

# Committed to breaking new ground

A KZN professor's work has allowed the medical profession to make great strides in the fight against Aids, writes *Leanne Jansen*

**I**F YOU were to pick up a 2010 copy of Science, and read the game-changing study on the effectiveness of Tenofovir gel in preventing HIV infection in women, you would notice 110 names listed below the conclusion of the paper.

Whether clinician, or nurse or driver, each of those 110 is acknowledged by the study's principal investigators, professors Salim and Quarraisha Abdool Karim.

And if you happened to speak to Salim Abdool Karim about his work, and his umpteenth award – this time from the African Union – you would notice that he consistently refers to a collective “we”.

“I do virtually nothing myself,” said the director of the Centre for the Aids Programme of Research in South Africa (Caprisa), who rarely authors a study without his wife.

“In many ways the awards are not for me, they reflect a very substantial team. We have nearly 250 people at Caprisa, and they are all important in any study.”

The paper on Tenofovir has been cited more than 1 500 times – a rare feat.

“We devoted a section to listing everybody who was involved in that study because, in our kind of work, a huge team comes together to make things happen,” said Abdool Karim.

“If the driver doesn't do his job well, it means we won't be able to find our patients and get them to the clinic, so he is just as important as everybody else in the team. When we involve different staff in our research, we get them to focus on the big picture, and help each of them understand what the study is about.

“The driver's job is not just ferrying patients, what he is actually doing is helping us stop the HIV epidemic in women. It's for him to recognise the importance of what he's doing here, and that's why I use the word ‘we’ repeatedly.”

This past Saturday, Abdool Karim was awarded the \$100 000 (R1.1 million) Kwame Nkrumah Award from the AU, in recognition of great scientific achievement, and his contribution to the socio-economic development of Africa through science.

“This award is particularly special, in that one seldom gets recognition and acknowledgement in our field of science, from the actual recipients and beneficiaries of that knowledge. We normally get acknowledgement from our peers – whether it's the World Academy of



Professor Salim Abdool Karim has received the African Union's \$100 000 Kwame Nkrumah Award.

Sciences, or the Royal Society of South Africa, or universities. But this is different; this is not about fellow scientists acknowledging the work, this is the AU and all its member states saying that science is important. That they see the importance of science to the future of Africa, and see the importance of scientific excellence to the future of Africa.”

Abdool Karim, a former president of the Medical Research Council, wears many hats. They include professor of epidemiology at Columbia University in New York, chairman of the UNAids Scientific Expert Panel, and member of the editorial board of the New England Journal of Medicine.

He is also an adviser to the World Health Organisation, and serves on

the scientific advisory board for global health of the Bill and Melinda Gates Foundation.

“I sleep very little,” he said. “It's an affliction I've had for the last three decades. I normally go to bed at around 1am or 2am, and I'm up promptly at 5.25am. I work two days in one day: after finishing work here, I go home and have dinner, and by 8.30pm I'm ready to start my

second day, working into the early morning.”

## THE NEXT 10 YEARS

The Tenofovir study was heralded as one of the top 10 scientific breakthroughs of 2010, and a study to confirm the results thereof are now under way. The Abdool Karims are moving on, and are now plotting the

breakthrough of the next 10 years.

The time frame for a big study is an average of eight years.

“We have an idea today, but we will get the answer in eight years' time. We're putting two or three new studies into play, and for all of those, the outcomes will be around 2019 or 2020. The nature of what we do doesn't lend itself to shorter time frames. What we are producing this

year is actually all the work we started back in 2006,” said Abdool Karim. Caprisa is pursuing three streams of research.

The first is focused on young women, and trying to find a new approach (aside from Tenofovir gel) to protect them.

“What we're now looking at is a new antiretroviral drug that works at a late stage of the growth cycle of the virus, called integrase inhibitors,” said Abdool Karim.

“We're working with a company that has formulated this drug into an injection, using nanotechnology. We think that if we injected young women with it, they would have enough drug in them to protect them from HIV infection for three months. So they wouldn't need to use a gel every time they have sex.

“We don't know if it works, so that is the study we want to do and are busy planning right now. We believe that prevention, in five to eight years from now, will not be tablets, but a new way of providing medication.”

The second stream of research saw Karim and a team of South African and US researchers discover how to clone potent antibodies in the blood of a KwaZulu-Natal woman, which her body had produced in response to the HIV virus.

Scientists at Harvard are working to see whether the antibody can prevent the equivalent of HIV in monkeys. If it works, the goal is then to manufacture enough of the antibody to do a study in humans.

The third stream of work being undertaken at Caprisa is investigating how to better manage and treat patients who get recurrent TB.

Research to date has focused on patients who have TB and HIV, but not specifically on those patients who had first-episode TB.

Now, because people are on anti-retrovirals and are surviving, they contract TB again – but because the patient has encountered the drugs used to treat it before, they may not work the second time around.

Today, a person anywhere in the world who has TB and HIV is treated by a doctor following international guidelines that have been informed by some of Abdool Karim's work. “It's humbling to know that we can save lives by generating important new knowledge, and that we can impact on health at a global level. But also that the biggest impact we have had is in Africa,” he said.

## The disastrous consequences of xenophobia, racism

EMPTY, empty eyes, empty faces, empty shelves. Years of grinding hard work; a journey of hundreds, thousands of kilometres; every last cent poured into the building of a dream; a small store stocking basic supplies.

Take 5 Tuck Shop, the work of a family who escaped the tyranny of Somalia for a better life in South Africa. They clubbed together to build the small business; they created a new life; a safer life.

The mob came from all sides; through the windows, the door – even the roof. They stole everything that wasn't nailed down. And now the dream lies in tatters, covered in the dust and the debris left by the looting frenzy.

Disgust and heartbreak fills us as we read the stories and see the im-

Justin  
Foxton

COMMENT

ages that have come out of Soweto and surrounds in recent weeks. I, personally, feel overwhelming sadness at what we have done to human beings trying to eke out a living on our soil.

In his column last week, the Sunday Times's Barney Mthombathi wrote: “In Soweto this week, we saw what could be our future, and it is scary.” I do not wish to take what this excellent writer says lightly, but it seems to me that there should per-

haps be a second part to this sentence: “In Soweto this week, we saw what could be our future, and it is scary – unless we work together to create an alternative future.”

I do not presume to know all that is required to create this alternative future, but I know one thing beyond doubt – it will take all of us to create it. Passivity and silence can no longer be an option if we are to stave off the disastrous consequences of xenophobia and racism, inequality and poverty, oppression and injustice. I do not believe, as we so often hear, that this stuff will take two or three generations to overcome. If it is still with us in two or three generations it will be with us forever: This is our responsibility.

Having said all this, what can be done to create a glimpse of such a fu-

ture right now in Soweto? KwaZulu-Natal is a long way away from this atrocity, or is it? Even now there are signs of this thing spreading. What if we remain silent and inactive?

At the very least we must condemn what has happened in the strongest possible terms and send a clear message to all that we, as a province, are passionately opposed to xenophobia and oppression of all kinds. This message must let our African brothers and sisters in Soweto and beyond know that we stand in solidarity with them and it must let the perpetrators of the criminality know that their hatred will not win the day.

But to have real impact this condemnation must take the form of more than just words. Let us put our money where our mouth is and

physically assist the victims of these barbaric attacks.

If everyone reading this gave R10, KwaZulu-Natal could support all those displaced by the violence and get them back on their feet by restocking the looted shops. R10 – the price of our parking as we shop – would buy a loaf of bread, a bag of sweets or a litre of milk.

Now I am not naive enough to believe that this would solve all the problems associated with this atrocity. Far from it. But imagine the message it would send not only to the victims themselves, but also the perpetrators of the violence; the message it would send to our province, the rest of the country and the world? Imagine the message it would send to our government: we citizens will not tolerate oppression

in any part of our country; we will not tolerate a future that looks like this. We will make ourselves part of a future that is bright for all.

Our NGO, The Peace Agency, has partnered with national NGO The Gift of the Givers and Durban-based NGO Grace Aid. Using the funds raised from this article we will work together to restock the looted stores and assist those displaced by the attacks. We will also be undertaking a grass-roots communication campaign to ensure the populace is aware that the country is united against xenophobia. We are calling it Project Justice.

Now there are many reasons not to get involved in this. However, please take a moment to think about the reasons why you should. For me it boils down to this: Mthombathi's

prediction for South Africa will come to pass unless we citizens declare that we will not allow it to. By giving what we have – mostly compassion, our voices and a little money – we will send that very clear message: “not on our watch”.

If you would like to be involved here are the bank account details. Please reference it “Project Justice”. Account name: The Peace Agency Bank: First National Bank Branch: Durban North Branch code: 22 04 26 Account: 6215 995 8217

● Foxton is founder of The Peace Agency. This column is dedicated to the memory of Anene Booysen, 17, who was gang raped, mutilated and murdered in 2013.

## These intellectual games

CAN time be reversed? At a colloquium at the Street Shelter for the Over-Forties the other evening, the eggheads wrestled with this theoretical question.

And if time could be reversed, would the lot of humanity not be infinitely preferable to what it is in the actual progression of time?

You'd start off in an old-age home, getting stronger and more sprightly by the day.

Then you'd be sent to work, where you would kick off with the chairman giving you a gold watch.

After many years of work and flirting with secretaries, you'd be sent to university where you'd spend several more years relaxing, drinking beer and flirting with girl students.

Then it would be high school – lots of sport and hero-worship by the local schoolgirls.

Then junior school – Hey, this is fun! Play, play, play! Who cares about anything?

Then the breast-feeding phase.



Yum yum!

Then back in the womb. Everything laid on – food, temperature control, everything. No problems.

Then an orgasm. Oh boy! Sigh! But time runs inexorably in the opposite direction. These intellectual games have their limitations.

### Dogs?

A REPORT in our sister newspaper, the Daily News, quotes a relative saying Malvern centenarian Jean Farnham loves “dogs as well as Kentucky Fried Chicken and fish

and chips.” I absolutely refuse to believe that our wonderful centenarian Jean Farnham eats dogs.

### Churchill

OVERSEAS TV has been running retrospectives to mark the 50th anniversary of the death and state funeral – the first ever afforded a commoner in Britain – of wartime leader Winston Churchill.

That this should happen at such a distance in time, and in a world that is very different from the one in which he loomed so large, is remarkable. Perhaps it's the anecdotes that have partly kept Churchill's memory alive among a generation who don't remember World War II.

Famous among those are the exchanges with Lady Astor (who was politically on Churchill's side but not in much else). The first was supposedly in the lobbies of parliament, the second at Blenheim



A boy walks on bricks at a brick kiln on the outskirts of Yangon, Myanmar.

PICTURE: REUTERS

Castle, where Churchill and Lady Astor were both guests and became involved in a squabble; the third was by post.

Lady Astor: “Mr Churchill, you're drunk!”

Churchill: “And you, madam, are ugly. But I shall be sober in

the morning.” Then: Lady Astor: “If I were your wife, I would poison your coffee!”

Churchill: “And if I were your husband I would drink my coffee!”

Then Lady Astor's sizzler after Churchill replied accepting an invitation to her “stupid”

masquerade ball, asking advice on a costume in which he would not be recognised.

“Why don't you arrive sober, Prime Minister?”

Touche!

Yes, Churchill was quite a fellow. His private secretaries would take from him dictation on matters of state in the early mornings before breakfast as he lay back in bed in striped pyjamas, a pet budgie perched on his head.

That was style. There's nobody quite like him today.

### Idiomatic

BUMPER sticker: “Float like a butterfly... sting like a snotklap!”

### Tailpiece

IT'S the Battle of Midway in World War II. The US and Japanese fleets are closing on each other.

An American aviator is about to take off from his aircraft carrier. The captain says to him: “Good luck, McGinty! And this time be more careful with your navigation.”

McGinty and his flight take off.

He loses the other aircraft in thick cloud. Then the cloud clears and there below him he sees the Japanese fleet – aircraft carriers, battleships, the lot.

He dives and makes a pass over a battleship, machine guns strafing. He releases a bomb and it goes right down the ship's funnel. As he wheels, he sees the whole vessel explode.

Next he's skimming at wavetop level towards an aircraft carrier. He releases a torpedo and, as he climbs to clear the ship's superstructure, the vessel explodes in a giant fireball. He despatches another battleship and two destroyers. But by now he's running low on fuel. He heads back to his own carrier fleet. He lands, swaggers up to the captain, salutes and says: “Wa-a-a-al, whaddaya think of that, Cap'n, sir?”

Captain: “Velly funny, Amelican pig!”

### Last word

I AM a kind of paranoid in reverse. I suspect people of plotting to make me happy. – JD Salinger