SEFAKO MAKGATHO
HEALTH SCIENCES UNIVERSITY

FOCUS on SMU

NEWSLETTER / **Volume 5 / 4th Edition** | *May 2020*

Sefako Makgatho Health Sciences University awarded qualifications virtually over a period of three days

By Phaladi Seakgwe

In an unparalleled manner, the Sefako Makgatho Health Sciences University successfully held virtual graduations ceremonies over a period of three days to award degrees and diplomas to qualifying graduates. The move was subsequent to a decision of the Executive Committee of Senate (acting on behalf of Senate) that the University should proceed with the conferment and awarding of Degrees and Diplomas to graduands and diplomates who have fulfilled the requirements of their specific qualifications on 11-13 May 2020 through virtual graduation ceremonies.

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SMU Chancellor Dr Zwelini Mkhize conferred qualifications to over 1150 graduates and congratulated them for their achievements. In his message to graduands, Dr Mkhize challenged them to make a contribution in the creation of a better Africa and world. “With these qualifications now firmly placed in your hands, we expect you to use them as instruments to change the lives of our people for the better and in the creation of a better Africa and a better world”, he said. Furthermore, he said SMU as a health sciences university fully supports the decision of the President to put the country on a lockdown as part of the measures to fight Covid-19 and urged everyone to abide by the restrictions.

SMU Acting Vice Chancellor Professor Lekan Ayo – Yusuf emphasised that SMU is also making a significant contribution on the fight against Covid-19 through participation in several scientific and advisory committees to government and providing its expertise. “Covid-19 will fundamentally change the way the university conducts its business, in particular its mode of teaching and learning. It has also changed how we live our lives, the way we work and the way we relate to our families, colleagues and fellow students”, he emphasized.

Amongst the qualifications awarded during the three days’ ceremonies included six doctoral degrees, 142 Masters degrees, 143 honours degrees, 16 post graduate diplomas and over 800 other degrees and diplomas from the Five schools within the University. Prof Ayo – Yusuf said these numbers were a clear demonstration that SMU as a young University is able to punch above its weight.

The university will at a later stage hold normal graduations ceremonies once the situation in the country permits to afford our students and their families an opportunity to fully celebrate the achievements and walk the stage.

All qualifying candidates have graduated in absentia, and those who need their certificates on an urgent basis, will begin to receive copies of those from Friday, 22 May 2020. The original certificates will only be released or collected when the situation in the country and University has returned to normal.

Thousands of people have formed part of the ceremonies through the University website and YouTube channel. Many shared their photographs with the University in their graduation attire over three days.

Sefako Makgatho Health Sciences University launches the 'SMU COVID-19 Monitor' Web APP for students and staff

The South African government is currently under pressure to scale up screening and testing for Coronavirus infection in communities. Organizations and institutions of higher learning are actively working on ways to support government in conquering the spread of COVID-19. To this end, Sefako Makgatho Health Sciences University (SMU) has designed an innovative new Web APP which will contribute to containing the virus and to monitor COVID-19 related symptoms amongst staff and students.

Developed by SMU Acting Vice – Chancellor Prof Ayo – Yusuf, the COVID-19 monitor Web APP will be used only as a screening tool and it is not intended to replace a consultation with a medical professional. It can be accessed through any mobile device and is expected to be continuously used at SMU both during and after the challenging period of the lockdown.

"Our staff and students on campus will be able to daily self-check on their health status by answering a series of questions about symptoms known to be associated with Coronavirus infection, including any possible recent exposures and testing. Based on the responses provided, together with exposure history weighted higher than others, the APP then provides a risk score with relevant recommendations and next steps", says SMU spokesperson Dr Eric Pule.

These risk scores are colour-coded and, indicates either to contact a medical provider and/or call the National Department of Health's Hotline number that appears on the risk report dashboard. This information would also be immediately available to a restricted number of pre-approved health professionals including the campus health doctor who are part of the SMU COVID-19 response team. The health provider can then advise on the need to either test and/or quarantine or self-isolate. This also allows those who may possibly have reported exposure to a COVID-19 positive patient or who themselves have tested positive while at home or on campus to self-report. The SMU response team would therefore be able to act swiftly with regards to referral for quarantine and/or isolation, as well as contact tracing in collaboration with the District Health Response team.

"We pride ourselves as being the first University to launch such a real time screening tool for staff and students before returning to campus in order to ensure collective safety. This has received the support of the Student Representative Council and organised Labour", says SMU spokesperson Dr Eric Pule.

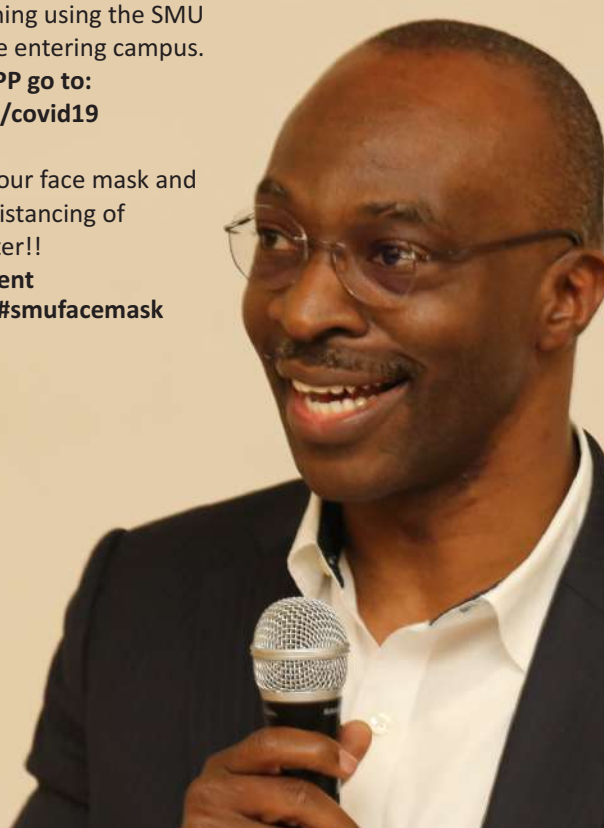
This is a web App available through the SMU website which is zero-rated (no cost) by all major mobile network providers, thus the data requirement to use the App is zero. Due to the lag time between infection and appearance of COVID-19 symptoms, the University's Web APP Monitor permits staff and students to in real time report early symptoms, track and understand the trajectory of their symptoms through this self-screening process. Especially important as we move into the Flu season, the APP can be used regularly to ensure early warning when the user feels unwell or becomes aware of exposure to any known COVID-19 positive person. The SMU COVID-19 Monitor web APP will be accessible to all students, staff and joint appointees working at the Doctor George Mukhari Academic Hospital.

"The APP will support the plans by the Department of Higher Education Training, Science and Technology to save the academic year 2020, while also appropriately responding to the call to contain the COVID-19 pandemic. In particular, it will contribute and support the recommended 360-degree screening/testing of students and staff returning to our campus", emphasized Dr Pule.

The story has generated a lot of media interest and Prof Ayo – Yusuf has already been interviewed by some media houses about this innovative APP.

Remember to complete a daily symptom screening using the SMU Web APP before entering campus.
To access the APP go to:
www.smu.ac.za/covid19

Always put on your face mask and practice social distancing of at least one meter!!
SMU Management
#be-safe@smu #smufacemask



Dr Martha Tlholoe Breaks the glass ceiling in Maxillofacial & Oral Surgery

By Maditsi Matlala

Dr Martha Tlholoe's ambition to become the first Black Woman Maxillofacial and Oral Surgery (MFOS) Specialist from MEDUNSA/SMU was ignited in 1994 when she enrolled at the former MEDUNSA for a Bachelor of Nursing Science (B Cur) which she obtained in 1997. Not content with B.Cur, she immediately enrolled for Bachelor of Dental Surgery (BDS) which she completed in 2003. After her community service in Limpopo, she went into public service for five years.

In 2009 she became a registrar in MDent-Maxillofacial and Oral Surgery (MFOS). She qualified as the first black woman MFOS Specialist trained at Medunsa/SMU in 2014. She later passed board examination of the College of Medicine of South Africa and became a fellow of CMSA (MFOS). She is one of the three blacks trained at SMU.

MFOS is a surgical branch of medicine and dentistry which is concerned with diagnosis and treatment of diseases which affects the mouth, jaws, face and neck.

MFOS specialist is a surgeon who completed five years of medicine/dentistry followed by five years of postgraduate registraship training in maxillofacial surgery and principles of surgery in surgical discipline including Intensive Care Unit, Trauma Surgery, Neurosurgery, ENT and Plastic surgery.

The specialist treats patients with facial trauma, head and neck pathology including cancers, oral and facial infections, correction of congenital facial deformities e.g. cleft lip and palate, temporomandibular joint disorder, removal of wisdom teeth and surgery to prepare for replacement missing teeth e.g. dental implants. She teaches MFOS registrars, postgraduate dental students. She also conducts research and supervises research work. Historically, this speciality has been perceived as "White Male preserve". Recent statistics indicates that there are 125 MFOS in our country with 16 blacks MFOS specialists and only 6 black women - a cause for concern indeed.

She considers herself privileged for breaking the glass ceiling and contributing towards its transformation. But she is quick to admit. There is still a long way to go. As a newly appointed head in Maxillofacial and Oral Surgery Clinical Unit, she has plans to deepen its transformation. She has already trained four female registrars, prior to her appointment. One graduated in the virtual graduations that took place recently. The other registrar to follow at the end of 2020. "I want to be a role model to an African child by my presence in academia. I will prove that it is possible to come from a humble and disadvantaged background and become a Specialist and be in leadership position. I want to mentor Dental students from fourth year and postgraduate qualification to be involved in research and elective in MFOS so as to ignite and nurture the love for MFOS. Research is the integral part of the academia and I want to improve the research output of the department through collaboration with other departments both internal and external", she vowed.

SMU in Research Partnership Project with Global Impact

By Maditsi Matlala

The Department of Microbiological Pathology (DMP) secured a $1.8 million grant from US National Institutes of Health. According to Dr Ndivhuho Makhado, the key principal investigator, the grant will fund the research project entitled "Target and non-target based resistance to bedaquiline in South Africa".

This is an international partnership project between the SMU, Dr George Mukhari Tertiary Laboratory of the National Health Laboratory Services (DGM TL NHLS) and the US's University of Alabama Birmingham (UAB). Dr Andries Steyn, of UAB, also serves as the principal investigator. This research project aims to develop novel intervention strategies and prognostic screens in order to improve patient health care and outcomes.

In 2018 DMP identified mutations in genes associated with bedaquiline resistance in *Mycobacterium tuberculosis* (Mtb) clones isolated from patients who have never been treated with bedaquiline and/or clofazimine. These findings had important implications for treatment outcomes and overall healthcare of TB patients in South Africa, and possibly globally.

The DMP identified a critical gap in understanding of the mechanisms of bedaquiline resistance in previously treated and untreated patients with drug-resistant tuberculosis, by studying mutations in *rv0678*, *atpE* genes and elsewhere in the Mtb genome that dysregulate central metabolism which contributes to BDQ and CFZ resistance, and further apply this knowledge for prophylactic and therapeutic purposes in South Africa. The grant will be utilised to support institutional research training programmes and opportunities for trainees at the undergraduate, graduate and postdoctoral levels. This will include Honours, Masters, PhDs, post-doctoral students and staff at SMU and UAB during the funding cycle of 5 years of this research.

The research commences in the 2020/04 period all the way to 2025. Investigations of this research work will be performed at SMU, DGMTL NHLS, the peripheral primary health clinics and hospitals in North West, Gauteng, Mpumalanga and Limpopo provinces. The impact of this project is wide because it is not only limited to South Africa. It will also identify a new paradigm that has the potential to directly influence health intervention strategies of MDR/XDR-TB patients in South Africa and elsewhere, it will lead to a detailed understanding of the frequency of BDQ resistance-associated variants in specific Mtb lineages, better understand the role of BDQ resistance-associated variants in central carbon catabolism, and how BDQ-resistant mutations contribute to "bioenergetic flexibility" in clinical Mtb strains.

The project has objectives set up for each year, which will make it easy to produce an annual report of the achieved goals from the SMU and UAB which will be submitted to the NIH for the duration of 5 years.