PROGRAM VIR DIE EERSTE PLEGTIGHEID

DIE FAKULTEITE AGRIWETENSKAPPE, EN GENEESKUNDE EN GESONDHEIDSWETENSKAPPE

'n Vriendelike beroep word op alle aanwesiges gedoen om selfone af te skakel en nie die saal tydens die plegtigheid te verlaat nie en sodoende te verseker dat die verrigtinge sonder ontwrigting verloop.

1. Akademiese prosessie kom die saal binne. U word versoek om te staan terwyl hulle die saal binnekom en te bly staan vir die sing van die Nasionale Lied.
2. Sing van die Nasionale Lied (kyk binneagterblad). Neem asseblief daarna u sitplekke in.
3. Konstituering deur die Visekanselier.
4. Verwelkoming deur die Visekanselier.
5. Voorstelling van kandidate wat kwalifikasies ontvang deur die dekane van die betrokke fakulteite en toekenning van kwalifikasies deur die Visekanselier.
6. Sluiting deur die Visekanselier.
7. Akademiese prosessie verlaat die verhoog.

Die aanwesiges word versoek om te bly staan totdat die akademiese prosessie uitgestap het.

PROGRAMME FOR THE FIRST CEREMONY

THE FACULTIES OF AGRISCIENCES, MEDICINE AND HEALTH SCIENCES

To help ensure that the proceedings run their course without disruption, will all those present kindly keep their cell phones switched off, and refrain from leaving the hall, while the ceremony is in progress.

1. Entrance of academic procession into the hall. You are requested to stand while it enters, and then to remain standing for the singing of the National Anthem.
2. Singing of the National Anthem (see inside back cover). Thereafter, please be seated.
3. Congregation formally constituted by the Vice-Chancellor.
4. Welcome by the Vice-Chancellor.
5. Presentation of candidates receiving qualifications by the deans of the respective faculties and conferment of qualifications by the Vice-Chancellor.
6. Closing by the Vice-Chancellor.
7. The academic procession leaves the stage.

Those present are requested to remain standing until the entire academic procession has left the hall.

ISICWANGCISO-NKQUBO SOMSITHO WOKUQALA

IIFAKHALTHI EYEEAGRISAYENSI, NEYEZAMACHIZA NEENZULULWAZI KWEZEMPILO

Ukuqinisekisa ukuba umsitho uqala ngaphandle kwesiphazamiso, bonke abakhoyo bayacelwa ukuba bacime iiselfowuni zabo, kwaye bangaphumi eholweni ngeli xesha umsitho uqhubekayo.

1. Kungena umkhosi wemithika eholweni. Niyacelwa ukuba nime ngeenyawo xa ungena, nihlale nime njalo ukuze kuculwe uMhobe weSizwe.
2. Kuculwa uMhobe weSizwe (Jonga kumphakathi weqweqwe lokugqibela). Emva koko, ningahlala phantsi.
3. UMsitho uvulwa ngokusesikweni nguSekela-Tshansila.
4. Ulwamkelo lwenziwa nguSekela-Tshansila.
5. Ukunikezelwa kwezingqini-mfundo kubafundi ziintloko zeefakhalthi (iidin) ezichaphazelekayo nokuthweswa kwezingqini-mfundo nguSekela-Tshansila.
6. Ukuvalwa koMsitho nguSekela-Tshansila.
7. Umkhosi wemithika uyalishiya iqonga.

Bonke abakhoyo bayacelwa ukuba beme ngeenyawo de umkhosi wemithika ube uphume wonke eholweni.

KANDIDATE WAT KWALIFIKASIES ONTVANG

Die grade, diplomas en sertifikate van kandidate wat nie by die gradeplegtigheid teenwoordig kan wees nie, word in hulle afwesigheid toegeken.

CANDIDATES RECEIVING QUALIFICATIONS

The degrees, diplomas and certificates of candidates who are unable to attend the graduation ceremony in person are awarded in absentia.

ABAFUNDI ABAFUMANA IZINGQINI-MFUNDO

Izidanga, iidiploma kunye nezatifiketi zabafundi abangakwazanga ukubakho ubuqu kumsitho wothweso-zidanga bathweswa bengekho benjalo.

DOKTORSGRADE DOCTORATES EZOBUGQIRHA

Fakulteit Agriwetenskappe

Faculty of Agrisciences

IFakhalthi yezeeAgrisayensi

PhD

ADU-ACHEAMPONG, Samuel (Conservation Ecology)

Response of grasshoppers to the agricultural mosaic of the Cape Floristic Region biodiversity hotspot in South Africa

The future of our planet involves integration of agricultural production and conservation of biodiversity. Integrating the two maintains ecosystems on which we depend into the future. The Cape Floristic Region is both a global biodiversity hotspot and a major agricultural area. Using sensitive grasshoppers, it was shown how different agricultural systems support biodiversity. Vineyards were more biodiversity-friendly than apple orchards, with the move to sustainable production being indicated by relative proportions of different species. This means that we now have a method which we can use to guide further integration of production and nature for a better, long-term future.
Supervisor: Prof MJ Samways
External Co-supervisor: Dr CS Bazelet

AMIANDAMHEN, Stephen Osakue (Wood Product Science)

Development of phosphate-based inorganic wood composite materials

The application of magnesium and calcium phosphate cement binders in the development of natural fibre composite products was investigated. The benefit of coal fly ash as a complementary material in the composite was also investigated. The candidate utilised several biomaterials including wood-based industrial and agricultural residues. Biomaterial treatments aimed at improving the composite properties was carried out and the effect of the treatments on the biomaterial properties was evaluated using advanced characterisation techniques. It was found that different lignocellulosic residues can be incorporated into phosphate cement binders to produce durable products that are comparable to current cement-bonded products.
Supervisor: Dr L Tyhoda
Co-supervisor: Prof M Meincken

BINYOTUBO, Omowumi Ibijoke (Aquaculture)

Comparative assessment of the production performances of different strains of Nile Tilapia and the evaluation of Genotype x environment interaction

Fish production in Africa is characterised by a predominance of low input subsistence farming systems and the use of undomesticated wild genotypes. Genetically improved strains that are developed under high-input commercial farming conditions are being considered for distribution and application in Africa. This study assessed the production performance of different strains of the Nile Tilapia under both high- and low-input conditions. The results confirm significant differences in production performance between the strains, without clear evidence of Genetic x Environment interactions in relation to high- and low-input feeding systems.
Supervisor: Prof D Brink
Co-supervisor: Dr H Lambrechts

EFFAH, Bernard (Wood Product Science)

The use of atomic force microscopy to determine intermolecular adhesive forces in wood-based composite materials

The feasibility of using alien invasive wood species for the manufacture of wood plastic composites (WPCs) was investigated. These composites typically consist of three components: wood, plastic and a compatibiliser that makes the two phases adhere to each other. The candidate analysed the interfacial adhesion properties between various wood species, different compatibilisers and low-density polyethylene as a matrix polymer and correlated them to macroscopic mechanical properties. It was found that most invasive wood species may be incorporated into WPCs, if the correct compatibiliser is used, as they varied greatly in their adhesion properties and the compatibiliser should be chosen according to the wood species.
Supervisor: Prof M Meincken
Co-supervisor: Prof A van Reenen

ERASMUS, Sarah Wilhelmina (Food Science)

The authentication of regionally unique South African lamb

The authenticity of regionally unique South African lamb was verified using analytical techniques. Descriptive sensory analysis, fatty acid analysis, solid-phase micro-extraction, stable isotope ratio analysis,

near infrared reflectance spectroscopy and proton-transfer-reaction mass spectrometry were successful analytical tools, providing scientific evidence to link the sensory and chemical profiles of the meat to the characteristic diet of the animals, which is linked to its origin. Biomarkers, especially terpenes, from plants were detected in the meat and fat of lambs. Consequently, the claim that fragrant Karoo vegetation makes Karoo lamb unique was verified and justifies protection of its indicator status in the EU.
Supervisor: Prof LC Hoffman
Co-supervisor: Ms M Muller

JONES, Maxine Sylvia (Food Science)

Profiling of traditional South African biltong in terms of processing, physicochemical properties and microbial stability during storage

Profiling of biltong in terms of processing (drying kinetics), physicochemical properties (moisture and salt content, water activity, pH) and microbial stability (spoilage and pathogenic microorganisms) during a three month storage period was investigated. Influential factors included the use of lean beef topside (*semimembranosus*), addition of vinegar, drying levels (50%, 65% weight loss) and packaging methods (vacuum packaging, nitrogen gas flushed packaging). An exponential decay function was fitted to predict drying times of biltong when dried using constant drying parameters. Vinegar was shown to influence spoilage microorganism's growth including yeasts and moulds. The results obtained are beneficial to the commercial biltong industry.
Supervisor: Prof LC Hoffman
Co-supervisor: Prof PA Gouws

MANNETTI, Lelani Maurice (Conservation Ecology)

Evaluating land use conflicts at the borders of Etosha National Park, Namibia: a social-ecological approach

Protected areas and surrounding landscapes are becoming increasingly integrated. In Namibia, conservation areas are expanding, with resident communities becoming more involved in the decision-making process. The social-ecological interface in protected area governance is poorly understood, however. By applying a social-ecological systems framework to the multiple-use rangelands surrounding the Etosha National Park, an integrated approach was taken to understand this interface. Relevant stakeholder groups were identified and land use conflicts linked to production, wildlife and human challenges. Land ownership played a significant role in how residents perceived the causes of these conflicts, both with their neighbours and with the national park.
Supervisor: Prof KJ Esler
External Co-supervisor: Prof U Zeller

MASEHELA, Tlou Samuel (Entomology)

An assessment of different beekeeping practices in South Africa based on their needs (bee forage use), services (pollination services) and threats (hive theft and vandalism)

Detailed knowledge on the use of forage plants by honeybees for beekeeping practices, namely hive maintenance, honey production, crop pollination and swarm trapping, are vital for ensuring the sustainability of the beekeeping industry and its dependent commercial sectors in South Africa. Using a beekeeper questionnaire to gather these data in all provinces, it was shown that diversified, mostly exotic, forage is the main resource for all four beekeeping practices. Additionally, the availability and accessibility of such forage is affected by hive theft and vandalism. This study serves as a baseline for all future forage use research and related government policy.
Supervisor: Dr R Veldtman

MOYO, Mukani (Wine Biotechnology)

The interaction between Vitis vinifera *and fungal pathogens: a molecular approach using characterised grapevine mutants*

Cultivated grapevines are sensitive to a range of fungal pathogens, with serious negative impacts on sustainable production of quality grapes. Technologies were used to simultaneously study (on a molecular level) both the pathogen and the host as they interact during an infection. The results showed that the pathogens use specialised attack strategies on grapevine, while the hosts could only mount a weakened defense response, leading to susceptibility. The knowledge and increased understanding of the interaction between host and pathogen could support the development of specialised control strategies, taking into account the strain-specific attack and host-specific defense mechanisms of grapevine cultivars.
Supervisor: Prof MA Vivier

MOYO, Providence (Plant Pathology)

Identification and characterisation of diatrypaceae fungi associated with declining grapevines and alternative hosts in South Africa

Eutypa dieback causes large economic losses and premature mortality of grapevines worldwide. Seven diatrypaceae species were found on grapevines with a new species of *Eutypa* that was described. Fourteen species of diatrypaceae were found from 29 different woody hosts close to vineyards. Their relevance was investigated with pathogenicity trails, which showed that all fifteen species were pathogenic on grapevine. Quantitative real-time PCR pimers and probes were developed for two species, *Eutypa lata* and *Cryptovalsa ampelina*. This tool was optimised for in wood detection and can further be used to better understand dieback due to diatrypaceae species.
External Supervisor: Dr F Halleen
Co-supervisor: Dr L Mostert

MUNDA, Eliah (Agronomy)

Effect of intercropping and phosphorous application on the growth and yield of sweet potato, groundnut and soybean

Mozambique has the highest prevalence of vitamin A deficiency (VAD) in southern Africa and 44% of the population is malnourished. The orange-fleshed sweet potato (OFSP) (*Ipomoea batatas* (L) Lam) contains beta-carotene, a precursor to vitamin A and can significantly decrease VAD when included in the diet. In this study OFSP was intercropped with two other major protein-supplying crops, which was soyabean (*Glycine max* (L.) and groundnut (*Arachis hypogea* L.). It was found that intercropping of OFSP and groundnut significantly increased the growth and yield of both crops and the combination were superior to any of the other cropping systems tested.
Supervisor: Dr PJ Pieterse
External Co-supervisor: Dr M Andrade

RIBEIRO, Jeronimo Ernesto Meneses Machado (Agronomy)

Optimising harvesting procedures of Amaranthus hybridus *L. and* A. tricolor *L. under different watering regimes during hot and cool seasons in southern Mozambique*

Drought is the major constraint for food production in arid and semi-arid regions such as southern Mozambique, that has a tropical dry savanna climate. This study assessed the effect of harvesting procedures and watering regimes on growth, yield and quality of *Amaranthus hybridus and A. tricolor*. Both species, produced as leafy vegetables, were tolerant to water deficits of 50% of total available water when subjected to successive cuttings. The best harvesting procedures proved to be topping the plants by 25% every two weeks. The species are good sources of the calcium and protein required in the human diet.
Supervisor: Dr PJ Pieterse
External Co-supervisor: Dr SI Famba

SCHOEMAN, Letitia (Food Science)

Characterisation and quantification of microstructure, physicochemical and functional properties of oven and forced convection continuous tumble-roasted cereal grains

Whole cereal grains, such as wheat and maize, can be roasted to improve flavour, texture, antioxidant activity and extend shelf life of final food products. The candidate used a South African patented roaster to evaluate the effect of roasting on grain characteristics. Due to the even heat transfer during roasting the material density, measured using X-ray micro-computed tomography, and milling yield were not affected. Roasting improved thermal properties with partial gelatinisation, resulting in shorter cooking times and higher end-product processing efficiency. The observed increased pasting viscosity will enhance gel formation in starch-thickened sauces for value addition to specific end uses.
Supervisor: Prof M Manley
Co-supervisor: Dr A du Plessis

SOUTHEY, Tara Olivia (Viticulture)

Integrating climate and satellite remote sensing to assess the reaction of Vitis vinifera *L. cv. Cabernet Sauvignon to a changing environment*

In the context of climate change and the complex terrain of the Western Cape, increased resolution of climate data is crucial. This study focused on integrating climate and thermal satellite remote sensing data to assess the reaction of the grapevine to a changing environment. Sites were selected over a climatic band; multiple factor analysis was used to evaluate the interaction of climate and grapevine phenology, growth, ripening and wine attributes. This study has provided some insights into cultivar phenology, growth and ripening response, spatial and temporal shifts in climate, as well as the potential use of thermal satellite products to supplement climate data.
Supervisor: Dr AE Strever

THERON, Louwrens Wiid (Wine Biotechnology)

Investigating the impact of MpAPr1, an aspartic protease from Metschnikowia pulcherrima*, on wine properties*

MpAPr1, an aspartic protease previously isolated from the wine yeast *Metschnikowia pulcherrima*, was successfully expressed in a eukaryotic host, characterised and purified. Subsequently, its potential to degrade grape and yeast proteins was evaluated and its impact on wine properties assessed holistically. The data showed that MpAPr1 was able to degrade certain grape and wine proteins as demonstrated using diverse techniques. Although an increase in the production of volatile compounds could be noted, its overall impact on wine properties was minimal. This study opened new avenues to further explore the potential use of proteases in winemaking and other industries.
Supervisor: Dr BT Divol
External Co-supervisor: Dr M Bely

ZVINOROVA, Plaxedis Iyve (Animal Science)

A genome-wide association study on mechanisms underlying genetic resistance to gastrointestinal parasites in goats, Zimbabwe

Genome-wide association studies, although having been performed in other livestock species worldwide, have not been utilised in goats for parasite resistance. Population structure, genetic diversity, linkage disequilibrium and effective population sizes for indigenous breeds/ ecotypes were determined using SNP markers. Utility of the Illumina Goat SNP50K facilitated estimation of genetic parameters in populations without pedigree data. Evidence on genes associated with gastrointestinal parasite resistance in local goat ecotypes have been identified for the first time. Current findings can be used in formulating breeding programmes that will benefit smallholder farmers by lowering cost of drugs, reducing pasture management and improving animal performance.
Supervisor: Prof K Dzama
External Co-supervisors: Prof TE Halimani and Dr FC Muchadeyi

PhD (Agric)

NCUBE, Edson (Plant Pathology)

Interactive effect of Busseola fusca *and* Fusarium verticillioides *on ear rot and fumonisin production in maize*

The effect of the African stem borer *Busseola fusca* on ear rot disease and mycotoxin production by *Fusarium verticillioides* in maize grain was investigated in this study. The insect significantly increased ear rot, but not fumonisin production. Stem borer infestations varied seasonally, thereby resulting in inconsistent damage. Genetic modification of maize with a Bt gene and the application of a pesticide called Benfuracarb also reduced disease development and toxin deposition in maize kernels. The mycoflora in *B. fusca* frass was investigated, and found to be contaminated with mycotoxigenic, pathogenic and antagonistic fungi.
Supervisor: Prof A Viljoen
External Co-supervisors: Prof BC Flett and Prof J van den Berg

PhD (Food Sc)

MUGODE, Luke (Food Science)

Investigating physiological and quality response of pomegranate fruit to controlled atmosphere storage

Once harvested, pomegranate fruit has short storage life, even under cold storage conditions. This study examined the potential of reducing fruit spoilage and maintaining postharvest quality of pomegranates under different controlled atmosphere storage conditions. The results showed that the application of controlled atmosphere storage technology reduced the incidence of fruit decay, maintained sensory attributes and extended shelf life. Storing fruit at 5% O_2 + 14% CO_2 extended storage life by up to 4 months compared with normal room storage.
Supervisor: Prof UL Opara
Co-supervisors: Prof GO Sigge and Dr PV Pramod (External)

Fakulteit Geneeskunde en Gesondheidswetenskappe

Faculty of Medicine and Health Sciences

IFakhalthi yezamaChiza neeNzululwazi kwezeMpilo

PhD

AWONIYI, Dolapo Olaitan (Molecular Biology)

Immunological markers for active TB and early treatment response indicators

This dissertation aimed to identify host markers for the development of rapid and simple tests for TB diagnosis and for monitoring early TB treatment response. Although cytokine levels in *Mycobacterium tuberculosis* antigen-stimulated overnight whole blood culture supernatant only had moderate diagnostic performance, these sample types could still have value in difficult to diagnose TB, like extrapulmonary disease, but this will have to be investigated in future studies. Serum cytokine levels correlated poorly with changes in sputum bacterial load during treatment. Antibody levels against specific tuberculosis antigens performed very promisingly and are suitable for the development of simple, rapid, point-of-care tests.
Supervisor: Prof G Walzl

BARTLETT, Cara-Lesley (Internal Medicine)

The association between tissue non-specific alkaline phosphatase expression and differentiation of mesenchymal stromal cells

Obesity and its comorbidities such as diabetes are burgeoning globally and have a substantial burden of disease. Understanding the aetiology of lipid accumulation may allow us to redress this rapid rise in obesity with the aid of pharmacological intervention in the future. This study examined the role of alkaline phosphatase in the differentiation of stem cells into adipocytes and their subsequent accumulation of fat. A novel glycosylated form of the enzyme was discovered and found to contribute to fat droplet formation. These findings significantly add to our knowledge on the involvement of alkaline phosphatase during the differentiation process.
Supervisor: Prof WF Ferris

CHANDIA, Jimmy (Family Medicine)

The experiences of HIV positive patients on antiretroviral drugs attending the public service health institutions in the Eastern Cape Province: a qualitative study

This phenomenological qualitative study explored how HIV positive patients in the Eastern Cape incorporated the taking of anti-retroviral (ARV) medication into their daily lives, how they experienced the health services and what key issues in their context impacted on adherence. The incorporation of ARVs into daily life was facilitated by treatment supporters and use of cellphone technology. Experiences of the health services were predominantly negative with reports of poor attitudes, stigma and discrimination, lack of person-centred care, poor infrastructure and cleanliness. Adherence was a challenge in the face of poverty, food insecurity and unemployment. Recommendations were made to address key issues.
Supervisor: Prof RJ Mash

DRAMOWSKI, Angela (Paediatrics)

Determinants of healthcare-associated infection (HAI) in hospitalised South African children

Dr Dramowski found HAI in 24% of hospitalised children in Tygerberg Children's Hospital. These rates are higher than those in other high- and middle-income settings. Risks for HAI included overcrowding, understaffing and HIV. Many causative organisms were antibiotic-resistant. HAI contributed to 66% of childhood deaths in hospital and 2 275 excess hospital days, costing R5,6 million (extrapolated to R60 million per year) in an underfunded and overcrowded public sector hospital. She optimised methods for monitoring hospital hygiene and further surveillance and explored health care worker knowledge, attitudes and practice. Her work represents the first comprehensive roadmap for addressing HAI in Africa.
Supervisor: Prof MF Cotton
Co-supervisor: Prof AC Whitelaw

ERNSTZEN, Dawn Verna (Physiotherapy)

The development of a contextualised evidence-based clinical practice guideline for the primary health care of chronic musculoskeletal pain in the Western Cape, South Africa

Chronic musculoskeletal pain is a global health care concern, and a major cause of disability and morbidity in sub-Saharan Africa. Clinical guidelines developed in high-income countries may not be appropriate in resource-constrained environments with different socio-cultural, societal and policy contexts. The candidate developed a contextualised evidence-based, multimodal clinical practice guideline for the primary

health care of chronic musculoskeletal pain in adults in the Western Cape Province of South Africa. The findings indicate that modifications in practice patterns, health care system organisation and governance will contribute to the successful implementation of the guideline. Further research will focus on an implementation plan.
Supervisor: Prof QA Louw
External Co-supervisor: Prof S Hillier

ESPACH, Yolandi (Medical Physiology)

An investigation into the importance of the ATM protein in the myocardial pathology associated with insulin resistance and Type 2 diabetes

A genetic disease, Ataxia Telangiectasia, is caused by an ineffective or absent ATM protein triggering neurodegeneration, cancer, insulin resistance and ischaemic heart disease. The candidate generated obese rats and showed for the first time downregulation of ATM in the heart in obesity. Using a specific ATM inhibitor, it was shown that acute inhibition of ATM did not cause cardiac dysfunction, but down-regulated several proteins involved in insulin action and produced vasodilation and NO generation in aortic tissue. ATM also regulated glucose uptake in isolated cardiomyocytes. Thus it is involved in the myocardial pathology associated with obesity and insulin resistance.
Supervisor: Prof B Huisamen
Co-supervisors: Prof A-M Engelbrecht and Prof H Strijdom

FAN, Wen Jun (Medical Physiology)

A profile of kinase activation in relation to recovery of the hearts of obese pre-diabetic rats subjected to ischaemia/reperfusion

Dr Fan's study centred on the current pandemic of obesity and Type 2 diabetes as major risk factors for development of coronary heart diseases. His results corroborate the obesity paradox, showing that neither moderate obesity nor *ex vivo* perfusion of a rat heart with high fatty acids was detrimental to the outcomes of ischaemia/reperfusion. A novel finding was that activation of the Jun-n-terminal kinase, JNK, during reperfusion was as important as the survival kinase Akt. His results have clinical significance, add to our knowledge regarding events during myocardial ischaemia/reperfusion and suggest that successful manipulation of these events may improve the outcome.
Supervisor: Prof B Huisamen
Co-supervisor: Prof A Lochner

GROBBELAAR, Melanie (Molecular Biology)

Resistomics: an 'omics' approach to decipher the Mycobacterium tuberculosis *resistome in response to rifampicin*

This is the first study to describe the influence of rifampicin exposure on the transcriptomes of already rifampicin-resistant *Mycobacterium tuberculosis* strains. RNA-seq analysis identified a transcriptional signature induced by exposure to rifampicin independent of the genetic background of the *M. tuberculosis* strain. This signature suggested a refractory state to antibiotics. In addition this study showed that a single point mutation in the RNA polymerase gene altered the physiology of the pathogen by down-regulating the stress response. These findings challenge the dogma that susceptible and resistant bacilli are physiologically identical, which could inform the design of new anti-TB drugs.
Supervisor: Prof RM Warren
Co-supervisor: Prof SL Sampson

HAMMOND-AYREE, Kenneth Nii Ofei (Molecular Biology)

Seroprevalence and molecular epidemiology of Toxoplasma gondii *in the Western Cape of South Africa*

Cats can carry a parasite which causes toxoplasmosis, a disease neglected despite recent findings which suggest that the effects can be profound. This study showed that up to 70% of felids in the Western Cape are infected. This in turn causes prevalence of 8% in sheep and 25% in humans. Infection survives in and originates from cats via unwashed or contaminated food. Clearly, the disease requires more attention since it has implications for wildlife, human health, as well as economic losses due to the disease burden in humans (reported as disability-adjusted life years) and livestock.
Supervisor: Prof PD van Helden
Co-supervisor: Prof M Esser

KAYIGIRE, Xavier Abdoul Kharim (Molecular Biology)

Sputum derived biomarkers of anti-tuberculosis drugs activity in early bactericidal activity (EBA) studies

The candidate worked on the characteristics of *M. tuberculosis* present in sputum expectorated by tuberculosis patients during the first two weeks of treatment. He published four articles describing the superiority of culture over molecular methods to measure the viable sputum bacterial load. He discovered that dormant forms of *M. tuberculosis* are present in sputum of untreated patients, that this proportion increases with treatment and that it changes differently depending on the antibiotics used. He also found reassuring evidence that single drug treatment is unlikely to cause clinically relevant resistance before 30 days.
Supervisor: Prof A Diacon

NAIDOO, Prenavum (Paediatrics)

Evaluating the impact of an Xpert® MTB/RIF-based TB diagnostic algorithm in a routine operational setting in Cape Town

This study evaluated the impact of the new Xpert diagnostic test for TB, in 142 Cape Town clinics. The test did not result in more TB cases diagnosed or better treatment outcomes. It increased the number of MDR-TB cases diagnosed, reduced the time to start TB treatment and reduced the number of cases not starting treatment. Laboratory cost per TB case diagnosed increased by over 150% and one in four MDR-TB patients experienced catastrophic personal costs. Health system failures diminished the full potential of Xpert and must be improved urgently to optimise the benefits of this very expensive investment. Examiners were impressed with this exceptional body of work and an oral examination was completed successfully.
Supervisor: Prof N Beyers

NEETHLING, Annika (Human Genetics)

Functional characterisation of sequence variants in leucine-rich repeat kinase 2 (LRRK2) and its possible interaction with the translocase of outer mitochondrial membrane (TOM) protein complex

Parkinson's disease (PD) is an incurable neurodegenerative and progressive movement disorder. Currently, treatment for PD is symptomatic as the disease pathobiology remains unclear. This dissertation focussed on the leucine-rich repeat kinase 2 (LRRK2) protein. The candidate created cellular models of PD and used a variety of techniques to study the role of this protein in the aetiology of PD. Her findings revealed novel functions of LRRK2 and that it plays an important role in mitochondrial dysfunction. Her work also provided a solid basis for future targeted studies on LRRK2 and its role in PD pathogenesis.
Supervisor: Prof S Bardien
Co-supervisor: Dr M Williams

SCHLECHTER, Nikola (Human Genetics)

Identification of novel candidate genes for susceptibility to tuberculosis by identifying disease-causing mutations in individuals with primary immunodeficiency disorders

Mendelian susceptibility to mycobacterial disease (MSMD) is a rare genetic primary immunodeficiency characterised by increased susceptibility to mycobacterial infections. Using exome sequencing, this study identified three novel MSMD-causing mutations in two genes, *MAP3K14* and *TAP1,* not previously associated with the disease. The mutation in *MAP3K14* affected this enzymes ability to phosphorylate its target, IKKα, resulting in downregulation of important immunological genes, while *TAP1* mutations caused dysregulation of CD8+ T-cell activation. This work informed the treatment of the affected individuals and allowed for pre-symptomatic testing of family members. Additionally, the study identified a potential genetic link between MSMD and tuberculosis meningitis.
Supervisor: Dr C Kinnear
Co-supervisor: Dr M Möller

VILJOEN, Ignatius Michael (Molecular Biology)

The effects of a Mycobacterium bovis *infection on the metabolic and reproductive systems of African lions (*Panthera leo*) in the Kruger National Park*

Tuberculosis in lions due to *Mycobacterium bovis* is often associated with states of emaciation and debilitation and can ultimately lead to the death of infected lions. The mechanisms by which *M. bovis* affects the host metabolic systems that lead to wasting are poorly understood. This dissertation initiated research that addresses these and other knowledge gaps of TB by investigating possible effects of *M. bovis* on lion immune/inflammatory, energy metabolism, and reproductive endocrine systems. Findings may serve as a basis from which future studies can be developed and similar findings applied to human TB.
Supervisor: Prof PD van Helden
External Co-supervisor: Prof RP Miller

ANDER KWALIFIKASIES OTHER QUALIFICATIONS EZINYE IZINGQINI-MFUNDO

Fakulteit Agriwetenskappe
Faculty of Agrisciences
IFakhalthi yezeeAgrisayensi

BACCALAUREUS IN DIE NATUURWETENSKAPPE IN LANDBOU (BScAgric)
BACHELOR OF SCIENCE IN AGRICULTURE (BScAgric)
CHURCHMAN, James Cameron Benjamin (Landbou-ekonomiese Analise en Bestuur)
GRIB, Damian (Landbou-ekonomiese Analise en Bestuur)
HATTINGH, Kayleigh (Wingerd- en Wynkunde)
JOLLIFFE, Jenna Bryanne (Agronomie en Plantpatologie)
MARAIS, Pieter Sarel (Grondkunde en Agronomie)
McLAREN, Ross Marshall (Landbou-ekonomiese Analise en Bestuur)
MUDAU, Judy Mulweli (Hortologie en Genetika)
OBERY, Anzio Keith (Wingerd- en Wynkunde)
OOSTHUIZEN, Frederick (Landbou-ekonomiese Analise en Bestuur)
SANGANZA, Hardlife (Landbou-ekonomiese Analise en Bestuur met Voedselwetenskap)
SCHOEMAN, Johannes Lodewicus (Landbou-ekonomiese Analise en Bestuur)
SEKGOBELA, Seboke Suzen (Veekunde)
SHAH, Adarsh Nain Harilal (Wingerd- en Wynkunde)
STEVENS, Charles (Hortologie en Plantpatologie)
STOFBERG, David de Villiers (Veekunde)
TERBLANCHE, Carl Johann (Veekunde met Akwakultuur)
TREURNICHT, Willem Albertus (Hortologie en Plantpatologie)
UYS, Anna Petronella (Landbou-ekonomiese Analise en Bestuur met Voedselwetenskap)
VAN LINGEN, Andrew Frank William (Hortologie en Plantpatologie)
VAN SCHOOR, Melt Cornelis (Landbou-ekonomiese Analise en Bestuur met Voedselwetenskap)
WAGNER, Francis William (Landbou-ekonomiese Analise en Bestuur)
WEBBER, Matthew Murray (Agronomie en Plantpatologie)

BACCALAUREUS IN DIE NATUURWETENSKAPPE IN BOSBOU EN HOUTWETENSKAPPE (BScBosbHoutwet)
BACHELOR OF SCIENCE IN FORESTRY AND WOOD SCIENCES (BScFor Wood Sc)
BOEHNKE, Daniel Erich (Bosbou- en Natuurlike Hulpbronwetenskappe)
GREYLING, Eugene (Hout en Houtprodukkunde)
KHOSA, Khanyisana (Bosbou- en Natuurlike Hulpbronwetenskappe)
MALAN, Jacques (Hout en Houtprodukkunde)
MAREE, Maryn (Hout en Houtprodukkunde)
MARK, Daniel Nicholas (Hout en Houtprodukkunde)
MBHAMALI, Ntuthuko Qiniso (Bosbou- en Natuurlike Hulpbronwetenskappe)
PRINS, Ashlee Cherice (Hout en Houtprodukkunde)
SAMUELS, Kehly-Ann (Bosbou- en Natuurlike Hulpbronwetenskappe)

SIMELANE, Faith Thembelihle (Bosbou- en Natuurlike Hulpbronwetenskappe)
TSHAVHUNGWE, Vhuhwavho (Hout en Houtprodukkunde)
VISSER, Willem Christiaan (Bosbou- en Natuurlike Hulpbronwetenskappe)

BACCALAUREUS IN DIE NATUURWETENSKAPPE IN BEWARINGSEKOLOGIE (BScBewEkol)
BACHELOR OF SCIENCE IN CONSERVATION ECOLOGY (BScConsEcol)
GROBLER, Michiel Jacobus
KILHAM, Michael John Courtney
VAN DER MERWE, Ludwig

BACCALAUREUS IN DIE NATUURWETENSKAPPE IN VOEDSELWETENSKAP (BScVoedselwet)
BACHELOR OF SCIENCE IN FOOD SCIENCE (BSc Food Sc)
COLLINS, Carla (Voedselwetenskap met Biochemie)
FEBBRAIO, Tanino (Voedselwetenskap met Biochemie)
MALINGA, Fundisiwe Feziwe (Voedselwetenskap met Chemie)
SHELDON, Charné Stacy (Voedselwetenskap met Biochemie)
TSHAZI, Londiwe (Voedselwetenskap met Chemie)

BACCALAUREUS IN LANDBOUBESTUUR (BAgricAdmin)
BACHELOR OF AGRICULTURAL MANAGEMENT (BAgricAdmin)
CHITSIKU, Daphne Chipo
CUNNINGHAM, Joel John
GREYLING, Christelle

BACCALAUREUS IN LANDBOU (BAgric)
BACHELOR OF AGRICULTURE (BAgric)
DU PREEZ, Chanté
ESTERHUYSE, Daniel Strydom
HAVENGA, Wilmari
KOEN, Tertius Victor
KOUL, Kayla Pearl
LE ROUX, Stefan
MOUTON, Jan-Willem
PRINS, Marthinus Johannes Hermanus
SILELE, Akhona
UYS, Frederik Cornelius
VAN EEDEN, Magdalena Johanna
VAN EEDEN, Simonne
WALLACE, Robert Paul

NAGRAADSE DIPLOMA IN BOSBOU- EN HOUTWETENSKAPPE (NGDip (Bosb en Houtwet))
POSTGRADUATE DIPLOMA IN FORESTRY AND WOOD SCIENCE (PGDip (For and Wood Sc))
THABETHE, Clement Mancoba Public

HONNEURS-BACCALAUREUS IN DIE NATUURWETENSKAPPE (HonsBSc)
BACHELOR OF SCIENCE HONOURS (BScHons)
LE ROUX, Eugene (Toegepaste Plantfisiologie)

MAGISTER IN DIE NATUURWETENSKAPPE (MSc)
MASTER OF SCIENCE (MSc)
BRITS, Devon (Entomologie)
KLEINHANS, Lonette (Plantpatologie)
MABUZA, Londiwe Membrey (Plantpatologie)
MAFATA, Mpho (Wynbiotegnologie)
MAPIYE, Obvious (Volhoubare Landbou)
NETSHIFHEFHE, Nakisani Elelwani Innocentia (Plantpatologie)
SCHREUDER, Wouter (Plantpatologie)
TSHUMA, Flackson (Volhoubare Landbou)

MAGISTER IN DIE NATUURWETENSKAPPE CUM LAUDE (MSc CUM LAUDE)
MASTER OF SCIENCE CUM LAUDE (MSc CUM LAUDE)
HAVENGA, Minette (Plantpatologie)
SAVAGE, Catherine (Plantpatologie)
SIEBERHAGEN, Madeleine (Plantpatologie)

MAGISTER IN DIE NATUURWETENSKAPPE IN LANDBOU (MScAgric)
MASTER OF SCIENCE IN AGRICULTURE (MScAgric)
BADENHORST, Rozane (Genetika)
BESTER, Dirk Wouter (Agronomie)
BEYERS, Carla (Landbou-ekonomie)
BRUCE, Soren Kegan Paul (Landbou-ekonomie)
COETZEE, Albert (Agronomie)
COOPER, Glen David (Grondkunde)
COURCHAY, Auberi Marie Madeleine (Veekunde)
DAIBER, Stephan (Hortologie)
DU TOIT, Raoul (Veekunde)
ESMERALDO, Michael Quinten (Grondkunde)
GUMEDE, Thabani (Agronomie)
HAYWARD, Julie Christy (Landbou-ekonomie)
JAMBO, Newettie (Landbou-ekonomie)
MALAN, Sonya (Veekunde)
MALHERBE, Charl Stephen (Veekunde)
MANDIZVIDZA, Tonderai Clive (Agronomie)
MANUEL, Jaimé (Landbou-ekonomie)
MARIMA, Jacqueline Keena (Veekunde)
MEINTJES, Schalk Willem (Genetika)
NEL, Cornelius Loftus (Veekunde)
NEL, Xaviera (Veekunde)
NIEUWOUDT, Stephanus Francois (Grondkunde)
RAMIGO, Pfunzo (Landbou-ekonomie)
RUSSOUW, Aimee (Veekunde)
VAN SCHOOR, Anton Lourens (Veekunde)
VAN ZYL, Johannes Geldenhuys (Agronomie)
VENTER, Louis Johannes (Veekunde)

MAGISTER IN DIE NATUURWETENSKAPPE IN LANDBOU CUM LAUDE (MScAgric CUM LAUDE)
MASTER OF SCIENCE IN AGRICULTURE CUM LAUDE (MScAgric CUM LAUDE)
LIEBENBERG, Mariska (Veekunde)
MULLER, Katharina (Wingerdkunde)
SUNGA, Chalwe (Landbou-ekonomie)
TERBLANCHE, Elsa (Wynkunde)
VAN DER BERG, Vincent (Grondkunde)
WILSON, Christine Leigh (Wynkunde)
WOODS, Michael Josias (Veekunde)

MAGISTER IN DIE NATUURWETENSKAPPE IN BOSBOU- EN HOUTWETENSKAPPE (MScBosbHoutwet)
MASTER OF SCIENCE IN FORESTRY AND WOOD SCIENCES (MScFor Wood Sc)
MABASO, Fanelesibonge Sthabile (Boskunde)
MUYAMBO, Phillip (Boskunde)
NYAWALI, Bechani (Boskunde)

MAGISTER IN DIE NATUURWETENSKAPPE IN BOSBOU- EN HOUTWETENSKAPPE CUM LAUDE (MScBosbHoutwet CUM LAUDE)
MASTER OF SCIENCE IN FORESTRY AND WOOD SCIENCES CUM LAUDE (MScFor Wood Sc CUM LAUDE)
MANDER, Nicola Jane (Boskunde)
PROELLER, Marco (Houtprodukkunde)

MAGISTER IN DIE NATUURWETENSKAPPE IN BEWARINGSEKOLOGIE (MScBewEkol)
MASTER OF SCIENCE IN CONSERVATION ECOLOGY (MScConsEcol)
FORRER, Frances Ann
GORDON, Claire Nicola

MAGISTER IN DIE NATUURWETENSKAPPE IN BEWARINGSEKOLOGIE CUM LAUDE (MScBewEkol CUM LAUDE)
MASTER OF SCIENCE IN CONSERVATION ECOLOGY CUM LAUDE (MScConsEcol CUM LAUDE)
RUDMAN, Justine
SEELE, Barbara Catharine
THOMPSON, Aileen Celeste

MAGISTER IN DIE NATUURWETENSKAPPE IN VOEDSELWETENSKAP (MScVoedselwet)
MASTER OF SCIENCE IN FOOD SCIENCE (MSc Food Sc)
ATUKURI, Julian
DZVITI, Rudo Wendy
GERMISHUYS, Zandré

MAGISTER IN DIE NATUURWETENSKAPPE IN VOEDSELWETENSKAP CUM LAUDE (MScVoedselwet CUM LAUDE)
MASTER OF SCIENCE IN FOOD SCIENCE CUM LAUDE (MSc Food Sc CUM LAUDE)
AMPEM, Gilbert
LUFU, Robert
SENDIN, Kate

Fakulteit Geneeskunde en Gesondheidswetenskappe

Faculty of Medicine and Health Sciences

IFakhalthi yezamaChiza neeNzululwazi kwezeMpilo

BACCALAUREUS IN DIE GENEESKUNDE EN BACCALAUREUS IN DIE SNYKUNDE (MB, ChB)
BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (MB, ChB)
ABRAHAMS, Zulfa
BOOYSEN, Nicolene
CHONCO, Lungelo
CHRISTOPHER, Lerato Caroline
DATAY, Salma
DYANTYI, Unathi
HUDSON, Keanan Ruben
KOROWLAY, Mohammed Baaqir
LAMOUR, Roget Milly-Anne
LEE, Yi-Chin
LEWIS, Ryan Mark
MADODA, Faith
SCHROEDER, Haneem
TALIEP, Nabeelah

NAGRAADSE DIPLOMA IN FARMESEUTIESE GENEESKUNDE (NGDip (Farmaseutiese Geneeskunde))
POSTGRADUATE DIPLOMA IN PHARMACEUTICAL MEDICINE (PGDip (PharmMed))
LEGOALE, Percival Buddy
LUTHULI, Noxolo Noluthando Pamella

NAGRAADSE DIPLOMA IN INFEKSIEBEHEER (NGDip (Infeksiebeh))
POSTGRADUATE DIPLOMA IN INFECTION CONTROL (PGDip (InfectContr))
SEBEO, Eileen

NAGRAADSE DIPLOMA IN VERPLEEGKUNDE (NGDip (Verpleegk))
POSTGRADUATE DIPLOMA IN NURSING (PGDip (Nursing))
ANDREWS, Anna-Lois (Primêre Gesondheidsorg)
BALOYI, Rhulani Olivia (Gevorderde Psigiatriese Verpleegkunde)
BASSON, Christelle Jackie (Verpleegbestuur)
BEZUIDENHOUT, Genesta (Verpleegbestuur)
CAGA, Phumza Sinovuyo (Verpleegonderwys)
CLOETE-GEORGE, Gwendoline Desiree (Gevorderde Verloskundige en Neonatologiese Verpleegkunde)
COUSINS, Liezl (Operasiesaalverpleegkunde)
DANIELS, Josephine Margaret (Primêre Gesondheidsorg)
DEPPA-SAM, Nomabaca (Primêre Gesondheidsorg)
DLAKIYA, Akhona (Primêre Gesondheidsorg)
DOMINGO, Martha Johanna (Gevorderde Verloskundige en Neonatologiese Verpleegkunde)
DYANI-BUKENYA, Yanga Sweetness (Verpleegbestuur)
DYANTYI, Andiswa (Verpleegonderwys)

FALOPE, Omolara Olusola Omoyemi (Kritieke Sorg)
FLATWELL, Eunice Veronica (Verpleegbestuur)
FUTSHANE, Tembisa Tantaswa (Kritieke Sorg)
GEDULD, Cecelia (Gevorderde Verloskundige en Neonatologiese Verpleegkunde)
GOVENDER, Rebecca (Verpleegbestuur)
GWANYA, Siyamthanda (Verpleegbestuur)
HANANA, Khanyiswa Cynthia (Operasiesaalverpleegkunde)
HELLMUTH, Joane (Operasiesaalverpleegkunde)
HENAMA, Honjiswa (Verpleegbestuur)
HESSELMAN, Cecila Amelia (Gevorderde Verloskundige en Neonatologiese Verpleegkunde)
HONONO, Lungiswa (Primêre Gesondheidsorg)
JAMA, Sweetness Nomapha (Verpleegbestuur)
JANSEN, Naomi (Primêre Gesondheidsorg)
JWILI, Linda (Gevorderde Verloskundige en Neonatologiese Verpleegkunde)
KAMBI, Xoleka (Primêre Gesondheidsorg)
KINASE, Nomasixole Enathi (Gevorderde Verloskundige en Neonatologiese Verpleegkunde)
KOCK, Denise (Gevorderde Verloskundige en Neonatologiese Verpleegkunde)
LANGEVELDT, Nicolene Henrieta (Primêre Gesondheidsorg)
LE ROUX, Rebecca (Verpleegbestuur)
LEIBRANDT, Charmaine (Verpleegbestuur)
LONGO, Nyameka (Verpleegonderwys)
MAGERMAN, Cherene Benita (Verpleegbestuur)
MAGUGA-MTIMKULU, Lorraine Nolusapho (Verpleegbestuur)
MAJOLLA, Helga Esmeralda (Primêre Gesondheidsorg)
MAKALUZA, Curtic Sindiswa (Primêre Gesondheidsorg)
MAY-SMITH, Vanessa Marlene (Primêre Gesondheidsorg)
MBEREGENI, Nkhangweni (Primêre Gesondheidsorg)
MEIRING, Bertha (Primêre Gesondheidsorg)
MGULI, Bulelwa Vivian (Verpleegbestuur)
MKHIZE, Nokwazi Bridget (Verpleegbestuur)
MOTJA, Cynthia Lulama (Verpleegbestuur)
MOURIES, Millicent Berenice (Verpleegonderwys)
MPEHLE, Zanele (Verpleegbestuur)
MSANE, Zanele Thandeka Jennifer (Verpleegonderwys)
MTSHALI, Phathiswa Doris (Verpleegonderwys)
NDUNANA, Vuyiswa (Primêre Gesondheidsorg)
NEL, Taralynne Ann (Verpleegonderwys)
NEL, Virgel Derek (Verpleegbestuur)
NKOSI, Noziqhamo Cynthia (Verpleegonderwys)
NKWANYANA, Nompumelelo Duduzile (Kritieke Sorg)
PARRY, Susie Maria (Verpleegonderwys)
PAULSEN, Carmon Miranda (Primêre Gesondheidsorg)
PEKEER, Mellissa Lindsay (Verpleegbestuur)
PLAATJIE, Lungiswa Portia (Primêre Gesondheidsorg)
RAPHADANA, Patricia Mamokoloane (Verpleegonderwys)
RUITERS, Matthew Francis (Verpleegonderwys)
RYLAND, Sofia Elisabeth (Gevorderde Verloskundige en Neonatologiese Verpleegkunde)
SHELTON, Sumaya (Primêre Gesondheidsorg)
SIMBEKU, Nombulelo Gladys (Primêre Gesondheidsorg)
SKEPU, Thanduxolo (Gevorderde Psigiatriese Verpleegkunde)
SKWEYIYA, Vuyelwa Esther (Primêre Gesondheidsorg)
USABAMAHORO, Lorna Hlalisa (Primêre Gesondheidsorg)
VALLEY, Christina Sheroline (Primêre Gesondheidsorg)
VAN ROOY, Noeleen Susan (Verpleegbestuur)
VOYIYA, Pamella (Verpleegonderwys)
WILLEMSE, Marleen Sylvia (Primêre Gesondheidsorg)
WONIWE, Pamela (Primêre Gesondheidsorg)

NAGRAADSE DIPLOMA IN VERPLEEGKUNDE CUM LAUDE (NGDip (Verpleegk) CUM LAUDE)
POSTGRADUATE DIPLOMA IN NURSING CUM LAUDE (PGDip (Nursing) CUM LAUDE)
BAWA, Aysha (Primêre Gesondheidsorg)
LENGANA, Lesimule Mirriam (Verpleegonderwys)

NAGRAADSE DIPLOMA IN GENEESMIDDELONTWIKKELING (NGDip (Geneesmiddelontwikkeling))
POSTGRADUATE DIPLOMA IN MEDICINES DEVELOPMENT (PGDip (Medicines Development))
CELE, Sithabile Happiness
CHAMUNORWA, Arthur Simbarashe
CHIGWANDA, George
EGIEYEH, Elizabeth Oyebola
FUSIRE, Terence Tinotenda
KGONGOANE, Malebo Winnifred
MACHIRI, Rufaro Godfrey
MAPURETI, Phillip
MASHIMBYE, Ntsako Happy
MATANYAIRE, Nyaradzai
MAVENGERE, Yvonne
NEL, Colleen
NEMBALENI, Lorraine
NTSEPE, Lebeko Teboho
NXUMALO, Nqobile Nelsiwe
OSWATCH, Friezland
PHILANDER, Lynn Lynnette
RAVENGAI, Innocent
SIDUNA, Willie Musarava
VUKEYA, Tlangelani Minah

NAGRAADSE DIPLOMA IN GENEESMIDDELONTWIKKELING CUM LAUDE (NGDip (Geneesmiddelontwikkeling) CUM LAUDE)
POSTGRADUATE DIPLOMA IN MEDICINES DEVELOPMENT CUM LAUDE (PGDip (Medicines Development) CUM LAUDE)
CHINOVHIRINGA, Ronald Ruzivo Tonderai
HLABANO, Nkosiyazi
MAFUKIDZE, Fungai
MASUKA, Josiah Tatenda
VAN ZYL, Lora Anne

NAGRAADSE DIPLOMA IN GESONDHEIDSORGBESTUUR (NGDip (Gesondheidsorgbestuur))
POSTGRADUATE DIPLOMA IN HEALTH CARE MANAGEMENT (PGDip (Health Care Management))
MATSEBULA, Zamokuhle
RAMOKOKA, Nkosingiphile Emeldah

NAGRAADSE DIPLOMA IN GESONDHEIDSORGBESTUUR CUM LAUDE (NGDip (Gesondheidsorgbestuur) CUM LAUDE)
POSTGRADUATE DIPLOMA IN HEALTH CARE MANAGEMENT CUM LAUDE (PGDip (Health Care Management) CUM LAUDE)
FRANTZ, Veruschka
ISMAIL, Kulthum Bibi

HONNEURS-BACCALAUREUS IN DIE NATUURWETENSKAPPE (HonsBSc)
BACHELOR OF SCIENCE HONOURS (BScHons)
ELMORSI, Mohamed Sherif Hussein Elmoghazi (Hiperbariese Geneeskunde)
GUPTA, Manoj (Hiperbariese Geneeskunde)
MILAMBO, Jean Paul Muambangu (Hiperbariese Geneeskunde)

HONNEURS-BACCALAUREUS IN VERPLEEGKUNDE (HonsB Verpleegkunde)
BACHELOR OF NURSING HONOURS (B Nurs Hons)
JULIES, Rene Marionette
MATOLLA, Estelle Jennifer

MAGISTER IN DIE NATUURWETENSKAPPE (MSc)
MASTER OF SCIENCE (MSc)
AFROGHEH, Amir (Sitopatologie)
ALLEY, Philbe-Jeanne (Molekulêre Biologie)
AWOTIDEBE, Adedapo Wasiu (Kliniese Epidemiologie)
BOGGENPOEL, Blake Yale (Kliniese Epidemiologie)
BOTHA, Anél (Geneeskundige Fisiologie)
BYAMUNGU, Nsuli Lily (Kliniese Epidemiologie)
CHIMUSA PATRICK DE MARIE, Katoto (Kliniese Epidemiologie)
CHINHOYI, Rekai Lionel (Kliniese Epidemiologie)
CLARKE, Charlene (Molekulêre Biologie)
DA CAMARA, Ncite Lima (Molekulêre Biologie)
ELDIEB, Nada (Geneeskundige Fisiologie)
MAHWIRE, Tamirirashe Christopher (Kliniese Epidemiologie)
MANWANA, Esperance Musanda (Kliniese Epidemiologie)
MEDARD, Beyanga (Kliniese Epidemiologie)
MIKASI, Sello Given (Geneeskundige Virologie)
MOUAKO LEUFAK, Arlette (Kliniese Epidemiologie)
MZEZEWA, Sibonginkosi Roselyn (Geneeskundige Fisiologie)
NGWENYA-CHANGAMIRE, Thobeka Wendy (Kliniese Epidemiologie)
OBASA, Adetayo Emmanuel Adegbenga (Geneeskundige Virologie)
OLORUNFEMI, Stephen Ojo (Kliniese Epidemiologie)
PARBHOO, Trisha (Molekulêre Biologie)
POLSON, Alma (Mensgenetika)
SELAMOLELA, Mosa Mathole (Molekulêre Biologie)
TITI, Nondwe Patience (Kliniese Epidemiologie)
TSHILOMBO, Kazadi Valery (Infeksievoorkoming en -beheer)
ZASS, Lyndon Jacques (Mensgenetika)

MAGISTER IN DIE NATUURWETENSKAPPE CUM LAUDE (MSc CUM LAUDE)
MASTER OF SCIENCE CUM LAUDE (MSc CUM LAUDE)
CHARANIA, Sana (Geneeskundige Fisiologie)
COLIC, Antoinette Danielle (Molekulêre Biologie)
IMPERIAL, Emiliana Gomes (Geneeskundige Fisiologie)
KLAZEN, Jessica Katherine (Molekulêre Biologie)
MAREE, Lara (Reproduktiewe Biologie)
NDARUKWA, Victoria (Kliniese Epidemiologie)

MAGISTER IN DIE GENEESKUNDE (MMed)
MASTER OF MEDICINE (MMed)
ADENIYI, Taiwo Amos (Huisartskunde)
BIKINESI, Leonard Timothy (Huisartskunde)
JACOBS, Carmen Michelle (Pediatrie)
JANSEN, Moses Francois Louis (Interne Geneeskunde)
NAIDOO, Rubendren (Anestesiologie)
PRESENCE-VOLLENHOVEN, Mellisa Delia (Huisartskunde)
RADIKARA, Naledi Constance (Huisartskunde)
SHER-LOCKETZ, Candice (Anatomiese Patologie)
SURURU, Cherifa (Huisartskunde)
VAN DER WESTHUIZEN, Frans Petrus (Pediatrie)
VAN STRATEN, Andries (Oor-, Neus- en Keelheelkunde)
VERMEULEN, Abraham Jacobus (Chirurgie)

MAGISTER IN DIE GENEESKUNDE CUM LAUDE (MMed CUM LAUDE)
MASTER OF MEDICINE CUM LAUDE (MMed CUM LAUDE)
BONTHUYS, Anita (Radiologiese Terapie)
MORKEL, Marguerite (Kerngeneeskunde)

MAGISTER IN DIE NATUURWETENSKAPPE IN GENEESKUNDIGE WETENSKAPPE (MScGeneeskWet)
MASTER OF SCIENCE IN MEDICAL SCIENCES (MScMedSc)
CAMARA, Seydou Nourou (Kliniese Epidemiologie)
DAVIDS, Claudia Ruby (Kerngeneeskunde)

MAGISTER IN MENSLIKE REHABILITASIESTUDIE (M Menslike Rehab)
MASTER IN HUMAN REHABILITATION STUDIES (M Human Rehab)
COOK, Petri Johan
MACKENZIE, Valenzia Jasmine
MDUZANA, Luphiwo Lakhanya

MAGISTER IN DIE WYSBEGEERTE IN GESONDHEIDSWETENSKAP-ONDERWYS (MPhil (GesondheidswetOnd))
MASTER OF PHILOSOPHY IN HEALTH SCIENCES EDUCATION (MPhil (Health ScEd))
ESTERHUYSE, Wilhelmina Jacoba

MAGISTER IN DIE WYSBEGEERTE (MPhil)
MASTER OF PHILOSOPHY (MPhil)
HUMPHRIES, Petro
KAPEMBWA, Kenneth Chali
TIN MAUNG MAUNG, Yamin

MAGISTER IN DIE WYSBEGEERTE CUM LAUDE (MPhil CUM LAUDE)
MASTER OF PHILOSOPHY CUM LAUDE (MPhil CUM LAUDE)
VAN RENSBURG, Annari

MAGISTER IN ARBEIDSTERAPIE (MArb)
MASTER OF OCCUPATIONAL THERAPY (MOccTher)
REYNEKE, Lise Kathleen
TAPFUMA, Mary

MAGISTER IN DIE VERPLEEGKUNDE (M Verpleegkunde)
MASTER OF NURSING (M Nursing)
AGENBAG, Sonet Elizabeth
CHITIMWANGO, Priscilla Chisanga
HARDINE, Joslyn Magdalene
HORNIMANN, Harriet Millicent
JULIUS, Chantal
KOKURO, Mercy
MOSES, Katy Selina

NDZIMA-KONZEKA, Florence Fezeka
PEDRO, Yolandi Verna
PIENAAR, Winnifred Babara
SHIPMAN, Reinet
SPOGTER, Aletta Beverley
VOGET, Ursula

MAGISTER IN DIE VERPLEEGKUNDE CUM LAUDE (M Verpleegkunde CUM LAUDE)
MASTER OF NURSING CUM LAUDE (M Nursing CUM LAUDE)
MGOQI, Mangoyi

MAGISTER IN VOEDING (M Voeding)
MASTER OF NUTRITION (MNutr)
BRADFIELD, Margot Louise (Voedingswetenskappe)
JAFFER, Nasreen (Voedingswetenskappe)
KOTLOWITZ, Jessica Rose (Voedingswetenskappe)
KOTZE, Vanessa (Voedingswetenskappe)
MBOGO, Alexander Muthii (Voedingswetenskappe)
PADAYACHEE, Morgambal (Voedingswetenskappe)
VERMAAK, Ronelle Talana (Voedingswetenskappe)

MAGISTER IN VOEDING CUM LAUDE (M Voeding CUM LAUDE)
MASTER OF NUTRITION CUM LAUDE (MNutr CUM LAUDE)
JONKER, Kari (Voedingswetenskappe)
KRIEL, Janine (Voedingswetenskappe)

MAGISTER IN FISIOTERAPIE (MFisio)
MASTER OF PHYSIOTHERAPY (MPhysio)
AVNI, Corina Marie
BRUINDERS, Ernestine Valmare
ENRIGHT, Marlie
JACOBS, Lonese Charmaine
KOLESKY, Jacqueline Mary
MOORE, Keryn

MAGISTER IN SPRAAK-TAALTERAPIE (M in Spraak-Taalterapie)
MASTER IN SPEECH-LANGUAGE THERAPY (M in Speech-Language Therapy)
MORE, Katherine Jane