



Solving the low GI bread conundrum

BY JENNIFER JACOBS

Some 16 years ago, Datuk Dr Rajen Manicka did a doctorate on what he called the 4S Tsunami of the food industry — starch, sugar, sodium and saturated fats. These were four cheap, abundant and extremely addictive substances that were dominating the food industry and ruining the health and digestion of people around the world.

"The whole processed food and fast food industry grew on the back of these four ingredients. It was great for profits but not for our health. Obesity and diabetes were skyrocketing and heart disease was almost an epidemic globally," he says.

This, he adds, was exemplified by bread in many ways. "Where there is a large consumption of bread (in any of its forms such as bun, bagel, muffins or pastries), you will see a rise in obesity."

When he got back to Malaysia after completing his PhD, he started giving talks on nutrition. People came to listen but when he met them outside, he realised that none of them was following his recommendations. It all boiled down to convenience. Unhealthy food was cheap and abundant. Healthy alternatives were expensive and hard to find.

"So, I realised you can't change people's behaviour. But you could change the food they ate if you ensured that it tasted the same on the tongue but behaved differently in the body," he says.

And this is how Rajen came up with the idea of low GI (glycemic index) baked foods: "A slice of white bread has 3% teaspoons of sugar. We know that starch, tasteless as it is in the mouth, turns to sugar in your body within 15 minutes. It's a major contributor to obesity, diabetes and hypertension."

Rajen runs Hollista Coltech, a Petaling Jaya-based company listed on the Australian Stock Exchange. His company, Hollista Biotech Sdn Bhd, did a reverse takeover of Australia-listed bio industrial company Coltech Australia Ltd in 2009.

The company's first patent was for low GI baked foods. GI is an indicator of the ability of different types of foods that contain carbohydrates to raise the blood glucose. Foods with a high GI score contain rapidly digested carbohydrates that can trigger a large and rapid rise in the level of blood glucose and, potentially, the insulin level.

"Our first work was on the humble chappati and later the flat roti, naan bread and then, of course, it was bread. But bread was difficult..."

It may have been difficult but the company managed to crack the code. Its low GI bread has been successfully tested overseas and the results are astounding.

A clinical study of Hollista Coltech's low GI bread — made from extracts of ladies' fingers, lentils, barley and fenugreek, as well as Veripan's sourdough — by a leading Australian university, showed that it achieved a GI reading of 53, the lowest level ever achieved in a clean-label white bread. Swiss-based Veripan AG is Europe's largest independent supplier of specialty bakery ingredients.

Why these ingredients in particular? "It's going back to nature in a very big way. The ladies' fingers, fenugreek and lentils are all part of the Indian thali meal. They were obviously there for the convenience and because some-

body had tested them and they've worked in some way.

"If you go back to ayurveda, there is much work on fenugreek in particular," he says.

The problem with these sorts of ingredients, however, is their often overpowering smell and taste. "Indian ingredients have a strong taste and aroma. As Asians, you may be able to deal with it but it just won't work on a white palate."

And for this bread to really take off, it would have to work on a white palate, especially as Europe is the largest market for bread in the world. "So, we had to find ingredients that were invisible from a sensory point of view."

Rajen says the bread contains no chemicals, no E numbers and no preservatives. E numbers are codes for substances that are permitted to be used as food additives within the European Union (EU) and Switzerland. They are commonly found on food labels throughout the EU.

"It's been described as a game changer and the best thing since sliced bread," he says with a grin. Actually, it was his Swiss partner, Veripan chairman Meiert Grootes, who said that.

The idea was to impact as many people as possible. "If you give people awful tasting bread and tell them it is really healthy, it won't work. If you give them healthy bread and charge them three times what they pay for regular white bread, it also won't work. So this bread tastes good and it has the same feel and texture as regular white bread. And we are only charging about a 5% to 7% premium over regular white bread out there in the market."

He says most companies with patents make the mistake of charging a really high price for their product. "But if you do that, you won't go far because high prices are a deterrent, especially for food, and they attract all the competitors. So, from day one, we decided that two patents at a low price would lock the market for 20 years."

"There are only about three to four major players in the bread market in every country and we can work with one or all of them because of our position," Rajen points out.

The low price will also be despite the incredible amount of work that has gone into creating the product. "This bread represents seven years of work, seven clinical trials in Sydney, Oxford, San Francisco, Toronto, New Delhi, Kuala Lumpur and Singapore. We have two global patents on it."

Hollista Coltech has big plans for its product. It is eyeing a 5% global market share for bread in five years. At the moment, the global market for bread is US\$170 billion, which is why Rajen has Australian and Swiss partners.

"A small team of Malaysians cannot possible change the global bread industry. So we have to work with the Australians, with the Swiss, go and do trials in all those countries to prove to them that we are in fact the world's first low GI bread."

"The European bread market is the world's largest and most innovative and they took the product, innovated it, made it good, taste-wise. And they are going to help us with all the marketing because they have all the connections, and we don't," Rajen adds.

He chose to acquire a company in Australia because he knew that the country was very big in the food science space. "I thought, the leaders are there and all the leading places of



SHARIS GHASSAN/THE EDGE

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research like the University of Sydney, University of Monash and University of Western Australia. Some of the top executives of the fast food industry, such as McDonald's or Burger King, come from there. Some of the biggest ideas you see in the fast food industry such as the salad bar and kids' parties all came from Australia.

"Australia is geographically isolated and it is possible to try out different ideas there to see if they work before taking them around the world. So, acquiring an Australian company made a lot of sense to us," he says.

Rajen adds that as a Malaysian company, they wouldn't have been able to go that far. "It's just that perception of credibility that is the biggest hindrance to us going global and moving into what I see as the Western domain diet."

His European partners are already actively getting other partners on board in the region. In the US, the company has signed up with Nadja Pitarka of Nadja Foods. "She was on Oprah talking about low-fat baked goods and she has signed on because she knows that low GI food is the next trend."

Rajen was especially pleased with this partnership because Nadja is already supplying her baked goods to McDonald's and Subway in North America. "The most popular item on McDonald's baked products in North America is her formula. If you go to Subway, the brownies are hers."

The low GI bread is going to be launched in Australia, Europe and North America first before it comes to Malaysia. "We want to go for the low-hanging fruit first, so we are going to countries that already know about things like low GI foods."

"It's very easy to say, let's go back to our own kampung and see how it works out, but I think we wanted to get a success story out in Australia or Europe before coming to Malaysia. I am happy to lend my time to educate

people here but I think this education has already been done in Europe or Northern America or Australia," Rajen points out.

But the real innovation is yet to come: "Wheat serves half of human calories and 50% of the world's wheat is consumed as noodles. So the real innovation is going to be low GI noodles, which will have a massive impact in China and some parts of Europe. That needs a little bit more R&D."

"In Malaysia, we are talking to PlatCOM Ventures (the national technology commercialisation platform) about coming up with a low GI roti canai. I squarely blame the roti canai for Malaysia's obesity problem, especially among the young people, because of all these 24-hour mamak joints. We will probably launch a low GI roti canai in this market before we actually launch the low GI bread," he adds.

Basically, all this ties into the global trend towards healthy eating. "The food industry has become very sophisticated because consumers today are very demanding. They don't believe companies and they want to know everything about the food they are consuming."

"We have had so many food-related scandals, from melamin in China to horse meat in Europe. Consumers are very antsy about food from big companies and so the food industry has become very sophisticated, cautious and deliberate in what it does. You don't just launch a product tomorrow and go to market the following day. It has to be a very deliberate process."

Rajen says the industry has basically turned on its head. "We have a situation where the pharma industry is doing less and less clinical trials because of the cost and the food industry is doing more and more of them because of the lack of credibility. So somewhere in between, we have got to find a balance. I mean, 10 years ago, who would have done clinical trials for bread?"