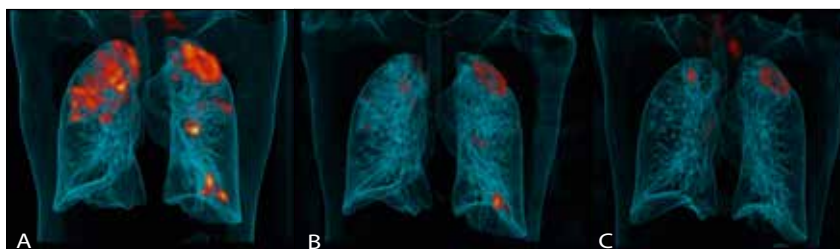


# New findings say ‘never take a TB cure for granted’

Stellenbosch University (SU) research findings published online in *Nature Medicine* in September<sup>[1]</sup> show that that 86% of HIV-negative ‘cured’ tuberculosis (TB) patients examined still had actively inflamed lung lesions, while a third of them had new or exacerbated lesions.

The surprising findings highlight how important it is for healthcare workers to retain a high index of suspicion even if a smear test at the end of a TB treatment course is negative, Dr Stephanus Malherbe, of SU’s Immunology Research Group, told *Izindaba*.

‘We’re working on better tools to monitor treatment response, but this [study of 99 HIV-negative, TB-diagnosed and ‘cured’ patients] shows that TB almost goes back into a latent subclinical phase after treatment,’ he said. The findings would be a catalyst for further tests around immune therapy and immune modulation, but they already emphasised the importance of improved counselling and advanced testing. Advanced imaging accurately showing the sites of inflammation during and after treatment revealed that only



Lungs of a patient at baseline (A) and after 1 (B) and 6 months (C) of TB treatment.

14% of the study group had no remaining inflammation in the lung after treatment was completed. SU worked in collaboration with the Catalysis Foundation of Health, Rutgers New Jersey Medical School, Stanford University School of Medicine and the US National Institutes of Health.

Malherbe said the findings point to the crucial role of the body’s immune response in suppressing or eradicating any residual live bacteria after treatment. Any treatment aimed at boosting the immune response should improve outcomes. Instead of ‘patting a patient on the back’ once their smear

was negative, healthcare workers who saw anything vaguely suspicious should send them for an X-ray and arrange a follow-up appointment, counselling them to eat healthily and to avoid smoking or drinking.

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1. Malherbe ST, Shenai S, Ronacher K, et al. Persisting positron emission tomography lesion activity and *Mycobacterium tuberculosis* mRNA after tuberculosis cure. *Nat Med* 2016; published online 5 September 2016. DOI:10.1038/nm.4177