

## Food Fight - S1E5B - Spotlight Stem.mp3

**Lukxmi Balathasan** [00:00:06] Welcome to this bonus episode of The Food Fight podcast from EIT Food.

**Matt Eastland** [00:00:11] In these episodes, we want to shine a light on new projects and agrifood start-ups and hear about their efforts to fight for a better food future. This week, we're handing over to Tom Simmons to tell us about STEM a Start-Up who are developing natural food ingredients to replace sugar in food products.

**Tom Simmons** [00:00:33] My name is Tom Simmons. I'm the founder and CEO. We're fighting for the future of food because we believe that the products we're developing can have a huge impact on global public health. There's a huge amount of ill that's caused to human health as well as to the environment right now by the food system. And new food ingredients like the ones we're developing can really make an impact to help the situation.

[00:00:58] We're solving the problem of excessive sugar consumption. There's been a lot of work people have done for many decades now, companies and start-ups and scientists to try and reduce sugar across a whole range of food products. But the problem is that the success has been very acutely focussed on the drink space. So almost all drinks that are reduced on the supermarket shelves now are reduced sugar or low sugar or sugar free. But if you walk down any of the aisle in a supermarket; cookies, cakes, biscuits, chocolates, doughnuts, pastries, the same does not occur. So these things are still rammed full of sugar. Cookies are still 50 percent. Sugar cakes are still 30 percent sugar. It's a massive problem working out how to reduce sugar in food as opposed to drinks, and interestingly, that is where most Western is still consume the vast majority of the excess sugar.

[00:01:47] Sugar is bad for health for a range of reasons. The three sort of primary ill's for sugar is excess calorie consumption, which is a massive problem in the world. Second one is diabetes. Of course, diabetes rates are really growing all around the world right now. And finally, dental health. These things used to all be issues of the developed world, but now they're expanding around the world, some of the places suffering from these, most are actually in developing parts of the world.

[00:02:14] So what we're doing is attempting to make otherwise unhealthy foods healthier, make products that people are used to eating, but make them in a healthier way. But the real long term solution is people have to get used to eating conventionally healthy foods as well. So people just need to change products, make products healthier. But also, people need to probably change their taste as well - their preferences. Consumers buy based on taste more so than health, unfortunately. So the industry chases what consumers are looking for. So our role is to attempt to make products that meet both ends. We can make the products that people are used to buying and look to buy but we can meet them in a healthier way.

[00:03:03] Nowadays, sugar is found across a whole range of different products, often in places people really wouldn't expect sugar to be found. Part of the reason for this it is very cheap, but it plays more roles than just sweetening, which is why you found in a whole lot of different applications. Sugar plays a role in texture, structure, it caramelises, it crystallises, it browns, it holds water, it preserves food products. And therefore finding a solution to replace sugar that addresses all these different functional characteristics is a

really key aspect is trying to find ways to reduce sugar and the large amounts sugar that's consumed across loads of different food categories.

[00:03:42] Our ingredients are developed, unlike high-intensity sweeteners, our ingredients, which are a low-calorie plant sugars in naturally plant-derived plant sugars are developed to allow food manufacturers to mimic these physical properties of sugar in food. We make plant sugars from dietary fibre. Dietary fibre is made entirely from sugar, but bound together in difficult to digest ways. We find if we break it down in the same way, it's broken down by bacteria in your gut. We can produce fibre that behaves like sugar in food but still behaves like fibre in your body. So we can make tasty cakes, but that's a low calorie and low glyceemic.

[00:04:25] We make products that for the very first time, allow the manufacture food industry to make cookies, cakes, candies and other solid food products without all the health effects of excess sugar and in a way that's better for the environment too.

[00:04:47] We started the company specifically to enable us to positively impact public health and sustainability of the food industry and its our technical innovations that allow us to do that in a profitable way. So the science we do is built on a decade of knowledge that comes from academic research. But the invention was actually developed after having left the university and was inspired by hearing people in the food industry describe their problems. And I heard people describe the sugar problem in a specific way and realised I knew how to solve it.

[00:05:22] EIT Food has been really crucial in the development of our business, both as a source of funds to help us do projects with companies, but also as a front door to meeting key players inside a range of different food companies. So right now, one of the main things we're doing is scaling up the production of our ingredients. So we're already quite a long way into that we've had a lot of success already. We're then going to go through regulatory approvals in the US, bringing the product to market and then finally, we've launched the product.

[00:05:54] I mean, I think any individual in the food industry would want a more sustainable system. But there's legacy reasons why food industry is the way it is, and it's a hard ship to change the direction of.

[00:06:11] There's a whole load of new ideas and technologies that are coming on the horizon, which collectively can make healthy products that are good for the environment and as well that are tasty and people will enjoy eating.

[00:06:31] I hope for the future of food is that we can build a food system that addresses all these endemic problems that the food industry currently has. We can create food products that are healthy for people. We can create food products that people enjoy eating and look forward to eating. And we can create a farming system that creates enough food for people and enough nutritious food and enough nutritious food without damaging the environments that can satisfy all of humanity.

**Lukxmi Balathanan** [00:07:05] Thanks for listening to this bonus episode of The Food Fight podcast.

**Matt Eastland** [00:07:10] To find out more and to learn how you can get involved in the fight for a better food future, head over to [eitfood.eu/podcast](http://eitfood.eu/podcast).

