

College of Agriculture and Environmental Sciences

Research focus areas for 2027: Department of Life and Consumer Sciences - Life Sciences

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
Molecular and Cell Biology in Health Contact person: Prof Ntwasa	Prof Ntwasa	Biochemistry	Professor of Biotechnology in the Department of Life & Consumer Sciences. Research in Prof Ntwasa's group focuses on anti-cancer and anti-microbial drug discovery and the molecular basis of carcinogenesis. The group offers training in drug Discovery and Development Research (DDDR) as well as fundamental research in Biomedical Sciences.	1. Anticancer and antimicrobial DDDR 2. Molecular basis of carcinogenesis	Masters: 12 PhD: 5
	Prof Gildenhuys	Protein Biochemistry	Prof Gildenhuys is a professor in the Department of Life and Consumer Sciences. She holds a PhD from University of the Witwatersrand. Her research focuses on studying proteins stability and function. Protein ligand interactions and their role as drugs or modification agents in biological drug formulations. Methodology expertise: Protein purification, Bacterial protein expression, Spectroscopic	1. Viral capsid proteins 2. Protein ligand interactions 3. Protein stability and folding	Masters: 1 PhD: 2

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
			analysis (Circular dichroism and Fluorescence), DSC (Differential scanning calorimetry), ITC (Isothermal titration calorimetry), Bioinformatics limited to homology modelling and molecular docking and simulations.		
	Dr Parbhoo	Protein Biochemistry	Dr Parbhoo is a Lecturer in the Department of Life and Consumer Sciences. He holds a PhD from University of the Witwatersrand. His research focuses on studying proteins stability and function. Methodology expertise: Protein purification (chromatography), Bacterial protein expression, Spectroscopic analysis (Circular dichroism and Fluorescence), ITC (Isothermal titration calorimetry), flow cytometry computational molecular docking and drug design.	1. Overexpression of virus capsid proteins 2. Computational docking of anti-cancer compounds 3. Anti-cancer assays	Masters: 2 PhD: 1
	Dr Mkhombo	Protein Biochemistry	Dr Mkhombo is a lecturer in the Department of Life and Consumer Sciences. Currently he investigates the determination types of advanced glycation end-products formed such as carboxymethyllysine and crosslinks formation like dimers or trimers in diabetes.	1. Enzyme kinetics under different conditions	Masters: 1 PhD: 0

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
	Prof Christian	Genetics Molecular Biology	Prof Riann Christian is an associate professor in the Department of Life and Consumer Sciences. She obtained her MSc from University of KwaZulu-Natal and her PhD from University of the Witwatersrand. She has 13 years' experience in molecular biology in insecticide resistance in malaria vectors. She is also currently involved in biogas and bioenergy studies. Methodology expertise: DNA and RNA extraction, PCR, cDNA synthesis, cloning, QPCR, biochemistry, ELISA, <i>Taqman</i> assays, microarrays, insecticide susceptibility assays, fungal insecticide assays, RNA interference, CRISPRi	1. Insecticide resistance 2. Gene expression studies 3. Molecular characterization and detection of infection in vectors	Masters: 3 PhD: 2
	Dr Masebe	Microbiology and Molecular Biology	Dr Tracy Masebe is a Chair of the Department and Senior Lecturer in the Department of Life and Consumer Sciences. The research focuses on characterization of Tick-borne pathogens, Molecular Biology, and Investigation of plant-derived bioactive compounds with anti-microbial properties.	1. Genetic diversity and characterization of microbial pathogens 2. Gene expression 3. Genome Sequencing 4. DNA profiling	Masters: 2 PhD: 1
	Ms Matshotshi	Molecular Biology	Ms Matshotshi is a lecturer of Zoological Sciences in the Department of Life and Consumer Sciences. She holds an MSc in Zoology from the University of Pretoria (UP). Currently registered for a PhD with North-West University (NWU). Her research focus is on	1. Molecular Epidemiology of Zoonotic Disease.	Masters: 1

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
			Tick-borne diseases of veterinary, medical and environmental importance. Her research interests molecular epidemiology		
	Dr Mdyogolo	Molecular Biology Animal breeding and Genetics / Genomics	Dr Sinebongo Mdyogolo is a Lecturer in the Department of Life and Consumer Sciences. She obtained her PhD degree in Animal Breeding and Genetics from the University of the Free State. Her research focus are in Animal Breeding and Genetics/Genomics (integration of Quantitative Genetics and Genomics) and population genetics.	1. Animal breeding & Genetics. 2. Genomic association studies using SNP markers and sequence data.	Masters: 1 PhD: 1
	Dr Smith	Conservation Genomics, Molecular biology	Dr Rae Smith is a lecturer in the Department of Life and Consumer Sciences. He has a PhD in genetics. He has a wide range of research interests, with a focus on using wildlife and domestic animal species for various genetics, genomics, and molecular biology applications.	1. Conservation genomics in livestock and wildlife. 2. Investigating genetic and transcriptome-wide associated phenotypic traits. 3. Molecular characterisation of genes of interest. 4. Whole genome assembly.	Masters: 3 PhD: 1
	Prof Tsotetsi-Khambule	Veterinary Parasitology	Prof Tsotetsi-Khambule is an associate Professor in the Department of Life and Consumer Sciences. She obtained her MSc from the University of the North and her PhD from Rand Afrikaans University, now UJ. Her research focus is on the epidemiology of parasitic helminths and parasites of one health importance.	1. Development of molecular diagnostic tools for nematodes of livestock. 2. Anthelmintic resistance in livestock 3. Anthelmintic activity of medicinal plants. 4. Prevalence and distribution of parasites of one health importance.	Masters: 3 PhD: 1
	Dr Monyama	Molecular Biology Zoonotic pathogens	Dr M Monyama is a lecturer of Biomedical Sciences in the Department of Life and Consumer Sciences. He holds a PhD in Microbiology from North-West University (Potchefstroom campus). His research focus is	1. Molecular characterization 2. Zoonotic Bacterial Pathogens. 3. Ecology and Transmission of Disease Outbreaks 4. Metagenomics	Masters: 4 PhD: 1

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
			on antibiotic resistance in zoonotic bacterial pathogens of one health importance, epidemiology, and molecular diagnostics.		
	Mr Chabalala	Aquatic Zoology	Mr Chabalala is a lecturer in the Department of Life and Consumer Sciences. He holds a Master's of Science degree in Zoology from the University of Limpopo. His research focus is freshwater ecology, Zooplankton and phytoplankton, entomology and parasitology. Methodology expertise: water quality analysis, Health Assessment Index & Histopathology, Integrated Parasite Index, Age determinations, Fish & Plankton species identification techniques.	1. Freshwater ecology 2. Animal health and parasitology 3. Entomology (Ants studies) and their associated pathogens	Masters: 3 PhD: 0
	Mr Malindisa	Drug discovery and development of anticancer drugs targeting the cell cycle proteins	Mr Sibusiso T Malindisa is a lecturer of Biotechnology in the Department of Life and Consumer Sciences. He holds an MSc in Molecular and Cell Biology from the University of the Witwatersrand (Wits). Currently registered for a PhD. His research focus is on drug discovery and development of anticancer drugs targeting the cell cycle proteins. His research interests include pharmacodynamics and pharmacogenetics of anticancer drugs, anti-ageing and human genetics. Methodology expertise: Genotyping, Cell Biology, Sanger Sequencing, Real-time PCR and general molecular biology techniques.		Masters: 8 PhD: 0

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
	Mr Notununu	Microbiology and Biotechnology	Mr Iviwe Notununu is a lecturer of Biotechnology in the Department of Life and Consumer Sciences. He holds an MSc in Microbiology from the University of Pretoria (UP). Currently registered for a PhD. His research lies at the intersection of cancer metabolism, chemotherapeutic response, and dietary interventions, focused on how metabolic reprogramming in cancer cells can be targeted for anticancer purposes. His research interests include exploring the use of plant growth promoting bacteria (PGPR), and how they can be used as biofertilizers to improve nutrient uptake, and increase plant resilience against biotic and abiotic stresses.	3. Cancer Metabolism and Therapeutic Targeting 4. Dietary Modulation in Cancer Therapy 5. Preclinical Oncology Models 6. Apoptosis and Cell Death Pathways 7. Molecular and Cellular Biology Techniques 8. Biotechnology for Therapeutic Discovery 9. Plant-microbe interactions Gene expressions studies	Masters: 2
	Dr Maswanganye	Small mammal conservation and molecular biology	Dr K Amanda Maswanganye is a Zoology Lecturer in the Department of Life and Consumer Sciences (Extended Science Program). She holds a PhD in Zoology from the University of Pretoria. Her research focuses on the following: Zoology, Phytogeography, Population Genetics, Conservation and Species distributions in small mammals from southern Africa.	1. Zoology 2. Reproductive physiology 3. Phylogeography and Population Genetics 4. Species distributions 5. Conservation	Masters: 1 PhD: 1
	Dr Tambani	Molecular Biology and Protein Biochemistry	Dr Tambani is a Lecturer in the Department of Life and Consumer Sciences. She holds a Doctoral Degree in Microbiology from the University of Venda. Her research focuses on, HIV diversity, replication and inhibition, Molecular Biology, Molecular modelling and peptide designing.	1. HIV-1 proteins, structure/function, inter-subtype variation 2. Development of peptides and molecular modelling targeting HIV-1 3. Development of HIV-1 inhibitory assays	Masters: 2 PhD: 1

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
	Prof Mosebi	Protein Biochemistry	Prof Mosebi is an associates professor in the Department of Life and Consumer Sciences. He obtained his PhD from the University of the Witwatersrand. His research focuses on mechanisms of viral pathogenesis and antiviral drug discovery, as well as the development of novel diagnostic tools for animal and human diseases. He uses cell biology, genetics, structural biology, molecular modelling and drug discovery techniques to investigate and understand the molecular properties of HIV integration, viral-host factor relationships in viral pathogenesis and replication of retroviruses (e.g., HIV-1).	1. Drug Discovery in HIV and cancer (<i>in-silico</i> modelling, compound synthesis and screening). 2. Food security (discovery, design and development of novel insecticidal agents in the agricultural sector) 4. Development of novel diagnostic tools for cancer, COVID-19, HIV and zoonotic diseases (e.g., rift valley fever virus).	PhD: 1 MSc: 0
	Mr Twala	Protein Bioinformatics	Mr Charmy S. Twala is a Lecturer in the Department of Life and Consumer Sciences. He holds an MSc in Bioinformatics and an HDIP in Computer Science from the University of the Witwatersrand. Currently registered for a PhD. His research focus adopts a computational approach on drug discovery and development of anticancer drugs targeting cell cycle proteins. His research interests include lead optimisation to produce preclinical drug candidates and the development of software or computational tools to aid in facilitating drug discovery research.	1. <i>In silico</i> protein modelling and validation. 2. Database screening (High throughput Virtual screening (HTVS), Standard precision (SP), and Extra precision (XP)) and molecular docking. 3. Lead Optimisation to improve pharmacodynamics and pharmacokinetics of anti-cancer drugs 4. Molecular Dynamics (MD) simulations to probe the structural and thermodynamic stability of protein-ligand complexes	Masters: 1 PhD: 0
	Prof Meddows-Taylor	Microbiology	Prof Stephen Meddows-Taylor is an Associate Professor in the Department of Life and Consumer Sciences. He obtained his MSc and PhD from the University of the Witwatersrand. His research focuses on the role that microorganisms play in climate change and microbial bio-resources in sustainable agriculture	1. Microbial bio-resources 2. The role of microorganisms in climate change	Masters: 2 PhD:1

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
			Methodology expertise: Cell bioassays, ELISA, flow cytometry, molecular biology		
	Dr Mafokwane	Molecular Biology and parasitology	Dr Mafokwane is a Molecular biology lecturer in the Department of Life and Consumer Sciences. She holds a Master's degree from the University of Venda. Her research focus is on - Molecular characterization of enteric pathogens (bacterial, viral and parasitic). Her interests are shotgun metagenomics, whole transcriptomic analysis, molecular epidemiology and molecular diagnostics.	1. Molecular characterisation of enteric pathogens (viral, bacterial and parasitic) 2. Molecular diagnostics 3. Genome sequencing 4. Gene expression	Masters: 3 PhD: 0
	Dr Magoro	Microbiology and molecular biology	Dr Magoro is a Lecturer in the Department of Life and Consumer Sciences. He holds a Doctoral Degree in Microbiology from the University of Venda. His research focuses on, the role of innate immunity in controlling viral infections and its connection to Cholesterol metabolism	1. Infectious diseases and Innate immunity 2. Type 1 interferons 3. Gene expression	Masters: 2 PhD: 1
	Dr Sooklal	Protein biochemistry and industrial biotechnology	Dr Sooklal is a senior lecturer in the Department of Life and Consumer Sciences. She holds a PhD from the University of the Witwatersrand (Wits). Her research focuses on the identification and characterisation of new biocatalysts for the sustainable synthesis of pharmaceuticals and other high-value products; as well as anti-cancer drug discovery and development. Methodology expertise: Protein expression, protein purification, protein characterisation techniques, bioinformatics, mammalian cell culture, cell viability and cytotoxicity assays.	1. In silico approaches to identify biocatalysts 2. Expression and characterisation of biocatalysts 3. Transcriptomic and proteomic analysis of plants	Masters: 0 PhD: 2
	Mr Kgokolo	Biochemistry	Mr Samuel Kgokolo is a fixed term lecturer in the Department of Life and Consumer	1. Cloning 2. Protein expression	Masters:0 PhD: 0

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
			Sciences. He holds a BSc (hons) degree in medical science (clinical pathology), and an MSc in Life Sciences (protein Biochemistry). His research focuses on gene manipulation; protein expression, purification and characterisation.	3. Protein folding and stability assessment	
	Dr Makhoba	Bioinformatics, Drug design and Proteomics	Dr Makhoba holds a PhD degree in Biochemistry from the University of Zululand with a strong background in Molecular and Cell Biology, Bioinformatics, and Proteomics. He is a senior lecturer in the Department of Life and Consumer Sciences. His research interest is in molecular chaperones and polyamines in complex diseases. Dr Makhoba's research group also focuses on the SARS-CoV-2 project to develop an innovative treatment for the coronavirus. The project involves postgraduate students.	1. Computational studies 2. Proteomics 3. Drug design and testing	Masters: 3 PhD: 2
	Dr RV Saasa	Biotechnology, Clinical Biochemistry	Dr Saasa is a senior lecturer in the department of life and consumer sciences. She holds a PhD in Biochemistry from University of Pretoria. Master in Biochemistry (with distinction) from University of Johannesburg. Her research interest involves the development of nanostructured materials for applications in diagnostics, focussing on diseases that significantly contribute to South Africa's disease burden. This entails the identification of suitable disease biomarkers, and the development of nanoparticles functionalized with biomolecules (antibodies or aptamers) that can facilitate specific biomolecular recognition of such biomarkers and the subsequent development of rapid diagnostic systems.	1. Identification of miRNA'S as specific biomarkers in lung cancer diagnostics. 2. Development and optimization of AuNP/GO compos electrochemical biosensing of carcinoembryonic antigen cyto keratin fragment 19 lung cancer biomarker. 3. Development of a portable electrochemical biosens using Chitosal/Fe ₃ O ₄ for lung cancer biomarkers. 4. Characterization and evaluation of the potential of p a Mycobacterium tuberculosis (MTB) biomarker for biosensing of pyrazinamide (PZA) resistance in clinical samples. 5. Development of a rapid electrochemical biosensor f detection of Salmonella spp and Listeria monocytogenes in food matrix.	PhD:2 MSc:1

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
Industrial Applications of Natural Sciences Contact person: Prof SL Lebelo	Dr Nyila	Phytomedicine	Dr Nyila is a senior lecturer in the Department of Life and Consumer Sciences. He holds BSc (Majors in Microbiology and Biochemistry) from the University of the Western Cape, BSc (Honours in Microbiology) from the University of the Western Cape, MSc (Environmental Biotechnology) from Rhodes University, PhD (Plant Science /Botany) from the University of Pretoria. His PhD thesis title is <i>Antilisterial bioactivity and /or biofilm-formation by compounds from Plectranthus ecklonii Benth. and Acacia karroo Hayne</i> . Serve on the Editorial Review Board of the journal, Natural Product Communications	1. Antibacterial activity of medicinal plants against foodborne pathogens. 2. Medicinal plants with antibacterial activity against <i>Listeria monocytogenes</i> . 3. Pharmacognosy, phytomedicine, phytochemistry 4. Phytochemical screening of medicinal plants for antimicrobial activity, isolation, characterisation and identification of bioactive compounds. 5. Food microbiology 6. Antimicrobial activity of medicinal plants against a variety of pathogens that affect humans well-being.	Masters: 0 PhD: 3
	Prof Lebelo	Phytomedicine	Prof SL Lebelo is an Associate Professor and Chair of the Department of Life and Consumer Sciences. He holds a PhD from the University of the Western Cape. He is currently seconded to the Directorship in the School of Agriculture and Life Sciences. His research focus is on medicinal plant use in the treatment and management of ailments such as hypertension, diabetes, pain, and male infertility. Methodology expertise: Qualitative and quantitative studies	1. Phytochemical screening of plants extracts 2. Identification of active compounds 3. Androgenic, anti-diabetic, anti-inflammatory, and anti-hypertensive properties of medicinal plants	Masters: 2 PhD: 2
	Mr. Sithebe	Microbiology and	Mr. Thulani Sithebe is a fixed term		Masters: 0

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
		Molecular Biology	postgraduate assistant in the Department of Life and Consumer Sciences. He holds a BSc in Life Sciences (hons) degree specializing in Microbiology from the University of South Africa (UNISA). He is currently awaiting to confer his MSc in Life Sciences (parasite phylogenetics) from UNISA. His research interests include medical microbiology and the phylogenetic studies of zoonotic mammalian parasites.		
	Prof Magano	Medicinal plants and Tick Biology	Professor of Zoology in the Department of Life & Consumer Sciences. He is currently the Executive Dean of the College of Agriculture and Environmental Sciences. His research focuses on medicinal plants and tick biology.	1.Medicinal plants use 2.Tick biology	PhD: 2
	Prof Pillay	Medicinal plants/Biotechnology/Plant Molecular Biology	Prof Michael Pillay (BSc, UHDE, BEd, BA, BSc [Hons] MS, PhD) is a Distinguished Professor in the Department of Life and Consumer Sciences. He holds a PhD (Molecular Genetics) (1991) at Virginia Polytechnic Institute and State University. Prof. Pillay's research interests are medicinal plants, biotechnology, plant breeding, molecular genetics, plant sciences, plant systematics, cytogenetics, tissue culture, cell culture/tissue engineering and germplasm conservation of crop plants.	1. Investigation of medicinal plants for the benefit of human health. 2. Isolation and characterization of bio-active compounds from organisms. 3. Natural Science Niche area projects involving food security and poverty alleviation. 4. Germplasm characterization of Cannabis.	Masters:1 PhD 2
	Ms Mulaudzi	Phytomedicine	Ms Rofhiwa Mulaudzi is a Lecturer of Botany in the Department of Life and Consumer	1.Antioxidant and antimicrobial screening of medicinal plants.	Masters: 3 PhD: 0

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
			Sciences. She holds an MSc in Botany from the University of Kwa-Zulu Natal (UKZN). Currently registered for a PhD. Her research focus is on antimicrobial, antioxidant, toxicity, phytochemical and screening activities of medicinal plants. Phytochemistry and cosmetic potential of medicinal plants.	2. Phytochemical levels and nutritional properties of medicinal plants 3. Identification of active compounds	
	Prof Tshikalange	Ethnobotany, Phytomedicine	Prof. T.E. Tshikalange is an Associate Professor in the Department of Life and Consumer Sciences. He holds a PhD from the University of Pretoria. His research focuses on ethnobotany and the investigation of medicinal plants for the treatment and management of sexual health, oral health, and malaria.	1. Ethnobotanical Survey and Pharmacological Evaluation of Indigenous Plants Used for Managing Sexual and oral Health Disorders 2. Isolation and characterization of bioactive Compounds from Medicinal Plants 3. Antimicrobial Potential of medicinal plants and synergistic studies. 4. Bioprospecting	Masters: 1 PhD: 1
	Dr Ramadwa	Phytomedicine	Dr Ramadwa is a lecturer in the Department of Life and Consumer Sciences. He holds an MSc with distinction and PhD from the University of Pretoria where he was also a Post-doctoral fellow. His research focus area is mainly on drug discovery from natural products, particularly against Nosocomial pathogens, Mycobacteria, Fungi and Inflammation. He is also interested in investigating the <i>in vitro</i> cytotoxicity and <i>in vivo</i> toxicity in mice of bioactive compounds.	1. Drug discovery from natural products 2. Isolation and characterization of antibacterial, antifungal, antimycobacterial and anti-inflammatory compounds from medicinal plants. 3. <i>In vitro</i> cytotoxicity and <i>in vivo</i> in mice of bioactive compounds	Masters: 2 PhD: 1
	Dr Dinga	Grassland Ecology	Dr Mamokete Dinga is a Senior Lecturer in the Department of Life and Consumer	1. Biodiversity and productivity in the Grassland Biome of South Africa	Masters: 3 PhD: 3

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
			Sciences. She holds a PhD from University of the Free State. Her research focus is on vegetation classification and mapping; biodiversity, climate change and ecosystem functioning; and also plant–grazer interactions in grassland.		
	Ms Mmbadi	Terrestrial Ecology, Climate-change and Plant Invasive species.	Ms Mmbadi is a Junior Lecturer in the Department of Life and Consumer Sciences. She holds an MSc degree in Life Sciences (Plant-Animal Interaction) from the University of South Africa (UNISA). Currently registered for a PhD. Her research focuses on climate-change, plant distribution and molecular phylogenetics.	1. Plant-Animal Interactions. 2. Response of Invasive species to climate-change. 3. Species distribution and climate-change.	Masters: 1 PhD: 0
	Prof Tabit	Food microbiology	Prof Frederick T Tabit is a professor in the Department of Life and Consumer Sciences. He holds a Masters in Bio-and Food Technology from Lund University (Sweden) and PhD in Food Science from University of Pretoria (South Africa). His research focus is on Food product development, food safety and food microbiology. Methodology expertise: Experimental research	1. Microbial contamination and quality of foods 2. Food safety implementation and quality assurance 3. Prevalence and antimicrobial resistance genetic and phenotypic profiles of foodborne pathogens 4. Prevalence of fungi contamination and mycotoxins in food 5. Antifungal and antibacterial activities of Lactobacillus species isolated from traditional fermented food products (Contact me @ tabitft@unisa.ac.za for details)	Masters: 3 PhD: 2
	Dr Mankga	Molecular biology Phylogeography Invasive plants	Dr Mankga is a senior lecturer at the Department of Life and Consumer Sciences. Her research interest is mostly on: 1)	1. Plant systematics 2. Macroevolutionary approaches with phylogenies.	Masters: 3 PhD: 2

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
			understanding patterns of biodiversity at different geographic and temporal scales 2) explaining the disparity in the number of plant species among different taxonomic groups 3) origin and evolution of biodiversity by reconstructing time-calibrated phylogenetic trees and 4) Invasive plants.	3. Invasive species 4. Biogeography	
	Mr Mudau	Terrestrial Ecology/ Crop Production	Mr Ambani R Mudau is a lecturer in the Department of Life and Consumer Sciences. He holds a Masters in Agricultural Science from University of South Africa. His research focus is on production strategies and postharvest effect on the quality of baby spinach. From Botany perspective, his research interests include human disturbance on woodland regeneration community. Methodology expertise: Qualitative and quantitative research	1. Preharvest and post-harvest conditions on quality of green leafy vegetables 2. Implications caused by processing types i.e. fresh, frozen and canned on the nutritional quality of green leafy vegetables 3. The impact of disturbance [tree (preferably alien species)-cutting] versus resprouting ability on species diversity	Masters: 0 PhD: 0
	Ms Tlakula	Botany IKS Medicinal Plant Conservation Ecology Curriculum Afrikanisation	Ms. Pearl K Tlakula is a Department of Life and Consumer Sciences lecturer. She is registered for a PhD in Botany curriculum Afrikanisation at the University of Pretoria (UP), Post Graduate Certificate in Higher Education University of Pretoria (UP), Master of Plant Sciences from the University of Pretoria (UP). Her research focus is on IKS on the Use of Medicinal Plants, Plant Conservation Ecology, Curriculum Afrikanisation, and Student-Centered Andragogy in Higher Education.	2. Medicinal Plants and Indigenous Knowledge Systems. 3. <i>In vitro</i> antimicrobial activity screening of indigenous medicinal plants 4. Plant Conservation Ecology and Biodiversity Management 5. Curriculum Afrikanisation in Higher Education 6. Student-Centered Andragogy in Higher Education 7. Interdisciplinary Themes Combining All Focus Areas (Bridging Indigenous Knowledge of the use of Medicinal Plants and their products,	Masters: 1 PhD: 0

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
			Methodology expertise: Qualitative and Quantitative Research.	Plant Conservation Ecology, and Curriculum Afrikanisation in Higher Education)	
	Dr NI Mongalo	Ethnomedicine	Dr Mongalo holds a PhD from the University of KwaZulu-Natal with a background in ethnobotanical surveys of medicinal plants used in the treatment of a variety of both Human and animal infections. He is currently a Chief Technologist in the College of Agriculture and Environmental Sciences Laboratories (CAES Labs), focusing on antimicrobial, anticancer, and anti-inflammatory compounds from medicinal plants. His major projects include the use of plant species as antimycotoxigenic agents to combat fungal infections on major crops consumed as foods in Africa and the toxicity of such plants. He is also involved in the proximate analysis and quantification of phenolic compounds from wild fruits collected from neglected rural villages in South Africa.	1. Antimicrobial 2. Antimycotoxigenic fungi 3. Wild edible plants 4. Isolation and characterization of possible bioactive compounds	PhD: 3 MSc :2
Wildlife Ecology	Prof McIntyre	Vertebrate spatial- and behavioural ecology	Prof McIntyre is an associate professor in the Department of Life and Consumer Sciences. His research interests are mostly focussed on the ecology and behaviour of vertebrates. He is particularly interested in behavioural adaptation (“plasticity”) and its role in helping animals cope with environmental changes. Methodology expertise: Biologging	1. Ecology of African clawless otters and other riparian predators 2. Spatial- and behavioural ecology of seals 3. Human-wildlife conflict	Masters: 1 PhD: 1

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
			approaches for studying the movement and behaviours of animals; Camera-trapping for population-level studies.		
Physiology	Ms Blake	Occupational Hygiene	Lecturer for physiology in the Department of Life & Consumer Sciences. She holds a MSc in Physiology (specializing in Occupational Hygiene). Her research focuses on legislation and exposure limits for chemical carcinogens	1. Exploring the link between oxidative stress and the cardiovascular system of pregnant and non-pregnant South African women: The CHAMP study. 2. Exploring The Link between Oxidative Stress, Cardiovascular Parameters and Foetal Birth Weight in South African Women: The CHAMP Study.	Masters: 2
	Dr Phoswa	Anatomy and Physiology	Dr Phoswa is a Lecturer in the Department of Life and Consumer Sciences. She holds a B.Sc. Medical Science (University of KwaZulu Natal Westville campus), BSc Medical Science Honours (Physiology) (University of KwaZulu Natal Westville campus), M.Med (Physiology) Summa Cum Laude (University of KwaZulu Natal Westville campus), Ph.D. (Medicine) (University of KwaZulu Natal Nelson R Mandela School of Medicine). Her research focuses on Maternal and foetal health as well as hypertensive disorders of pregnancy (Eclampsia, Pre-eclampsia, Gestational hypertension), Gestational diabetes mellitus Diabetes mellitus As well as HIV Infection.	1. The role of HIV infection in Hypertensive 2. Disorders of Pregnancy	Masters: 0 PhD: 0
	Mr Mokgalaboni	Metabolic and cardiovascular disorders.	Mr K Mokgalaboni is a lecturer in the Department of Life and Consumer Sciences. He holds a BSc (Hons) degree in Medical Sciences (Haematology-Distinction) from the University of Limpopo and a Master's in	1.Exploring antioxidant effects of dietary nutrients and supplements in chronic disorders.	Masters:1 PhD:0

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
			Medical Sciences (Physiology) from the University of KwaZulu-Natal (UKZN). Currently enrolled for a PhD in Life Science at UNISA. His research is on antioxidants in rodent models of diabetes and diabetic population. He has research interests in Chronic inflammation, metabolic syndromes, cardiovascular disorders, diabetes mellitus, anemia, and HIV. Methodological expertise: Quantitative analysis (meta-analysis), qualitative including systematic reviews. Preclinical/experimental studies.		
	Dr Nkadimeng	Cardiovascular disorders Inflammation Psychedelics Phytomedicine	Dr Sanah Malomile. Nkadimeng is a Senior Lecture in Human Physiology in the Department of Life and Consumer Sciences. She holds an MSc in Medical Physiology (MEDUNSA/SMU) and a PhD from the University of Pretoria (UP). Her research is in Cardiovascular Diseases, Inflammation and Mental Health studies of medicinal plants and mushrooms. She is currently researching the physiological and psychological effects of psychedelic compound Psilocybin and Psilocybin “Magic” Mushrooms which are currently scheduled substances for their medicinal use and to support their development as potential drug therapeutic agents.	1. Pre-clinical studies on psilocybin and psilocybin mushrooms use in hypertension and heart failure pathological conditions in vivo and in vitro on cellular levels. 2. Pre-clinical studies on the effects and safety of psilocin and psilocybin mushrooms in a pathological inflammation and cancer conditions in vivo and in vitro on cellular levels. 3. Pre-clinical studies on the effects of psilocybin mushrooms and psilocybin on the kidney function in vivo and in vitro. 4. Clinical and pre-clinical studies on the neurological effects, psychological and physiological effects of psilocybin magic mushrooms and psilocin use in depression and addiction.	Masters: 3 PhD: 4

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher
				5. Anti-inflammatory and cardiovascular effects of medicinal plants in vitro on cellular levels and in vivo on animal model.	