

# WE OFTEN think of discovery as the holy grail of scientific investigation. A top scientist will tell you that exploring the research tools that will take knowledge to new levels is where much of the real passion and excitement lie.

# A-rated status for scientist

There are probably few waking moments in the last quarter of a century that Quarraisha Abdool Karim has not been wrestling with life and death issues surrounding HIV/Aids, on a local and global scale.

You only have to walk along the corridors of office at the Centre for the Aids Programme of Research in South Africa (Caprisa) at the Nelson Mandela Medical School in Umbilo Road, to see the many awards gathered from scientific bodies, which have recognised her painstaking journey of exploration into the deepest and darkest caverns of science.

This week she was honoured even further by becoming the first black scientist from the University of KwaZulu-Natal, and only the second black woman scientist in South Africa, to be given the pinnacle A-rated status from the National Research Foundation (NRF).

## Recognised

Outlining the award, acting chief executive officer of the NRF Dr Beverley Damonse, described A-rated scientists as "researchers who are unequivocally recognised by their peers as leading international scholars in their field for the high quality and impact of their recent research outputs. Professor Abdool Karim's research is outstanding and she is among the finest scientists in our country".

But this quietly spoken academic whose name remains at the forefront of international HIV research, is the first to tell you that it is still "work in progress" when it comes to stemming the most devastating pandemic in history.

"Many questions have been answered, but not enough," she said.

"I believe we are at the point where we have sufficient tools to meet the global goals of reducing the rate of new HIV infections by one third by 2020," she said.

"The next leap – and it's a hugely challenging one – is to reach those uninfected and to find ways to keep them HIV-free. We are certainly not there yet. We know from research that one in 10 teenage girls is infected – and that is way too high."

It makes sense, she says, to elevate prevention strategies right here in KZN where eight out of the 13 affected districts in South Africa post the world's highest HIV rates.

Before setting out what is clearly a bold and storm-trooping strategy by Abdool Karim and her Caprisa research team,

Prof Abdool Karim recognised as leading researcher in Aids field, writes Liz Clarke



## HIV infection rates

LATEST figures show that there were globally 15 million new HIV infections last year.

Three hundred and forty thousand or 18% of those new infections occurred in South Africa. KZN had the

highest infection rate in the country.

The 2020 World Health Millennium Goal is to reduce the number of infections worldwide to no more than 500 000 per annum.

she is at lengths to point out that while all efforts have to be made to keep the infected rates down, the ongoing challenge for this and the next generation is to ensure that the 6 million people living with HIV in South Africa, remain healthy and productive.

"We generally have good adherence to ARVs and we are certainly not seeing the death rates from Aids that were once the tragic face of this disease. As long as people remain on their medication, life expectancy remains high. Within a few years, we need to get to a point where HIV will be considered a number one health threat. But the burden on the health systems is huge, that is why prevention has to be a priority."

The artillery for taking prevention measures to new

heights is multipronged, explains Abdool Karim.

"What we are saying to young, sexually active girls, is that they have a number of options to remain uninfected. We would like to say to them you have the possibility to choose whatever tool suits your lifestyle best. It could be a daily ARV tablet that prevents infection, a monthly cervical ring that stops the virus from entering the body, or four prophylactic injections a year to protect the body against infection."

Abdool Karim explains that while many of these options are not yet available as they are in research studies in KZN, the prevention scenario going forward is more upbeat than before.

She is also very upbeat about the emerging reality of an antibody-based passive im-

munity prevention approach, already showing encouraging results in animal studies.

The injections contain antibodies made by immune cells obtained from a unique KZN woman who developed a potent antibody that is able to kill most of the HIV circulating worldwide.

"We now need to vigorously throw as many of these tools into the prevention mix as possible. Of course if we could have incentives for people to use them as well that would, I believe, make a difference."

The bold incentives element involves encouraging big business, commerce and industry to join the "think tank" and come up with innovative ideas that would incentivise and reward risk-reducing behaviour that would encourage people to remain HIV negative.

"It doesn't matter which sector we come from, all South Africans would like to see the day when an Aids-free society is a reality. Achieving this golden goal will require all of us to work together. I have been fortunate to be part of a great team of scientists in Caprisa. I hope this achievement will inspire many more women to pursue careers in science."

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## Professor's roll of honour

PROFESSOR Quarraisha Abdool Karim is associate scientific director at the Centre for the Aids Programme of Research in South Africa (Caprisa).

Among the posts she holds are professor of clinical epidemiology at Columbia University in New York and honorary professor in public health at the Nelson R Mandela School of Medicine of the University of KwaZulu-Natal.

Abdool Karim led the research team that first showed that antiretroviral drugs can prevent the sexual transmission of HIV, when her Caprisa 004 study showed that tenofovir gel reduced HIV risk in women. The discovery was ranked as one of the Top 10 scientific breakthroughs of 2010 by *Science*. Her article in this week's *New England Journal of Medicine*, the world's most prestigious medical journal, focuses on her team's discovery that antiretrovirals can protect women from genital herpes.

## Agencies

She serves as an adviser on HIV infection to several UN agencies, including the World Health Organisation (WHO), Unicef and UNAids. She is a member of the UN-Aids Scientific Expert Panel and the WHO's HIV Clinical Guidelines Committee that sets the international standards for treating HIV infection. She is also scientific adviser to the executive director of UNAids and serves on the Scientific Advisory Board of the US President's Emergency Plan for Aids Relief (Pepfar).

In October this year, she is being inducted into the US National Academy of Medicine, considered one of the highest honours in the field of health and medicine.

She is a fellow and vice-president of the African Academy of Sciences, fellow of the Royal Society of South Africa and a fellow of the Academy of Science of South Africa.



Shelley Kirby and Briget Naylor of Geek Girls SA have committed themselves to demystifying the realm of gaming, among other areas, to interested women.

PICTURE: JACQUES NAUDE

## Woman transforms her passion into a business

THE first time Shelley Kirby walked into a gaming event, expressing an interest in participating, she was met with open-mouthed shock from the "all-boys' club".

"There was no hostility or anything like that, but they were taken aback. I could almost hear them thinking: 'Oh gosh. It's a girl. What's a girl doing here?'"

Speaking to the *Daily News* at her store, The Unseen Shoppe, in Westville, surrounded by board games, paints for model-making and tiny figurines, it is clear Kirby has turned her passion into a business, aiming to attract hobbyists interested in any area.

Kirby has also set up a space for people to familiarise themselves with the games on offer; even demonstrating for "newbies". "It's completely free. We want to show people that these activities can be enjoyed by anyone."

The group – Geek Girls SA – also interacted with other similar stores including Battave Comics N Games in Hillcrest. "We serve the same community and our members frequent both spaces," said Briget Naylor, another member of the group.

She said the community – which aimed to fill a gap for "geeky" enthusiasts – had snowballed beyond their wildest expectations.

"We don't want to alienate anyone, whether they like anime (Japanese animation), *Lord of the Rings* or board game buffs. We like to think of this as a safe place," Kirby said. The group, founded by

Kamcilla Pillay spoke to members of Geek Girls SA, based in Westville, who are turning the stereotype of women in comics and gaming on its head

## WOMEN'S MONTH:

Ordinary Women doing EXTRAordinary things

bring the concept here for people who shared the same interests."

To this end, the city hosted Icon by the Sea, a comics and games convention, in April.

The event featured board game demonstrations, different game tournaments, role-play, cosplay and costume competitions.

"We expected a few hundred people, but more than 1 000 attended on the second day alone. It shows that there is interest."

But not everyone has been welcoming of the group. "We sometimes get people commenting on our website that the group is sexist because it is only for women. I've also been told that I had no business running a shop like this one because I was a woman."

She said that Durban, generally, was laid-back and warm.

The group had also begun doing demonstrations at schools which had also garnered a lot of interest.

"One of our most popular games at the moment is *Settlers of Catan*, which is about resource management and forging trade partnerships."

For more information on the group, visit: [www.geekgirls.co.za](http://www.geekgirls.co.za)

## Boyfriends

She said most women became interested when they were "dragged" to the store by their boyfriends.

Some mothers became intrigued after dropping their sons off at the shop.

The Durban chapter of the group is growing and its Facebook page has already notched up 1 500 likes.

"Cape Town and Johannesburg are normally the hubs of our events, but we wanted to

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