

A MAN OF WILD PLACES CHRISTOPHER MCQUAID VISITING THE SOUTHERN OCEAN PENGUINS

VICE-CHANCELLOR'S REPORT HERE AND BEYOND – LOOKING AHEAD OLD RHODIANS IN THE NEWS CREATIVES AND CORPORATES, CYCLISTS AND CENTENARIANS – WE GOT 'EM ALL

TROPHY CABINET RHODES STAFF PICKING UP THE ACCOLADES



FEATURED ARTIST NOMUSA MAKHUBU LOOKS AT HERSELF

# Rhodos THE ANNUAL PUBLICATION OF RHODES UNIVERSITY WHERE LEADERS LEARN

### HALL OF FAME

Rhodes University is highly regarded for having the highest research output per capita of any university in South Africa. Many of our hard-working academics and researchers have been nationally and internationally recognised for their valuable contributions to their specialist fields.

DF Y

> Ranging across disciplines from Drama, Fine Art and English Literature to Botany, Geology, Estuarine Icthyology and Medicinal Chemistry many of our researchers, arts and community practitioners have been rewarded this past year for work that has a significant impact both locally and internationally.

### SHOPRITE CHECKERS/SABC2 WOMAN OF THE YEAR

irector of Ubom! Eastern Cape Drama Company, Janet Buckland, became the first-ever arts category winner of the Shoprite Checkers/SABC2 Woman of the Year 2008. Buckland has made an outstanding contribution to enriching the arts and cultural heritage of South Africa through her work with previously disadvantaged communities of the Eastern Cape. "The recognition this award has

brought to improve the status of the arts in the Eastern Cape is sensational. And with such an award the message is clear - look beyond the surface and really see the need out there," said Buckland, who was also named as Grahamstown's Citizen of the Year for 2008.

She has combined her understanding of the value of the arts and particularly theatre in the lives of all South Africans with her skills as a performer, director, fund raiser and administrator to create a significant number of successful arts and culture projects in the Eastern Cape.

The most notable project is Ubom!, the first full-time professional drama company in the province. Blending



the skills of Rhodes University Drama graduates and the talents of community theatre practitioners, Ubom! won gold at the prestigious Impumelelo Innovations Awards last year. Since its inception almost six years ago, the company has reached audiences totalling more than 178 000. It also has provided 36 full time contracts for actors to work in the Eastern Cape.

Buckland has had a long association with Rhodes University, having received her honours in Drama Studies from the University she is also a parttime lecturer in the department, coordinating and teaching young directors.

(See story on page 21)

#### 2009 L'ORÉAL-UNESCO AWARD FOR WOMEN IN SCIENCE: AFRICA-ARAB STATE

Professor Tebello Nyokong won the Africa-Arab State 2009 L'Oréal-Unesco Award for Women in Science for her pioneering research into photodynamic therapy which looks at harnessing light for cancer therapy and environmental clean-up. Nyokong is the third South African scientist to receive this award, and reaffirms Rhodes's place as one of the top research institutions in the country.

Nominated by a network of 1000 members of the international scientific community and selected by a jury of 17 eminent world scientists headed by Professor Ahmed Zewail, the Nobel laureate for Chemistry in 1999, Nyokong's work has been described as a perfect fit with the Award's mission to "change the face of science and support the advance-



ment of women in the scientific field."

"It is a great honour to be a laureate representing African and Arab states, areas that are not known for their scientific achievement," said Nyokong who hopes that the Award will enable her to "play an ambassadorial role", promoting science in Africa and the Arab states.

Professor of Medicinal Chemistry and Nanotechnology, Nyokong holds a DST/NRF South African Research Chair and is the Director of the DST-Mintek &

Nanotechnology Innovation Centre for Sensors at Rhodes. Nyokong is also recognised as one of the top three publishing scientists in South Africa.

(See story on page 34)

## AFRICA'S GIFT TO GLOBAL SCIENCE

#### By Gillian Rennie

The others are her awards. They're not ostentatiously displayed, but you can't help noticing them.

On the top shelf is a framed photograph of Tebello Nyokong receiving South Africa's highest honour, the Order of Mapangubwe, from former president Thabo Mbeki. On a lower shelf is a stack of flat boxes. They're covered in velveteen, navy blue or ruby red, and they fasten with those dinky little gold clasps. They look like boxes of heirloom teaspoons but a woman as down-toearth as Tebello Nyokong is unlikely to need silver cutlery in her office.

Right next to the collection of medals is a book: hard cover, of coffee table size and quality, beautiful portrait photographs on every left hand page. The book has been stood up so you can read its title as you enter the room: Ten Years of L'Oreal Unesco Women in Science Awards. The day after Rhodos sees Nyokong, she is flying to Paris to collect the eleventh L'Oreal Unesco Award for Women in Science for Africa-Arab States. This will make her a millionaire and an international pin-up star - specially styled photographs of her and the winners from other continents will adorn Paris airport and other public spaces around the world. This appeals to Nyokong's girlish sense of playful vanity (what a destiny for a simple girl from a rural country like Lesotho!) and we all including Nyokong - admire the styled shots of a glamorous scientist at work in her Rhodes lab.

But this prize means a lot more than publicity and a new hairdo to Nyokong, and it's a whole lot more serious – for her, for her university and for science.

"The committee that selects this award consists of Nobel prize winners so it's a big honour for me. No doubt about it. Sometimes you begin to get awards because you've got awards. But this award is based purely on academic excellence – they didn't even know I had the other awards."

Dr Peter Clayton, Deputy Vice-Chancellor: Research & Development,

----

corroborates: "Prof Nyokong was amongst the top three most productive and cited South African researchers across all disciplines in 2008. She literally oozes passion for science – doing it, teaching it, promoting it, financing it, and applying it. This adds hugely to the quality of our intellectual space."

"I never aim for awards," continues Nyokong, "and I've never known who nominates me. I just sit in this office doing my work. I'm a nuisance to the media because I'd rather do my work than talk to you. You see, I still have 20 students to supervise. I still have everyday life to do." This includes teaching first year students – this year about 400 of them. She doesn't have to, but she likes to. "I do not do my work for awards." For emphasis, she hits the table with her hand – once for every word.

The L'Oreal Unesco Awards are in their eleventh year – but Nyokong's award is the first in the Africa-Arab states to go to a physical scientist. Two South Africans have won this award before, but they are both in the biological sciences. For Nyokong, this recognition is another opportunity to show young people what's possible. "There are many young people in the biological sciences but they find physical science daunting. This could be a role model for them."

Nyokong speaks at high speed, not only because there's so much to say. Her self-imposed assignments are huge so she can't afford to waste any time. Talking fast and getting to the point are strategies that save precious minutes. "I can't do small talk," she says without apology, "I don't know how to." She talks only about what matters to her, and it's not awards.

"What I really enjoy is motivating young people, particularly from rural areas. There are serious problems with understanding education to this level. Families of people who are first-generation degree-goers don't understand – they think it's a waste of time, that boys must go and work, girls must go and get married. We need to break that mentality. There's nothing wrong with it but if we can get a few more role models, we can show there are other options."

In this, she is succeeding.

**Photos: Paul Greenway** 



Postgraduate students are always at work in Rhodes University's chemistry department. Every student *Rhodos* spoke to called their prof an "inspiration".

"You can't help feeling you want to get somewhere," said Gcineka Mbambisa while she cleaned test tubes. Lab mate Nolwazi Nombona, who comes from Mthatha, agrees: "Her winning these awards is a huge encouragement to us that anyone coming from the middle of nowhere can actually make a mark."

"She really wants us to reach our full potential," says Samson Khene, who recognises that his prof can see aptitude in her students when they can't.

"She pushes us so we can reach the potential she sees in us," said Wadzanai Chidawanyika. "You really have to work hard." And if you don't? Shooting a meaningful look, she says: "You don't want to do that." And so Nyokong builds her empire of role models.

Clayton points out that, in recent years, she has attracted students "from across the globe" who come to Rhodes specifically to work under her, and that her group's prolific research contributes substantially to the research outputs subsidy Rhodes receives from the Department of Education. For Nyokong, though, it's not just about the money. "It's important for young people to begin to realise that they can have an idea, put it into practice and it can become a reality. In Africa we tend to believe somebody else will develop, and we will be consumers of technology. I object to that. I object!" The professorial hand smacks the table. "We can develop. Ourselves! We can develop technology. Research in South Africa has been going in circles – you keep doing the research, but you don't quite get the products out."

Recognising this dilemma, the government has established the Technology Innovation Agency. "I'm going to tap into that," says Nyokong, who has already received "quite a number of millions" and is now the director of the DST-Mintek & Nanotechnology Innovation Centre for Sensors on the floor below her office.

"We're trying to find sensors that we can put in water to determine the pollutants in water. For instance, we kind of know now what causes oesophageal cancer in the rural areas. So we are developing sensors that can be immersed in water to be able to detect that. I can see that getting to the market faster." She means faster than the results of her other research, which is the use of light therapy in treating certain cancers (such as cancer of the oesophagus) and which has garnered her global recognition. "One end of my work is treatment, the other is prevention." But the treatment end is working its way through the myriad safety precautions and protocols of medical research – so the sensors, which are researched in impersonal mediums like blood and urine, can make faster progress.

In addition to such ground-breaking work, and the inspiration of role-models, and the re-education of the world regarding innovation in Africa, Tebello Nyokong is also writing a book. "I feel the need to put down how people have shaped me, and every time I write I feel really healed. Because there were lots of issues I didn't like – things I still don't like. It's going to be fun – you're going to love reading it!"

Following the global recognition of her latest award, what more is there for Nyokong to achieve? Uncharacteristically, the answer is almost a whisper. "What about the Nobel Prize?" Then, in an instant, she's back in character with a brief torrent of laughter. "I'm just joking!" While she laughs warmly at her own joke, I scan the shelves. Scientists don't win awards of this calibre and in this quantity by joking around. I think Tebello Nyokong is serious.