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## UNIZULU PUTS NEW INDIGENOUS BISCUIT ON THE MENU

*Pictured left:* The *imbuya* savoury biscuit is a delicious, healthy product which can also be served with a soup.

*Pictured right:* The Consumer Department at UNIZULU is intent on promoting the incorporation of indigenous foods such as *imbuya* (a spinach-like vegetable) into modern-day diets.

University of Zululand researchers from the Department of Consumer Sciences served up a tasty biscuit made from the amaranthus plant (a spinach-like vegetable known to rural people as *imbuya*) to the Minister of Science and Technology, Naledi Pandor, during the Department of Science and Technology (DST) Innovation Bridge Portal which was held mid-September 2017 in Pretoria.

The Innovation Bridge Portal is an extension of DST's Innovation Bridge Technology Showcase and Matchmaking aimed at enabling linkages and networking between South African and international innovators, industry, public and private technology development as well as commercialisation funding partners. The portal was initiated to serve as a platform to encourage greater interaction between industry, academia and government.

According to Professor Unathi Kolanisi, the Head of Consumer Sciences Department, the savoury *imbuya* biscuit will address two critical issues in South Africa - the need to combat malnutrition as well as improve food security and the creation of business opportunities within the food and fast moving consumer goods sectors.

The prototype biscuit has a pleasant taste and is low in salt and sugar. It is also high in protein, iron and other trace minerals.

"With funding from KZN Tech Transfer, we have developed this new foodstuff using indigenous maize with added indigenous vegetables for nutrition. *Imbuya* grows in the wild in Zululand. We used to eat it in the olden days, but the younger generation has moved away from this. We are trying to bring back these 'old-fashioned' plants and make them useful to the modern world. These indigenous foods are highly nutritious. They are easy to grow and they are drought resistant," Prof Kolanisi explained.

Professor Kolanisi is passionate about the development of indigenous food and believes that the creation of this product fits in with the University ethos.

"The University of Zululand is a truly African University. It is situated in a province with a largely rural population. Our studies and research must reflect the reality of the life that our students come from which is largely poor and rural. So, the development of local, indigenous foods helps these local, rural students go back to their communities and add value," she said.

Prof Kolanisi clarified that, in returning, quite literally, to the roots of traditional foodstuffs, the motivation is not an attempt to turn back the clock but rather an endeavour to take the best of the past and add it to the future.

Because the long term goal is to create an indigenous product with similar commercial potential to rooibos tea and biltong, Professor Kolanisi's department is looking for a commercial partner who can help develop this product for mainstream retail.

"We are cultivating investors who can fund a production facility right here on the KwaDlangezwa Campus. We will then produce these products commercially," she noted.

The proposed processing plant will enable the University to not only develop and market new food products but to also produce and process them.

The Consumer Sciences Department is currently conducting research on a number of products made from indigenous foods. The department is looking at dairy based products that can transform rural dairy farming.

by Gcina Nhleko

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**Gcina Nhleko**  
Director: Communications  
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## EDITOR'S NOTE

The year in focus is closely approaching an end and it was a spectacle to watch as we are all participants in the journey of life. There were many experiences and lessons that were learnt which broadened our horizons and our understanding scope.

As we are fast approaching the holiday season, I would like to wish all the students a rewarding and focused examination period ahead. We hope you will progress to the next level of your academic career path and those who are in their final year of their studies are now gearing up to enter the workplace environment where they will demonstrate gradueness attributes that the University is reputable for.

We are delighted that the newly inaugurated SRC is now in place at the University. The Student Representative Council (SRC) is the highest decision-making structure of student governance. It represents all students at UNIZULU, and their overall interest

and social well-being in university committees. It is highly involved in policy-making and co-operative decision-making on campus. The duties, functions, privileges and term of office are set out in the SRC Constitution and election by-laws approved by Council as institutional rules.

The SRC is a very important stakeholder within UNIZULU, as there is no decision that can be taken without the student voice. The notion of co-operative governance is embraced by the institution through these processes.

On National Frontiers the University has been granted an opportunity of hosting the prestigious Beyers Naudé Memorial Lecture. We hail him as an icon for democracy. Naudé is widely praised for his role in the dismantling of apartheid, as a fighter for human rights, prophet and humane pastor to all who suffered under apartheid. He also played a significant role in the development of the ecumenical movement in South Africa.

## CAMPUS NEWS

### Final-Year Education Students Reminded About Essence of Their Profession

Final-year Bachelor of Education (B.Ed) students in the Faculty of Education at the University of Zululand (UNIZULU) were reminded about the core values of the teaching profession during their farewell function recently held at the King Bhekuzulu hall, KwaDlangezwa Campus.

During his address, Siyathokoza Mchunu, UNIZULU Convocation Deputy President, dwelled on the topic of proper conduct in the teaching field, urging students to be ethical and exemplary at all times.

"South Africa needs teachers who comply with the policy of the country and understand what being a teacher means," said Mchunu, adding that educators are also required to assume a parental role at schools.

Mchunu raised concerns around a report released by Statistics South Africa during May this year (2017) which stated that teenage pregnancy was on the rise. Mchunu said he was gravely disappointed by such news as it also tainted the image of teachers.

"I urge you to respect your work," Mchunu told the students. "As a teacher, you cannot be drunk at work. You must not date learners



*Siyathokoza Mchunu, UNIZULU Convocation Deputy President, during his address at the farewell function recently held for final-year Bachelor of Education students at the University.*

and please say no to corporal punishment," he said.

Sizwe Zwane, UNIZULU Convocation Secretary General, commended the students for their continued dedication to their studies. "As Convocation, we congratulate you for making it this far. Some students did not manage to finish their qualifications due to a number of obstructions. We wish you all the best and are urging you to join the pool of esteemed alumni in the University," he said, while further encouraging students to continue studying after their junior degree. He also reminded the students that "good teachers need to constantly study in order to stay relevant in their field".

Philani Skosana, one of the final-year students, thanked Faculty of Education for the event and its work in producing future teachers. "We learnt so much from the various speakers who encouraged us to rise above all circumstances in the workplace and teach from the heart. I am very happy to be part of the class of 2017," said Skosana.

*by Sphamandla Gumede*

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## CAMPUS NEWS

### Esteemed Educator Shares His Knowledge on New Science

For over a millennium, human beings have observed and accepted the physical world as is.

However, with the expansion of scientific exploration, humanity's perspective on the environment has gradually shifted and scientific scrutiny has changed our world forever due to the emergence of Nanotechnology research.

Nanotechnology is the manipulation of matter on an atomic, molecular and super-molecular scale for the fabrication of macro-scale products. This process is also referred to as molecular technology.

Nanotechnology dates back to ancient India where its use and application was found in the Woots Steel microstructure. The concept of Nanotechnology was first introduced during a public lecture by well-known Physicist, Richard Feynman, in December 1959. The limitations of adequate scientific tools (in the 1959 period), restricted Feynman in proving his theory. However, decades later and inspired by Prof Feynman, Noble Prize Laureate, K. Eric Drexler established Nanotechnology science as a non-random application.

The importance of this science is due to the size or property of its minute matter which can only be measured using a nanometer scale. For instance, the nanometer scale is used to measure the diameters of a strand of DNA and the length of bacteria. Hence, Nanotechnology scientists require superb technical skills in order to transform matter.

Leading UNIZULU into the future is the Department of Chemistry with Professor Neerish Revaprasadu at the helm. The department has been at the forefront of Nanotechnology science in South Africa. Prof Revaprasadu mentors and supervises a team of dedicated young researchers with a specific focus on the synthesis of semiconductor nanoparticles. Prof Revaprasadu established this research team shortly after completing his PhD.

"On the path to completing my PhD, I was fortunate to have met inspiring educators; the then head of Chemistry Professor Mac Zulu and Royal Society funded UK academic Professor Paul O'Brien, who went to great lengths to ensure that I succeeded in my studies. I realised that I wanted to emulate them and be the kind of educator that they were to me, hence the creation of this research group," said Prof Revaprasadu.

Since 2000, Prof Revaprasadu and his team have done extensive work on the synthesis of nanoparticles such as CdS, CdSe, gold, silver and a range of earth abundant materials using various synthesis techniques. For the past 17 years, the research team has developed and patented various nanomaterials used to counter health problems, erase water pollution and in increasing the efficiency of solar cell research.

"Through the selfless dedication of team work, we've been able to conduct incredible research with equally incredible research findings. We've made breakthroughs from studying the fundamental properties nanomaterials, to developing applications in drug delivery



From left: Sandile Khoza, Research Assistant; Dr Joseph Adekoya, Postdoctoral student from Nigeria; Dr Paul McNaughtner, Postdoctoral student from the United Kingdom; Prof Neerish Revaprasadu, SARChI Chair and Malik Khan, PhD Student under Prof Revaprasadu's supervision

and renewable solar energy. It's a constant learning environment because we are discovering new benefits of nanomaterials," said Prof Revaprasadu.

Although the development of this science is extremely beneficial to human life, there is a debate regarding the risks versus the benefits. Activists, in particular, believe that the development of Nanotechnology science is too fast and governmental bodies will struggle to devise appropriate policies. Scientists on the other hand believe that Nanotechnology will bring about an era of tremendous wealth.

Amidst all this speculation of risks and benefits, the department is however busy working towards changing the world for the better using Nanotechnology. The department has collaborations with various institutions in parts of Africa, Asia and the United Kingdom (UK).

"We use an open source system where we share collaborated input. This is a new science (but) there is still a great deal of research that we have not tapped into. Thus research is not static. I'm fortunate to have found such dedicated young researchers to mentor. They are constantly hungry to discover and prove their own theories," said Prof Revaprasadu.

Prof Revaprasadu joined UNIZULU as a Senior Laboratory Assistant in 1996. A year later, he accepted joint support from the National Research Foundation (NRF) and Royal Society Scholarship to complete his PhD in the field of Nanomaterials Synthesis under the supervision of Prof O'Brien at Imperial College in London. Currently, Prof Revaprasadu is a South African Research Chairs Initiative (SARChI) Professor of Nanotechnology which is a prestigious programme funded by the NRF. Through extensive work, his research team has published over 160 research papers in Nanotechnology. UNIZULU acknowledged his achievements by awarding him the Most Productive Researcher Award in 2016.

by Hlumelo Nyikana

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## CAMPUS NEWS

### Contributing to Students' Academic Success Through Inaugural Writing Competition



The top ten winners of the first ever UNIZULU Writing Competition. Also pictured is Dr Gift Mheta (fourth from left on the back row), DUT Writing Centre Co-ordinator who was the keynote speaker at the competition as well as Jeffrey Mkhize who is the Co-ordinator of the UNIZULU Writing Centre.

This week, the University of Zululand (UNIZULU) held its first ever Writing Competition; in the process positively contributing to the academic endeavours and success of the University.

The Writing Competition, which was held on Wednesday, 27 September 2017, was organised and hosted by the UNIZULU Writing Centre which is housed within the Teaching and Learning Department.

The main aim of the Competition was to instil the importance of reading and writing into the consciousness of students; not only within their academic disciplines, but beyond those parameters. In total, the Competition had 21 contestants. Most contestants wrote about their life experiences.

Sazi Nzama, Zoology Master's student from the Faculty of Science and Agriculture was crowned the overall winner of the Competition.

Dr Gift Mheta, the Co-ordinator of the Writing Centre at the Durban University of Technology (DUT), was the keynote speaker at the event. Dr Mheta – who has vast experience in creative writing – spoke about how important the Competition is as it resonates with one of UNIZULU's goals which is the production of well-rounded graduates.

"Continue nurturing your passion for creative writing. It will take you places. Keep writing. You might be tomorrow's Zakes

Mda, Dudu Busani, Chinua Achebe or William Shakespeare. The advantages of reading and writing outside (academic and professional) disciplines are endless. As such, I would like to encourage you to keep on reading and writing extensively. That is your key to success," urged Dr Mheta.

He added that he hopes to see the UNIZULU Writing Competition grow "in leaps and bounds" and become an annual event. "It is an important initiative as it promotes reading and writing outside disciplines. It encourages reading and writing for amusement. Research has shown that students who read and write for amusement usually perform better in their academic studies than those who do not as they have a solid reading culture that is much needed for academic success," said Dr Mheta.

With this competition, UNIZULU hopes to revitalise an interest in reading and hidden writing potential. Through creative writing, students can share their life experiences with the rest of the University community by also using languages with which they feel comfortable and confident.

Dr Aghogho Akpome, one of the judges and English Lecturer at UNIZULU, was impressed by the performance of all participants; encouraging "everyone to understand that writing as a process".

by Precious Shamase



## CAMPUS NEWS

### UNIZULU Celebrates Heritage Day

South Africa is one of the most beautiful and culturally diverse countries in the world, and one way that the country's citizens showcase this beauty and diversity is through Heritage Day.

Heritage Day- a South African public holiday- is a day in which all citizens are encouraged to celebrate their cultural traditions in the wider context of the great diversity of cultures, beliefs and traditions that make up the nation (of South Africa). The day is commemorated annually on 24 September.

As with any other public holiday or day of commemoration, Heritage Day this year (2017) falling on a Sunday prompted South Africans into early celebration mode; many being spotted proudly adorned in traditional attire on Friday, 22 September 2017. This was no different for the



Some of the UNIZULU community members wearing their traditional attire in pre-celebration of Heritage Day which was commemorated on Sunday, 24 September 2017.

UNIZULU community with staff and students also seen in their tradition gear in celebration of their respective heritage and cultures.

"Heritage Day reminds us to celebrate our country as a rainbow nation with regards to just how diverse we are as a people and nation," said Jabu Ngema, a staff member in the University's Finance Department. "This also helps us as colleagues by building a spirit of togetherness. The day also reminds us about our roots; that we must appreciate where we are coming from. In order to know where you are going, you must know where you are coming from," said Ngema.

"I must say that everyone looks beautiful. Rainbow nation indeed," said another UNIZULU staff member, Ronnel Hatting

by Precious Shamase

### Staff Honoured During Secretaries Day

In celebration of Secretaries Day, the University of Zululand recently hosted a festive event for staff members who render secretarial services at the University.

The staff members who were being honoured on the day received purses as a token of appreciation for their hard work in helping the institution deliver on its mandate of providing quality teaching and learning.

"I feel honoured that the University recognises the effort I put in the running of the office that I work for which includes specified duties and unspecified tasks," said Bongivi Mkhwanazi, Secretary to the Human Resources Executive Director. "I always look forward to coming to work every day as I manage the office of the HR Executive Director by providing support in order for him to meet his daily objectives as well as ensuring the efficient running of the office and the meeting of deadlines," added Mkhwanazi.



Some of the happy staff members who were being celebrated during Secretaries Day at the University of Zululand.

Indrani Naidoo, Library Senior Secretary, said Secretaries Day is a wonderful gesture because secretaries must be knowledgeable about their work environment as well their line of work in all industries. "You have to multitask thus ensuring efficiency and professionalism. It's great to know that we are appreciated by this wonderful token. The institution has always shown its appreciation by making us feel special on this day," said Naidoo.

Sibongile Mhlongo, Secretary to the Dean of Education, was also grateful that her efforts of hard work were being recognised on the day. Mhlongo's highlight of the day was the message from Professor Xoliswa Mtose, the Vice-Chancellor, wishing all secretaries a good day. "That made me feel extra special. Behind every great executive is an even greater secretary making sure that everything runs according to plan behind the scenes," said Mhlongo.

by Precious Shamase