

**ASX Announcement****16 September 2019****Holista Presents at the pre-event to 2019 China Glycemic Index International Conference**

**PERTH/KUALA LUMPUR, 16 SEPTEMBER 2019** – Australian-listed Holista CollTech Limited (ASX:HCT, **Holista**) is pleased to announce that Managing Director and CEO, Dato' Dr Rajen Manicka, was invited to present at the pre-event to the 2019 China Glycemic Index International Conference. The Conference is to be held on 17th September 2019 in Beijing at the China National Research Institute of Food and Fermentation Industries Co., Ltd. The event is a collaboration with Australia's Glycemic Index Foundation.

The conference will bring together all the health experts around the world and representatives from the food industry in China to explore and discuss opportunities and strengths related to low GI food manufacturing.

Dr Manicka will present a lecture on the research and development of low GI bakery products on the afternoon of September 16th. The meeting is a pre-event and the speakers include Gemma Walton of the University of Reading in the UK and Academician Robert Gilbert of the University of Queensland, Australia.

Attached to this announcement is the lecture presentation. Dr Manicka discusses how Holista is developing and commercialising low-GI products.

**END****For further information, please contact:****Corporate Affairs & Business Opportunities**Dr Rajen Manicka: [rajen.m@holistaco.com](mailto:rajen.m@holistaco.com)General Enquiries: [enquiries@holistaco.com](mailto:enquiries@holistaco.com)**Australia**

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### **About Holista Colltech Ltd**

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. Holista’s suite of ingredients 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, odour and mouth feel. It is the only company to produce sheep (ovine) collagen using patented extraction methods.



# **Research And Development Of Low GI Bakery Products**

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**Rajen Manicka**

**Holista Colltech Limited**

**2019 China Glycemic Index International Conference**

# About Holista Colltech

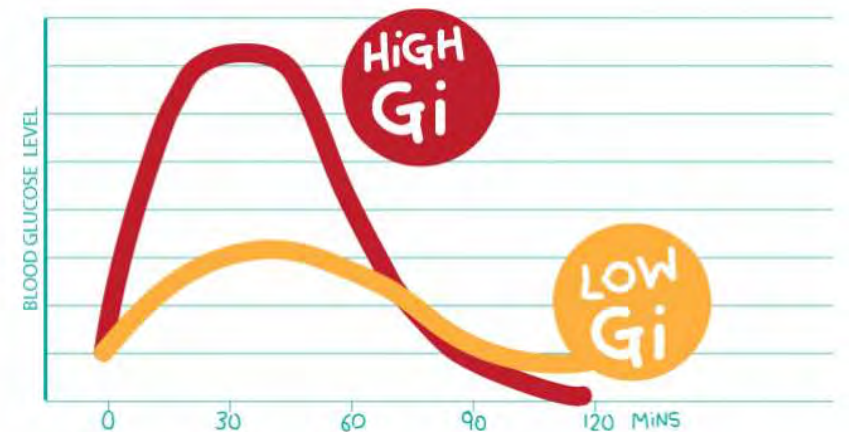
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- Australian company listed in the Australian Stock Exchange
- 3 areas of focus
  - dietary supplements
  - food ingredients
  - sheep collagen

# Core Competence In Glycemic Index

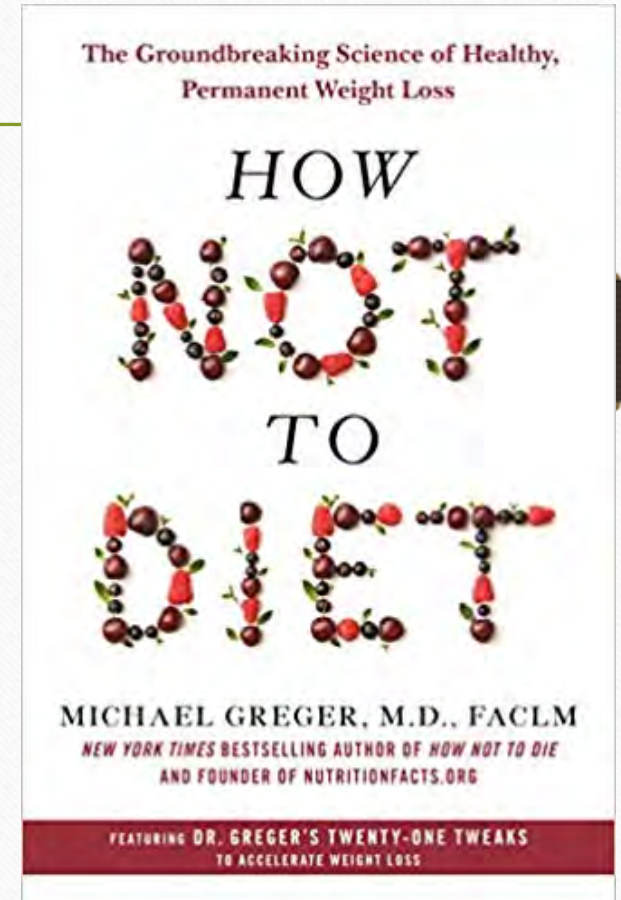
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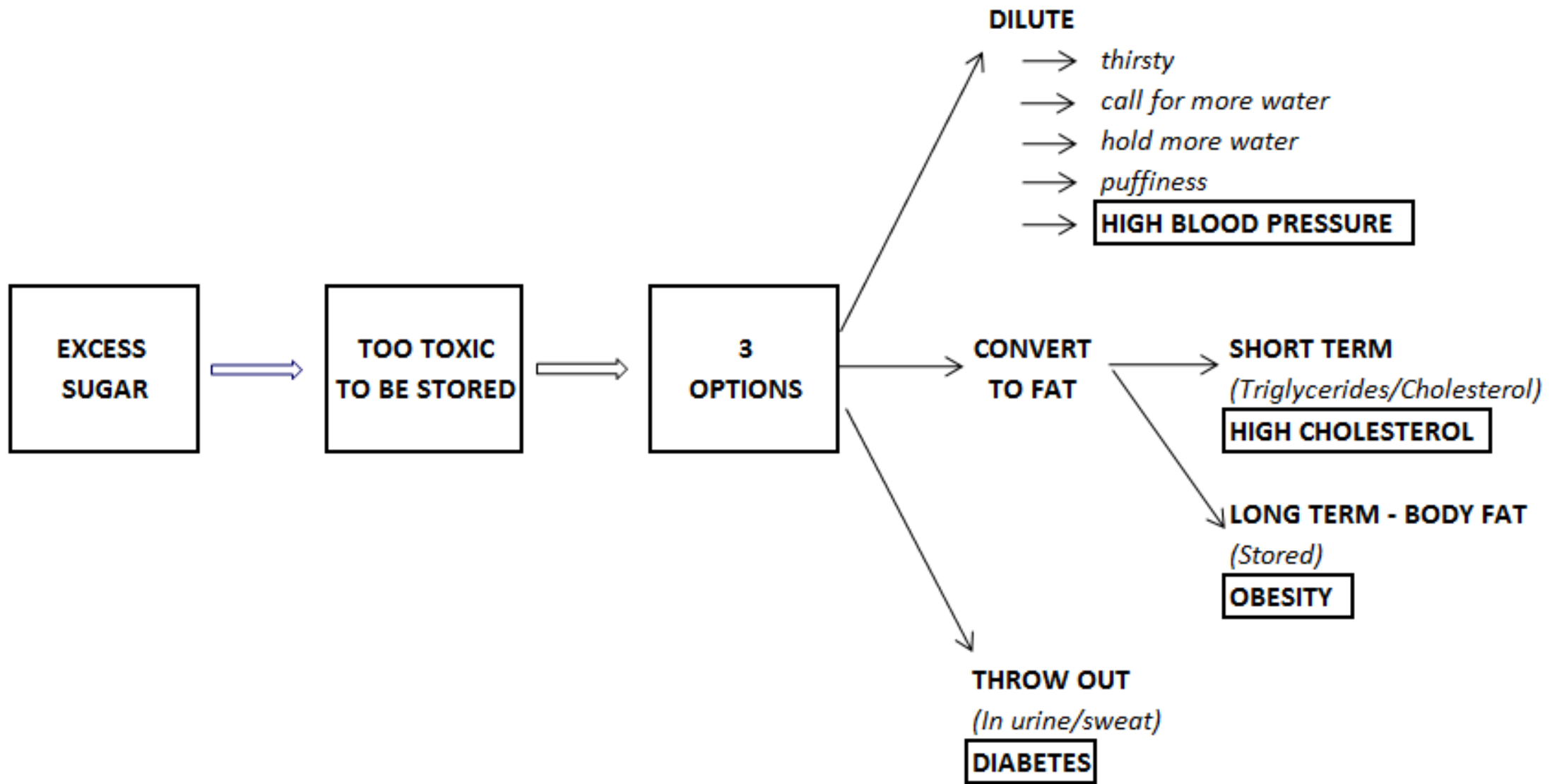
- Patented low Glycemic Index botanical blend
- Proprietary knowhow on how to prepare the botanicals optimally
- Experience in formulation and sensory adaptation
- Communication of low GI message



# Any Diet That Works Is Low GI Diet

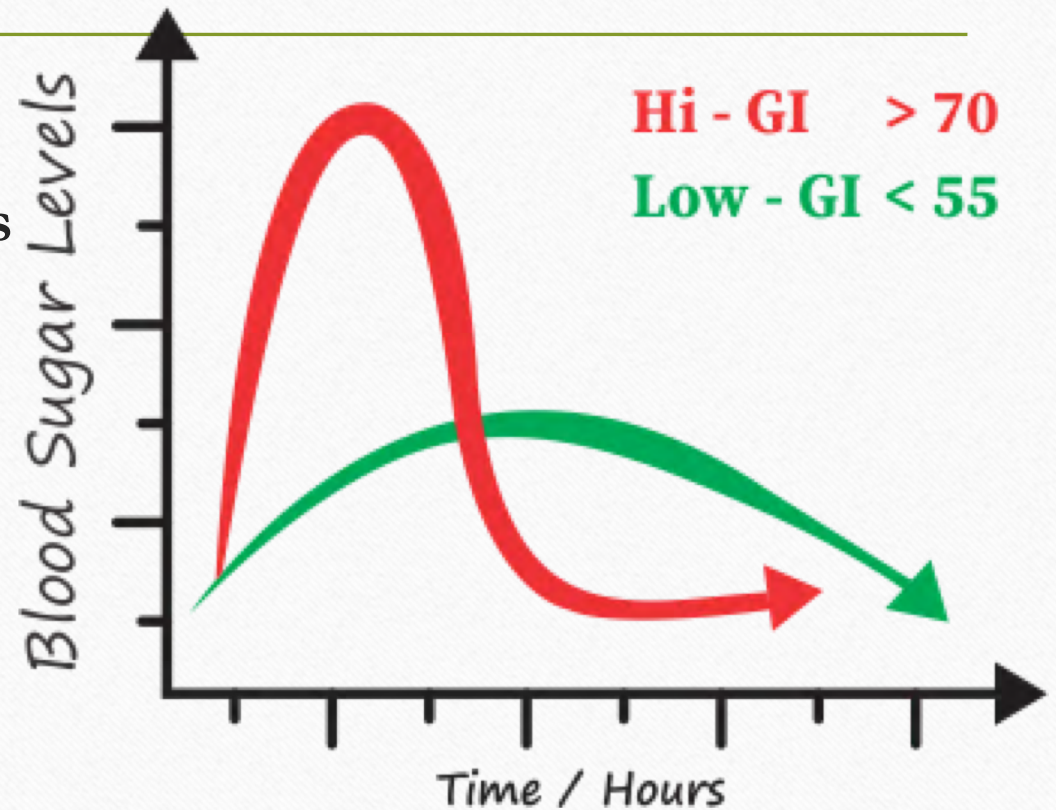
- Low carb
- High protein
- High fat
- Paleo
- Keto
- Atkins
- The Zone
- South Beach Diet





# Why They Work?

- Reduction of the carbohydrate
- Reduction of refined carbohydrates
  - Sugar
  - Starch





# 3 Things We Seek To Address

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- Excess carbs = obesity and diabetes
- Foods must have same taste profile and “look and feel”
- The resulting food products must be affordable

**Key Component Against Diabetes And Obesity  
Without Taste Compromise With Cost  
Competitiveness**

# Economic Drivers

- Educated and Wealthy consumers want a choice
- Given the choice, consumers go for “better for you” in terms of health as seen by the growth of segments like ‘organic’ and ‘clean label’
- Customers avoid foods that “may not be good for you” like
  - **Genetically modified foods (GMO)**
  - **chemical (synthetic) based foods**



# FACT: Health & Wellness Products Growing Faster

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- Already account for 12% of all Consumer Packaged Goods (CPG)
- 5 categories
  - fortified
  - **better for you**
  - naturally healthy
  - free form
  - **organic**





# Clean Label

- All product are “clean label”
- Mechanical and temperature processing
- No chemicals
- Sourcing transparent
- Can be ”certified organic”



# Combining “Organic” and “Low GI”

- Organic – “clean”
- Low GI – “healthy”
- New category ”clean and healthy”



# Chinese Baked Goods Market



- **2<sup>nd</sup> largest in the world USD57 billion (in 2018) and growing 6% (2013 – 2018) : United States is at USD80 billion and growing at 1%**
- **Chinese consumers are more health conscious - 75% willing to pay more for “healthy” products**
- **Chinese government growing focus on healthy nutrition**
- **In 2015 - 21% of new Food and Beverages launched in China have “natural” claim**
- **“No/ Low/ Less sugar sugar” is the 2<sup>nd</sup> largest health claim by this segment**

**Source: Mckinsey/MATRADE Report for Holista 2018**

# Challenges Of The Glycemic Index

A person is shown in silhouette, pushing a large, heavy boulder up a grassy hill. The scene is set against a bright, hazy sky at sunset or sunrise, with the sun low on the horizon. The overall mood is one of struggle and effort.

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- **Difficult concept to communicate versus the “low fat” message**
  - **Difficult to test and measure**
  - **Validation**

# Challenges Of Low GI Product Reformulation

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- **Wheat is one of the cheapest commodity**
- **Refined wheat is taste neutral**
- **Wheat is good “mouth feel”**
- **Refined wheat is color neutral**



# Holista's Low GI Capability

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- Fully tested low GI

- white bread

- Indian flat bread

- cracker

- noodle

- muffin

- spaghetti

- pasta

- cookie

- Pending: ramen, pizza, bubble tea pearls and pastry

# **Australian Patent No: 2009334010**

**Product to control glycemic response of carbohydrate foods**

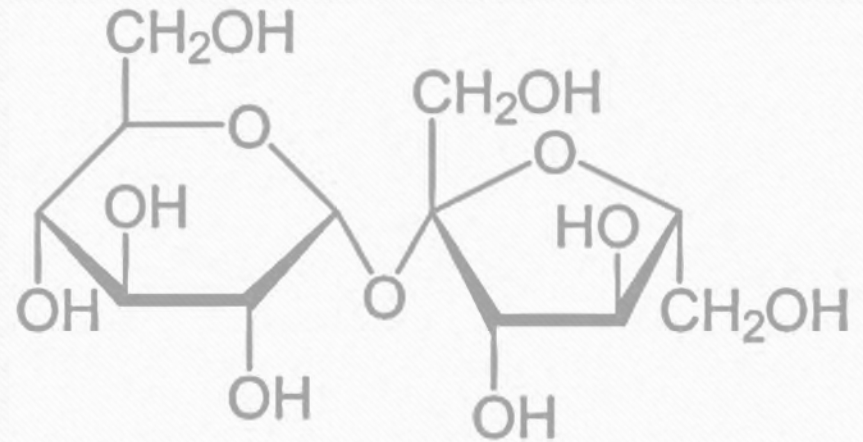
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- **Patent granted in Australia, Singapore, India, Malaysia, Europe and Canada**
- **Pending in China**
- **Tested and proven in University of Oxford, University of Sydney, GI Labs in Canada and Tumasek Polytechnic**
- **Working with Glycemic Index Foundation (Australia) and Diabetes Canada**
- **In collaboration discussion with University of Mississippi and the National Center For Natural Products Research (NCNPR)**

# Patent Claim

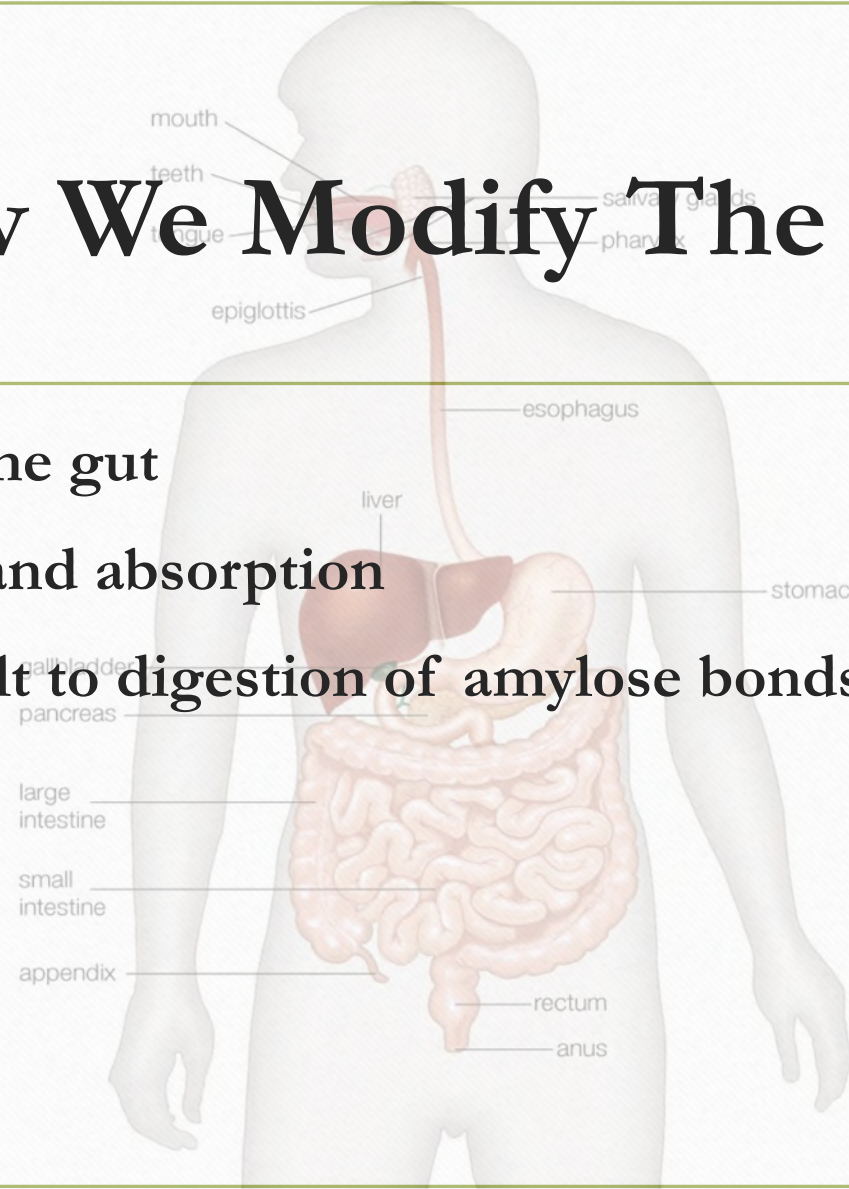
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“The use of botanicals to disrupt and delay the digestion of starches from wheat, rice and corn. In the process, this delays the rise of blood sugar and all the unhealthy metabolic consequences”



# How We Modify The Carbs

- Delay transit in the gut
- Delay digestion and absorption
- Making it difficult to digestion of amylose bonds in wheat based product



# Proprietary Technologies

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- All products are “clean label”
- Technology to derive the fenegreek fiber
- Processing of the lentils
- The specific use of okra mucilage and seed content
- Taste masking



# Early Successes

- Low GI noodles – Canada, China, Korea
- Low pasta – United States, Canada
- Low GI Spaghetti – United States, Canada
- Low GI Linguini – United States, Canada



# A Low GI Breakthrough

## Nutrition Facts

Serving Size 2 oz (57g)

Servings Per Container 7

**Calories** 210

Calories from Fat 15

Amount/Serving	% DV*	Amount/Serving	% DV*
<b>Total Fat</b> 1.5g	<b>2%</b>	<b>Total Carbohydrate</b> 41g	<b>14%</b>
Saturated Fat 0g	0%	Dietary Fiber 3g	12%
Trans Fat 0g		Sugars 0g	
<b>Cholesterol</b> 10mg	<b>3%</b>	<b>Protein</b> 7g	<b>14%</b>
<b>Sodium</b> 80mg	<b>3%</b>		
Vitamin A 0% • Vitamin C 0% • Calcium 0% • Iron 15%			

\*Percent Daily Values (DV) are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

		Calories: 2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g
Protein		50g	65g

# Validation And Credibility



THE UNIVERSITY OF  
**SYDNEY**





# The Way Forward



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- **Collaboration**
  - **Better consumer education**
  - **New wearable technology to track blood sugar and blood lipids**