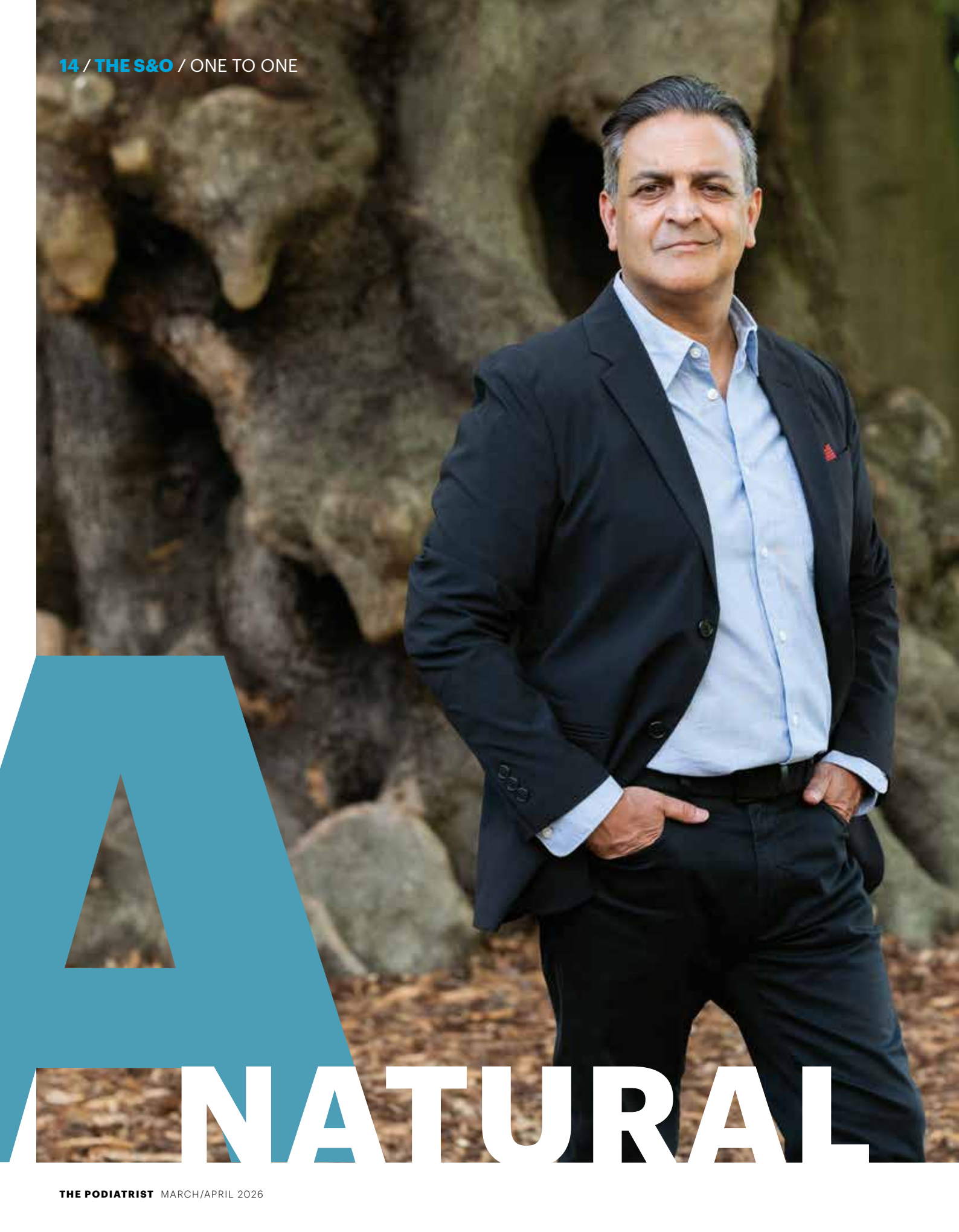




A NATURAL

We speak to
Dr Tariq Khan about his
unique background in
using plant-extracted
compounds to treat
some of the world's least
researched conditions.

Interview Matt Lamy **Photography** Kiren Chang

APPROACH

'THE ANSWERS FOR MANY CONDITIONS ARE THERE IN NATURE'



While man's achievements are many, one should never forget the power of nature both to harm and to heal. That's one of the key messages that underpins much of the work of Dr Tariq Khan, consultant podiatrist at Great Ormond Street Hospital in London and Sydney Children's Hospital in Australia.

'Whenever I lecture medical students or podiatry students, the first

thing I say is that when I was growing up in England, if you were stung by a stinging nettle, there was always a dock leaf nearby to alleviate the pain,' Tariq says.

'The answers for many conditions are there in nature. The number one drug in the world is aspirin, derived from willow bark. The number one cancer drug in the world is Taxol [paclitaxel], derived from the yew tree. The number one heart drug in the world is digoxin, derived from *Digitalis* flowers.'

His father's footsteps

Tariq's decision to enter podiatry originated just as naturally. The son of the late Dr Taufiq Khan – who posthumously received the College's Diamond Lifetime Achievement Award in 2007 – Tariq's career has followed in his father's footsteps in many ways, especially in the case of Marigold therapy.

'Marigold was pioneered by Dad in the late 1970s and early 1980s. When Dad first started as a podiatrist, he worked in the diabetic foot clinic

Mind, body and soul

It's not only in naturally sourced treatments where Tariq's innovative yet somehow traditional outlook reveals itself: he is also a keen proponent of a holistic approach to medicine.

'Over the last 40 or 50 years, medicine has evolved and doctors and scientists are looking far more at the whole person. We've accepted things like stress and mental health

have an impact on the rest of our bodies,' Tariq says.

'The other thing that has really emerged is a better understanding of autoimmune disease. Now we understand that things like rheumatoid arthritis, IBS, psoriasis and diabetes are all cases of the body attacking itself. People are putting a lot of emphasis on the microbiome, looking at the immune system and gut health,

which also has an impact on general wellbeing and health.

'I think that sort of old-school "mind, body and soul" approach is actually becoming a reality for a lot of people and younger generations are looking after themselves much better. We're not looking at medicine to fix everything; we're looking at lifestyle. That's a big change to medicine, and also a big change to podiatry.'

Fast facts

If you hadn't gone into podiatric dermatology, what would you be doing now?

I'd be a chef. I love cooking and I still cook.

What would people be surprised to learn about you?

I never liked dogs but now I've got a dog, I love her probably more than everyone else.

What do you do outside of work to unwind?

I enjoy sport – football and cricket are very important to me. I'm a 'Gooner' and love my Arsenal!

at University College Hospital and he used preparations of *Calendula* marigold, which was very effective as an antiseptic and for wound healing when treating foot ulcers,' Tariq says.

'One day, Dad came across some interesting articles that said marigolds could be useful for treating tumorous growths. He thought, that's a little bit strange: the activity of *Calendula* is cell proliferation – to make cells grow, not to destroy cells.

'So he started to look at the different families of marigold,





particularly the *Tagetes* marigold, which was really used in agriculture. If you're a keen gardener, you grow marigolds next to tomatoes to stop greenfly attacking because there is a compound in the marigold's roots called thiophene, which is a larvicide. Dad used the *Tagetes* on an ulcer and, rather than the ulcer knitting back together, it doubled in size. It did exactly the opposite to *Calendula*.'

Natural compounds

Taufiq applied a preparation of the *Tagetes* marigold to the foot of a patient with hyperkeratosis. A week later, Taufiq removed the bandages and found that the hard, thick yellow keratin that would normally be there had become soft and golden yellow.

'That was the effect of the marigold: it is basically a keratolytic. It slowed down the rate of cell proliferation and made it into an inert substance. It also had an anti-inflammatory, antifungal, antiviral action, which meant the pain also went away,' Tariq says.

Taufiq opened the first Marigold clinic, focusing particularly on conditions such as bunions, bursitis

and plantar fasciitis, at St Pancras Hospital in 1981.

Inspired by his father's innovations but with his own particular interest in warts – the subject of his 2004 PhD – Tariq started to research pharmacognosy: the study of plants and what they contain. Alongside marigold, this included looking at *Thuja* for warts.

'I took these different plants, extracted the compounds found in them, and then did a clinical trial. We did an open study, a double-blind study, and looked at the compounds and what they did,' Tariq says.

'Then the final part of my PhD was jointly with the Centre for Cutaneous Research at Queen Mary University of London. There, I was able to grow abnormal skin cells and introduce HPV DNA into them. That gave us an idea of whether the compounds I used were causing just the skin cells to slow down and therefore causing cell death, or whether the compound was antiviral and actually killing the virus that was there.'

That work became all the more relevant following a chance encounter. While based at the Royal

London Hospital for Integrated Medicine, Tariq attended a talk given by Great Ormond Street Hospital's renowned head of dermatology Dr David Atherton. Dr Atherton spoke about the use of Chinese herbs to treat juvenile eczema and, after the talk, the two men started chatting.

'Dr Atherton told me about a very rare disease he treated called epidermolysis bullosa, or EB. He said that it's a genetic condition with no cure, and the children it affects have really thick and hard skin and nails. There is nothing he can use to treat it because the skin is so fragile that it blisters. He asked if I thought some of my preparations could help.'

First of its kind

Feeling his research could have a positive influence, Tariq joined Great Ormond Street's EB team, eventually expanding its purview into podiatry.

'In 2019, we were able to publish the first clinical practice guideline on EB and podiatry. We looked at the available evidence and added to it but, more importantly, we have also been able to design a way of helping podiatrists become aware of EB, because a lack of awareness is a big problem,' Tariq says.

'We have also designed what we call an EB podiatry skills course, which is actually being validated by the College. This trains podiatrists to understand EB and it explains how to manage EB.'

Starting from a worldwide maximum of four podiatrists trained in EB in October 2019 – three of whom were based in England – there are now 27 people trained to manage EB, including 22 podiatrists.

'We've got people trained in Singapore, Canada, India – all around the world,' Tariq says. 'This movement is developing and making a difference to a community that previously never had help, as well as to our profession. And for me, personally, to still be doing what Dad's dream was – something he created – and spreading it around the world is fantastic. His legacy lives on.' 