

## The bare-footed mad scientist creating super-smart socks

*An idea for clever clinging knitting has landed a former muffin man a big European medical deal.*

BY LATESHA RANDALL

IT WAS EITHER blue cheese or banana blueberry muffins that were the catalyst for Footfalls & Heartbeats – Simon McMaster’s ‘mad scientist’ venture that has already signed a major licensing deal with German medical products company Medi GmbH&Co.KG.

A Kiwi lad who owned and ran cafes for years in the UK, McMaster says the inspiration hit him around 4am while stirring his muffin mix.

“I had been studying chemistry and nanoscience extramurally, and started thinking about my brother who is a rafting guide. He goes from wet and cold to hot and sweaty in a short space of time. I wondered if it would be possible to create clothing that could automatically open and close based on his temperature.

“I couldn’t get the idea out of my head, and spent the next 10 years reading about knitting.”

But don’t think granny scarves and baby booties.

McMaster was intrigued by the possibilities of smart knitted textiles. Lightweight, able to mould to your body, and with knitted strands of electrically conductive yarn, your socks could do more than just keep your feet warm – they could provide your doctor with useful information about your health.

“I heard Dr Jane Dai speak in Melbourne about the future of sensing and that was it – I wanted to be part of that future. I put my spare time, energy and all my brilliantly supportive partner’s spare cash into developing ideas and prototypes ... and finally three years ago I felt ready to look for funding.”

But McMaster didn’t want to ask the Poms for money. Instead, he turned to contacts in New Zealand, which led to a Skype call with the man who would become his first investor and business mentor, entrepreneur Jeremy Collins.

Collins built the Selecon lighting company and sold it to multinational Philips in 2009.

“He told me he wanted to give me money after a 25-minute Skype call – I went, ‘Really?!’ It was amazing to find someone who instantly ‘got’ what I wanted to create.”

Another funding round in 2013 raised \$1.5 million from The Icehouse angel investor network, the New Zealand Venture Investment Fund and a number of private investors. McMaster used the >>

Financially, the project has chewed through more than \$100,000 of development funding, including thousands of dollars spent on intellectual property protection, Davey says.

A couple of crowd-funding campaigns late last year proved a disaster, so the pair went the traditional route, getting \$500,000 from their bank manager.

Even with conservative sales projections the company should be in the black within six months, he says.

Chad Wilkie, director of business growth consultancy firm Ignition Partner, has been working with ConfiTEX for the last six months and is impressed.

“It’s one of the best-looking early-stage companies I’ve seen for ages.

“They are smart guys, they are taking advice (which lots don’t), they are good at networking and they are making a real product which helps people. They own the intellectual property, have established manufacturing, and are continuing to develop the distribution and marketing with other partners.

“I think they are capable of being a global player, with their share of the wider reusable market. With luck they could dominate the fashion segment of the market.”

Patent attorney Don Ensor has been working with ConfiTEX for 18 months, as the company works to protect its intellectual property overseas.

He says the size of the potential market means the big international players won’t give up market share without a fight.

But he reckons Davey and Riha-Scott have “as good a chance as anyone I’ve seen” of developing a successful international business.

Getting IP protection for the ConfiTEX fabric and design has been relatively complicated, Ensor says, and he is still working through the process to get the international patents the company needs.

However, “unless they have bad luck I think they will make it”.

In 2010, when Kimberly-Clark (and Whoopi Goldberg) launched the Poise incontinence pad, London-based Euromonitor analyst Rob Walker said the challenge for that company was to “humanise (or even Viagra-ise) incontinence, making products as consumer-friendly as women’s sanitary protection”.

“It’s about taking the whole geriatric vibe out of incontinence,” Walker said.

ConfiTEX’s owners will be hoping they have a product that ticks that box.



Footfalls & Heartbeats senior product development manager Mike Allen (left) with Simon McMaster analysing the knitting of intelligent textiles