



**Prof. Perpetua Modjadji -
The makings of
an Academic Scholar**

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Professor Perpetua Modjadji - The makings of an Academic Scholar

Barely long after being promoted to an associate Professor of Public Health, Prof Perpetua (SEP) Modjadji was awarded Vice-Chancellor's (VC) Best Established Researcher, in the School of Health Care Sciences, for which she received a whopping R10 000. She is also a Grant Holder for Medical Research Council (SAMRC) Research Capacity Development Initiative (RCDI), at SMU.

Prof Modjadji commenced her lecturing career at the University of Limpopo (UL). By 2015, she was a senior lecturer and a Head of Department with a PhD (Medical Sciences) obtained in 2009, and had some publications to her credit. She views being a member of the UL Research team that championed Research and Community Engagement for almost two decades, as a privilege.

Modjadji joined SMU (School of Health Care Sciences) in January 2016, and her 5-year plan evidently bore fruit as she had exceeded her own expectations by moving from a lectureship to an Associate Professor in a period of 5 years. In the process, she obtained a second Doctorate in Public Health (2019) and she is now an established Researcher. She has graduated a significant number of Postgraduate students and is still supervising several Doctoral and Masters Students. Additionally, she had contributed quite a few papers in credible international journals with good impact factor, and has over 300 citations on google scholar.

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Her recent promotion to Associate Professor and the award is spurring her to press on. She believes there is no ceiling to achievements in Academia. Next on her list is to become a National Research Foundation (NRF) rated Scientist and a Research Chair in Public Health Nutrition and Non-Communicable Diseases. Currently, she is a local grant holder, looking forward to obtaining international research grants, which will enable her to collaborate with peers beyond the borders of South Africa and Africa.

The SAMRC-RCDI grant seeks to provide funding researcher opportunities at universities and research institutions previously constrained by inadequate access to resources. The grant contributes and assists in accelerating the building of research capacity and scientific leadership (develop research teams) in promising early and mid-stage level academics. She has been awarded R900 000, split into R300 000 per year for the next 3 years (2021-2023).

The SAMRC-RCDI grant will be utilised to conduct a study on “Nutritional status and inflammatory markers among adolescent boys using substance in townships of South Africa; a national study. She will serve as the Principal Investigator (PI) for the study working with Professor Kebogile Mokwena, who is a DSI-NRF SA Research Chair (SARChI) in Substance Abuse and Population Mental Health, and other collaborators. The project presents opportunities for community engagement activities in the area of substance abuse. She has also been nominated by Prof Peter Mbatlali, the Vice-Chancellor, to represent SMU on the City of Tshwane Local Drug Action Committee (LDAC).

Prof Modjadji has also received a Research Development Grant: SEED funding, R200 000 for 2021/2022 from SMU. The

research project is on “The impact of Covid-19 on households' food security, nutritional and socioeconomic statuses in rural Limpopo Province”. This is in collaboration with Professor Eric Maimela from the University of Limpopo. She regards collaboration as another way to engage the community on possible improvements necessary for better living standards in terms of food security in the present and post Covid-19 era.

One of the requirements in these grants is collaboration with colleagues from other resource-constrained institutions. Two Doctoral Candidates and two Masters Students will participate in the two projects through co-supervision model. These grants will contribute to postgraduate through-put and research output, and in the process capacitate colleagues involved in the projects. Her role as a PI provides opportunities for capacity development in terms of appointing Research Assistants, who will assist with fieldwork, while she is engaging in teaching and learning. No doubt, these commitments place demands on her, however, she is confident that through planning and time management she will succeed.

“Fortune favours the brave. First, it is imperative to develop the leader in you. Second, identify and establish a research niche in your field of training, relevant to the current health/social issues in the country. Third, find an established Researcher active in a related niche, to carry you along, and teach you few things in Academia. Never stop learning, because Academia never stops teaching. Fourth, collaboration is key, as well as, publishing in credible journals with good impact factor. Finally, you can only become what you think you are”, said Prof Modjadji.



Dr Thabsile Thabethe – Physics Expert

Dr Thabsile Thabethe is a Y2 NRF rated Physics lecturer and a researcher at the University of Pretoria. Her research field is in nuclear material for nuclear safety application and biomimetic material for medical application. SMU is her alma mater, and the Alumni Newsletter Reporter spoke to her to find out more about her journey in Physics and how this can inspire others.

Tell us about yourself?

I am a lecturer at the University of Pretoria and I supervise physics postgraduate students. My research interest is in nuclear material for

nuclear safety application, and biomimetic material for medical application. I completed my undergraduate degree in Material Science and Honours degree in Physics from SMU (previously known as MEDUNSA in 2011). Thereafter, I pursued a Master's degree in Physics at the University of Pretoria and completed it in 2013. I continued with a PhD in Physics (Materials Sciences/Nuclear materials) at the University of Pretoria, which I completed in 2017 and graduated in 2018. I continued with a postdoctoral fellow at the University of Pretoria. During my third and honours level, I worked as a tutor (maths, physics, biophysics and chemistry) and a demonstrator (laboratory assistance in physics) for the first-year students. In addition, throughout the course of my postgraduate studies and postdoctoral fellowship, I worked as an instructor, laboratory assistant and tutor with the first and second year physics students at the Department of Physics, University of Pretoria. I have also gained more than six years of teaching experience at undergraduate level as part time lecturer for first-year physics courses from 2013 to 2019.

As a postdoctoral fellow, I conducted research that entailed reading (searching for literature reviews), developing research ideas, being able to work with different researchers/ students, carrying out experiments and writing reports that would elucidate the results. I also assisted postgraduate students (MSc and PhD students) in my research group with their respective projects. In the past five years, I have been involved as a peer reviewer for several conferences and research journals. This includes the 7th global conference on materials science and engineering, the 2nd international conference on material strength and applied mechanics, the RSC advance, applied physics journal, etc. My productive collaborations include those with Dr Tshepo Ntsoane from the South African Nuclear Energy Corporation and internationally. I also have other collaborative projects with Dr Maltlab Mirzayev from (JINR and Institute of Radiation Problems in Azerbaijan) and Dr Saphina Biira from Busitema University in Uganda.

What persuaded you to study and become a Physics academic?

In my first year at the SMU (previously MEDUNSA), Khombo Dumela, an MSc student in Medical Physics, was my physics tutor and used to take a class of about 250 students for tutorials, and remarkably handle the whole session herself. I loved the way she made us solve tutorial problems by ourselves and encouraged us to do all the problems without depending on her. In my eyes, she was this exceptional young woman helping us with physics, the hardest subject known to man! This was incredible to me and I admired her intelligence. I told myself that one day I will be the one helping other students with physics just like her and make an impact on their lives. That influenced my decision in continuing with physics and becoming a lecturer. Dr Dolly Langa, Professor Thulani Hlatshwayo and Professor Johan Malherbe were the people who made me interested in research, specifically nuclear material research. I

was intrigued by the remarkable work they were doing and I wanted to be part of it.

Why do you have a special interest in Physics?

I simply love physics because it explains many of our daily lives phenomenon. It simply helps us understand the world around us, it challenges us to think beyond what the eyes can see, and makes us curious like toddlers trying to understand the world around them (makes us question everything around us).

What is innovative about your PhD research on the solid-state interaction between tungsten thin films and SiC?

My PhD thesis was titled, "The interfacial reaction and surface analysis of tungsten (W)-thin film on 6H-SiC annealed in vacuum, hydrogen and argon." In this project, I investigated the solid-state interaction, phase formation and surface morphology of W-SiC after annealing at different temperatures and different annealing atmospheres. This work contributed considerable findings in both semiconductor physics (contacts and diodes) and nuclear power plant studies (where tungsten is being considered as a coating for SiC. In nuclear application, the W-SiC will help to prevent the escape of fission products and reduce the interaction of fission products with SiC (thereby compromising its compatibility).

One of your research interests is early childhood development, how will you introduce science to kids without overburdening them?

Children are normally hands-on little beings and they are always curious. Doing small experiments using household stuff is always fun and it makes it easy for them to learn. Use the opportunity when bathing them, cooking, taking a walk, having a car ride, etc. to show them how science is all around us. Show them the daily application of science and maths in our everyday lives.

What has been the impact of your research studies?

My research has mostly has focused on metal-SiC composites which are used in the nuclear application, aerospace engineering and electronics (semiconductor physics). The composite is heat-treated, irradiated with swift heavy ions and irradiated with neutrons. The chemical and structural properties of the composites are investigated. This includes residual stress, which is one of the major factors, which contributes to device reliability. Properties such as hardness, adhesion, fracture toughness, etc. for deposited films (metal-SiC composites) are affected by residual stress. Thus, residual stress can lead to various film failures, including cracking and delamination. Residual stress is normally introduced by the thermally induced stress, stress resulting from film growth, externally applied and environmental stresses. Thus, part of my research has been focusing on studying is on the effect of Swift heavy ions and neutron irradiation on residual stress, structural changes and surface modifications. The data has allowed us to form a better understanding of the capabilities and limitations of the materials (meta-composites).

What are the highlights of your lecturing career?

When asked this question, Dr Thabethe animatedly said:

- Being able to help students realise the importance of physics and why it is important to do it when you want to pursue a medical career.
- Assisting students to challenge themselves, to take charge in their learning, helping students see the need to read the information (instructions, announcements, etc.), encouraging them to work in groups and be less dependent on the lecturer. She went on to say that: The first time I gave my students a project. In this project, students were expected to work in small groups (not exceeding five people), they had to design an experiment, which explains one of the topics we covered in class. They had to explain the concept and give an example of its application in our everyday lives. The most important part was, they had to use household stuff (available in everyone's house). After designing the experiment, they had to individually conduct it and write a report. I can say that the reports were mind-blowing. The answers that the students gave to the self-assessment survey about the whole experience made me proud. In short, the majority of the students realised that it is important to take a lead in their learning and the skills, which they mentioned that they learned were indeed what I had aimed for (hoped they would be able to identify).

What are the challenges you come across in your lecturing career?

- The 2020 online teaching presented me with some challenges; ranging from getting students to attend online classes, and participate in the online class. Furthermore, I had difficulties reaching out to them online and determining whether they understand the topics we are covering in class (virtual class) then. What I realized was, it was important for me to accept and adapt to the changes presented by Covid-19, and more importantly look for ways to make the online teaching work for both the students and myself. I had to change my approach and employ other means to get students to participate, which included (1) giving students preparation tasks for the upcoming lecture, (2) Running polls during the class session, (3) Creating a breakout session to allow students to have mini-group discussions during the live session while I monitored them, (4) Designing practicals that can be done at home using household materials, and (5) making summary videos (loading them in YouTube), which explains the important concepts.
- Trying to accommodate every student's learning needs. When preparing for a lecture I have to make sure I cater for all the students by incorporating different methods ranging

from the project, group discussions, preparation tasks, homework, making summary videos to which explains important concepts, etc.

- Meeting the expectations set by the University. Lecturing goes beyond the lecture room and assists students in their learning. As a lecturer, you are expected to meet the goals of the university and have to complete the administrative part of the work. Trying to manage my time to meet the needs of the students and the university and do research.

What are your professional goals in the next five to ten years?

I hope to start my research group. I hope that I become a professor and expand my research to the education stream.

How do you balance your time for research, lecturing and family commitments?

I plan my schedule ahead of time. I try to follow it as best as I can. I focus on research (doing experiments) in the first semester and in the second semester I focus on teaching. I also set boundaries for myself; not allowing myself to overwork and not leave time for my family and myself. I try not to compromise family time, unless it is an emergency.

Describe your teaching experience. How do you feel about teaching? What is your teaching philosophy?

- Tutoring, working as an assistant lecturer with experienced lecturers, attending short teaching and learning courses and taking students' feedback seriously, has made my teaching experience colourful. I have to acknowledge the students, I have learned a lot from them, and this includes patience, listening, and the fact that they constantly challenge me in class keeping me on my toes, making the whole teaching experience exciting.
- I can honestly say that I enjoy teaching, being able to train and equip students with skills needed to face the world after their university journey is great and stressful, but I love it.
- Teaching philosophy: I believe that everyone is capable of learning and when teaching, I try to incorporate different methods to accommodate everyone's needs (which is not always easy). My actual teaching approach is providing questions to students on the topic we are supposed to cover, allowing them to search for information, then seek answers from them and thereafter provide them with the correct answer and/or add to the answers they gave me, and further discuss the concepts with the students. I do this by providing students with lesson preparation tasks (contains questions for students about the chapter we are going to study), giving them tutorials, detailed problem solutions, guided group discussion (project and breakout sessions), practical observation and in-assessment videos.

SMU Medical Intern Graduate launches a cosmetic company



While for many just being a Medical practitioner alone is a huge responsibility, stressful and highly demanding, Dr Andile Molokomme is proving that with focus, diligence and discipline, one can literally have it all.

The 25-year-old medical intern graduated with the MBChB class of 2019 from SMU with a final year average of 70%, and prides herself in having put her absolute best in obtaining her degree in record time.

The young medical doctor has always been known for her versatility even before she got to medical school. On Campus she was an active member and leader of the BLW Campus Ministry fellowship, an MBChB mentor, Residence Chairperson in 2016, Editor of the ISM Magazine 2018, and CEO and founder of Phenomenal Young Persons, an NPO she registered while still on Campus with a group of other enthusiastic fellow students.

It is certainly no surprise that just two years into her internship she has launched her own beauty brand company: Andi Beauty. One may wonder and find it intriguing how a medical doctor found love for art/makeup to pursue as a business as is the case here. Dr Molokomme describes her journey as one inspired by a desire for more and to have impact.

“While on Campus a student, my bursary wasn't giving me enough money to cover all my expenses. At the time I didn't want to always be asking at home for them to send me money, as there were other children who also needed to be taken care

of. So, one of my fellow students introduced me to selling beauty products for a popular company in South Africa, but with time I left, inspired to start my own. Little did I know that the journey would take me four years”, says Dr Molokomme.

“As a first year medical intern I worked for so many hours, and at times, I felt it was a bit inhumane”, she adds. It was while serving for the second year as an intern that she pushed herself and felt that it was high time that she accelerated the pace to pursue and reach her other dreams and goals. She believed that if she can stay the whole night awake attending to patients, she can also stay awake to realize her other dreams.

“I used the money from my stock returns which my mom introduced me to expand the range of products the company was offering. From just five different lash styles to now liquid matte lipsticks, liquid eyeliners, eyeshadow palettes to name a few products”, recalled Dr Molokomme.

The optimistic young leader describes how the future is so bright on her side and calls upon every young person to fearlessly and voraciously go for their dreams. Her wish is to see each woman appreciating themselves just the way they are and using makeup as a gift and an art. and not a camouflage or mask.

“**Beautiful beyond limit**” is the slogan of her company and she can be reached online at andibeauty.co.za and social media platforms social media pages @andibeauty__ for both Instagram and Facebook.

SMU Alumnus Major General Simelane rises to the top at the South African Military Health Service



When Major General (Dr) M. Simelane joined the South African Military Health in 2000, he did not imagine himself reaching the level of Major General, even though he harboured ambitions to move up the ranks. Through hard work, dedication and patience, the unexpected happened, and he rose to the rank of Major General.

Major General Simelane joins illustrious company in the South African Military Health Services (SAMHS) who have studied and qualified at SMU such as Dr N Ndlovu who was the first from SMU to rise to the rank of Deputy Surgeon General in the SAMHS. Major General Simelane said he is very grateful to him for setting the example.

Major General Simelane took up his new position as the Chief Director Military Health Force Preparation with effect from 01 November 2021.

The significance of his promotion, in the military, is that he is given major responsibilities which he carries out with respect. His achievements and that of Dr Ndlovu, in

the SAMHS, makes him proud that SMU Alumni are movers and shakers who are setting the trend, in all spheres of life, in South Africa.

His is the top third position in the SAMHS and directly deals with health issues in the South African National Defence Force (SANDF). His new position as Chief Director Military Health Force Preparation, means he is in charge of all Directors of Health Care Professionals.

“For you to be strong, you must be weak, bearing in mind that while your failures do not define you as a person, they can determine your success,” said Simelane.

He is one of the critical components in SAMHS to contribute towards the realisation of the vision to have a healthy military community and combat ready forces.

Already SAMHS has a relationship with SMU. It has enrolled its recruits with the SMU for training in a variety of Health Care Professions. Major General Simelane also hopes not only to strengthen this relationship, but wants to develop it further to cover new areas of cooperation.

Pharmacy Graduate Receives Prestigious Award



SMU Master of Pharmacy student and Academic Intern, Mr Qiniso Zikhali, was recently conferred with the Annual Brian Seymour Award from the Pharmaceutical Society of South Africa (PSSA), KwaZulu-Natal coastal branch. The Branch initially established the award in 1967, in honour of the late Brian Seymour. He was exemplary as he served his profession of pharmacy at the highest levels, in both the PSSA and the then Pharmacy Board, while still at a relatively young age.

The prize is given annually to the best pharmacy student in the country who is currently doing an internship, and the criteria for selection includes academic excellence, leadership qualities, and involvement in local and national student affairs. Qiniso's prize consists of a brass pestle and mortar on a wooden plinth, accompanied by a cheque to the value of R15 000.

SMU Alumni Newsletter Reporter had a chat with Qiniso to get insight on how he managed to bag this amazing award.

As the recipient of the award recognising the best Pharmacy student in South Africa, how does it feel?

It is a humbling experience to be recognized at a national level, especially because a lot of the work I do is not out there in the public. It is also encouraging that hard work does pay off. I am still in disbelief. I am very grateful to the Pharmaceutical Society of South Africa and SMU School of Pharmacy, not leaving behind my family and friends who are my support structure.

Which pharmaceutical skills did you develop during your internship programme?

I developed a wide range of skills during my internship and that is largely due to how broad Radiopharmacy is. Radiolabelling peptides and working with Gallium-68 was one of my major highlights, because it has a short half-life so you need to be on your toes all the time. Operating a Radio-HPLC was also a big highlight for me. I think the internship prepared me for a role as a Radio Pharmacist and as a Researcher as well, because I had to prepare a mini dissertation based on my research work.

The criteria used to award you were academic excellence, leadership qualities and involvement in local & national student affairs. Kindly outline your responsibilities in terms of the criteria mentioned above.

During my undergraduate years, I was involved in many Pharmacy students' organizations and that is where I honed my leadership skills, and was involved in student affairs. I have served as a General Secretary of Sefako Makgatho University Association for Pharmacy Students (SMUAPS), the public initiatives officer for South African Pharmacy Students Federation (SAPSF) and served 2 terms in the International Pharmaceutical Students Federation African Regional Office (IPSF AfRO) in the Regional Relations and Regional Projects subcommittees. The School of Pharmacy played a huge role in me serving in all these structures, and I will forever be grateful. Currently, I am the representative for Pharmaceutical Sciences



interns. Academically I was also performing well, thanks to my friends and my lecturers who always made sure I do not lose track of my academics. I believe a huge part of my academic excellence was due to assisting other students; I would always strive to understand difficult concepts so I could simplify them for the person next to me. That was exciting and fulfilling to me. That is partly the reason I chose Radiopharmacy.

What are your plans after completing your internship and Master's Program in Radiopharmacy?

Next year I will be doing community service back home in KZN, then afterwards I will be ready for a role as a Radio Pharmacist either within a hospital setting or pharmaceutical industry. Because teaching is my passion, I will continue to be involved in academia. The big plan is also to serve on the Pharmacy Board because I want to help the profession grow. I will also continue with research because I realised the need for Radiopharmacy related research, especially for infectious diseases and cancer. It is not an easy task, but we shall dare to fight these diseases.

How do you keep your knowledge up-to-date with current pharmacy trends and new drugs?

One of the characteristics of an 8-star pharmacist is being a lifelong learner. Being involved in research keeps you updated because you read many articles, especially current articles. You are always on the lookout for new trends. Furthermore, attending webinars and conferences, because new trends are normally discussed there.

How do you educate patients in managing their medication?

Patient counselling forms an essential part of the dispensing process. As a pharmacist, I must ensure that the patients understand the medicines they are taking, how to take them and why they need to take them the way they are directed. Developing patient-pharmacist trust is key in achieving this. This involves understanding the patients' background and ensuring

that they understand the conditions that they might be suffering from. We empower patients to take an active role in decisions relating to their health. If they take ownership of their health choices, they are more likely to lead a healthy lifestyle because it is not always about medicines.

What would you do if a consultant or GP does not want to change a medicine you believe is not appropriate for a particular patient?

It is always a challenge to come across such. Fortunately, it is something that rarely occurs in my case. Since we practice evidence-based medicine, the best way is to provide scientific evidence that backs your claim. Most GPs or consultants trust Pharmacists because they know the role of a Pharmacist in providing health care for patients. Unfortunately, there is still a significant amount of General Practitioners who believe their word is final. As a pharmacist, I took an oath *“to devote myself to the well-being of humanity and the relief of suffering”*, therefore I ensure that the patient gets optimal care, even if that means referring a patient to another health professional. Honestly, it is an open secret that the relationship between Doctors and Pharmacists is not pleasant in some cases, especially in hospital settings. Perhaps the Interprofessional Education and Collaborative Practice (IPECP) can help bridge this gap. Regrettably, the patients suffer the consequences of this fractured relationship. I hope that the new generation of health professionals will end this.

How would your friends describe you?

Supportive, hardworking, dedicated, multifaceted and goal-oriented. That is how I think they would describe me because that is what they usually say. I am an open and honest person so if they are seeking advice, I am always objective. I am also ambitious but I do the work too, I do not just daydream.

If you were a drug, what drug would you be and why?

Methylphenidate because I am such a focused person and to me little details matter. My former classmates used to call me walking GPP because I do things by the book. Since methylphenidate is a schedule 6 medicine it is strictly regulated and the way it is stored and prescribed is not similar to other scheduled substance. It makes me choose it because I like dealing with complexities, it is challenging and gives you room to grow.

How do you maintain excellent customer service when dealing with a high volume of patients?

Doing the basics right, is key when dealing with high volumes. Do the basics right and ensure that the patients feel empowered after consulting with you. It is never about pushing the line, but offering health care services. If you give excellent health care service, pharmaceutical care in my case, then the customer will be happy. It will be worth their time because they will get value for their money.

SMU Graduate Establishes a Special School



SMU Alumna Ms Christina Mahlangu established the Ntuthuko Stimulation Centre that caters for children with physical/cognitive impairments. The Centre accommodates any medical condition that affects child development. It was established in 2013 due to the lack of facilities in the area that accommodates such children. Ms Christina spoke to our reporter to tell us more about her career as a Physiotherapist and her passion for children with physical/cognitive impairments.

What convinced you to pursue a career in Physiotherapy?

Honestly speaking I was not sure what the difference was between Physiotherapy and General Orthopaedic until I attended an expo that touched a bit on it, and that is where I decided to go for Physio. I did not know what to expect but it got better and broader each year, and I still love it even today.

Why did you choose to pursue your physiotherapy studies at SMU?

SMU was more accessible for me and that is where I had a family relative that could assist me with accommodation. You can imagine this rural girl coming to Pretoria with no one like many other students do, but we still pull through.

As an Alumna of SMU, what do you like most about the University?

Well, SMU made my dream come true and changed my life completely. I will forever be grateful for the support and learning opportunities received at SMU.

What is your job description as a Students coordinator for both SMU and the University of Pretoria Paediatrics students?

As a student coordinator, a Physio colleague and I together with our supervisor, are the first line of communication between the University and the Physiotherapy department's

Clinicians. I assist with students' exam preparations in terms of identifying patients working closely with my colleagues, as we have different sections of assessments. I also form part of the team of examiners depending on the need. This is mostly with UP and for different training groups. At SMU I am with paediatrics only, but at UP it is all sections, not just paed.

With regard to my involvement at Ntuthuko, I am physically not there, but I do all the administrative support and exams preparations, but they receive all the support from the Centre Manager and their Lecturer that is there with them, on every visit.

To date, what are the highlights and challenges of your career?

The highlight of my career is that it is so much fun, and I get great satisfaction in fighting for the good quality of life of our patients. Seeing patients in their most acute and severe stages of illness making it through the rehabilitation phase, ensuring that patients recover and be reintegrated back to the community, is very humbling and fulfilling. The career itself encourages patients to be as independent as possible, irrespective of the limitations they are faced with after recovery.

With babies seen at birth watching them grow, thriving, reaching their developmental milestones through Physiotherapy, humbles my heart, especially those born prematurely

or who suffered hypoxic events early in life. I celebrate when patients cry because it opens their lungs and makes my work even more pleasant.

In terms of challenges, my work is demanding, and it is very physical with high expectations placed on it. However, sometimes working under pressure but having students around, makes things much lighter in terms of patient care.

In brief, how can you describe Ms Christinah Mahlangu?

I am a very humble down to earth woman, a leader, teacher, mentor and my work speaks for itself. Working at Steve Biko for 12 years has established me as a senior grade in production. I believe that my resilience and teachable spirit enabled me to adapt quickly to change and achieve excellence in every task undertaken. My expertise goes beyond paediatrics. I was recently invited to present to Gauteng Physios on the role of Physiotherapy in Covid-19 patients. My passion for paediatrics birthed the Ntuthuko Stimulation Centre, which is highly recognised by the Department of Education and Department of Social Development of Gauteng. I am a leader that lives up to the saying "we learn by doing". I try to set an example to those around me and encourage my team to serve with excellence.

Growing Up: Where were you born and bred? Take us through your life journey.

I was born and bred in Monsterlus, a place called Thabaleboto near Groblersdal. I had a beautiful rural upbringing, raised by my grandmother and older cousins, while my mom was working in Johannesburg. I attended primary school not far from home and could walk back home during lunch break to drink water, as there were no lunch boxes in those days. I completely enjoyed rural life because that was the only one I knew, and I still find it refreshing when I go home for a visit. We were expected to go fetch water and carry 10 -20 litres of water, make a fire and sometimes even cook pap before we go to school. On some days, we would even use cold water to bathe and it was normal. In my high school, I had to walk a 15km single trip every day. Rural life built me into what I am today.

Kindly list all the awards you won during your Oath-Taking Ceremony?

- Best 3rd-year student in Clinicals
- Best student in ICU
- Best student in Research Projects

Which sub-departments do you manage at Steve Biko Academic Hospital?

I am currently in Neurology / Neurosurgery and Paediatrics.

Why is the Ntuthuko centreis not catering for teenagers. What happens to those who leave the centre when they reach the age of 12?

Unfortunately, we are still very young, taking baby steps and can only do so much at a time. It is our plan to increase the admission criteria age group. Secondly, teenagers need bigger spaces, something we do not have currently. We are working on

opening at least two classrooms that will accommodate the 12 years olds that are currently under our care. Currently, we assist parents to apply for their children at residential Centres. We are also trying to collaborate with the Department of education to assist us with placements, because some of the learners have been waiting for responses.

What challenges does the centre experience?

Ntuthuko's worst enemy is the lack of transport for the children. This is giving me sleepless nights for years now and it is so difficult to work with different transporters, some not reliable to parents, some are not even compliant with Covid-19 regulations putting our children at risk. Facility maintenance is a challenge but we are trying our utmost best to keep it as healthy and inviting as possible. Space is also a big challenge, I have a long waiting list and unfortunately I am not able to admit all the learners.

As you envisage accommodating 113 children, do you have a facility that can accommodate that number?

Not yet, but we are working on it, and any information that could help will be highly appreciated.

How do you educate, support, and empower families and the community as a whole regarding health, child development and disability-related issues? Kindly elaborate thoroughly.

In terms of family support, we discuss the medical conditions of their children, get their understanding and expectations. We guide them on the child's level of function and what can be improved through therapy. We teach them and reinforce the importance of compliance in terms of medication and therapy (OT, Physio or Speech).

We also reach out to communities and educate teachers and Caregivers in mainstream Early Childhood Development Centres about disability and assist on how to identify a child with delayed developmental milestones or low cognitive function, to promote early intervention. So far, I have covered ECD's around our area. In addition, we use opportunities of the health awareness calendar to share information with our community about such diseases as Down syndrome, Epilepsy awareness and Autism. We have social gatherings; we go out with our learners to parks, zoos, and resorts to interact with the outside world so that parents can learn to freely go out with their children without shame or regret. I had one Primary school that I worked very closely with. This involved teaching educators how to identify learners that might have neurological fallouts, or vision/hearing loss, ADHD, ADD that is mostly missed in schools. Once I screen the child, I then write a referral letter to the local clinic/hospital for further intervention. Most of them had positive outcomes.

What are your social media handles (both your personal and that of Ntuthuko).

Facebook: Roro Mahlangu

Facebook: Ntuthuko Stimulation Centre

Website: www.ntuthuko.org.za

A conversation with the Mathematics PhD candidate



Mr Anele "Howard" Bokodisa is a Pure Mathematics PhD candidate who has a special interest in Mathematical Optimization. SMU Alumni Reporter met with Howard to know more about his Mathematics career journey.

Tell us about yourself

Well, I just completed my Master's degree in Mathematics. I remain proactive by preparing and studying my new PhD material, as I wait for the results for my Master's degree. I am a student Lecturer at SMU and a last-born child in a family of six children.

What persuaded you to study for a career that involves Mathematics?

As you might know, it is not easy after completing a BSc degree and finding a nice and well-put-together career. Due to such circumstances, I decided to do a postgraduate degree in Mathematics and ever since, I have never looked back.

Why do you have a special interest in Optimization?

What is the best way of doing something? At a basic level, that is the Optimization problem, and while the field is broad, in my research, we concern ourselves with solving the Equilibrium Problem. It models many mathematical problems in applied sciences and economics. It is interesting to study this problem because of its applications in real life.

To date, what are the highlights of your career?

Starting and completing my Master's degree with two published papers in peer-reviewed journals despite Covid-19 and its challenges. I believe this is definitely something to celebrate. God is good!

What are the challenges that you come across in your career?

Covid-19 has turned our lives upside down. Some things are better when done in person instead of virtually. The transitioning from contact lessons to online lessons and doing most of our work virtually, was challenging. I started lecturing under these unfavourable conditions. However, look how far we have come now. We remained resilient and produced some positive results.

What are your future career prospects?

For now, I just want to focus on obtaining my PhD in pure Mathematics. I want to become a well-rounded academic and researcher so that I can be a contributing member of my School and society, at large. In addition, since I have never imagined myself to be where I am today, I leave the rest to God almighty to decide.

What advice can you share with our readers, more especially current students studying Bachelor of Science (BSc), regarding your career journey?

I would like to say to my fellow BSc students; I know the frustration that comes with being a student, especially a BSc student, I already know that you work hard and that you are strong and resilient, but put in extra work and pray to God to open a door for you. I meant literally PRAY! Talent, skill, and hard work can only take you so far, but it is God, through His Son Jesus Christ, who enables us.

Computer Science Graduate Joins FNB



Computer Science Graduate Joins FNB

SMU Bachelor of Science Computer Science graduate Ms Karabo Sikosana has been appointed as a graduate trainee software developer at First National Bank (FNB). She aspires to become a system analyst and a product house owner. SMU Alumni Reporter interviewed Karabo to get more insight on her career plans.

Tell us about yourself

I am a young woman who is full of ambition and have always been a hard worker, and at all times tries my level best to fulfil my goals. I have always told myself that I am going to varsity and will become something big from a very young

age. I always seek opportunities that will allow me to grow and make me better than I am today. One thing I have always admired about myself is that I am not afraid of change, and always remain open to it. Lastly, I am a woman who is always up for a challenge.

Tell us about SMU

Sefako Makgatho Health Sciences University is a University that is always looking after the best interest of its students. I love how the University places students' lives and education as a priority. Most of all, I admire how the students of SMU always come together to fight for their rights. SMU students take Gender-Based Violence (GBV) and their safety very seriously. So, this makes us better people. We are achievers and we fight for what is rightfully ours.

What influenced you to study for a career that involves Computer Science & Information Technology?

Honestly, besides the fact that second year Maths was very hectic, I researched computer science careers/jobs and I discovered that there is so much I can do with this degree than what I had anticipated. I will be open to different career options in several companies and different industries.

Why do you have a special interest in Computer Science & Information Technology?

I did not want to choose Computer Science as a major, I was more interested in Statistics & Mathematics, and programming was never my strong point. However, after the intense research I did, I found out you do so much more with a computer science degree. It is not always about writing codes; this degree is very broad and can open so many opportunities for you. You can be a system analyst, data engineer, test analyst, database administrator, data scientist, data modeller, IT support and so much more. There are a lot of opportunities open for us and most of all, this allows us to fit in a lot of companies and industries as well.

What is your job description as a Graduate Trainee at First National Bank in the Dynamic Decisioning Business Unit?

I am a graduate trainee software developer, so we deal with application software and we are responsible for the real-time decisions and events that take place, without the assistance of a human consultant. In non-technical language, we deal with the backend coding and processes that take place, for example, when someone wants to apply for a loan using the FNB banking App.

Why did you specifically decide to study at SMU?

Honestly, I never knew SMU existed until my mom mentioned it to me. In addition, just like most new students at SMU, I wanted to do a degree in the health sciences field. To my surprise, I discovered that there are different BSc

courses in various fields and immediately I was fascinated, and I am glad to have chosen Bsc.

To date, what are the highlights of your career?

Firstly, this is already my second job since I graduated so that is amazing to me. Also getting an offer at a company I have always wanted to work for is a blessing for me. Most importantly, being able to learn and develop new skills in the field I studied is very impressive. Finally, this gives me the opportunity to get solid experience, which will benefit me in my career.

What are the challenges that you come across in your career?

Being the only graduate in my team was quite challenging because I had no one to relate to, so it was a bit difficult trying to fit into the team. Nevertheless, as I said I like challenges, so eventually I had to find ways of coping.

What are your future career forecasts?

Well, I do not see myself as a software developer for long, I want to switch roles and that is what I like about my company, it allows you to make a career change and learn more. I am more interested in being a system analyst. Hopefully, I will become a product house owner as this will put me in charge of a subdivision. Ultimately, this may open doors for becoming an Executive one day and manage big teams. It is a five year plan I am hoping to achieve.

What advice can you share with current students studying Bachelor of Science (BSc), regarding your career journey?

Well first, I would like to emphasize that BSc is not a bridging course. An actual degree is a requirement in so many companies. I also advise students to continuously enhance their skills by doing online courses. It is also very important to update your CV and have a LinkedIn profile when you are job hunting. Moreover, I know applying for a job and going to countless interviews can be frustrating, but do not lose hope. In addition, there are so many jobs out there. All we need to do is do research and apply. Lastly, as students, we should help each other out and send each other job opportunities. I would also like to advise SMU to get in touch with companies that need people who are studying BSc so that students can get to find out what is expected of them. In addition, some companies are not aware that SMU offers BSc degrees so it is up to us to make them aware and put SMU BSc degrees on the map.

Makoma Khumalo did not give up on her dream to become a doctor



Dr Makoma Khumalo is an embodiment of perseverance. She made a vow to her mother back then that one day, she will become a Doctor. Makoma, who originally hails from Limpopo says hers was not an easy journey. After matriculating in 2008, she found herself back in Kwazulu Natal to improve her matric results in 2009. She was subsequently accepted at SMU to study a Diploma in Oral Hygiene in 2010 after improving her results.

Dr Khumalo saw an opportunity after completing her Diploma and applied to pursue the Bachelor of Dental Therapy (BDT). This allowed her to add just one year of study and completed the degree. She managed to get 4 distinctions for her degree and received an award from Sanlam. She graduated in 2012. This was still not enough though to make her a doctor as she aspired.

In 2013, she went to look for employment and worked with dentists in private practice as a dental therapist. She never lost sight of her end goal even as she was working and running the practice for the other doctor.

In 2017, she took a decision to once more have a go at her ambition of becoming a doctor. She dropped everything and decided to come back to SMU and further pursue her dream by enrolling for a Bachelor of Dental Surgery (BDS). At this stage, she had to part with amongst others; a paying job, a house, and some other things to become a full time student - nothing was to stop her from realizing her dream. "What made things difficult for me at the time was leaving every-thing I had, a comfortable lifestyle, a salary and come back to live at the University residences. The thought of relying on my parents for pocket money again and other essentials when I was sort of independent was very difficult, nevertheless I went ahead and came back to SMU to fulfill my dream", said a proud Dr Khumalo.

She does not have any regrets as she looks back today and prepares to go and practice after completing her studies.

"I set myself a goal that I wanted to achieve this dream at the age of 30 and would do anything possible to realize it. Today, I am excited to proclaim that I am living the dream. It is done, I am Dr Makoma Khumalo", she proudly said.

Dr Khumalo praises the quality of education offered at SMU. "The training that we received at SMU is of high quality and anyone can leave here and comfortably run a practice on their own and make a huge difference in communities. Even when I still had the qualification in Dental Therapy, I was not shaken nor less confident in the industry as I could manage on my own because of the training and guidance I received at SMU", she said.

She has a message to those who will be joining SMU in 2022 and students who are still to complete their studies. "The pressure of wanting to be at University is too much and as a result, youngsters do not do thorough research. Many even see upgrading of results as a bad thing, so they end up just doing anything that comes their way. The best thing is to pause, think hard on what you want to pursue and do everything possible to realize your dream. I am a living example. To those who remain at SMU to finish their studies, by now you should know that there is too much freedom and independence. However, they come with responsibility. Decide on what is good for you, check who you hang around with and remember that this is your personal journey. It is up to you whether you will achieve your dream or fail", emphasized Dr Khumalo.

On another personal note, she is grateful to her mother who has been a pillar of strength throughout. She also thanked her husband for his unwavering support. They met when she had a minor accident and regards theirs as a fairy tale. They never looked back since then and are blessed with one child. Dr Khumalo is quick to mention that she was heavily pregnant when she wrote her examination in March this year and her final was written two weeks after giving birth.

She mentions all the above to give hope to others and that "when the time is right, everything just falls into place", she concluded.

SMU and Standard Bank join hands to help students through a loan facility which requires no surety



Sefako Makgatho Health Sciences University (SMU) has joined hands with Standard Bank to help students who are experiencing financial difficulties to pay for their studies. Standard Bank offers loans for full-time and part-time studies across faculties. In partnership with SMU, Standard Bank also offers a student loan where surety is not required for selected courses and post graduate studies within the Schools of Health Care Sciences, Medicine, Oral Health Sciences and Pharmacy. This offering applies to students from low to missing middle income families, who can obtain a student loan for their educational funding needs who meet the offering criteria. This will go a long way in ameliorating the difficult financial circumstances students face as part of the journey to complete their studies.

The two parties have already signed the necessary Agreements and SMU is now included on the Standard Bank list of Universities so that students who meet the criteria can apply immediately. The exciting part about this loan is that students will not be expected to repay it while studying. This will only happen six months after students have graduated or started working, contingent on which one comes first. Interest and fees however are added to the loan monthly from inception.

Student debt continues to rise in Institutions of Higher learning, whereas government subsidies also decline. This in turn affects the financial sustainability of institutions

making it difficult for students to get assistance and in some cases complete their studies. With the availability of this loan facility, SMU students with existing student debt, will likewise be covered if they meet the criteria. There are similarly many students who fall outside of the threshold of the National Student Financial Aid Scheme (NSFAS), who will also benefit from this opportunity.

Through this partnership with Standard Bank, SMU would like to demonstrate its aspiration to help its students overcome these realities and calls upon those who qualify to take advantage of this opportunity. The facility is also available for those who wish to pursue post-graduate studies in different fields.

Students who do not meet the criteria for the loan without surety do not need to worry as they can explore a student loan with surety that is also available at Standard Bank.

The University wishes to thank Standard Bank for coming on board through this facility to help its students.

A full list of the approved courses covered by the loan and the criteria is available on the standard bank website: <https://www.standardbank.co.za/southafrica/personal/products-and-services/borrow-for-your-needs/student-loans/student-loans/student-loan-without-surety>