

16 January 2017

## FOLLOW UP Q&A TO HOLISTA ANNOUNCEMENT ON 6 JANUARY 2017

The Board of Directors of Holista CollTech Limited (“Holista” or the “Group”) refers to its announcement dated 6 January 2017, “Holista CollTech Collaborates With Nobel Prize Nominee To File Patent For World’s First Low-GI Sugar With All Natural Ingredients”, and wishes to provide the following clarifications and updates:

### 1. What is low Glycemic Index (“low-GI”)?

According to the University of Sydney, *“the glycemic index (“GI”) is a ranking of carbohydrates on a scale of 0 to 100, according to the extent to which they raise blood sugar levels after eating. Foods with high-GI are those which are rapidly digested and absorbed, and result in marked fluctuations in blood sugar levels. Low-GI foods, by virtue of their slow digestion and absorption, produce gradual rises in blood sugar and insulin levels, and have proven benefits for health. Low-GI diets have been shown to improve both glucose and lipid levels in people with diabetes (type 1 and type 2). They have benefits for weight control because they help control appetite and delay hunger. Low-GI diets also reduce insulin levels and insulin resistance.”*

More information on GI is available on: <http://www.glycemicindex.com/about.php>

### 2. What is Holista’s low-GI sugar? What ingredients does it use?

The low-GI sugar is the newest addition to Holista’s low-GI suite of products. When consumed, it reduces the extent and rate at which sugar is digested in the gut.

Holista’s low-GI sugar is made out of all-natural ingredients and is derived from scientific insights into how sweetness naturally occurs in plants. Throughout the plant kingdom, there is no instance of a “high-GI sugar”. Nature only produces low-GI or in some cases, moderate-GI sugars.

Sugar cane is the best example of nature’s way of delivering sugar, safely. Sugar cane is a high energy sucrose accompanied by buffering compounds. Holista has

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taken lessons from Mother Nature and duplicated an improved method for manufacturing a safer sugar.

Please visit the links below for more information:

<https://www.ncbi.nlm.nih.gov/pubmed/25373842>

<https://www.ncbi.nlm.nih.gov/pubmed/24176228>

**3. Why is low-GI sugar important and how does it differentiate from other sugars?**

**Are there any known side effects?**

We crave sweetness in our food. However, once the food passes our mouths into the gut, the amount of sugar consumed, especially when highly purified, tends to have many negative health consequences. We are now seeing increasing levels of diabetes, heart disease and obesity that can be scientifically linked back to sugar. Excessive sugar intake is even being linked to mental conditions like hyperactive behaviour in children, depression and Alzheimer's Disease (which is now classified as Diabetes Type 3).

Unlike other alternatives such as artificial sweeteners which can only be used in beverages, Holista's low-GI sugar is made out of all-natural ingredients and can be melted, baked and caramelised for use in all cooking applications.

This is the world's first low-GI sugar that can be applied to different sugars found in nature whether from cane, palm, beetroot, corn or other such sources. Sugar cane is a prime example of how this works. Sugar cane is a high energy sucrose that is buffered by nature to cause a low glycemic effect. Nature has reproduced this very methodology in all sugary foods that it offers for consumption.

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<https://www.ncbi.nlm.nih.gov/pubmed/24176228>

**4. What is Holista's go-to-market strategy for the low-GI sugar, when do you expect to launch and who will it be available to?**

The low-GI sugar formula is being optimised in the United States before it will be tested at recognised GI Labs in North America, Europe and Australia for the

Glycemic Index validation. Holista expects to launch the product before September 2017.

Holista is looking to approach various sugar companies with a B2B strategy. While we are open to working with companies on creating consumer brands, we do not envisage a B2C strategy at this stage.

#### **5. Who is Daryl Thompson?**

Daryl Thompson is a U.S. national who was nominated for the 2015 and 2016 Nobel Prize. His area of expertise is organic and carbohydrate chemistry.

He is an inventor and entrepreneur whose work focuses on health, wellness, and disease prevention. Since 2006, Thompson has served as president and director of ATM Metabolics LLC, Winter Haven, Florida, which specialises in the development of food supplements and pharmaceuticals aimed at preventing and reversing metabolic and neurological diseases.

#### **6. What is Holista's relationship with Daryl Thompson?**

Daryl Thompson and Dr. Rajen Manicka, CEO of Holista, have a longstanding working relationship. Both are listed as co-inventors of the low-GI sugar patent. Previously they have worked together on Emulin®, the world's first patented Carbohydrate Manager, which Holista has exclusive Asia Pacific rights to.

#### **7. What does Holista's low-GI sugar patent include?**

As the patent is still pending, we will share more information as soon as we can.

#### **8. What are Holista's other low-GI products?**

On 12 January 2016, Holista announced it has partnered with VERIPAN AG, a Swiss supplier of speciality bakery ingredients, to combine its low-GI formula with the latter's natural sourdough to create the clean-label PANATURA®GI. When incorporated into flour-based products, PANATURA®GI significantly reduces the GI impact on the human body.

In July 2016, Holista partnered with Nadja Foods LLC, a U.S.-based food manufacturer with operations in the U.S. and Canada. The joint-venture, Holista

Foods, will allow both parties to tap on each other's expertise. Holista Foods expects its GI-reducer product to hit the North American market in 2017. Holista Foods brings to consumers a healthier choice without altering the taste or texture of the final baked product.

Holista recently partnered with Wing's, a major North American noodle manufacturer, to develop the world's first low-GI noodles.

Holista's GI-reducing products will be sold via a business to business (B2B) model. Holista Foods does not have its own consumer brands but will supply the relevant ingredients of bread and bakery products to B2B customers, such as food manufacturers or food chains.

Holista intends to be a key player in the low-GI space in the coming years. Once science and industry players fully-understand the effects of overconsuming sugar and starch, the concept of GI will become mainstream. The GI concept is the most advanced and scientifically validated system that we have in place to track all sugars (direct and indirect) in foods.

Australia is the leading market for low-GI products with a high volume of such products already on shelves. The University of Sydney is considered one of the foremost thought leaders in the GI space.

**9. How will this contribute to a healthier food choice for consumers?**

A 2012 study by scientific journal in the highly regarded scientific publication, *Nature*, (<http://www.nature.com/nature/journal/v482/n7383/full/482027a.html>) suggested that sugar, including sucrose and high-fructose corn syrup, should be considered as toxic as other substances harmful to public health like tobacco. The authors have urged governments to curb consumption, including taxes, advertisement restriction, and even age requirements for purchase sugary foods.

The publication brought about a high volume of interest amongst scientists, industry players and regulators on the dangers of sugar.

Apart from sugar, baked goods are the top source of high-GI foods in the modern diet. High-GI foods rapidly converts itself to sugar, spiking blood sugar levels in the body that lead to heart disease, diabetes and obesity over time.

**10. How does Holista's low-GI sugar compare to current table sugar most often used in processed foods?**

It terms of look and feel, it should look more or less like common table sugar. We expect the pricing to be competitive as we need to replace a major commodity food ingredient.

**11. What do you mean by "all-natural ingredients"?**

We use ingredients extracted from nature. No artificial ingredients are added.

The ingredients are safe and have a long history of use in all consumer groups.

**12. How does Holista's low-GI sugar compare to other products on the market?**

Based on literature, research and extensive computer modelling, our sugar should be low to moderate in terms of the Glycemic Index. Unlike other forms of low-GI sugar that are cane based, our patent platform covers common natural sugars such as cane, palm, beetroot, corn and more.

**About Holista CollTech Ltd (HCT)**

Holista CollTech Ltd ("Holista") is a research-driven biotech company and is the result of the merger of Holista Biotech Sdn. Bhd. and CollTech Australia Ltd. Headquartered in Perth with extensive operations in Malaysia, Holista is dedicated to delivering first-class natural ingredients and wellness products and leads in research on herbs and food ingredients

Holista, listed on the Australia Securities Exchange, researches, develops, manufactures and markets "health-style" products to address the unmet and growing needs of natural medicine. It is the only company to produce sheep (ovine) collagen using patented extraction methods, and is on track in nanonising and encapsulating liposomes for the ovine collagen. Holista has suite of ingredients that is capable of serving the industry to provide low-GI baked products, low sodium salt, low fat fried foods and low calories sugar without compromise in taste, odor and mouth feel.

For more information on Holista: [www.holistaco.com](http://www.holistaco.com)

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