

Lifetime award for top scientist

By <u>Lucille Davie</u> 30 Aug 2013

Her father had often told her: "You can do anything. Don't ever stop." It was a lesson well learnt - today Prof Tebello Nyokong is one of South Africa's top scientists in the fields of chemistry and nanotechnology. She's just received the National Research Foundation's (NRF's) lifetime achievement award, the latest in a long list of accolades earned over her illustrious academic career.



"What gave me strength, I was fortunate, was my father. Simple. And constantly, my father said: 'You can do anything. Don't ever stop.' So coming from your father, it's very important," she said in a letter to her 18-year-old self.

She is currently a Distinguished Professor of Chemistry at Rhodes University, a holder of the DST-NRF Research Chair in Medicinal Chemistry and Nanotechnology, as well as director of the DST-Mintek Nanotechnology Innovation Centre focusing on sensors.

She received the award at the ceremony in Port Elizabeth on Tuesday, 27 August. "Very honoured. I am very happy for myself and my students. Lovely," she said of the award. It means that she will get more recognition and that's always good for funding assistance.

"We are privileged to have an academic and scientist of Prof Nyokong's stature in our National System of Innovation. She is an exceptional role model and her outstanding work in training the next generation of chemists, especially women chemists, contributes to ensuring that our country remains at the cutting edge of scientific development," said science and technology minister Derek Hanekom. "The many accolades that she has received are testimony to the fact that she is a world-class scientist, with whom we are proud to be associated."

She is presently engaged in pioneering research into photodynamic therapy for cancer treatment, and has a grant from the Council for Scientific and Industrial Research.

"If anyone has had the privilege of having known and worked with Prof Nyokong, as I have, one will know that she is a passionate and tireless researcher and mentor. Her peers view her as a champion and leader in field of research," said NRF CEO, Dr Albert van Jaarsveld. "In all these years of her involvement in research, academia and science she has been, and remains, one of the brightest jewels that this continent has produced."

Nyokong has dedicated her career, both locally and internationally, to not only advancing the frontiers of scientific research but she's also served as a role model for women and previously disadvantaged people in science.

Through her international collaborations with counterparts around the world, she has contributed greatly to enhancing the reputation of South African and African science. Many international scientists have come to South Africa to visit her laboratory at Rhodes University where she has hosted numerous post-doctoral candidates from around the world.

Born in Maseru

Born in Maseru in Lesotho, Nyokong obtained her BSc in Chemistry and Biology as well as a Certificate in Education from the University of Lesotho in 1977. She completed her master's degree at McMaster University and her PhD in Chemistry at the University of Western Ontario in Canada, where she also worked as a teaching assistant. She received a Fulbright fellowship for postdoctoral study at the University of Notre Dame in the US.

Her work has put her in the "forefront of developments important for the effective treatment of cancer through her contributions in photodynamic therapy and has contributed to the fabrication of molecular sensors for various environmentally, biologically and medically important applications", according to the Department of Science and Technology.

She has registered a patent and published or co-published eight books and book chapters. She has authored and coauthored more than 430 articles in peer-reviewed journals such as the New Journal of Chemistry, Polyhedron, and the Journal of Physical Chemistry.

In 2007 Nyokong was recognised by the NRF as one of the top three publishing scientists in the country. She has also served as editor of the African Journal of Pure and Applied Chemistry as well as on the editorial boards of the International Journal of Electrochemical Science, and Scientific World Journal.

Awards

Nyokong's long list of awards includes the 2009 L'Oreal-Unesco Award for Women in Science representing Africa and the Arab States; the Royal Society in Chemistry and Pan African Chemistry Network Distinguished Women in Chemistry award; the South African Chemical Institute's Gold Medal; and the World Academy of Science Medal for 2013 for outstanding contribution to science and technology, which will be presented to her in Argentina this year.

In 2005 she was awarded the Order of Mapungubwe in bronze, by then President Thabo Mbeki. She has been awarded a prestigious adjunct professorship by the University of Tromso in Norway.

She has also received a number of honorary doctorates in science and is a Fellow of the Royal Society of Chemistry and the World Academy of Science, as well as a member of the Academy of Science of South Africa. In 2012, she was included in the exhibition of the National Center for Research on Human Evolution in Spain, as one of 12 Names Likely to Change the World.

In science two parameters are important in judging the significance and influence of any scientist's work: publications and citations, or references to their work. Nyokong has 310 publications, and 1 179 citations, according to specialised search engine Microsoft Academic Search. Between 1993 and 2012 she collaborated with 214 co-authors.

Nurturing young women students

She invests hugely in her students, particularly women. She has supervised 73 masters, doctoral and post-doctoral students, and is currently supervising another 25.

"She exudes passion for science - doing science, teaching science, promoting science, financing science, applying science, and contributing to national and international policy and strategy to foster and grow scientific research in developing countries," indicated the department. "Most particularly, Prof Nyokong is passionate about passing on knowledge. Her students are her life, as is evidenced by her many graduates currently carving their own careers across the globe."

"I just love them," she said. And the feeling is clearly mutual. One of her master's students described her as "a caring woman who really takes the time to get to know each student and their projects".

She unassumingly attributes her success to her students but they say, "She is so modest. That's just part of who she is. None of us would be here without her."

NRF award

The NRF Lifetime Achiever award honours a deserving South African who is considered to have made outstanding or extraordinary contributions of an international standard and impact, to the development of science in and for South Africa over an extended period of time.

It is awarded to South African citizens, generally above 60 years of age, who must have made a contribution to the lives of their compatriots through work and achievements that can be categorised as being "significant, recognisably developmental, beneficial and have made significant impact".

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