}(6\text{H}^-)$ ; I simplified it as **silica-(6H<sup>-</sup>)**. Flanagan's silica is spherical and has a unique circular symmetrical structure like a bucky ball as a result of which there is a vacant space to trap at least 6H<sup>-</sup> that ordinary silica (SiO<sub>2</sub>) cannot cage. Unlike SiO<sub>2</sub> which is crystalline, Flanagan's silica has four functional 'OH' groups which make it an **organic biomolecule**. Due to OH groups, hydrogen bonds are formed. These hydrogen bonds make 10 to 1000 of the same Flanagan's silica monomer to cluster as one single Microcluster<sup>®</sup> (500nm to 2µm) then trademarked as Microclusters<sup>™</sup> that represent many Microclusters<sup>®</sup> supply inside product lines such as Crystal Energy<sup>®</sup>, Mega H<sup>®</sup>, Mega Hydrate<sup>™</sup> and SuperHydrate<sup>®</sup>. Microcluster<sup>®</sup>, due to hydrogen bonds, is the aggregation of 10 to 1000 Flanagan's silica, will easily resume (dissolute) to its original discrete monomer with the many imbedded-H<sup>-</sup> are then time-released when added to water. That means the hydrogen bonds that result aggregate to form Microcluster<sup>®</sup> to allow H<sup>-</sup> time release. The fact that one single Microcluster<sup>®</sup> contains 10 to 1000 Flanagan's silica, the formula for **Microcluster<sup>®</sup> being anhydrous** is  $[\text{Si}_4\text{O}_6(\text{OH})_4(\text{H}_2\text{O})_{20}(6\text{H}^-)]_n$  or  $[\text{silica}-(6\text{H}^-)]_n$  where n varies from 10 to 1000. According to research papers, a drop of Crystal Energy<sup>®</sup> will deliver 20 million Microcluster<sup>®</sup>. **Silica-Hydride** (250mg), is the proprietary blend providing Flanagan's silica 3.6% w/w, H<sup>-</sup> 78.1% w/w, Potassium citrate 66.4% w/w, Potassium carbonate 6.2% w/w, Oleic acid 23.8% w/w.

## Chemical Structure of Flanagan's Silica

Flanagan's silica is 50Å (5nm) in size. It is a spherical monomer silica colloid like a Bucky ball. Flanagan's silica has four hydrogen bonds and due to its many hydrogen bonds, 10 to 1000 Flanagan's silica will cluster to form as Microcluster<sup>®</sup>. Each Microcluster<sup>®</sup> has surface charges build up to an electric potential of 125 mV. Common silica is SiO<sub>2</sub>, which

has no 'OH' and therefore prone to crystallisation to form polymer seen as siliceous stones in kidneys. Microcluster<sup>®</sup> containing Flanagan's silica is the 241<sup>st</sup> type of silica does not polymerize to form siliceous stone in the kidney. It is 2000 times smaller than a red blood cell. Due to its shape, the surface of every atom is potentially exploited to maximize surface of Microcluster<sup>®</sup> to increase **surface per volume area** ratio to carry charges. Due to its high surface per volume area ratio, Microcluster<sup>®</sup> presents the platform for surface-charge to close encounter nutrient-contact to deliver nutrients. Due to its high surface per volume area ratio of Microcluster<sup>®</sup>, it results 125mV, which enhances resonance to mobilize red blood cell discrete. This is an important aspect to transport oxygen and nutrients.

The electric surface charges generating 125mV brings forth colloidal action, which improves osmotic flow. Due to this, Microcluster<sup>®</sup> silica, helps hydration and hence, regulates blood pressure.

### **What you do not know about Microcluster<sup>®</sup>?**

1. Microcluster<sup>®</sup> is an aggregation of Flanagan's silica. It is the best source and the safest form being an organic bio-molecule silica.
2. Silica is for skin beauty care and healthy growth of hair, nail, bones and cartilage
3. Lowers the surface tension of water and hence wets nutrients to facilitate easier absorption.
4. The smallest colloid but has high surface per volume area ratio. The vast surface results in close encounter to transport nutrients.
5. The smallest colloid yet has a very high negative zeta potential making red blood cells discrete, high motility hence, improves capillary bed microcirculation. The efficient microcirculation not only improves blood colloidal system but also fosters better lymph flow correspondingly.
6. Administer calcium absorption to prevent osteoporosis.
7. Cage H<sup>-</sup> for transport. Likewise, if H<sup>-</sup> can remove H<sup>+</sup> in water, then the same H<sup>-</sup> can also remove H<sup>+</sup> in the blood stream, tissues and every singular 60 trillion cells in the body.

### **The Bible to reduce Uric Acid**

Many people are of the opinion that drinking alkaline water serves no purpose for health value. They argue that stomach acid will destroy alkaline water, thus one does not benefit from drinking alkaline water. This is narrow-minded thinking. We now look from a different angle. If alkaline water can reduce the stomach acid, it not only protects the stomach walls, it has a more important role than just the acid-alkaline theory. Stomach acid is regulated by alkaline water, the effect is such that more blood bicarbonate contents are retained and preserved (not destroyed by stomach acid). As a result, they recombine with blood sodium to form the most natural biological sodium bicarbonate rather than to depend on taking man-made sodium bicarbonate (baking soda). People with high blood pressure are not advise to take too much man-made sodium bicarbonate. **Sodium bicarbonate is the**

**most powerful agent to remove uric acid, to kill cancer cells and bacteria directly.** Hence, taking  $S(H)_n$  is the best solution to buffer blood pH by removing its  $H^+$  while at the same time preserving bicarbonate contents. For instance, lemon juice, papain and apple cider vinegar are all-alkaline and help to dissolve uric crystals. However, an overdose of apple-cider vinegar results in loss in potassium.

### Oxidative Stress

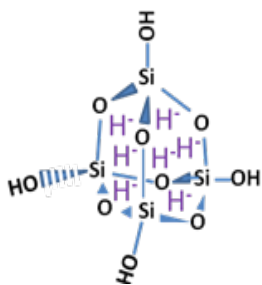
Because  $H^-$  ( $1s1s^2$ ) carries an extra loose electron ( $1s^2$ ), it therefore easily gives out its electron to the red blood cells.  $H^-$  creates electromagnetism when its electron spins round iron in red blood cell. Electromagnetism generates electricity hence;  $H^-$  manages human electrical resistivity.

When  $H^-$  loses two electrons, it becomes  $H^+$ . Therefore  $H^-$  not only contributes its two electrons to mitochondria, it is also the precursor of  $H^+$ .  $H^+$  is acid and turns mineral salts into ionic minerals, which generate bioelectricity to manage **electrical resistivity**.

In a nutshell,  $H^-$  has double advantage to manage our body electrical resistivity. First: It induces bioelectricity through electromagnetism. Second: It works well with minerals to form ionic minerals to generate bioelectricity. This double edge advantage of  $H^-$  to monitor electrical resistivity is not something any antioxidant can do.

From a different version, electrons donated by  $H^-$  foster **REDOX** reaction. REDOX means the gain and lose of electron between **reduction** and **oxidation**. But when there is insufficient electron to balance reduction-oxidation, oxidative stress occurs which may generate free radicals. Free radical is the main cause of human DNA damage.

$H^-$  is active hydrogen. Therefore, it actively scavenges reactive-oxygen-species (singlet oxygen, superoxide, hydrogen peroxide and hydroxyl radical). It instantly scavenges  $\cdot OH$  to water as a byproduct.  $\cdot OH$  is the most dangerous reactive oxygen species.



**Silica ( $H^-$ )  $\rightarrow$  Silica +  $H^-$**  ( $H^-$  is embedded in Microcluster<sup>®</sup> silica)

**Silica ( $H^-$ ) +  $\cdot OH \rightarrow$  Silica +  $H_2O$**

**The monomer Flanagan silica is very unique having 6 negative poles and 4 functional OH that create hydrogen bonding to structure water molecules**

### HALF-LIFE

The reactivity of free radicals is quantified by half-life (table 1) values at 37°C. Short half-life corresponds to high reactivity.  $\cdot OH$  has one nanosecond half-life indicating that it is very reactive and unfortunately, it is always found near mitochondria.

*The Half-life* is used to tell the lifecycle of a radioactive substance.

Table 1

Free Radical <i>Half-Life</i> at 37°C		
Radical	Symbol	<i>Half-Life</i> Time

Hydroxyl	$\cdot\text{OH}$	1 <u>nanosecond</u>
Singlet Oxygen	$^1\text{O}_2$	1 <u>microsecond</u>
Superoxide	$\cdot\text{O}_2^-$	1 <u>microsecond</u>
Alkoxy	$\cdot\text{OL}$	1 <u>microsecond</u>
Peroxy	$\text{LOO}\cdot$	10 milliseconds
Nitric Oxide	$\cdot\text{NO}$	few seconds

Table 1 shows the half-life of  $\cdot\text{OH}$  is very short. Its lifespan can stay only 1 nanosecond. It can change to a new substance after 0.000000001 second.

Therefore time • speed • size • quantity • rH are the keys to tell the efficacy of an antioxidant to destroy  $\cdot\text{OH}$  in time.

- Only  $\text{H}^-$ , the smallest and lightest atom to travel at the fastest speed to scavenge  $\cdot\text{OH}$  within the shortest time possible to form water as a byproduct.
- Only  $\text{H}^-$  is able to work independently and does not need any enzyme to make it work to scavenge  $\cdot\text{OH}$ .
- Only  $\text{H}^-$  by equal mass when compared with any antioxidant has the highest quantity to scavenge  $\cdot\text{OH}$ .

### **S(H)<sub>n</sub> is a unique chemistry entity**

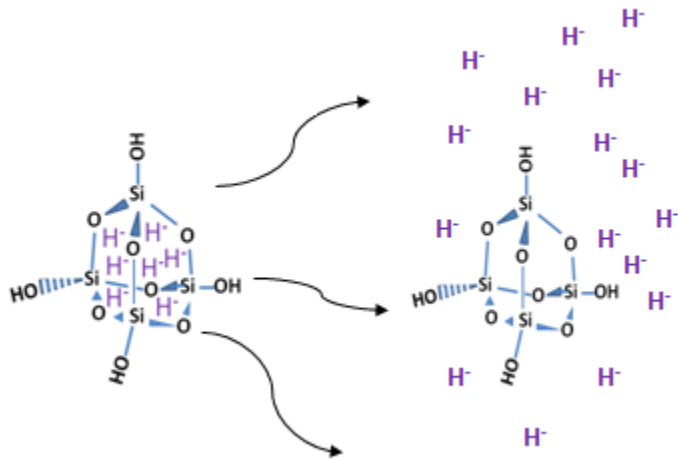
Is silica hydride S(H)<sub>n</sub> an ionic compound? Ordinary silica is named silicon dioxide but Flanagan's silica is not silicon dioxide. Silica, silicone and silicon are different entity. Silica and silicone are compound but silicon is element. Silicone is man-made compound. Flanagan's silica chemical formula is  $\text{Si}_4\text{O}_6(\text{OH})_4$  which has 4 functional group 'OH' and is totally different to ordinary silica  $\text{SiO}_2$  that has no 'OH' functional group at all.

The electron valence for: Silicon is  $\text{Si} = +4$ ; Oxygen is  $\text{O} = -2$ ; Hydrogen is  $\text{H} = +1$ , then  $\text{Si}_4\text{O}_6(\text{OH})_4$  has oxidation state equals to zero indicating Flanagan's silica is a neutral monomer.

It is the only silica in monomer belonging to organo-silsesquioxane (...Si...O...Si...) with 4OH attach to the 4Si when all others are either polymers or crystalline. Not only silicon (natural element), silicone (man-made compound), silica (sand), silicate (mineral) all have different chemical properties but they are different from the unique chemical identity of Flanagan's silica. When  $6\text{H}^-$  trap inside a single Flanagan's silica to form as S(6H), the compound is called silica hydride which is not formed due to ionic charge valency ratio. In other words,  $\text{H}^-$  is embedded to form as S(6H) which is **NOT** governed by positive versus negative charge valence ratio. Because Flanagan's silica has functional group OH, therefore 10-1000 Flanagan's silica will cluster into one group called Microcluster<sup>®</sup> which is then trademarked as Microclusters<sup>™</sup> meaning containing many Microcluster<sup>®</sup>. One single Flanagan's silica can trap at least  $6\text{H}^-$  then dubbed anhydrous powder silica-hydride carrying formula  $\text{Si}_4\text{O}_6(\text{OH})_4(\text{H}_2\text{O})_{20}(6\text{H}^-)$  or abbreviate it as S(6H). Due to each Flanagan silica has 4OH groups that create hydrogen bond, then 10 to 1000 of S(6H) will cluster to form as a single Microcluster<sup>®</sup> or S(H)<sub>n</sub>; where n contains 10 to 1000 Flanagan's silica.

In one capsule 250mg silica hydride, there are multi-billion Microcluster<sup>®</sup> or Microclusters<sup>™</sup>. There will be multi-quintillion H<sup>-</sup> trap inside multi-billion Microcluster<sup>®</sup> (250mg per capsule of silica hydride). This is the reason one capsule 250mg S(H)<sub>n</sub> shows very high negative ORP when water is added.

Water molecule and Microcluster<sup>®</sup> share one common unique similarity. Flanagan silica is a molecule monomer Bucky Ball that has 6 “O” protruded (exposed) on the molecule surface resulting it to be a 6-polar molecule. This Bucky Ball pulls 20 water molecules forming three layers to trap and stabilize at least 6H<sup>-</sup> in the silica-water interface with the whole resultant structure being called a liquid crystal. *Figure 1* below shows a single molecule of S(H)<sub>6</sub>. Then you have to imagine there are 6H<sup>-</sup> store in one single S(H)<sub>n</sub> making the formula S(H)<sub>6</sub> where S is Si<sub>4</sub>O<sub>6</sub>(OH)<sub>4</sub>. Taking one capsule 250mg S(H)<sub>n</sub> where ‘S’ is Microcluster<sup>®</sup> means taking multi molecules S(H)<sub>n</sub>. That means 250mg S(H)<sub>n</sub>; the ‘n’ is multi-quintillion H<sup>-</sup>. Therefore, when multi S(H)<sub>n</sub> that clustered together dissolutes and dissolves in water (*Figure 1*), you can see there are multi-quintillion H<sup>-</sup> ions released. The uniqueness of a single Flanagan silica able to cage 6H<sup>-</sup> that forms S(H)<sub>6</sub> which then clusters again with more S(H)<sub>6</sub> due to hydrogen bond to become big Microcluster<sup>®</sup> explains the fact that Microcluster<sup>®</sup> makes s(H)<sub>n</sub> is not only the most powerful antioxidant but a powerful reducing agent as well. Most molecules of antioxidants are governed by ionic ratio and cannot explicitly show powerful reducing capability like silica-hydride or silica-(6H<sup>-</sup>).



## Electron

The human cell needs electrons in order to reduce H<sup>+</sup> inside the mitochondria to bond with oxygen to become water as byproduct. The whole process is aerobic respiration that heat and energy is produced. Heat produced is the natural weapon use by body to defense body from contracting cancer. That means S(H)<sub>n</sub> enhances aerobic respiration is the right approach to prevent cancer from relapse. Due to cancer cells are fungi cells feed on sugar fungus in the blood, then eliminate blood fungus is most priority. Due to S(H)<sub>n</sub> buffers blood's pH, therefore fungus in the blood finds hard to survive. The electron is directly supplied by H<sup>-</sup>. But should H<sup>-</sup> becomes unavailable, then spare electron is supplied from ATP. ATP is the human living-battery installed inside the cell for providing electrons. H<sup>-</sup> is the source to directly supply electrons to recharge the battery-like ATP. Therefore, H<sup>-</sup>

**H<sup>-</sup> is the Main Electron Supplier** to recharge ATP storing electron for urgency needs. **H<sup>-</sup> is the Main Electron Transporter to carry electron to the mitochondria** where ATP is synthesized. Any excess electrons are picked up to build the ATP. ATP is the spare-cord, an alternate source to substitute electrons for urgency needs when there is H<sup>-</sup> shortage at an instant. ATP is the electron-reservoir that stores electron for substitute in case of electron urgency needs. This electron storage is what makes up the inherent latent energy of the cell. To accomplish 100% securing electrical charges (electron) to keep up the constant urgent needs of electrons at unhindered rate, ATP is required. Ensuring a constant supply of electrons is an urgent strategy to support REDOX reaction that initiates oxygen to oxidize hydrogen in the mitochondria. Bonding oxygen and hydrogen in the mitochondria is aerobic respiration that phosphorylate ATP production. The cell is anabolic means at the building state. Albert Szent-Gyorgyi said, "No electron flows in a living system unless it is accompanied by hydrogen". As Dr. Patrick says: "What is the difference between a dead body and living body? Dead body has no charge." Without ATP, the cell has no charge and therefore it dies. Hence, H<sup>-</sup> transports electron to mitochondria is strategic to convert ADP to ATP aiming to restore the energy currency of cell. Taking **vitamin C and antioxidants are good but are indirect sources supplementing electrons** to complement the body's needs. Taking S(H)<sub>n</sub> is the best **direct source** to supply H<sup>-</sup> and hence electron not only to the mitochondria but to the body and blood as well.

Drinking water containing OH<sup>-</sup> also supplies electrons. There are **three unhealthy sources** such as body uses ① uric acid ② fatty acid ③ cholesterol to complement electrons when there is a deficiency. The electron deficiency may be worsened when the body has too many free radicals. There is the unknown hidden danger that uric acid becomes uric crystals, fatty acid plagues the arterial walls and cholesterol blocks circulation. Take H<sup>-</sup> to eliminate free radicals in order to preserve the reservoir of electrons in the body. The body needs a constant supply of electrons which is accomplished when there is enough H<sup>-</sup>. H<sup>-</sup> is the best negative ion among all types of ions. H<sup>-</sup> is the best option to remove this plaque and also promotes OH<sup>-</sup> that can reverse the non-water soluble plaque back to water soluble substances for removal. Even if you eat electrons- rich food and antioxidants, they are still not the source complementing OH<sup>-</sup> to your body needs. When adding S(H)<sub>n</sub> into water, H<sup>-</sup> is released instantly; not only removes H<sup>+</sup> but also promotes OH<sup>-</sup> making the water alkaline. How about functions of S(H)<sub>n</sub> in the body? It not only neutralizes H<sup>+</sup> of blood to become H<sub>2</sub> gas but also preserves blood OH<sup>-</sup> making blood pH slightly alkaline. Removing H<sup>+</sup> from blood is important to control blood carbonic acid (H<sub>2</sub>CO<sub>3</sub>) which preserves the bicarbonate (HCO<sub>2</sub><sup>-</sup>) to make the blood slightly alkaline. In other words, S(H)<sub>n</sub> not only preserves OH<sup>-</sup> in the water which is useful to neutralize acid wastes in the body. Silica-(H)<sub>n</sub> also releases H<sup>-</sup> to react with oxygen to form as OH<sup>-</sup> in the blood. S(H)<sub>n</sub> is therefore the body's OH<sup>-</sup> promoter and HCO<sub>3</sub><sup>-</sup> preserver. Ionic water only contains OH<sup>-</sup> for drinking but does not promote OH<sup>-</sup> formation in the body since ionic water does not have H<sup>-</sup>. This is why S(H)<sub>n</sub> supplies H<sup>-</sup> and also uses H<sup>-</sup> to promote OH<sup>-</sup> formation either in water or body and hence silica hydride is different from ionic water processor. OH<sup>-</sup> not only neutralizes acidic wastes, it directly

converts blood  $H^+$  into  $H_2O$  as a means to buffer blood pH and lightens the kidney's burden to remove  $H^+$ . It also hydroxylates non-water soluble organic substances (fat, oil, cholesterol) to become water soluble organic substances easier to be transported for either absorption or removal. The liver needs  $H^-$  especially to promote  $OH^-$  formation for hydroxylation to take place. In addition,  $H^-$  from silica hydride also directly removes excess  $H^+$  in the blood in the form of hydrogen ( $H_2$ ) gas, buffering pH of blood. Hence, silica hydride is a pH buffer agent. The duo mechanics of  $H^-$ : ①  $H^- + H^+ \rightarrow H_2$  ②  $H^- + O \rightarrow OH^-$  and then  $OH^- + H^+ \rightarrow H_2O$  tells  $S(H)_n$  releases  $H^-$  directly to manage  $H^+$  not only in the blood but also inside-outside cell monitoring their pH as well. This wholesome dual direct pH buffering mechanism (IN THE BLOOD & INSIDE-OUTSIDE CELL) throughout the body is not something all antioxidants and electron-rich food can perform. The wholesome pH buffer to control  $H^+$  in blood versus inside-outside cell and to promote bicarbonate production that influences blood oxygen uptake by cells in true sense is to cure and heal cancer and not just preventing cancer. To prevent cancer, curing cancer and killing cancer cells directly, to inhibit cancer from relapse are forms of defensive cancer treatment. Offensive treatment such as killing cancer directly by white blood cells is important.  $H^-$  preserves bicarbonate ( $HCO_3^-$ ) in the blood in the form of sodium bicarbonate ( $NaHCO_3$ ) by removing blood fungus, yeast and kills cancer cell directly. Curing cancer should involve both offensive and defensive treatment. Offensive treatment means strengthening the immune system. Cancer patients should take lots of Vitamin C together with silica hydride to strengthen the immune system. Vitamin C must be taken together with silica hydride to have the direct mechanism to increase NADPH. NADPH is the fuel for white blood cells to carry out respiratory burst to produce hydrogen peroxide to kill cancer cells directly. The use of silica hydride to increase blood sodium bicarbonate is also an offensive treatment to kill cancer cells. Defensive treatment is more for preventive cancer relapse but is not a guarantee to kill the mutated DNA cancer cells.

Blood oxygenation and pH buffer is also a defensive treatment to prevent cancer relapse. The defensive treatment should also involve curing the liver since all cancers are related to liver malfunction. The defensive treatment should also use  $S(H)_n$  to speed up detoxification and anti-inflammation. Japanese scientists have discovered that  $H^-$  positively alters the DNA expressions, effective against brain diseases. The study shows  $H^-$  not only slows down the activities of mutated DNA of immune cells, it does not alter the good genes and has an optional mission to repair the damaged DNA.

$H^-$  also limits the activity of mutated DNA inside p53 gene of any cell so that the mutated cell cannot carry out activities and will wither and die. P53 gene of a cell is just like a photostat machine copying DNA of a cell since DNA controls all cell activity. But when the p53 gene is copying mutated DNA,  $H^-$  then shuts down the gene like shutting down the photostat machine to stop the copying process.  $H^-$  shutting down the mutated p53 gene offers an offensive treatment to kill cancer directly. In a nut shell,  $H^-$  stops unhealthy cells from growing while at the same time promotes healthy cells to carry out more activities.

Lastly, the defensive treatment also involves taking sulphated polysaccharide together with  $S(H)_n$  to reduce pains. There is not what a single antioxidant can do in ONE SHOT except  $S(H)_n$  and if you have to take sufficient quantities of  $S(H)_n$  (1.0g), to get all the above protection. You need 1.5g of  $S(H)_n$  a day to combat cancer. Wholesome pH buffer is also the true course to enhance blood oxygenation and fosters aerobic respiration to inhibit sugar fermentation which favors growth of cancer cells to take place. Because  $H^-$  is the fuel of cell to promote ① blood oxygenation ② cell aerobic respiration and ③ a precursor for ATP production while at the same time Microcluster<sup>®</sup> silica enhances blood colloidal system to improve osmotic flow, hence  $S(H)_n$  lowers blood glucose scientifically. Lowering blood glucose means to stop sugar in the blood from fermenting into fungus that feeds cancer cells. This is the reason Dr Patrick Flanagan said, “If you really understand  $H^-$ , you can’t afford not to take  $H^-$ ”.

### **What is the mechanical difference between ATP and $H^-$ to supply electrons to human cell?**

ATP needs oxidative stress to release its electrons which convert it to ADP. Whereas  $H^-$  is indifferent to ATP, it directly releases its two electrons to mitochondria. This is the main mechanical difference between  $H^-$  and ATP in terms of  $H^-$  being able to directly give out its electron to the cell. Since ATP releases its electron is conditioned-dependent, therefore speed wise,  $H^-$  has an advantage over ATP to donate its electrons at a faster and instant rate.  $H^-$  is the fuel of cell functions in the mitochondria while ATP is the synthesized product of mitochondria. The proximity of  $H^-$  to reaching mitochondria to donate its two electrons is the privilege of  $H^-$  but not ATP since ATP is the synthesized product of mitochondria. How about the substance and mechanism to make ATP? The magic is  $H^-$  and the mechanics of  $H^-$  is to directly supply electron to recharge the ATP. Hence, the mechanism of  $H^-$  has a more direct subtle influence on cells to acquire electrons rather than to depend on ATP. ATP is more useful to break down glucose molecules to make NADH which also transport  $H^-$  to mitochondria. When  $H^-$  loses its two electrons, it transforms to  $H^+$ . Hence,  $H^-$  is the precursor to build up higher  $H^+$  concentration gradient at the outer space of mitochondria. Due to the fact that the outer space of mitochondria has higher  $H^+$  than inner space mitochondria,  $H^+$  the concentration gradient built up as a result, induces ATP production under chemiosmosis, advocated by Dr. Peter Mitchell. This explains why a person who consumes enough quantities of  $H^-$  may still be energetic even though he eats less caloric food. Eating less high caloric food is always healthier and promotes longevity. The hydroxyl radical is produced when caloric food is metabolized in mitochondria. Hydroxyl has half-life of 1 nanosecond (0.000000001 second), meaning many mitochondria may be under attack at every 0.000000001 second. But the lifespan of  $H^-$  is 1.73 nanosecond, a little bit longer than hydroxyl. Because  $H^-$  stays longer than hydroxyl, it then has enough time to look for hydroxyl and makes hydroxyl into water. The extra electron of  $H^-$  is only 0.7542 eV. That means the extra electron can easily be detached in time to destroy the most dangerous hydroxyl radical. Hence  $H^-$  is a life saver increasing the lifespan of cells. That is the reason Dr Patrick Flanagan said, “Taking 4 capsules of Mega  $H^-$ <sup>®</sup> (1.0g) for two weeks, you reverse



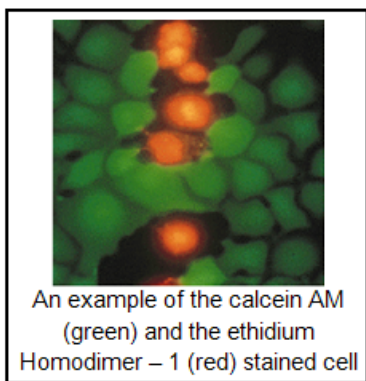
your physical age by 5 years younger.” ... *source: quotes from CD on reverse aging by Dr. Patrick Flanagan.* May be this is at GOD’s mercy to provide such H<sup>-</sup> is **GOD CONSTANT ENERGY** to be bestowed to mankind protection.

Some tips! Oxygen is a gas and an element; therefore, the body needs another gas and element to match the diffusion rate of oxygen. You will be blind if you suck in pure oxygen. We cannot use solid or liquid to match the diffusion of gas with regards to diffusion rate. It is speed (rate) and quantity of antioxidant that counts to destroy the oxygen free radicals. **No solid or liquid or compound can move to diffuse at the same rate of oxygen radicals.** Perhaps only H<sup>-</sup> can compete the diffusion rate oxygen free radicals since it is an active atomic life force diffuses alike gas. Since oxygen radicals diffuse to look for electrons, then only H<sup>-</sup> can diffuse to match the rate of oxygen radicals but not H<sup>+</sup> because positive charge is static charge.

Most antioxidants are compound solid antioxidants, therefore they are rather slow to match the rate of oxygen radicals in the body. It is only H<sup>-</sup> that by quantity/quality/speed/size/proximity that work to destroy ROS. But then what supports the stability of H<sup>-</sup> in the body?

**Five Different Toxicity Test** run by independent laboratory on **S(H<sup>-</sup>)<sub>n</sub>**

{Journal: “The Science Behind S(H<sup>-</sup>)<sub>n</sub>}



Test # 1: Time-dependant cellular viability.

Test # 2: Spontaneous Apoptosis or Necrosis (Concentration- dependant cellular viability).

Test # 3: Oral LD<sub>50</sub> .

Test# 4: Laser induced fluorescence electrophoretic analysis of cellular organelles.

Test# 5: Enzymatic molecular probe Cytotoxicity analysis.

#### 1. Byproduct of silica hydride.

According to the research paper, running title: “Active Hydrogen Supplementation and Hydration”, on page 23: When Negative Hydrogen loses its electron, it becomes either a neutral hydrogen or it is used to neutralize ROS to become water or the Negative Hydrogen is readily picked up by NAD<sup>+</sup> to become NADH. That means the byproducts of Negative Hydrogen in the body is either hydrogen gas, H<sub>2</sub>O or NADH, and they are non-toxic to the body as well.

#### Chemistry of S(H<sup>-</sup>)<sub>n</sub> on drinking water:

Water (H<sub>2</sub>O) at standard room temperature and pH 7 contains H<sub>3</sub>O<sup>+</sup> with equal amount of H<sup>+</sup> and OH<sup>-</sup>. When S(H<sup>-</sup>)<sub>n</sub> is added to drinking water, the resultant chemical equation is:



When S(H<sup>-</sup>)<sub>n</sub> is added to water, no violent reaction is seen showing the product to be safe. A lot of bubbles are seen. These bubbles are not oxygen, instead they are H<sub>2</sub> gas. H<sub>2</sub> gas

explodes a splinter when tested. The formation of H<sub>2</sub> shows clearly silica-H<sup>-</sup> readily releases its H<sup>-</sup> into water eliminating H<sup>+</sup>. OH<sup>-</sup> is preserved and the water becomes alkaline. Besides, the surface tension of water is lowered from 73 dynes/cm to 45 dynes/cm. Lowering the surface tension of water makes the water wetter and improves hydration. While the Microcluster<sup>®</sup> silica is nano-size colloid, hence it improves osmotic flow. Therefore, silica-H<sup>-</sup> is a hydrating and osmotic product.

### **SILICA HYDRIDE IS TESTED BY ADVANCED & SCIENTIFIC TECHNOLOGIES**

1. H<sup>-</sup>-NMR (Hydrogen Nuclear Magnetic Resonance) indicates repeating structure of Si-O groups.
2. Si-NMR confirms the general structure of silsesquioxane.
3. TEM (Transmission Electron Microscopy) shows the 50 Å (5nm) spherical unit as colloidal silica.
4. SEM (Scanning Electron Microscopy) shows aggregate clusters of H-bond (2µm to 50 Å)
5. Both TEM and SEM support the hypothesis of a cage system that means trap nutrients and ionic minerals as nutrient vehicle.
6. Ion Beam Analysis (IBA) together with Rutherford Backscattering Spectroscopy (RBS) and Forward Recoil Spectrometry (FRoS), using Helium Beam, to shows the powder Microcluster<sup>®</sup> silica contains Si & O while FRoS shows the contents of H (78.1%), O (15.6%) and Si (6.2%).
7. FTIR (Fourier Transform Infra Red) DRIFTS shows silsesquioxane monomer terminating with hydroxyl functional group.
5. ESR, Electron Spin Resonance is use to measure free radical and identify hydroxyl radical.

### **The 21<sup>st</sup> Century in Nutritional Breakthrough**

The way we think based on our past knowledge about nutrition may **NOT** be **RIGHT** when comes to Microcluster<sup>®</sup> Technology. In the nutritional world, we are being taught at 'You Are What You Eat'. In food industry, we are taught of the special technology being engaged in food processing. The two applied concepts are so impressive to supersede the way we think until their products are sellable. We are taught to learn the importance of food supplements but never taught to learn absorption is equally important. Much effort on marketing and advertisement only promote the **negative concept on nutrient deficiency** related to health problem with little knowledge to educate about absorption is equally important. That's why conventional Chinese 'Sin Se' always advocates **we can't absorb when we are weak**. Never treat yourself to YOU ARE WHAT YOU THINK when comes to Microcluster<sup>®</sup> Technology. With Microcluster<sup>®</sup> Technology, besides getting H<sup>-</sup>, organic silica and other minerals, Microcluster<sup>®</sup> silica also guarantees the money you spend on other health food supplement for 100% absorption. Through Crystal Energy<sup>®</sup>, you are actually spending to employ the Microcluster<sup>®</sup> silica as nutrient transporter to increase absorption from whatever you eat.

## The Philosophy of Flanagan Microcluster<sup>®</sup> Technology

“TO COAT, TO PROTECT, TO DELIVER, TO ENHANCE”

NUTRIENT ABSORPTION

BASE ON

*Speed ♣ Size ♣ Quantity ♣ Osmotic Flow ♣ Lower Surface Tension of water*

Using Negative Hydrogen & Microcluster<sup>®</sup> Silica

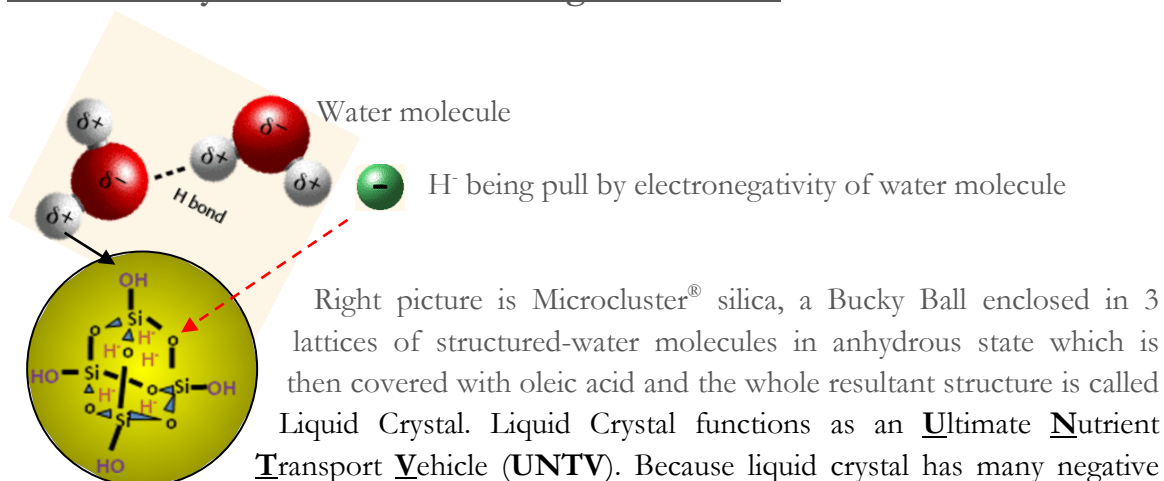
*As Functional Approach* to restore biological terrain in order to improve *cellular energy, bioelectricity, hydration, blood circulation, detoxification & absorption* through increases body fluid *zeta potential* via

1. Microcluster<sup>®</sup> as liquid crystal for resonance effect to transfer energy to the cell.
2. Microcluster<sup>®</sup> as colloid to improve blood colloidal system to enhance osmotic flow for hydration hence, regulates blood homeostasis and blood pressure.
3. Negative Hydrogen to enhance oxygen uptake hence, lowers blood glucose.
4. Negative Hydrogen to destroy free radicals to protect DNA and mitochondria.
5. Negative Hydrogen to improve electrical communication of nerves.
6. Negative Hydrogen to improve bioelectricity to strengthen electromagnetism.

When a drop of Crystal Energy<sup>®</sup> is added to any drinking water; there is 20 million of Microcluster<sup>®</sup> Silica added as well. Many water molecules around the organic silica are rearranged, re-orientated into 3 layers to encompass the organic silica, we called “hydrophobic hydration”. The electrical charges on the surface of Microcluster<sup>®</sup> Silica (**125mV**) change the energy state of water and hence lower the surface tension of water. When water has low surface tension, it is easier to wet the nutrient to facilitate for easier absorption.

Once Crystal Energy<sup>®</sup> was consumed, many Microcluster<sup>®</sup> silica travel along body fluid which bring about crystalloid interactions that result in better osmotic flow. The silica spheres are extremely fine and form a "Bucky ball" that expands and contracts<sup>18</sup> based on the pH of the surrounding fluid. **The spheres act like little breathing clusters of silica that trap heavy metals and pull them out of the body safely.** It expands and contracts in size base on pH of surrounding fluids which results in balancing our body pH.

## Biochemistry of Microcluster<sup>®</sup> in a glass of water



hydrogen on its surface, it resembles an electric magnet to trap ionic minerals within the water layers. Hence liquid crystal is ionic minerals transporter. The liquid crystal has high zeta potential of **125mV**, 5nm in size which is 2000 times smaller than a red blood cell. When liquid crystal **125mV** is added to a glass of water, it suspends, oscillates with vibration and moves randomly throughout the content of water. The vibrational and colloidal motion of liquid crystal knocks the big bulk clustered-water molecules breaking their hydrogen bond which finally becomes small cluster of water. Hence electrical charge of liquid crystal transforms its energy to water making big water cluster to many small clusters by means of ENERGY RESONANCE. Hence lowers the surface tension of water (wetter water). This facilitates more free water molecules able to contact its surrounding substances making them more wet to become water soluble substances. An example oil becomes water soluble substance. Another example more air can be trapped inside water indicating there are more vacant spaces exist in the content of water. With these more spaces, then nutrients stand better chance to expose to in contact with wetter water and hence wetting the nutrients for better absorption. Hence Microcluster<sup>®</sup> creates more inviible vacant spaces in water to upload nutrients for delivery. What is more important, these spaces trap more air and hence transport more oxygen to blood. This explains why headache and coma due to stroke recovers faster after consuming concentrated Microcluster<sup>®</sup>. The electrical forces of liquid crystal are always stronger than the hydrogen bond that holds water molecules together. As a result liquid crystal breaks up more hydrogen bonds and hence lowering the surface tension of water which makes the water wetter.

### **How Microcluster<sup>®</sup> lowers the surface tension of water?**

Water molecule is a bipolar molecule. Due to its polarity, it forms hydrogen bond that ended up many water molecules gather together to form as big-bulk cluster water (macrocluster). That's the present market are hot debated talking changing big cluster to small cluster water for hydration. But I bet you there is nothing to do with big or small cluster water; it is the lower surface tension of water that matters to hydrate us. Molecular weight of silica is heavier than water molecule and silica surface has stronger electrical charges than hydrogen bond. When silica knocks at big bulk-clustered water, it breaks the

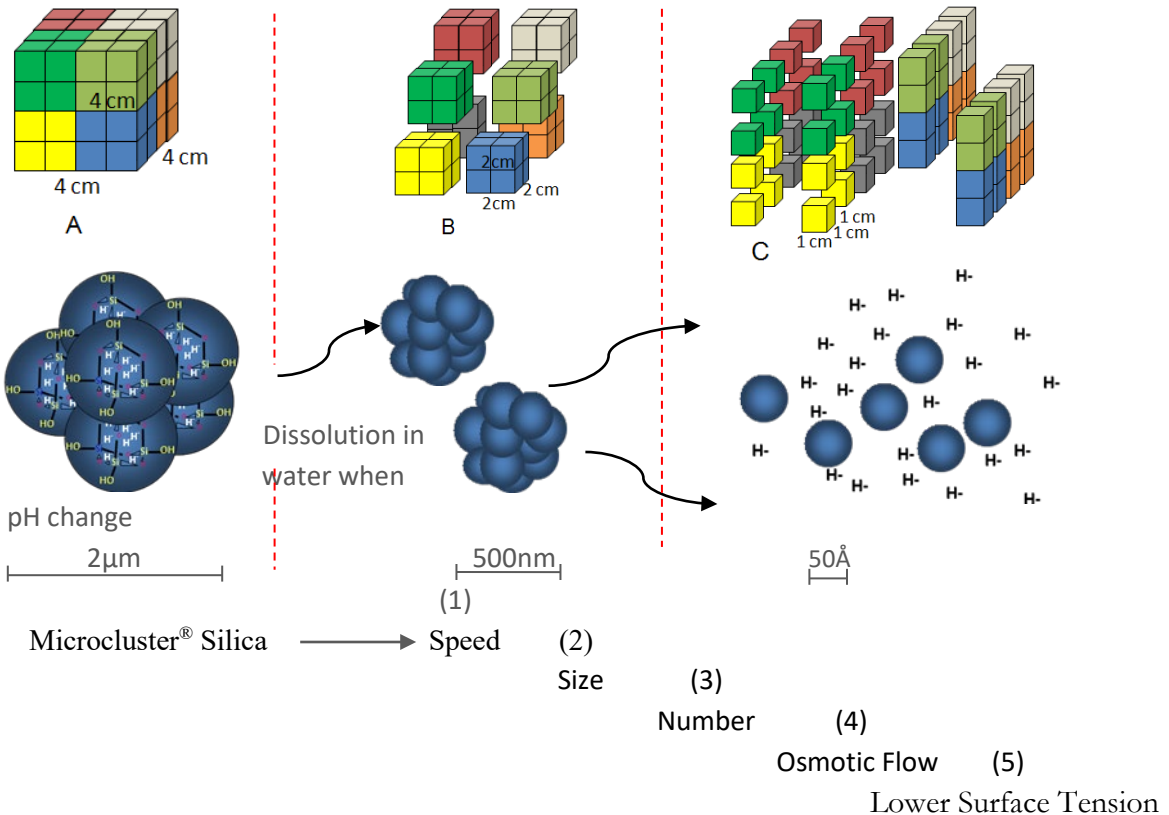
hydrogen bond that ends up more smaller clusters water form and hence lowering surface tension of water from 73 dynes/cm to 45 dynes/cm<sup>17</sup>. Microcluster<sup>®</sup> has stronger electronegativity and is heavier than water molecules and negative hydrogen, therefore it works like an electric magnet attracts water and negative hydrogen moving towards it. In other word, it pulls and rearranges big-bulk clustered water into 3 new lattices totaling 20 water molecules systematically well organized in anhydrous on its surface. This anhydrous 20-structured water molecules is then made stable by coating oleic acid making them to look more well organized and concentrated to be delivered travelling at least one round the body. Spaces were created in the silica-water interface. Millions and millions of ionic minerals, Negative Hydrogen and activated nutrient were trapped in these spaces. The resultant whole **silica 'Bucky ball'** surrounded with 3 lattices layer of water coated by oleic acid is termed liquid crystal use as vehicle to transport nutrients. It also collects toxins out of body. What interest me is this Bucky ball is very stable, smooth and slippery spherical shape until it doesn't scratch our artery wall while it is travelling. The nutrients trapped inside are well protected to be delivered straight right into lymphatic system<sup>22</sup>. One of the functions of the lymphatic system is to **defense against invading microorganisms and disease**. That's why silica bucky ball works well to improve our immune system.

**Employing the Flanagan Microcluster<sup>®</sup> Silica to manage our nutrient absorption**

When we use Microcluster<sup>®</sup> to transport nutrients and S(H)<sub>n</sub> to **supercharge, minimize and activate the nutrients** (<http://phisciences.com/hydration.html>) in any nutritious drink, the Microcluster<sup>®</sup> pulls, attracts, collects, gathers and traps the activated nutrients in the clathrates of silica-water interfaces.

This Microcluster<sup>®</sup> virtually energizes the nutrients and suspends them for transport. It acts as colloid that result collision to increase osmotic flow and at the same time delivers the nutrients to the right tissue for immediate absorption.

**Absorption Factor Depends on Surface / Volume Area Ratio<sup>22</sup>**



International Journal of Hydrogen Energy, Volume 28, 2003, page 1250 (fig. 9)

Shape	Total Volume	Total surface Area	Surface / Volume Area (A : B : C)
A	64 cm <sup>3</sup>	96 cm <sup>2</sup>	96 : 192 : 384 = <b>1 : 2 : 4</b>
B	64 cm <sup>3</sup>	192 cm <sup>2</sup>	
C	64 cm <sup>3</sup>	384 cm <sup>2</sup>	

From mathematical calculation shown in the table above, we find that the ratio surface/volume area is 4 times higher when the object gets smaller. If this mathematical were to apply to Flanagan monomeric silica with ONLY 5nm, its unimaginable one can predict the total surface created by such silica. In actual, 10 drops of Crystal Energy<sup>®</sup> (0.01 fl oz) will create 2400 square feet of surfaces since 1 oz of silica hydride as reported by Dr. Flanagan can create 240000 square feet of surfaces. Some of you may think it is impossible, to explain

it, you can use a roll of string to fly a kite. How far can the kite fly in the sky with just a roll of string? Even though the roll of string looks small, but it flies very far, right.

Under Flanagan Microcluster<sup>®</sup> Technology, the size of silica is only 5 nanometers (TEM test). It is so small until 1600 of them can be fitted side by side on a red blood cell or 2.4 million of them can be placed side by side on the head of a pin. Incredibly, they have an enormous surface area of about 240,000 square feet per ounce. Microclusters<sup>®</sup> help to suspend nutrient particles so that they can be easily absorbed into the cells. With just one Ringgit Malaysia to two (40 drops) you invested on Crystal Energy<sup>®</sup> every day, you are as though employing the Microcluster<sup>®</sup> Technology via Microcluster<sup>®</sup> silica at home to administer your diet intake. Every day we eat, we drink but we don't know the amount of food we can absorb. With Microcluster<sup>®</sup> silica, the money you spend on other health food is guarantee absorbed by 300% higher. Microcluster<sup>®</sup> silica creates value for whatever we eat and drink. <http://phisciencences.com/hydration.html>

#### References:

1. Excerpted from Hydrogen Anions in Nutrition by Clinton H. Howard

“Microcluster<sup>®</sup> colloids have a very special property; they are hydrophilic and lipophilic in nature (amphipathic). We have created an artificial “chylomicron” which is very similar to chylomicron that is produced by the body when it digests oil. Like the Microcluster<sup>®</sup> sphere, chylomicron has a negative surface charge or zeta potential. It is this negative electrical charge that causes the chylomicron or Microcluster<sup>®</sup> sphere to be absorbed by the lymphatic system in the intestines. These particles will essentially by-pass the liver on their first entrance into the body. **Dr. E.M. Carlisle** of the University of California reported in Trace Elements in Human Nutrition that silica is absorbed through the intact intestinal mucosa, pass through lymphatic and circulatory systems, and reach other tissues supplied by arterial blood via the alveolar region of the lung”.

2. Excerpted from Microcluster<sup>®</sup> Mineral Technology by Kimberley Purdy-Lloyd, M.S. page 37

Particles are stable, have a large surface/volume area and a potential that creates a cloud of electrons, enabling bonding properties of other ions and compounds. In most colloids, 99% of the atoms that make up the particles are on the inside. Less than 1% of the atoms in colloids exist on the surface of the particles. In Microcluster<sup>®</sup> silica, 99% of the atoms making up the particles are on the surface. The surface atoms exist in a flowing liquid energy state. These particles have a chemistry energy profile that is very different from ordinary silica. After examining Microcluster<sup>®</sup> silica, Dr. Bruce J. Marlow of the University of Massachusetts at Amherst said

*“Using electrophoretic and differential electrophoretic fingerprinting combined with photon correlation spectroscopy, it is shown that the silica particles in the Flanagan Microcluster colloids do not show the properties of other silica surfaces and are unique.”* (Marlow, 1989)

3. **Silica Research:** <http://eidon.com/science.htm>

Silica is the combination of the 2 most common elements on the planet – Oxygen and Silicon. Some scientists hypothesize that we could just as easily have been a Silicon based organism as a Carbon based organism. **Two functions** have been identified for

Silicon. It is the **primary Calcium management element** and is responsible for making sure calcium is not stored in any locations other than bone. Without Silica, the body will store calcium (of which most of us get too much of) in areas like, artery walls, joints, organs and soft tissue. The **second Silicon role is in collagen formation**. The physical manifestation of aging is the inability of the body to reproduce collagen the way we could in our 20's and 30's. This leads to wrinkles, loss of flexibility, porosity of bones, digestive problems, arthritis and many other issues associated with aging. We feel Silica is the most natural and effective supplement on the market today to reverse or eliminate, arthritis, GI tract disorders, and osteoporosis. Silica is also known to enhance appearance of hair, skin and nails.

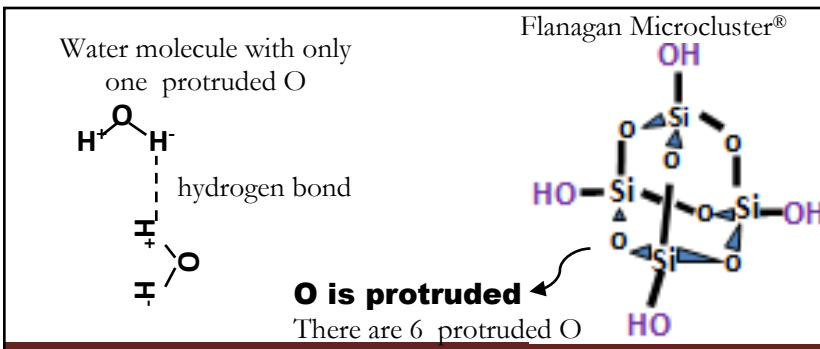
### How Microcluster<sup>®</sup> silica works to improve nutrient absorption?

Microcluster<sup>®</sup> silica, based on surface per volume area ratio, is using its enormous surface as background to move negative charges around the body and hence improve osmotic flow. The negative charges help to suspend nutrients and at the same time prevent red blood cells from clustering. Silica Microcluster<sup>®</sup>, an **amphipathic** colloid, works like chylomicron, consist of elements that maintain the smallest possible size range of colloid while still remaining molecules (referred to The Wetter Water Report by Dr. Patrick Flanagan, is the best vehicle to transport nutrient throughout the body through increase osmotic flow.

**The proximity of Flanagan Microcluster<sup>®</sup> as platform to close encounter ions and to stabilize and fetch the ions for transport to the target cells for absorption is marvelous.** All ions are electronic identities and their integrity is protected by Flanagan Microcluster<sup>®</sup>. Microcluster<sup>®</sup> is invincible to any colloid, ion, antioxidant and food molecule when it comes to delivery of electrical charges in the body.

**The invincible proximity of Flanagan Microcluster<sup>®</sup> over other forms of silica to access any surface charge is so powerful simply because Flanagan Microcluster<sup>®</sup> has a very high negative zeta potential with electric potential 125mV.**

Comparing with other forms of colloid, Microcluster<sup>®</sup> has the highest surface per volume area ratio to display its surface of contact. The whole surface of every atom that makes up the molecule of Flanagan Microcluster<sup>®</sup> is exploited therefore Flanagan Microcluster<sup>®</sup> has a high surface per volume area ratio. The basic formula of Flanagan Microcluster<sup>®</sup> is  $\text{Si}_4\text{O}_6(\text{OH})_4(\text{H}_2\text{O})_{20}$  with structural arrangement ..Si..O..Si..O..Si.. and 'OH' is terminated as functional group while at the same time the six 'O' are protruding six



negative polars implying Flanagan Microcluster<sup>®</sup> has a very strong electronegativity of tendency to pull H<sup>+</sup>.

**Water is  $\text{H}^+ \leftrightarrow \text{OH}^-$ , not a linear instead a dipolar**



molecule with the two hydrogen atoms repelled at  $104.5^\circ$  that makes the oxygen to portray its electronegativity. **Flanagan Microcluster<sup>®</sup>** is **..Si..O..Si..**, they have the same pattern looks similar to water molecule. But the difference between them is **Flanagan Microcluster<sup>®</sup> has six protruded O and water molecule has only one protruded O.** That means **Flanagan Microcluster<sup>®</sup> has six times higher electronegativity than H<sub>2</sub>O.** As a result, **Microcluster<sup>®</sup> breaks the hydrogen bond means breaking up big clustered water into small microclustered water.** In another version, **breaking the hydrogen bond means lowering the surface tension of water.** Water is wetter and has a higher solubility when its surface tension 73 dynes/cm is lowered to 45 dynes/cm. Water is H<sub>2</sub>O but when it exists, it is H<sub>3</sub>O<sup>+</sup> due to it is a electronegativity molecule that pulls H<sup>+</sup> attaches on the negative pole. Due to Microcluster<sup>®</sup> carries negative charges, it attracts H<sub>3</sub>O<sup>+</sup> that hence removes the extra H<sup>+</sup> into H<sub>2</sub> gas and change the H<sub>3</sub>O<sup>+</sup> into free state H<sub>2</sub>O.

If a water molecule with one protruded “O” can bring so many health benefits, then Microcluster<sup>®</sup> with 6-“O” will be multiple fold for therapeutic effect.

Do not be misled by ionic water promoters who tell you that ionic water also contains small microcluster that is the same Flanagan Microcluster<sup>®</sup>. Microcluster of ionic water is totally different from Flanagan Microcluster<sup>®</sup>. The physics, the chemistry, the biology of Flanagan Microcluster<sup>®</sup> in the human body is different from small microcluster of ionic water. Flanagan Microcluster<sup>®</sup> is mineral bio-organic

silica colloid that has functions to lower surface tension of drinking water and also that of body water. It improves the blood colloidal system and also the lymphatic system. It transports nutrients and strengthens bones, nails, promotes skin beauty and hair growth. It works well with proteins to chelate heavy metal for removal. It makes red blood cells discrete preventing them from clustering.

### **Microcluster<sup>®</sup> The Close Encounter To Trap Ions For Stability:**

Flanagan Microcluster<sup>®</sup> is the platform for close encounter to trap ions for stability. Perhaps you have seen the movie “The Close Encounter”, the Stars Wars in space; there is the electron war in the body. As all chemicals are electronic and H<sup>-</sup> being the basic electron carrier, the electron war is actually the war of H<sup>-</sup> confronting the ROS in the body. All sorts of cosmic rays, gamma ray, x-ray, light spectrum/wave, radio wave, ultra-violet wave, sound wave, microwave, electric field, magnetic field, electromagnetic spectrum/wave (EMS), free radicals in the body even human cell making ATP, all are electrical charges. Water molecules respond to electrical charges because water has electronegativity polarity. The reason water changes structure due to sound wave is electrical charge. Electrical charges are carried by ions. The H<sup>-</sup> is the best ion because it is the smallest ion and carries the safest electrical charge less than 1eV, which will not harm us. Flanagan Microcluster<sup>®</sup> is the electronic device employed in the body to store, to deliver and to stabilize all these ions especially H<sup>-</sup> ion. Most scientists develop silica for computer engineering. Dr. Patrick Flanagan developed Flanagan Microcluster<sup>®</sup> is for engineering human bioelectricity. There are 241 types of silica with Flanagan Microcluster<sup>®</sup> being the safest silica that has been consumed by human beings

for more than 30 years since 1983. Flanagan Microcluster<sup>®</sup> for long term consumption does not cause siliceous kidney stone. My family and I have been taking it for more than 16 years since 2003. In February 2014, my wife and I went to Penang Adventist Hospital for a full medical checkup. The results showed no stones in the kidneys, gall bladder, liver and no cyst at all was detected .. The blood chemistry profile was s perfect.

**Microcluster<sup>®</sup> The Close Encounter to Transport Nutrient**

1. Microcluster<sup>®</sup> makes water wetter in order to wet the nutrients hence, synergizes nutrient absorption.
2. Water is self-motivated into motion unless it contains enough colloid-carrying ions. Ion carries extra negative charge(s) making it electrically imbalanced as a result of which turns into random motion. Microcluster<sup>®</sup> is 5nm colloid that result collision between colloids and improves the random motion of water molecules in a glass of drinking water. Anyone who drinks water containing Microcluster<sup>®</sup>, the random motion will increase the osmotic flow of blood and lymph fluids.
3. Resonance Effect to changing the energy state of water.
4. Create more vacant spaces within the body fluids that as a result make you feel thirsty urging you to drink more water. That means taking Flanagan Microcluster<sup>®</sup> reflect the body is lacking water. You need to drink more water to resolve dehydration.

**Microcluster<sup>®</sup> The Close Encounter to Scavenge Free Radical:**

Human possesses two types of DNA, namely nucleus DNA and mitochondrial DNA. Nucleus DNA is repairable if it is damaged by free radicals. Unlike nucleus DNA, mitochondrial DNA is not repairable if it is damaged by hydroxyl free radicals (<sup>•</sup>OH). Hydroxyl free radical is a type of reactive oxygen species that is produced during glucose metabolism in the mitochondria. <sup>•</sup>OH travels very fast in just 0.000000001second (nano second) to damage the mitochondria. No nano molecule of antioxidant can be smaller than atom H. H<sup>•</sup> is the only reducing agent which also works as an antioxidant. H<sup>•</sup> is smaller than <sup>•</sup>OH. H<sup>•</sup> is the ever ready instant antioxidant as FIRST AID to salvage mitochondria from <sup>•</sup>OH attacks. No nano molecule antioxidant can access the mitochondria except H<sup>•</sup>. No nano molecule antioxidant travels in time less than 0.000000001s except H<sup>•</sup> which diffuses very fast to destroy <sup>•</sup>OH. No nano molecule antioxidant can reverse <sup>•</sup>OH (<sup>•</sup>OH + H<sup>•</sup> → H<sub>2</sub>O) to become water as a byproduct except H<sup>•</sup>.

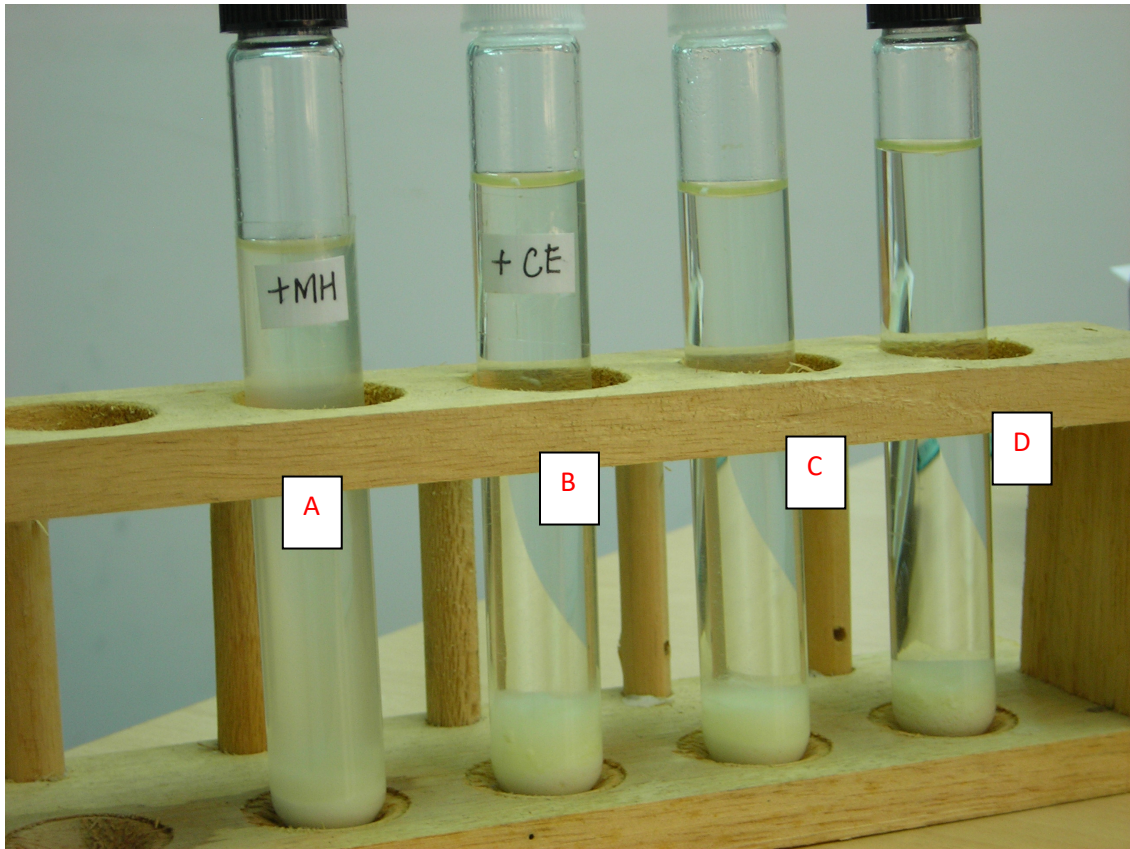
**Peer Reviewed Published Papers:**

- Silica(H)<sub>n</sub> → silica + (H)<sub>n</sub> ..... ①
- Silica(H)<sub>n</sub> + (NAD<sup>+</sup>)<sub>n</sub> → Silica + (NADH)<sub>n</sub>.... ②
- Silica(H)<sub>n</sub> + (<sup>•</sup>OH)<sub>n</sub>→ silica + (H<sub>2</sub>O)<sub>n</sub>..... ③
- Silica(H)<sub>n</sub> + (cytochrome-c-Fe<sup>3+</sup>)<sub>n</sub> → silica + (cytochrome-c-Fe<sup>2+</sup>)<sub>n</sub> + (H<sup>+</sup>)<sub>n</sub>... ④

Silica hydride synergizes calcium absorption:

**S(H)<sub>n</sub> creates value from whatever we eat. It helps to increase nutrient absorption.**

Date: 10-Apr-08 to 14-Apr-08



*Test done by Miss Ng Hooi Hooi, Business Planning Manager of Flantech Asia 2008.*

Simple Test At Home: Proven **Mega H<sup>®</sup>** is minimizing and ionizing the calcium tablet into ionic form which helps the body to absorb at a faster rate. **Mega H<sup>®</sup>** creates value from whatever we eat.

A → One Calcium tablet + filtered water + 1/3 capsule of Mega H<sup>®</sup> powder (removed rice bran):

The calcium is dissolved and turns to milky crystalloid. The milky remains even after 5 days showing that it is crystalloid. From this simple test, we deduce that Mega H<sup>®</sup> is able to minimize, supercharge and then suspend the crystalloid calcium for absorption.

B → One Calcium tablet + filtered water + 10 drops of Crystal Energy<sup>®</sup>:

Slight milky 'cloud' is seen which is better than C.

C → One Calcium tablet + Ionic water (level 3): Very mild milky 'cloud' is seen.

D → One Calcium tablet + filtered water:

Water remains clear showing calcium tablet is not dissolve and hard to be absorbed by the body tissue.

As ionic minerals are positive charges, therefore cells need negative charges to attract them for absorption.

## Ultimate Nutrient Transport Vehicle (UNTV)



**Crystal Energy®**: Trade Secret Protected Technology Invented in 1983.

1. **Improve osmotic flow**<sup>33</sup>
2. **Lower the surface tension of water by 35%**<sup>33</sup>
3. **Increase in nutrient absorption 2.5 times faster**<sup>33</sup>
4. **A mean increase in Total Dissolved Solids of 40%**<sup>33</sup>
5. **A mean increase in conductivity of 45%**<sup>33</sup>

Crystal Energy® contains Microcluster® silica (dietary supplement) which attracts 20 water molecules around its surface to form as liquid crystal. This liquid crystal is a tiny little sphere (Bucky ball) with 125mV electric potential Bucky ball is 1600 times smaller than red blood cell. Water is the most important nutrient to blood and hence water is the **FIRST AID** to resuscitation of life. Without water our blood simply cannot flow. After eating we stuff our blood with blood fats, glucose, minerals, albumin etc. If these food substances are not properly manage, clot blood might happen. Therefore **after care for blood after eating** is very important or else plaque may block arterial wall. Mega H and Crystal Energy are **HYDRATING & OSMOTIC PRODUCT** and hence they are **NUMBER ONE** for **blood care** after eating. EFFECT on Blood Cleaning is INVISIBLE then how can we expect to see immediate effect after eating Mega H. People not taking enough Mega H per day like to conclude eating Mega H® is a waste of money because they said the product has no effect. Testimony base on **OUT-SHOWN EFFECT** is only symptom treatment without treating **CAUSE** of disease at all. All causes of diseases are due to too much toxins in the body and therefore without detoxification, how to get well.

To manage biological terrain, we need to monitor pH, rH and electrical resistivity of body.

1. To restore a healthier biological terrain, the product must work inside cell.
2. How to protect cell if the product cannot work inside the cell?
3. How to improve energy if the product cannot improve cell respiration?
4. How to clean blood and tissues without proper lymph and blood hydration and anti-dehydration?

Only negative hydrogen is active reducing element in atom works like gas and hence diffuse very fast into cell for absorption. No other food molecule can be absorption so fast like active hydrogen since hydrogen is the smallest atom. dehydration and oxidation. Without treating cause then how to recover the disease.

- Best use for gastric emptying.
- **Crystal Energy®** is the only product in the market that when added to any drinking water, it neither changes the taste nor colour of the water. It can still maintain the entity

of water that *feels* like the water we drink. This is preferable for anyone and everyone who enjoys drinking water adequately yet drinking the *right water*. Also, **Crystal Energy<sup>®</sup>** complements with whatever commercial supplements you consume.

- Of course there are many other products sold in the market, which can be added to our drinking water. However, such products can alter the water thus making it less natural to drinking water. The water also loses its natural goodness, which may stop us from using the products as hydrating products. As a result, we might need to double our daily drinking water. Because of the uniqueness and benefits of **Crystal Energy<sup>®</sup>**, this amazing product has a very huge market potential around the world.

## Mega H<sup>®</sup>: Distinctive Product:



- Pure Clean Fuel of *Life-Force* to generate *Qi*
- Natural blood cleanser, body fluid cleanser and pH buffer
- Improve bioelectricity for better cellular communication
- Powerful Biological Antioxidant, Free Radical Scavenger
- Rehydration, Detoxification and Improve Absorption
- Rejuvenating to stay young & healthy naturally

*Silica Hydride* is the main ingredient of **Mega H<sup>®</sup>**. A sole proprietary blend developed by **Flanagan's Microcluster<sup>®</sup> Technology**. **Mega H<sup>®</sup>** is the only food supplement sold in the market, to supply us plentiful of **Negative Hydrogen**.

- > The only osmotic product in the market that can reduce our biological aging process. Taking at least 4 capsules (1 g/day) of **Mega H<sup>®</sup>** everyday with 2.5 liters of **biological water** can increase our cellular lifespan.
- > **Hydrogen** is the safest form of elemental food supplement. Its by-product is water when it reacts with oxygen. It synthesizes into water, which is use for **rehydration** purpose.
- > It is the only elemental antioxidant that does not become another weaker free radical when donating an electron to a free radical. Because it is an elemental antioxidant, it has a direct impact on all types of free radicals making it the most powerful and fastest antioxidant to scavenge free radicals throughout our body. Most antioxidants are compound-based antioxidants.
- > It is ever-ready to be used without depending on our body's temperature, pH, and enzymes.
- > Nonprescription product with minimum 1.0 g/day (4 capsules) that has therapeutic for human consumption.
- > Buffer slightly alkaline environment to our biological terrain.
- > Clinical studies showed silica hydride is nontoxic and safe for consumption<sup>8,14-16</sup>.

## THE pH EQUATION

About half of all the acids formed or introduced into the body is neutralized by the ingestion of alkaline food. The best alkaline is OH<sup>-</sup> since it neutralizes acid to acid salt. Adding S(H)<sub>n</sub> to water makes the water contains alkaline “OH<sup>-</sup>”. The remaining acid in the body is neutralized by three major systems of the body, namely chemical buffers, the respiratory system and the kidneys.

Chemical buffers have an instantaneous effect on pH changes. They are very effective in minimizing pH changes but do not entirely eliminate the change. **Within the cells, chemical buffer generally takes about 2 to 4 hours to minimize changes in pH.** The respiratory system also helps to minimize pH changes; the effect occurring within

minutes. Renal regulation of pH is able to completely revert pH to back to normal but requires a few hours to several days.

### Why pH Affects Health?

It all begins with pH. Are you aware of the existence of hydrochloric acid (positive hydrogen) in the stomach? It determines the stomach pH. When food enters the mouth, it goes to the stomach and then to the small intestine via the duodenum. The biological game is then on to control the pH of the body. Body pH is very important because *pH controls the speed of our body biochemical reactions*. It does this by *controlling the speed of enzyme activity as well as the speed that electricity moves through the body*. Even the digestive enzymes are regulated by the pH that measures the concentration of positive hydrogen. *Bacteria is also under control by a small change in pH*. How about sugar? Sugar, when metabolized, also fills up the mitochondria with large quantities of positive hydrogen. As a result, *pH is under the direct control of what we eat*. To control pH, our body needs a lot of electrons and oxygen to convert  $H^+$  to water. The electron is catered by  $H^-$  derived from NADH to  $NAD^+$ . Since  $S(H)_n$  directly increases NADH twofold,  $S(H)_n$  therefore provides  $H^-$  to counter-balance the  $H^+$ .

The pH balance of the body also affects potassium levels. In acidosis, a decrease in excretion of potassium may lead to hyperkalemia ( $>6$  mEq/L). What happens when you increase ATP for  $OH^-$  to get rid of acidosis? That means taking potassium must also be coupled with taking  $H^-$  and  $OH^-$ , to be safe.

During an ECG, the graph may manifest hyperkalemia. A low pH level shifts  $K^+$  out of the cell, whereas alkalosis drives  $K^+$  into the cell. Therefore, acidosis increases the potassium concentration in the blood or serum, whereas alkalosis lowers the potassium concentration. Causes of hyperkalemia include potassium release from damaged neuronal cells and breakdown of red blood cells following intraventricular hemorrhage (IVH), trauma, and intravenous hemolysis. Hyperkalemia may be one of the earliest manifestations of congenital adrenal hyperplasia.

How does carbon dioxide affect body pH? Rain water is acidic because it dissolves atmospheric carbon dioxide to become carbonic acid. This is the same way water in the body becomes carbonic acid. Carbon dioxide is gas and to regulate its quantity, it changes it to form as carbonic acid. Dehydration results when carbon dioxide gas changes to carbonic acid. Taking  $S(H)_n$  containing Microcluster<sup>®</sup> not only provides  $H^-$  to pH buffer carbonic acid to become  $H_2$  gas and bicarbonate ion, it also helps to foster hydration. Hydration is the FIRST AID not only for anti-dehydration but also helps to check the level of carbonic acid when carbonic acid changes to bicarbonate ion.

$S(H)_n$  is a proprietary blend of mix with potassium citrate, potassium carbonate and oleic acid that makes the composition become unique formulation function under action of Flanagan Microcluster<sup>®</sup> and hence, classified as nutraceutical food grade, that is functional  $H^-$  backup by Flanagan Microcluster<sup>®</sup> to work on principle QQSSP. **QQSSP** stands for

**Quantity / Quality / Speed / Size / Proximity.** Hydration & rehydration that both play as key role to anti-dehydration, only  $S(H)_n$  has this unique function to hydrate and rehydrate your body. Taking supplements without accompanying hydration, perhaps the supplements will only compliment 30% work done. As your body is 70% water by mass, therefore you need hydration. Rehydration is totally different from hydration. Rehydration is the result of cell respiration utilizing two electrons to charge two positive hydrogen to half oxygen inside cell during energy production (ATP).

Supplements unlike  $S(H)_n$ , depend on the body system to make them work. The body has to absorb them first before they can be assimilated for health benefits.

Common supplements cannot supercharge, hydrate and activate the body cell. The body cell needs to be supercharged with negative charge via  $H^-$  for energy production and hydrated first with wetter water before it can absorb any nutrient. Instead, these supplements need to be 'wetter' first by the water you drink. Taking Flanagan Microcluster<sup>®</sup> together with  $S(H)_n$  is to help to lower the surface tension of water, hence, wetting the nutrients and then supercharging the nutrients before transporting them for absorption.

### **Spirit of Flanagan Microcluster<sup>®</sup> Technology**

$S(H)_n + (H_3O^+)_n \rightarrow \text{Silica (Microcluster<sup>®</sup>)} + (H_2)_n + (H_2O)_n$  which are at free state.

How does Microcluster<sup>®</sup> convert water to become LIQUID CRYSTAL?

Flanagan Microcluster<sup>®</sup> creates hydrogen bonds that bring 20 water molecule structures together. This hydrogen bond makes 20 water molecules around the Microcluster<sup>®</sup> to be organized into a single three dimensional structure called liquid crystal. Due to 20 water molecules surrounding a Flanagan Microcluster<sup>®</sup> being structured into a liquid crystal, therefore Flanagan Microcluster<sup>®</sup> acts as a catalyst to make wetter water concentrate as labelled in a bottle of Crystal Energy<sup>®</sup>.

This hydrogen bond makes 20 water molecules around the Microcluster<sup>®</sup> to be organized into three lattices forming a single three dimensional structure called liquid crystal. Due to the 20 water molecules surrounding a Flanagan Microcluster<sup>®</sup> being structured into a liquid crystal, therefore Flanagan Microcluster<sup>®</sup> acts as a catalyst to make wetter water concentrate as labelled in a bottle of Crystal Energy<sup>®</sup>.

Flanagan silica is a monomer Bucky ball that has six electronegative poles and also contains four functional “~OH” components as a result of which builds four hydrogen bonds. Because of the electronegative poles and hydrogen bonds, these two properties have the advantage to pull twenty water molecules towards its surrounding surface, restructuring them into three lattices that form a very stable liquid crystal. When consumed, the three lattices of the liquid crystal disintegrate, releasing its  $H^-$  and mineral ions to body tissues upon sensing electrical charge disparities, body pH or temperature changes. The whole transporting process is the spirit of Flanagan Microcluster<sup>®</sup> Technology.



Flantech Microcluster<sup>®</sup> is not microcluster water, the Microcluster<sup>®</sup> is trademarked that refer to organic silica biomolecule. There are false information, mislead by marketing agent of ionic water processor claiming that small microcluster water is Microcluster<sup>®</sup>.

Why Flanagan Microcluster<sup>®</sup> ?

### **What is Flanagan Microcluster<sup>®</sup>?**

Microcluster<sup>®</sup> is a trademark registered name of Flanagan silica. Microcluster's ideology is to harness Flanagan silica works on principle QQSSP, quantity/quality/speed/size/proximity to make oral intake of negative hydrogen impossible to become possible.

Flanagan Microcluster<sup>®</sup> is a nutrient transport vehicle. When a car breaks down, you can get a mechanic to attend to it. But the car still needs to be sent to a workshop. A human red blood cell carrying oxygen is just like the car carrying passengers. But when a red blood cell encounters damage and dies, what will send it to the liver for repair? Flanagan Microcluster<sup>®</sup> silica comes into play like an ambulance transporting dead red blood cells to the liver for dismantling. The liver is just like a workshop to repair dead deformed red blood cells.

At the same time, what repairs the oxidized iron in the haemoglobin that exists in the red blood cells. Flanagan Microcluster<sup>®</sup> embedded with many hydride ions, called silica hydride transports H<sup>-</sup> to the liver. The H<sup>-</sup> works like a mechanic inside the liver (representing workshop) to remove the oxidized iron in the haemoglobin and convert it into non-oxidized iron (reduced state) so that it can be reabsorbed by the bone marrow to make new red blood cells.

Flanagan Microcluster<sup>®</sup> acts like a magnetic bar with polarities to pull many red blood cells towards it so that it can deliver its negative charges to the red blood cells , thus, making supercharging possible. Supercharging makes many red blood cells to act as good colloids so that they do not cluster together. That means Flanagan Microcluster<sup>®</sup> is the first aid to make many red blood cells discrete so that they can carry and deliver oxygen effectively to nearby cells and tissues.