

*Tenacious*  
capacity to heal damaged hearts



## DR JITHAN KOSHY

### *Distinguished Visitor Award*

*To support visiting experienced, clinicians to manage the current waiting list at the Cardiothoracic Surgery Unit. This will improve the sustainability of the service through a programme to train two current full-time cardiac surgeons in paediatric cardiac surgery at the Livingstone Tertiary Hospital and Port Elizabeth General Hospital.*

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*Initiating Zambia's first cardiac service as a newly registered specialist before coordinating the first public/private cardiac facility for State patients in Klerksdorp in 2015, Dr Jithan Koshy's work ethic is about to bear more life-saving fruit.*

Head of the cardio-thoracic unit at the Port Elizabeth Provincial Hospital alongside fellow consultant, Dr Jehron Pillay, he's moved quickly to address the lack of advanced paediatric surgical skills and thin anaesthetic support.

While his and Dr Pillay's cardiothoracic surgical skills can handle most adult heart operations, the complexity of corrective surgery for rheumatic heart disease and congenital heart conditions in some children, requires next-level dexterity and skill, which, with experience and help, they will eventually acquire. Which is why Dr Koshy invited two semi-retired veteran cardiothoracic surgeons to train and upskill him and Dr Pillay over the next 30 months. This will enable them to eventually handle all complex paediatric cases without referring them to the distant Groote Schuur and Red Cross Children's War Memorial hospitals in Cape Town, where their new tutors, Professors John Hewitson and Johan Brink, hail from respectively.

#### **The epitome of nationally scarce skills**

Showing his hard-won adaptability, Dr Koshy contacted the Discovery Foundation to see whether he can invite an anaesthetist from the Red Cross Children's War Memorial Hospital. Adding to the 'grey-power,' of his tutor colleagues, semi-retired anaesthetist, Dr Robert Nieuwveld, who will now travel with Brink and Hewitson to enable the required training – and more surgery – to take place.

Dr Koshy said in his application that his paediatric cardiac surgery waiting list was growing at the rate of four patients a week. He explained, however, that the waiting list tally actually stays relatively stable because many patients simply return home or are lost to follow up. He's unable to say whether this relative stability is due to any deaths, explaining that most patients needing emergency or elective surgery are referred to them from the nearby Dora Nginza Hospital's paediatric cardiology ward.

"We prioritise emergency cases. We have a general paediatric ward where the paediatric cardio surgery candidates are admitted," he explains. Professor John Hewitson and Professor Johan Brink, regarded as two of the most experienced cardio-thoracic surgeons in the country, expressed surprise at the severity of the situation, saying that if the pair secure a full-time anaesthetist, they'd have the capacity to do "four to five pediatric operations a week".

"Hopefully our monthly visits will help and quite soon they'll be able to do 70% to 80% of the paediatric cardiac operations without more experienced help. We've been up there a few times already and they're fast learners."

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### About the Distinguished Visitors

Professor Brink is the long-standing President of the College of Cardiothoracic Surgery within the Colleges of Medicine of SA, which sets standards, examines and certifies cardiothoracic surgery Registrars. He has also chaired several other prestigious national and regional surgical bodies.

Professor Hewitson was section head of Paediatric cardiothoracic surgery within the Chris Barnard Department at Red Cross Children's War Memorial Hospital from 1993 until his retirement in February 2019. He's currently a member of the Governing Council of the World Society for Paediatric and Congenital Heart Surgery. His special interests include paediatric thoracic surgery, cardiac valve repair techniques, rheumatic heart disease, and infant congenital cardiac surgery.

### Overcoming adversity

Professor Brink, who trained Dr Koshy as a registrar, said the junior cardiothoracic duo inherited a difficult historical situation. "Professor Mervyn Williams built that cardiac unit into a top-class cardiothoracic surgery unit in the 1970s. It served the needs of the entire Eastern Cape without being attached to any university. However, since he retired more than 10 years ago, they've had challenges," he adds.

Dr Koshy says that before he and Dr Pillay joined the unit, the adult cardiac surgery waiting list stood at 150. "The hospital was using private sessional cardiothoracic surgeons. We've now got the adult waiting list down to about 45," he adds proudly.

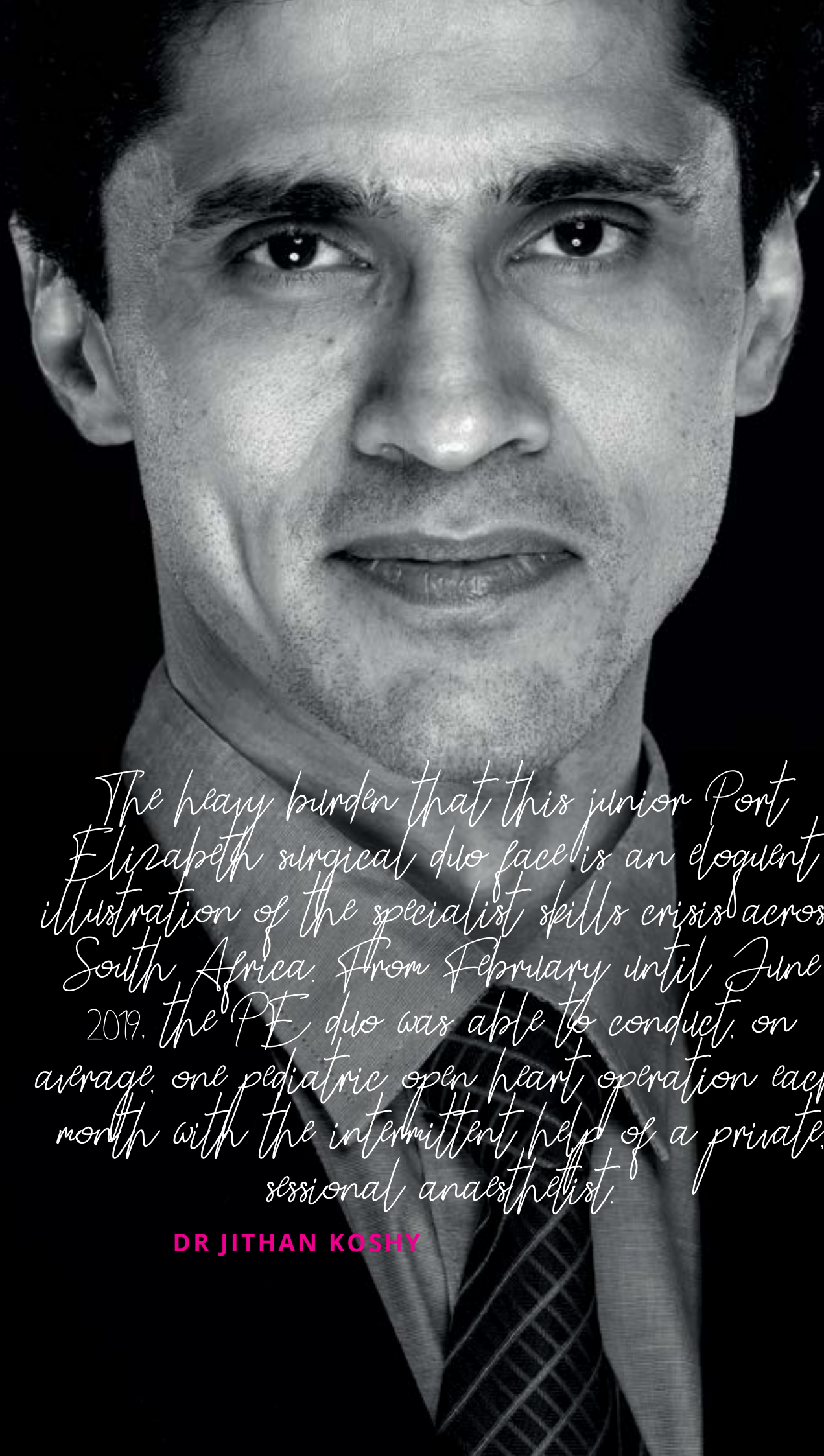
### Drivers of paediatric heart disease

Dr Koshy says the dire need for paediatric cardiothoracic surgery is driven by a high burden of rheumatic fever in crowded, low-income settings where streptococcal throat infections are easily passed on. Studies have shown some 25% to 30% of rheumatic fever sufferers will need surgery due to long-term damage to the heart and its valves.

Professor Brink said the other driver of paediatric heart disease was congenital. Globally every 10 in 1 000 live births developed a heart condition, regardless of income status. The global prevalence of coronary artery disease needing surgery in adults stood at about 100 per 1 000 coronary angiograms. "A lot of people in emerging economies develop coronary artery disease as they adopt Western lifestyles, leading to obesity, diabetes, hypertension and hypercholesterolaemia," Professor Brink added.

Meanwhile, Dr Koshy, who grew up in Zambia after his Indian-born teacher parents moved to Lusaka from Tanzania in 1984, says he has his mother to thank for his career in medicine and his wife to thank for his career in cardiothoracic surgery. "My mother put all her savings into enrolling me in medicine in Lusaka. I started medicine reluctantly, but once I got going, I put everything I had into it and succeeded. I then started a career in cardiothoracic surgery as an unpaid supernumerary registrar with a Beit Scholarship at UCT. This is where I met my wife who supported me through six years of my unpaid registrar training, while doing her internship, her registrar training in public health medicine and raising our daughter."

"There's very limited funding for healthcare and because of that, we're struggling to provide an impactful service. The limitations create a lot of discouragement, which results in a brain drain to private," adds Dr Koshy who is doing everything in his power to mitigate that – and is slowly succeeding.



*The heavy burden that this junior Port Elizabeth surgical duo face is an eloquent illustration of the specialist skills crisis across South Africa. From February until June 2019, the PE duo was able to conduct, on average, one pediatric open heart operation each month with the intermittent help of a private sessional anaesthetist.*

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Besides reducing the waiting lists, short-term benefits of this training will include prioritising urgent cases, preventing a progression to inoperable conditions, and death. The on-site training would also enable continuity of service and improve staff morale and confidence. Long-term benefits include using the transferred skills and knowledge to sustain the paediatric cardiac service and build capacity in nursing, the ICU, theatre, and wards. "It's quite inspiring and exciting, there's a lot of enthusiasm within the hospital and management is encouraged that there are people willing to help."

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