SMART COFFEE TECHNOLOGY

Skinny Genes Java™
Coffee with an IQ

The first scientifically smart coffee with Metabolic Intelligence™ and award winning technology

Producing a beverage with an advanced form of Metabolic Intelligence™ is *smart*, because it has to deliver a specific message to the brain-gut axis

BACKED BY 30-YEARS OF INVESTIGATIVE BOARD APPROVED HUMAN CLINICAL TRIALS

GLOBAL EXCLUSIVE TECHNOLOGY
The FIRST COFFEE EVER QUANTIFIED by the *COFFEE FINGERPRINT*™ SYSTEM

GLYCEMIC INTELLIGENCE™
Certified Clinical & Analytical Compliance

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PART I

SMART COFFEE TECHNOLOGY
SKINNY GENES JAVA™ - Coffee with an IQ

WHY CREATE SMART COFFEE?

In order to make coffee *smarter*, you have to invent a *better mechanism within* the coffee product, which delivers a very specific message to the brain/body. If the brain/body is confused (as in diet sodas), then you won't get the results you want.

Metabolic programming is simply *smart nutrition*. Knowing what ingredients to add to coffee or energy drinks is crucial in an effective result. For example, if there is no brain-bio-fuel (burnable carbs) available in a product that contains caffeine, such as coffee or energy drinks, the brain will be quite upset (in a metabolic manner).

As soon as the beverage is consumed, the brain registers that there is either *no utilizable fuel available* or that *there is utilizable fuel available* (burnable carbs). Without fuel, the brain cannot function, so beverages like plain coffee or energy drinks or diet sodas, trigger messages sent from the brain to the body that cause a metabolic cascade.

FAKE FOODS & BEVERAGES: Nutrient Sensing System

As far as the brain/body is concerned, diet sodas are not real food or burnable carbs. Clinical trials, numerous university studies, and peer-reviewed journals have demonstrated that diet sodas are fattening.

According to medical expert, Dr. Oz, diet sodas and diet ice cream are ***fattening***. Since 25 % of women choose diet ice cream, it does impact the public, as weight gain and obesity represent a huge problem that is only getting statistically worse.

Dr. Oz, M.D. explains that the diet soda and diet ice cream problem is based on the human "nutrient-sensing-system" and noted that artificial sweeteners are now fed to pigs to make them fatter (2016).

On the Dr. Oz TV show "Are Diet Foods Wrecking Our Diet", Dr. Oz states the research related to obesity and fake-foods:

FOODS & BEVERAGES GIVES YOUR BODY DIRECTIONS ON WHAT TO DO WITH WHAT YOU EAT & DRINK

- With real ice cream (not diet), you eat *sweet* which produces dopamine.

- Real (not fake/diet) carbs/sugars produce brain-driven dopamine. These are real calories that satiate the BRAIN & body. With artificial sweeteners, you stimulate dopamine, but there are no real calories or carbs to satiate the brain-body and this makes you keep eating more during the day.

- Bottom line – Dr. Oz stated that "You are better off eating *real ice cream* with no artificial sweeteners".

REFERENCE: Are Diet Foods Wrecking Our Diet? Dr. Oz – Food Truth – July 7, 2014. Dr. Oz Investigates Diet Ice Cream. SEE: http://www.doctoroz.com/episode/dr-oz-investigates-diet-ice-cream-are-ingredients-making-you-fat

In essence, when the brain senses *fake-sweet*, as in artificial sweeteners and non-brain-friendly carbs, the fat-storing-insulin-cephalic-response (Brain Glycemic Indexing) is triggered.

Many natural foods, such as chocolate and sugar, stimulate brain-released Dopamine (a Neurotransmitter and Neuromediator) and/or Serotonin (a Neurotransmitter), both of which make humans feel elated and happy. That's why humans crave certain foods – because they are addictive to the brain.

In order to control over-eating and binge-eating, we must first address the brain. The goal in controlling excess adipose tissue fat and overall weight gain is to make the brain happy without triggering food addictive behavior.

In terms of cerebral functional activity, food addictions drive hunger cravings and defeat any potential for will power. *Self-control* is a myth because it is dictated by the brain, and you can't outsmart the brain.

That's why diets ultimately fail – because there is no such thing as *will power*, which has been *clinically proven*.

INSULIN – FRIEND & FOE

Insulin secretion is stimulated by high blood sugar, which results from consuming carbohydrates. If insulin is elevated, then there is a net inward flux of free fatty acids (FFA), and only when insulin is low can FFA leave adipose tissue fat.

This is problematic for persons trying to lose body fat as insulin controls free fatty acids (FFA) entering or leaving fat cells.

In other words, if insulin levels are high, it's very difficult to lose weight.

Think of it as a sheep herder trying to get the sheep to leave the pasture when they don't want to go. Fat cells will fill up and stay full if insulin levels are high – they don't want to let go of their *sheep* (free fatty acids).

Insulin directly drives *fat-cell storage*, which is why the majority of Type 2 diabetics are overweight, as their high-glycemic, high-insulin levels drive calories into adipose tissue fat cells.

DIETARY-DRIVEN INSULIN IS STIMULATED VIA:

- **Consumption of high glycemic foods and beverages**
- **Ingesting CPIR-Brain-driven foods/beverages**
- **Ingesting diet sodas and products containing artificial sweeteners**
- **Ingesting regular coffee & caffeine products**

Type 1 or insulin-dependent diabetes occurs because the pancreas becomes unable to produce insulin. Without insulin, cells fail to get the energy they need and glucose accumulates in the blood, causing damage to blood vessels and nerves in the heart, eyes, kidneys and virtually every part of the body.

Type 2 diabetes develops because the pancreas becomes unable to produce enough insulin or because cells are resistant to the action of insulin.

The current obesity epidemic is an issue of *too much insulin* stimulated by ingestion of high glycemic carbs and sugars. The average American eats 156 pounds of sucrose (a high glycemic sugar) per year. If those sugar calories were calculated in weight gain, it would equal 78 extra pounds of weight gained per year, which are primarily driven by insulin into adipose tissue fat cells.

By eating whole, natural foods without adding any sugar, our bodies could produce all the glucose required for optimal health. But that is not the case.

Humans are sugar and carb junkies, because those foods are addictive to the brain, and the brain always wins the game. The brain's game is simple, constant nagging and intense cravings designed to get you to eat carbs and sugars.

HOW SUGAR AFFECTS THE BRAIN

The human brain cells needs two times the glucose required by the other cells in our body, and without them brain cells die. Our brain cannot store glucose, so it continuously demands brain-fuel.

Since diet sodas and other drinks do not contain any brain-fuel, the brain starts demanding fuel by causing super-intense cravings for high-glucose potato chips, french fries, candy, ice cream, chocolate, sodas, etc.

THE BRAIN GAME: SURVIVAL-of-the-FITTEST

Just try and ignore those types of cravings. It's almost impossible. The brain wants to live and to keep the body alive. Since the brain is on a feeding time-clock, when it is running low on fuel, it will demand fuel, and the type of fuel it demands can STOP you from losing weight.

Working against the brain's natural systems will only instigate a biochemical revolt, leading to weight gain. The brain's primary plan for staying in control of life-giving fuel depends on two 2 important systems in the brain:

- **HUNGER SYSTEM – Out of control hunger**
- **REWARD SYSTEM – Addictive eating**

The hunger system creates very strong urges to eat high-fuel foods and beverages, which are typically fattening. The reward system is also very effective, as it rewards us with happy, satiated feelings from dopamine or serotonin or a league of other *feel-good* brain-driven chemicals, leading to addictive eating.

SEE Brain Scan in Nutrition & the Brain; Humans are Biological Computers-Brains Can Learn; Dr. Ann de Wees Allen®, Chief of Biomedical Research, Glycemic Research Institute®, Glycemic.com).

Controlling the hunger system and reward systems in the brain results in helping to reduce inappropriate hunger (like when you eat an entire bag or potato chips or popcorn at night while watching a movie), and breaking addictive craving for fattening foods.

A key factor in the relationship between fat-storing snacks and foods in found in basic biochemistry: ***Mammals (that includes humans) sense nutrients in the blood (serum levels) and then store the sugar/carbs.***

Sugars and carbohydrates that stimulate blood glucose and insulin levels trigger adipose tissue fat-storage and negative blood glucose excursions.

Dietary ingestion of high amounts of glucose, sucrose, maltodextrins and other high glycemic sugars/carbs have a higher proclivity to follow mammalian sugar/carbohydrate storage.

On the other hand, glucose from the right source, in the right amount, is good for the brain. Not pure glucose consumed from sugars and carbs containing glucose, but glucose created from eating the right foods and beverages.

Always look for **Glucose-Free** products in foods and beverages, as that type of dietary glucose is more fattening and blood-sugar-raising that pure sucrose sugar.

- **All sugars/carbs are not created equal**
- **A calories is not a calorie – when it comes to metabolism**
- **Glucose, maltodextrins, and sucrose are high glycemic sugars**

When it comes to the brain and the body, excess levels of high glycemic sugars create trouble. Too much glucose in the bloodstream can compromise brain cells' ability to communicate. It can affect your mood, memory, ability to learn and process information, and comprehension.

Excess glucose and/or insulin causes hyperglycemia and then rebound hypoglycemic, in which lethargy, moodiness, and lack of ability to think clearly can occur.

This is in addition to fat-storage in white fat cells driven by high glycemic insulinogenic sugars and carbs.

Food Examples: Switching Brain Addictions

Bananas are the wrong choice - Berry Fruits are the right choice (blueberries, cherries, blackberries) Make your smoothies from frozen berry fruits. Bananas also cause production of Progenitor Fat Cells in children – leading to weight gain/obesity in adulthood. Forget about the potassium rumor, berry fruits have just as much potassium as bananas.

Potato Chips, Popcorn (even air-popped), French Fries are the wrong choice (because of their addictive, fat-storing properties). To crack these specific addictions, dip the potato chips or fries in Hummus (such as non-GMP Sabra Hummus) as the chickpeas will slow down the glycemic fat-driven attributes. Then switch to smearing the Hummus in celery stalks or apples slices, which will slow the brain's addiction to chips, popcorn, and French fries, replacing it with low glycemic carbs and protein.

Stop Juicing high Glycemic Fruits and Vegetables – Juicing only speeds up the blood glucose/insulin fat-storing mechanism

Switch from Potatoes to Sweet Potatoes (high glycemic vs low glycemic)

Fried Chicken is NOT more fattening than most foods – The culprit is what you *eat* with the fried chicken. Mashed Potatoes, rice, French fries or any potato dish, corn, biscuits, shunts calories into the fat cells and elevates blood glucose and insulin levels. Sweet potatoes, turnip or collard greens, cucumber & tomatoes are good choices to pair with fried chicken. *Note: Data obtained from the Glycemic Research Institute® Clinical Trials conducted on fried chicken.*

Avoid Diet Ice Cream (see Dr. Oz section on Ice Cream)

Do not eat Protein without Carbs – Consuming protein without carbs can drive calories into fat cells – amazing but true. Eat low glycemic vegetables or a Waldorf Salad (no raisins, use more walnuts and/or fresh sliced peaches or pears) with any protein, including steak, pork, etc. Do not ingest zero carbs/sugars protein drinks.

Another sugar/carb problem for the brain involves its ability to learn. A high-sugar, high-carb diet reduces the production of BDNF (Brain-Derived-Neurotrophic Factor), which inhibits the brain's ability to learn and to form new memories. Try studying for a test when this occurs and see what happens – low or no retention of data.

According to Neuropathologists, pre-diabetics and diabetics have lower levels of BDNF, which corresponds with their lowered ability to metabolize sugars.

There is a link between brain cells and insulin resistance, which is known to exist in up to 80 percent of the American public, and creates a condition in the brain known similar to diabetes, and referred to as *Type 3 Diabetes.*

Diet sodas and diet ice cream are not the only culprits in sabotaging weigh loss. Coffee is a prime culprit, even plain coffee.

BLOOD SUGAR TECHNOLOGY
WHAT'S WRONG WITH CAFFEINE & COFFEE?

Peer Reviewed published Clinical Trials in humans have clearly demonstrated that both ***caffeine and coffee impair glucose metabolism*** (see References section).

METABOLIC FOCUS: GLUCOSE METABOLISM

Clinical Reviews

Clinical findings are consistent in demonstrating that shortly after ingesting beverages containing caffeine, such as energy drinks, glucose metabolism is impaired.
This blood sugar imbalance can occur following ingestion of all forms of caffeine, including caffeine as a raw material, ground caffeinated coffee, and/or instant coffee.

Regular caffeine in energy drinks can triggers weight gain, blood sugar highs & lows, and metabolic crash-and burn (high-energy followed by low-energy levels).

Chronic blood glucose excursions are responsible for increasing incidence of Type 2 Diabetes, hypoglycemia, reduced sports performance, weight gain, obesity, lack-of-focus, increased hunger, lethargy (lack of energy), increased size of fat cells, and the development of additional adipose tissue fat cells.

Oral ingestion of regular caffeine has been clinically shown to stimulate insulin secretion, which increases risk of Type 2 Diabetes and obesity.

This insulinogenic reaction is triggered by the high glycemic (blood sugar) response to caffeine, and is further aggravated when a beverage contains sugars, high glycemic sweeteners and creamers, and/or artificial sweeteners.

CAFFEINE & COFFEE REDUCE INSULIN SENSITIVITY

A more serious side effect of consuming caffeine or coffee involves insulin sensitivity.
Caffeine has been clinically proven to reduce and impair insulin sensitivity (see References section). This is due to catecholamines and blocking adenosine-mediated stimulation of peripheral glucose uptake.

PUBLISHED CLINICAL RESEARCH

Ingestion of Regular Black Coffee & Caffeine Drinks Cause Metabolic Impairment

CAFFEINE & COFFEE REDUCE INSULIN SENSITIVITY

- **REGULAR CAFFEINE & COFFEE DECREASE & IMPAIR INSULIN SENSITIVITY**
- **DECREASING INSULIN SENSITIVITY IS CONSIDERED A "HEALTH-HAZARD" IN PERSONS WITH DIABETES and/or OBESITY**

The metabolic effects of caffeine are primarily related to adenosine receptor antagonism, increased concentration of catecholamines (particularly epinephrine), increased intracellular calcium, and inhibition of cyclic nucleotide phosphodiesterases.

Dietary ingestion of caffeine triggers both beneficial and non-beneficial responses, including adverse blood glucose and insulin excursions.

Regular caffeinated beverages have been shown to increase adipose tissue fat-storing, blood glucose imbalances, diet-induced hypoglycemia (abnormally low blood glucose), and caffeine-induced energy-swings.

Caffeinated coffee and tea have been shown, in numerous clinical trials, to carry significant human health benefits, but the blood glucose and insulin issues connected with ingestion of caffeine compromise the benefits.

GLYCEMIC INTELLIGENCE™

GLYCEMIC-DIRECTED-DELIVERY

Downregulating the negative aspects of caffeinated beverages, diet drinks, and sucrose-glucose-laden drinks is a viable option in mitigating the undesirable side effects.

This downregulation helps blunt the storage of calories into adipose tissue fat cells by downregulating Lipoprotein Lipase (LPL)*

The addition of Low Glycemic Natural Burnable Carbs (Brain-Bio-Fuels) in functional beverages helps provide a *friendlier* version of caffeinated drinks by helping blunt the storage of calories into adipose tissue fat cells by downregulating fat cell key codes, such as Lipoprotein Lipase (LPL).

Since the potential side effects of regular caffeine can be attenuated by inclusion of controlled levels of caffeine (caffeine-dosing), blood sugar balancing agents, and inclusion of Low Glycemic carbohydrate compounds, it is a simple compromise.

This technology is called **GLYCEMIC INTELLIGENCE™** and consists of **GLYCEMIC-DIRECTED-DELIVERY**, backed by *30-years of Board Approved Human In Vivo Clinical Trials* in obesity, diabetes, blood sugar, anti-glucose matrices, anti-carbohydrates, and the Glycemic Index.

Utilizing **GLYCEMIC INTELLIGENCE™** technology in coffee beverages helps deliver the message to the brain & body to *speed up* the caloric-burning process (DIT) while providing balanced energy.

Additionally, this new form of beverage technology allows for the release of dopamine in the prefrontal cortex, which is consistent with its beneficial reinforcing properties, but does *not* induce a release of dopamine in the *shell of the nucleus accumbens* (the *addictive* part of the brain, as in drug addiction and classic drugs of abuse).

Further, an appropriately-designed DIT (Dietary-Induced-Thermogenesis) coffee or tea beverage, increases Lipolysis via Adenosine-Receptor Antagonism, causing most of its biological effects via antagonizing adenosine receptors (A1, A2A, A3, and A2B) and, as does adenosine, exerts effects on neurons and glial cells of all brain areas.

In consequence, Adenosine-Receptor-Antagonism acts the opposite of activation of adenosine receptors, due to removal of endogenous adenosinergic tonus.

GLYCEMIC INTELLIGENCE™
CROSSTALK BETWEEN THE BRAIN & BODY

Metabolic programming in beverages is similar to changing the software in a computer, as the hard drive (the brain) is not going to change its fat-storing, blood-sugar, food-craving game-plan without a new program to replace it.

Without a pre-determined goal brain-hard-wired into a functional beverage, there is no pre-determined outcome. Garbage-in-garbage-out.

This requires *programmed* crosstalk between the brain and the body, as well as crosstalk between brown and white adipose tissue fat cells, and blood glucose mechanisms.

Specific beneficial responses, such as balanced energy levels, lowered blood sugar excursions, and turning off adipose tissue fat burning signals, while triggering brown fat-burning mechanisms, all represent beneficial metabolic programming tactics in neural nutrition.

Brown adipose tissue (BAT) is a thermogenic machine, which becomes more inefficient as we age. The result is slowed-down metabolism and weight gain.

Remember, the white adipose tissue fat cells are as dumb as a doorknob and are directed by the interaction and direction of the brown fat cells.

The good news is that *every day is groundhog-day* in the life of the fat-storing white cells, and they can be reprogrammed to burn stored fat.

Every day when you wake up, those fat cells can be reprogrammed to *burn instead of store*.

They are simply waiting for the trigger-message which is delivered orally by what you eat or drink, and it's crucial to reset the white cells to *burn* within 30-minutes of waking up.

Even if you don't eat within 30-minutes of waking up, you can drink a messenger-specific beverage.

This requires giving the brain a brain-friendly-bio fuel that it can use for survival and something that supplies glycemically-appropriate energy.

The evidence related to *addictive foods and food cravings* triggered by ingesting High Glycemic sugars, carbs, foods/beverages, and High Glycemic diets, has been quantified in human clinical trials and even more dramatically, in brain scans.

Brain Scans have definitively linked High Glycemic Diets to Brain-Driven Food Cravings

Researchers found that after eating a High Glycemic meal, blood flow in areas of the brain associated with "reward and craving" behavior was greater than after eating a Low Glycemic meal.

Reference: National Institutes of Health (NIH) grant; published in American Journal of Clinical Nutrition

These studies and brain scans demonstrate that switching High Glycemic foods and beverages to Low Glycemic, dramatically affects addictive eating behaviors, as evidenced in the *Right Nucleus Accumbens* section of the brain.

NEUROENDOCRINE SIGNALING
Human Obesity – Crosstalk in the Gut-Brain Axis

Eating is a behavioral compulsion which can create a neurological loop that dominates the urge to consume brain-addictive foods and beverages.

Talking to the brain, as in ***Switch the Brain-Switch the Game*®** **and** ***Glycemic Intelligence*™** technologies, requires an intricate knowledge of the subject matter, wherein the purpose is to block or mitigate negative gut-brain wiring with more positive messages.

Not by using drugs, but by using food and beverages as the messenger.

There are 3 main factors that control brain-gut-liver-pancreas–fat cell communication. This communication is the epicenter of metabolism. A propulsive network of molecules interacts second-to-second to instigate a paradigm shift resulting in health or disease, weight loss or weight gain, fat burning or fat storage.

Human feeding behavior is dictated by constant brain feedback, which is part of the biological network. In the brain, there is an intricate signaling process wherein neurons communicate information with each other.

This neural conversation is intricately involved in human obesity and Type 2 diabetes. Neuroendocrine signaling is connected to communication between the brain-gut and fat cells. This mechanism is referred to as *neuromodulation and autonomic functions in the brain-adipocyte-brain crosstalk.*

To read more about this topic, see:

NUTRITION & THE BRAIN
Humans are Biological Computers - Brains Can Learn
Dr. Ann de Wees Allen®
Chief of Biomedical Research
Glycemic Research Institute®
Glycemic.com

PART II

SMART COFFEE TECHNOLOGY
SKINNY GENES JAVA™ - Coffee with an IQ

WHAT MAKES SKINNY GENES JAVA™ SMART?
SMART SCIENCE: FORMULA for METABOLIC INTELLIGENCE™

In terms of high IQ, ***Skinny Genes Java™*** ranks as the ***smartest coffee ever invented.*** This is not an egotistical statement, but one borne of pride after years of research and development.

In science, you have to push the marker to create something that has never been done before, while quantifying the performance, safety and efficacy of the product. ***Skinny Genes Java™*** has over 1,000 clinical References attached to its creation and 30-years of Board Approved Human In Vivo Clinical Trials.

Chief scientists, at the ***Xtreme Healthy Lifestyles Department of Research & Development***, received the first Glycemic patent ever awarded worldwide, featuring breakthroughs in human nutrition, which were featured on the front page of the *Wall Street journal*, named Breakthrough Product of the Year by *Success* magazine, and *Who's Who of American Inventors*.

Expertise in nutritional science and research, including conducting clinical studies for the largest food and nutrition companies in the world for over 3-decades, provides the backbone of the development of Skinny Genes Java™ and its sister products, **Glycemic Intelligence™** Natural sweetener and Creamer.

Smart Science is at the forefront of every **Xtreme Healthy Lifestyles™** formula and product.

† U.S. Patent (Smart Low Glycemic Beverage Methodologies eliciting Blood Sugar Balance & Weight Loss through Dietary-Induced-Thermogenesis, downregulation of Insulin & LPL)
†† Patented Sweet Fruit (Process for glycoside extraction/production)
††† Patent (Potentiation of Insulin Activity – Blood Sugar Control)

Skinny Genes Java™ ingredients and formulas are on file with the FDA and allowed to be manufactured and sold per Food and Drug Administration (FDA) Rules & Regulations under cGMP, 21 CFR Part III

Infra-Red Roasting, Glycemic Intelligence™ and Coffee Fingerprinting™ Certified Clinical & Analytical Data and Compliance

Skinny Genes Java™ incorporates the healthy benefits of **100% natural Infra-Red roasted Arabica coffee** while replacing the negative attributes with **Glycemic Intelligence™** technology.

Skinny Genes Java™ maintains the highest roasting standards in the coffee industry. Never frozen – always fresh – and meets all the standards set forth by **Coffee Fingerprint™** Testing & Certification (see Part III).

METABOLIC IMPACT of Skinny Genes Java™
LOW GLYCEMIC CARBOHYDRATE COMPOUND
Patented Process – Human In Vivo Clinical Trials

SCIENCE, BOARD APPROVED CLINICAL TRIALS, RESEARCH
Low Glycemic Carbohydrate Compounds (LGCC)

The Certified Glycemic Intelligence™ LGCC Natural Compounds in Skinny Genes Java™ are produced and manufactured under Patent in a FDA-Compliant facility, NSF Certified Laboratory, and cGMP Good Manufacturing Practice Regulations for Dietary Supplements, 21 CFR Part III

RESEARCH, FORMULATING, PATENTS, cGMP MANUFACTURING & BOARD APPROVED HUMAN IN VIVO CLINICAL TRIALS SINCE 1983

The Certified *Glycemic Intelligence*™ Natural Compounds in Skinny Genes Java™ are crucial to the performance of the product. These Low Glycemic natural compounds are integral to the Skinny Genes Java™ formula, providing bio-fuel to the brain and body.

Herein we demonstrate some of the scientific data related to the Skinny Genes Java™ Low Glycemic Carbohydrate Compounds (LGCC):

Long-Term Safety Record of LGCC

Low Glycemic Carbohydrate Compounds (LGCC)

Long-term safety record (25+ years) in humans with a significant body of Board Approved Human In Vivo Clinical Trials in children, adults, and Type 2 diabetics.

Carbohydrate Metabolism – Insulin Sensitivity

Low Glycemic Carbohydrate Compounds (LGCC) has demonstrated a positive effect on Carbohydrate Metabolism and Insulin Sensitivity.*

Conversion to Plasma Triglycerides (TG)

Unlike other sugars and sweeteners, only a very small amount of ingested LGCC converts to plasma TG: Less than 1 %. *

Adipose Tissue fat Storage - De Novo Lipogenesis

De novo fatty acid synthesis from LGCC is much less energy-efficient than storing dietary fat, thus LGCC-induced de novo lipogenesis (DNL) is ***unlikely*** to promote weight gain at reasonable dosages.*

LGCC does ***not*** stimulate or activate the form of lipoprotein (LPL) in humans that triggers adipose tissue fat storage.*_LGCC does ***not*** over-elevate blood glucose or insulin levels in humans, which is known to activate fat-cell storage (continual stimulation of this mechanism leads to Type 2 diabetes and obesity).*

Insulin Secretion & Beta-Cells

Low Glycemic Carbohydrate Compounds (LGCC) do not over-stimulate insulin secretion. Pancreatic Beta-cells have low levels of glucose transporter 5 - and LGCC does not stimulate insulin secretion from pancreatic B-cells.*

Normal Non-Diabetic & Diabetic Subjects

Low Glycemic Carbohydrate Compounds (LGCC) ingested in humans instead of sugar/sucrose or high glycemic sweeteners, sugars, and/or carbohydrates, as part of a meal or added to coffee, results in lower blood glucose levels in both normal and diabetic (NIDDM) humans, with lower insulin responses in normal subjects as compared to identical meals containing sugar/sucrose or high glycemic sugars/sweeteners.*

C-Peptide: LGCC Reacts Metabolically Like Natural Fruit

In terms of health markers in humans, C-peptide is *not* associated with a stronger association from ingestion of Low Glycemic Carbohydrate Compounds (LGCC) than that of the association between natural fruit consumption and C-peptide.*

LGCC's Minimize Blood Sugar Spikes in Ice Cream, Milk Shakes, Protein Shakes, Dairy Products, and Chocolate Milk

Low Glycemic Carbohydrate Compounds (LGCC) have been clinically proven to minimize blood sugar spikes in ice cream. Low Glycemic Carbohydrate Compounds (LGCC) have also been clinically proven to minimize blood sugar spikes in milk shakes, protein shakes, meal replacements, chocolate candy, dairy products, and chocolate milk.*

A small dose of Low Glycemic Carbohydrate Compounds (LGCC) (less than 10 grams) can actually lower the glycemic response to a high GI meal without adverse effects on fasting insulin or body weight.*

When Low Glycemic Carbohydrate Compounds (LGCC) are incorporated as a replacement sweetener in a complex food product, it is associated with significantly lower serum glucose and insulin responses as compared to comparable sucrose or dextrose sweetened foods.*

Dietary Glucose - Dextrose, commonly used in foods and beverages, results in the greatest serum glucose response (blood glucose/high glycemic).*

The following statement is required by the Food & Drug Administration:

***These statements have not been evaluated by the Food and Drug Administration**
These products are not intended to diagnose, treat, cure or prevent any disease.

PART II - continued

METABOLIC IMPACT of Skinny Genes Java™
LOW GLYCEMIC CARBOHYDRATE COMPOUND
Patented Process – Human In Vivo Clinical Trials
SCIENCE, BOARD APPROVED CLINICAL TRIALS, RESEARCH
Low Glycemic Carbohydrate Compounds (LGCC)

Board Approved Human In Vivo Clinical Trials

LGCC - UTILIZATION & APPLICATIONS*
Foods, Beverages, Desserts, Nutraceuticals*

- **Completely Natural: All ingredients GRAS & approved by the FDA**
- **Board Approved Human In Vivo Clinical Trials**
- **Safe use in humans since 1983 – tested in 250,000 humans**
- **Appropriate in all foods and beverages (per FDA CFR 21 – DSHEA)**
- **Appropriate for use in Skinny Genes Java™ Coffee products**
- **Clinical Trials in Diabetics & non-Diabetics**
- **Does not trigger human Key Code fat-storage mechanisms**
- **Does not trigger LPL Fat-Storing/Fat-Cell activity**
- **Tastes like regular sugar – no aftertaste**
- **No gastrointestinal issues – even at large doses (75 grams)**
- **Proven *Diet-Friendly* per CFR 21 FDA Guidelines & Claims**
- **Tested in children age 6-18 – appropriate for children's formulas**
- **Diabetic-Friendly (Type 2 Diabetic Trials)**
- **Safe L-arginine Isoform pathway for Blood-Brain-Barrier transport in humans**
- **Non-Cephalic applications in drug delivery and transport systems**
- **Non-adipose-tissue-fat-storing carbohydrates utilized in weight loss**
- **Low glycemic methodologies in Nutraceutical and Pharmaceutical weight loss formulas**
- **Does not over-elevate blood glucose or insulin levels in humans**
- **All-natural, organic fruit sweetener for use in weight management**
- **Carbohydrates that do not trigger LPL human fat-storing mechanisms**
- **Natural sweetening system that does not instigate Lipoprotein Lipase fat-storage**
- **Methodologies for blocking adipose tissue fat-storage in human fat cells**
- **Diet-Induced-Thermogenic (DIT) methodologies in weight management protocols**
- **Carbohydrate system for blunting adipose tissue fat-storage in foods, drinks, and weight management and blood glucose control**

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PART III
SMART COFFEE TECHNOLOGY
SKINNY GENES JAVA™ - Coffee with an IQ

SMART COFFEE
QUANTIFICATION of SAFETY & EFFICACY

Coffee has tremendous benefits, as clinically defined and quantified in hundreds of trials (National Institutes of Health – NIH). The benefits are derived from the coffee beans, which contain over 1,000 different chemical compounds. These include highly beneficial phenols, polyphenols, and isomers.

Coffee also contains dangerous and potentially dangerous compounds, such as Acrylamine and Micro Toxins. These toxins are so dangerous that the EU (European Union) has recently mandated controlled levels in coffee, with only *5 parts per billion* (PPB) allowed by EU standards.

The EU operates through a hybrid system of intergovernmental and supranational decision-making. The EU sets standards in nutrition and foods, including the RDA/RDI for vitamins and minerals, similar to the U.S. FDA.

In the United States, in terms of health risks, Acrylamide has been judged an "extremely hazardous substance" by the U.S. Environmental Protection Agency (EPA).

The FDA is now examining toxic guideline limits to inforce in coffee, and has sent out several warning letters to companies whose products contains unsafe levels of Acrylamide.

At the EU minuscule limit of *5 parts per billion*, accurate analytical testing of coffee and coffee beans presents a huge problem to the coffee industry and to the public, as the equipment required to detect such micro levels is extremely expensive.

But the risk in human health is high enough to warrant and/or demand testing of all coffee products for Acrylamide. Last year, the European Food Safety Authority (EFSA) found that acrylamide "potentially increases the risk of developing cancer in consumers of all ages" and recommended that exposure be kept as low as possible.

EFSA scientists stated "Since any level of exposure to a genotoxic substance could potentially damage DNA and lead to cancer, we conclude we cannot set a tolerable daily intake (TDI) of Acrylamide in

THE CALIFORNIA COFFEE AUTHORITY™

In an effort to identify and quantify the presence of Micro Toxins and Acrylamide in coffee beans and coffee products, the ***California Coffee Authority™*** (CCA) has entered the coffee arena with the most sophisticated and targeted analytical equipment and testing methodologies in the industry.

As a global service to international coffee growers, coffee manufacturers, roasters, coffee mills, and coffee retailers, the ***California Coffee Authority*** (CCA) maps, identifies, quantifies, and provides an exclusive **Coffee Fingerprint™** for each coffee been or coffee product tested.
Coffee beans, ground coffee, roasted coffee, and coffee products never have the same analytical identification or profile. The **Coffee Fingerprint™ Testing and Certification Program** specifically provides an accurate fingerprint for each coffee and coffee bean. This program is the only one in the world that has been designed to accurately detect, quantify and qualify the polyphenols, phenolic, and other beneficial compounds hidden in coffee beans.

The ***California Coffee Authority*™ - Coffee Fingerprint™ Testing and Certification Program** will also focus on testing coffee beans from the 70 countries globally producing coffee, with the overwhelming majority of the supply coming from Brazil, Vietnam, Colombia, Indonesia and Ethiopia.

The ***California Coffee Authority*™** points out that "High roasting temperatures form as the coffee beans are roasted" and that "Infra-Red roasting mitigates the formation of Acrylamides, due to low roasting temperatures."

So the message remains, consume coffee that has been processed in an Infra-Red roasting facility to avoid consumption of high-level Acrylamides.

The ***California Coffee Authority*™** – **Coffee Fingerprint™** services offers a Certification for coffee companies who produce Infra-Red coffee processed at very low temperatures.

SMART COFFEE – SKINNY GENES JAVA™
PASSES COFFEE FINGERPRINT™ TESTING

In 2017, **Xtreme Healthy Lifestyles™** ***Skinny Genes Java*™** was duly submitted for independent testing and analysis by the ***California Coffee Authority*™** and has received its own individual **Certified Coffee Fingerprint™**.

Of particular note was the low roasting temperature used in the Infra-Red process used to create ***Skinny Genes Java*™**, as well as its unique flavor profile, mildness, and metabolic properties. This process is proprietary to **Xtreme Healthy Lifestyles™** and cannot be reverse-engineered.

PART IV
SMART COFFEE TECHNOLOGY
SKINNY GENES JAVA™ - Coffee with an IQ

LABEL & DIRECTIONS for USE

To Be Released Soon

***These statements have not been evaluated by the Food and Drug Administration**
These products are not intended to diagnose, treat, cure or prevent any disease.

PART V
REFERENCES
SMART COFFEE TECHNOLOGY
SKINNY GENES JAVA™ - Coffee with an IQ

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END DOCUMENT

SMART COFFEE TECHNOLOGY
SKINNY GENES JAVA™ - Coffee with an IQ

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