



Graduation Programme

The Future. Reimagined.



**Welcome to the
Graduation Ceremony of the
University of Johannesburg
30 March 2020 at 13:00**

**Welkom by die
Gradeplegtigheid van die
Universiteit van Johannesburg
30 Maart 2020 om 13:00**

**Le a Amogelwa
Moletlong wa Dikapešo wa
Yunibesithi ya Johannesburg
30 Hlakola 2020 ka 13:00**

**Niyamukelwa
eMcimbini wokweThweswa kweZiqu
weNyuvesi yaseJohannesburg
30 kuNdasa 2020 ngele-13:00**

UNIVERSITY OF JOHANNESBURG

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BA (Fort Hare), BA Hons (Rhodes), DTE (UNISA), MA (Wits), PhD
(Stellenbosch)

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COLLEGE OF BUSINESS AND ECONOMICS

Prof D van Lill
BSc, BSc Hons, MSc, PhD (US)

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BArch (Pret), MBA (UJ)

FACULTY OF EDUCATION

Prof SJ Gravett
BA, HEd (PU for CHE), BEd, MEd, DEd (RAU)

FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT

Prof DJ Mashao
BSc Eng (UCT), MSc Eng (UCT), MSc AM (Brown, USA), PhD (Brown, USA)

FACULTY OF HEALTH SCIENCES

Prof S Khan
BSc, BSc Hons, MSc, PhD (UWC)

FACULTY OF HUMANITIES

Prof K Naidoo (Acting)
BA, BA Hons, MA, PhD (University of Manchester, UK)

FACULTY OF LAW

Prof LG Mpedi
B Juris, LLB (Vista), LLM (RAU), LLD (UJ)

FACULTY OF SCIENCE

Prof D Meyer
BSc, BSc Hons, MSc (RAU), PhD (California USA)

MEMBERS OF COUNCIL

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Ms K Khumalo
Ms B Madikizela
Mr M Mahlasela
Prof T Marwala
Ms Z Matlala
Prof A Parekh
Dr WP Rowland
Prof A Strydom
Ms C Tshilande

PRESIDENT OF CONVOCATION

Prof BM Diale

Gaudeamus Igitur

Gaudeamus igitur,
Juvenes dum sumus;
Post iucundum iuventutem,
Post molestam senectutem
Nos habebit humus.
Vivat academia,
Vivant professores,
Vivat membrum quodlibet,
Vivat membra quaelibet;
Semper sint in flore!

English

Let us rejoice, therefore,
While we are young.
After a pleasant youth
After a troubling old age
The earth will have us.
Long live the academy!
Long live the professors!
Long live each student;
Long live the whole fraternity;
For ever may they flourish!

Sesotho sa Leboa

Ka gona, a re thabeng,
Re sa le ba bafsa.
Ka morago ga bofsa bjo bo bose
Ka morago ga go tšofala mo go nago
le mathata
Lefase le tla ba le rena.
Phela thuto phela!
Phelang diprofesa phelang!
Phelang baithuti phelang;
Phela kagišano ka botlalo phela;
O ka re ba ka phela gabotse
goyagoile!

Afrikaans

Laat ons dan vrolik wees,
Terwyl ons jonk is;
Na 'n aangename jeug.
Na 'n onaangename oudag,
Sal die aarde ons hou.
Lank lewe die universiteit,
Lank lewe die professore,
Lank lewe elke student,
Lank lewe al die studente,
Mag hulle vir ewig hul jeug behou!

Zulu

Ngakho, masithokoze
Sisebasha nje.
Emva kobumnandi bobusha
Emva kwezinkinga zobudala
Umhlaba uzosithatha.
Phambili ngemfundo!
Phambili boSolwazi!
Phambili nakuwe mfundi;
Phambili ngenhlangano yonke;
Maziqhubeke ngonaphakade!

QUALIFICATIONS

1. Bachelor of Science (BSc)

Abrahams, Zulfah (Geography and Environmental Management)
(with distinction)

Adair, Matthew Grant (Botany and Zoology)

Appama, Akash Nundlal (Zoology and Physiology)

Aucamp, Simone Michalee (Physiology and Biochemistry) **(with distinction)**

Baloyi, Marvelous Nhlavutelo (Geography and Environmental Management)

Baloyi, Pfumelani Gladness (Geology and Geography)

Baloyi, Phamela Hope (Geology and Geography)

Bopape, Matlola Abel (Zoology and Physiology)

Chauke, Hakelo (Botany and Chemistry)

Chirwa, Mechelle Mbali (Botany and Chemistry)

Conco, Fanelesibonge Penelope (Physiology and Psychology)

Dibakwane, Nokuthula (Geography and Environmental Management)

Djameni Djeumo, Therese Dora (Environmental Management and Geology)

Du Plessis, Liette (Physiology and Psychology)

Fortuin, Roxanne (Physiology and Biochemistry)

Hoosen, Fatima (Physiology and Biochemistry)

Hussain, Amees Muhammad (Zoology and Physiology)

Kgware, Lucy Setshwaneng Kedibone (Geography and Environmental Management)

Khala, Luyanda Charmaine (Botany and Biochemistry)

Khorommbi, Muvhuso (Environmental Management and Geology)

Khumalo, Njabulo (Physiology and Biochemistry)

Khumalo, Noncedo Kydo (Geography and Environmental Management)

Latief, Lutfiyya (Zoology and Physiology)

Le Roux, Rynhardt (Botany and Zoology)

Lekalakala, Tebogo (Botany and Biochemistry)

Lekgogola, Tumelo Grace (Physiology and Psychology)
Lerobane, Ntswaki Mathabathe (Geology and Environmental Management)
Leta, Tshiamo Botihale (Botany and Biochemistry)
Lethoko, Rethabile Lindiwe Bella (Physiology and Psychology)
Letsoalo, Maphefo Noriah (Botany and Zoology)
Lubisi, Desire Nokwanda (Biochemistry and Botany)
Maake, Cornelius Tumelo (Geology and Environmental Management)
Mabizela, Zanele Busisiwe Judy (Physiology and Biochemistry)
Madisha, Nthabiseng (Physiology and Biochemistry)
Mafheda, Elelwani Junior (Geology and Geography)
Mahomed, Aaliyah (Geography and Environmental Management)
Mahunye, Nathasha Rebotile (Botany and Zoology)
Maine, Keletso Cynthia (Physiology and Psychology)
Makhathini, Noluthando (Botany and Zoology)
Makhetha, Mamonyane Grace Moleboheng (Physiology and Psychology)
Makhuvele, Sbongile (Physiology and Psychology)
Makwela, Mmatsheko Salphinah (Physiology and Psychology) **(with distinction)**
Manyathi, Zinhle (Environmental Management and Geology)
Maringa, Katekani (Botany and Zoology)
Mashedi, Tshegofatjo (Geography and Environmental Management)
Matea, Thabo Kenneth (Physiology and Zoology)
Mathebula, Samuel (Geography and Environmental Management)
Matsheke, Ayabulela (Environmental Management and Geology)
Matshona, Sinalo (Geography and Environmental Management)
Maubane, Raesibe Bertha (Botany and Biochemistry)
Mdluli, Nomkhosi Mantombazane (Physiology and Biochemistry)
Mduba, Thembinkosi Graham (Geography and Environmental Management)
Modau, Takalani (Geology and Environmental Management)
Mokoena, Nthabiseng (Physiology and Biochemistry)
Moodley, Kieran Iain (Physiology and Psychology)
Mophulane, Letlhogonolo Joseph Junior (Geology and Geography)
Morodi, Veronica (Botany and Chemistry)
Mosetla, Mohau Bruce (Physiology and Psychology)
Motlhajoe, Tshegofatso Grace (Botany and Biochemistry)
Moyaha, Mantoko Willy (Geology and Geography)

Msipa, Meleliwe Ketumetse (Physiology and Biochemistry)
Mukwevho, Priscilla Livhuwane (Botany and Zoology)
Mureri, Dianah (Botany and Zoology)
Mvelase, Sakhile Ntuthuko (Geology and Geography)
Myoli, Akhona (Biochemistry and Psychology)
Mzizi, Yolanda Khanyisile (Zoology and Physiology)
Ndzinisa, Noxolo Nosipho (Geology and Geography)
Ngoma, Busisiwe Vanessa (Physiology and Psychology)
Ngoveni, Qoli Ndzalama (Geology and Geography)
Nhlapho, Samukelisiwe (Botany and Chemistry)
Nhlapo, Thembisile Ellen (Physiology and Biochemistry)
Nhlayisi, Nonkululeko Esther (Botany and Biochemistry)
Nhlengethwa, Nthabeleng (Botany and Biochemistry)
Nkosi, Phumzile (Physiology and Psychology)
Nofal, Ashlee Paige (Zoology and Environmental Management) **(with distinction)**
Nxumalo, Nonkululeko Zanele (Physiology and Psychology)
Nyathi, Musawenkosi Hope Lotriet (Botany and Chemistry)
Othibeng, Kgalaletso (Physiology and Biochemistry) **(with distinction)**
Pillay, Deshan (Physiology and Biochemistry)
Rielly, Alisha (Physiology and Psychology)
Rikhotso, Christine (Zoology and Physiology)
Sathekge, Oratiloe (Geography and Environmental Management)
Sekati, Makgotso Viginia (Zoology and Physiology)
Selokela, Tshepang Denzel (Zoology and Physiology)
Seodisa, Paulus (Zoology and Physiology)
Sesoko, Keabetswe Happiness (Zoology and Environmental Management) **(with distinction)**
Setsiba, Ngwanamakgamatho (Biochemistry and Botany)
Shima, Lerato Rosina (Botany and Chemistry)
Singh, Karina (Physiology and Biochemistry)
Sishi, Senamile Nomfundo (Geography and Environmental Management)
Sithonga, Patricia Asanda Neliswa (Physiology and Zoology)
Skosana, Chantel Annah (Physiology and Biochemistry)
Sokhela, Zanele Ziningi (Biochemistry and Psychology)
Sukati, Sonqobile Phumlile (Botany and Zoology)
Tlali, Boitumelo (Geography and Environmental Management)
Tshoma, Keneilwe (Geography and Environmental Management)

Voko, Thembelani (Environmental Management and Geology)
Zibaya, Vuyokazi Ntando (Zoology and Physiology)
Zondo, Ayanda (Geology and Geography)
Zwane, Mbali Innocentia (Geography and Environmental Management)

2. Bachelor of Arts Honours (BA Hons)

Chamasula, Victoria (Geography)
Kambule, Nomaswazi (Geography)
Kriel, Chane (Geography) **(with distinction)**
Magagula, Benele Kidwell (Geography)
Mtimkulu, Ezekiel Phakiso (Geography)

3. Bachelor of Science Honours (BSc Hons)

Araf Belim, Aaminah Bibi (Geography)
Badal, Alisha (Biochemistry) **(with distinction)**
Bennett, Shannon Rene (Botany)
Buda, Nonhlanhla Silindokuhle (Geography)
Bussin, Daniel (Geology)
Chauke, Zanel Innocent (Energy Studies)
Chitate, Rodney (Energy Studies) **(with distinction)**
Crowhurst, Erin Tayla (Zoology)
Davidson, Katherine May (Zoology) **(with distinction)**
De Wet, Ruan Willem (Geology)
Dladla, Lerato Noxolo Ntombikayise (Physiology)
Dlepu, Sanelisiwe (Geography)
Dube, Keith Mluleki (Zoology)
Duma, Londiwe Grace (Physiology)
Els, Danelle (Physiology)
Essey, Montanna Maria (Physiology)
Faedda, Stefano (Geology)
Fakude, Tshegofatso (Zoology)
Fredericks, Keagan Allistar (Zoology) **(with distinction)**
Gumbo, Nyasha (Botany)
Hlaele, Thabelang (Botany)

Hlaka, Paballo Palesa Vaylen (Botany)
Jardine, Mikhaila Rowan (Zoology)
Kalimashe, Luzuko Ucarel (Energy Studies)
Khumalo, Tholakele (Physiology)
Kubayi, Vanessa Risuna (Geography)
Kwakwa, Boitemogelo Okopilwe Mapue (Geography)
Lekhanya, Thapelo Belindah (Geography)
Lepoto, Thabo (Physiology)
Maduenyane, Mpho (Zoology)
Magoro, Mulalo (Botany)
Mahlangu, Maboku Abner (Energy Studies) **(with distinction)**
Mahlangu, Sibusiso Lenton (Zoology)
Mahomed, Nasima (Biochemistry) **(with distinction)**
Mahooana, Papali Evelyn (Geology)
Makhubele, Pamela (Botany)
Makwela, Innocent (Zoology)
Malatji, Ingrid (Geology)
Maluleke, Florence Refomone (Energy Studies)
Mamabolo, Metse Asaph (Zoology)
Mampa, Ramathabathe Sophy (Geology)
Manamela, Tshweu Tshepho (Botany)
Mangope, Gomolemo (Physiology)
Marufu, Faith Rutendo (Botany)
Marumo, Tshepo (Geology)
Masebinu, Roseline Oluremi (Energy Studies)
Mashabela, Manamele Dannies (Biochemistry) **(with distinction)**
Mashau, Mbuelo Laura (Geography)
Mashishi, Nonhlanhla Selina (Biochemistry)
Masikane, Nqobile Nokukhanya (Physiology)
Masondo, Nozipho (Botany)
Matsimbe, Koketso Kenneth (Geology)
Mazule, Siziphiwe Patience (Botany)
Mbodla, Zusipe (Energy Studies) **(with distinction)**
Mngese, Sphelele Happy (Geology)
Moalosi, Alpheus Diale (Physiology)
Mofokeng, Keletso Faaiza Lesedi (Physiology)
Motau, Giji John (Geology)
Motebejana, Madire Percy (Zoology)
Moyo, Sithembinkosi (Physiology)

Mthembu, Alice (Botany)
Mthimunye, Nelisiwe Betty (Botany)
Muavha, Thendo Jillian (Biochemistry)
Mzimba, Portia Thulisile (Energy Studies) **(with distinction)**
Ndhlovu, Mbali Trudy (Geography)
Nedzamba, Hulisani Theodora (Biochemistry)
Ngobese, Mpilwenhle Nokukhanya (Physiology)
Ngubeni, Ntokozo Siphesihle (Geography)
Ntuli, Bathabile Hunal (Geography)
Nxamashe, Mbulelo (Physiology)
Pakamisa, Mgcini Tanaka (Geography)
Potgieter, Zianet (Zoology)
Ramaila, Ivy Molatelo (Physiology)
Ramalwa, Major (Biochemistry)
Ratombo, Tshilidzi Joyce (Geology)
Ravuluvulu, Aluwani Bridget (Biochemistry)
Richards, Patrick Kyle (Geology) **(with distinction)**
Schnelle, Claudia May (Zoology)
Sediela, Kelebogile Stella (Geology)
Shai, Danisile Sheron (Physiology)
Southon, Tirshnique Queziel (Physiology) **(with distinction)**
Tlhoaele, Josephine Tselane (Biochemistry)
Tshivhase, Lufuno (Physiology)
Van der Merwe, Jandrie Carl (Geology)
Van Rayne, Kiana Kirsty (Botany)
Van Zwieten, Sam Falcon (Zoology) **(with distinction)**
Vhangani, Vincent Rabelani (Physiology)
Xulu, Sanele Siyabonga (Geography)
Yagnik, Sarthak Jigneshkumar (Physiology)
Zwezwe, Gcinikhaya Nceba (Biochemistry)

4. **Master of Science (MSc)**

Boihang, Mothusi Thabiso Ernest (Environmental Management)
Minor dissertation: Community perspectives on socio-economic benefits of mining industries in the Moses Kotane Local Municipality, North-West Province, South Africa
Supervisor: Dr K Yessoufou

Ficq, Gabrielle (Geology)

Dissertation: Origin and evolution of the Early Archean ultramafic-ultramafic Stolzburg Complex, Barberton Greenstone Belt, South Africa

Supervisor: Prof S Tappe

Khaphathe, Ndamulelo Mildred (Environmental Management) (with distinction)

Minor dissertation: Investigating the effects of biotic and abiotic interactions on the tradeoff in plant investment in size-dependent survival and reproductive strategies along an elevational gradient

Supervisor: Dr K Yessoufou

Khosa, Rivoningo Ripanzell (Geology) (with distinction)

Dissertation: The determination of erosion rates along the Vaal River in the Vredefort Dome, South Africa, using the cosmogenic nuclides ^{10}Be and ^{26}Al

Supervisor: Prof JD Kramers

Co-supervisor: Dr V Mbele (iThemba Labs)

Co-supervisor: Dr TV Makhubela

Langa, Welhemina Mmamokhobo (Geology)

Dissertation: The petrology and economic potential of mafic-ultramafic intrusions west of the Kunene Anorthosite Complex, SW Angola

Supervisor: Dr TM Owen-Smith

Co-supervisor: Dr GM Bybee (University of the Witwatersrand)

Co-supervisor: Prof S Tappe

Mienie, Bianca (Geology)

Dissertation: An investigation into whether the phenomenon of reactive ground is present in the central Witbank Coalfield

Supervisor: Prof NJ Wagner

Munyai, Portia Lebogang (Aquatic Health)

Minor dissertation: An assessment of the impacts of municipal wastewater treatment from the Lydenburg wastewater treatment works, Mpumalanga, South Africa

Supervisor: Prof R Greenfield

Ngobeli, Rebeun (Geology)

Dissertation: A comparison between detrital zircon age populations of the Koegas Subgroup of the Ghaap Group and overlying Makganyene Diamictite of the Postmasburg Group, Transvaal Supergroup, Griqualand West

Supervisor: Prof NJ Beukes

Co-supervisor: Dr C Vorster

Niemann, Hendrik Johannes (Botany) (with distinction)

Dissertation: A preliminary assessment of the role of aquarium trade in the spread of non-native aquatic plants in South Africa: A DNA barcoding approach

Supervisor: Prof M van der Bank

Senzani, Khangeziwe Karen (Geology)

Dissertation: A record of ^{236}U content from 1940 to 2012 in a coral core from Europa Island, Mozambique Channel: implications on the pathways of fallout from bomb tests in the Pacific Ocean

Supervisor: Prof JD Kramers

Co-supervisor: Dr SR Winkler (iThemba LABS)

Co-supervisor: Dr A Ambushe

Setshedi, Kobela (Aquatic Health)

Minor dissertation: Interpretation of the Blesbokspruit's six year macroinvertebrate and water quality results to determine the catchment's ability to meet requirements for aquatic ecosystem and water users

Supervisor: Dr GP Tweddle

Co-supervisor: Prof R Greenfield

Shabangu, Khanyisile (Botany)

Dissertation: Taxonomy of the southern African endemic genus *Sisyranthus* (Apocynaceae: Asclepiadoideae-Ceropegieae)

Supervisor: Prof M van der Bank

Co-supervisor: Mr SP Bester (SANBI)

Tinte, Morena Motlotelehi (Biochemistry)

Dissertation: Comparative analysis of LPS-induced changes in the metabolomes of the LORE mutant and wild-type *Arabidopsis thaliana* plants

Supervisor: Prof IA Dubery

Co-supervisor: Prof LA Piater

5. Philosophiae Doctor (PhD)

Badenhorst, Charlotte Johanna (Geology)

Thesis: Char extracted from coal ash as a replacement for natural graphite - "Charphite"

Supervisor: Prof NJ Wagner

Co-supervisor: Prof B Valentim (University of Porto, Portugal)

Co-supervisor: Prof KS Viljoen

Djeutchou, Cedric (Geology)

Thesis: Paleomagnetism of the Paleoproterozoic Black Hills Dyke Swarm: Implications for paleogeographic reconstruction and true polar wander

Supervisor: Prof MO de Kock

Co-Supervisor: Dr H Wabo

Dlamini, Bonginkosi Robert (Environmental Management)

Thesis: Evaluating the performance (effectiveness and efficiency) of waste management and minimization practices in the District Municipalities (Umkhanyakude and Zululand) in the KwaZulu-Natal Province, South Africa

Supervisor: Prof IT Rampedi

Dumbo, José Chissiu (Aquatic Health)

Thesis: An evaluation of the systematic position of three digenean species, histopathology of *Masenia nkomatiensis* Dumbo *et al.*, 2019 and the effect of these parasites and water quality on biomarker responses in *Clarias gariepinus* (Burchell, 1822) from the Incomati Basin, Mozambique

Supervisor: Prof A Oldewage

Ruiters, Ashton Kim (Botany)

Thesis: Food plants of southern Africa

Supervisor: Prof BE van Wyk

Vieira da Costa, Giuliana (Geology)

Thesis: Evaluation of syngenetic gold deposition in syn-sedimentary pyrite of the Witwatersrand Basin

Supervisor: Prof A Hofmann

Co-supervisor: Dr A Agangi

Badenhorst, Charlotte Johanna (PhD)

Ms Badenhorst holds an MEng in Chemical Engineering from the North-West University, specialising in coal and carbon research. She enrolled for a Ph.D. in Geology at the University of Johannesburg in July 2016, also specialising in coal and carbon research.

The study formed part of the ERA-MIN collaboration between Portugal, Poland, Romania, Argentina, and South Africa. Ms Badenhorst studied the possibility of char extracted from coal ash as a replacement for natural graphite. Ash is a waste product resulting from the combustion of coal. The landfilling of coal ash can lead to serious environmental and health concerns. Char in coal ash has a high degree of structural order and can perhaps be used as a substitute for natural graphite. The European Union and the United States have both listed natural graphite as one of their raw critical commodities; hence the project has significant merits. The candidate has presented her PhD work at two local and two international conferences, and has published one peer-reviewed journal article, with a second under review. Ms Badenhorst was the UJ finalist in the first Visualize your thesis competition in 2018.

Supervisor: Prof NJ Wagner

Co-supervisor: Dr B Valentim (University Porto, Portugal)

Co-supervisor: Prof KS Viljoen

Djeutchou, Cedric (Geology)

Mr Djeutchou was born in 1988 in Douala (Cameroon). He holds an MSc in Earth Science and Hydrogeology from the University of Dschang, Cameroon. During the course of his MSc, he was recruited by GEOBASE ING Consulting-Doula as a trainee hydrogeologist. He enrolled for a PhD at the University of Johannesburg (UJ) in 2015.

In his doctoral research, Mr Djeutchou studied the record of the Earth's ancient magnetic field as recorded by the 1.8 billion-year old Black Hills Dyke Swarm – a series of near parallel dolerite filled cracks in northeastern South Africa. He produced what is arguably the best constrained paleomagnetic dataset of rock of this age, worldwide, allowing resolution of 1.88 to 1.83 billion-year old magnetic reversals and the paleogeographic history of the proto-Kalahari Craton – Southern Africa's ancient core. The candidate's results argue against a controversial previously proposed event of rapid true polar wander during the Paleoproterozoic and supports a relatively slow drifting proto-Kalahari Craton that likely formed a larger landmass together with the Baltica Craton of present-day Fennoscandia. Mr Djeutchou has presented his work locally as well as in the USA and Russia. The work is published and accepted as part of two book chapters. Further journal articles are currently being prepared.

Supervisor: Prof MO de Kock

Co-Supervisor: Dr H Wabo

Dlamini, Bonginkosi Robert (Environmental Management)

Mr Dlamini was born in Nongoma, northern KwaZulu-Natal in 1970 and matriculated at Khula High School in 1991. He obtained a B. Paed degree majoring in Geography, Paedagogics, and isiZulu in 1995, followed by a BSc (Hons) degree in Geography and Environmental Studies from the University of Zululand in 2002. In 2004, he completed an MSc (Geography and Environmental Studies) degree at the same institution. In 2013, he enrolled for a PhD degree in Environmental Management at the University of Johannesburg. Mr Dlamini is currently employed as Director in the Department of Economic Development, Tourism and Environmental Affairs in the KwaZulu-Natal province.

Unlike many waste management studies in South Africa conducted in the large metropolitan municipalities, the candidate's research evaluated the performance of waste management and recycling practices in two district municipalities in the rural parts of the KwaZulu-Natal province. This study adopted a triangulated research design making use of questionnaire-administered interviews as well as a SWOT analysis of municipal waste management systems. The results yielded key knowledge on the baseline status of municipal waste management in the study area while indicating strengths, weaknesses, opportunities and threats. Institutionalized and formal waste recycling initiatives were relatively weak and lacked long-term maintenance and sustainability. The performance model developed on solid waste management and recycling practices will assist rural municipalities to improve their operations. The candidate has published one article in an international peer-reviewed journal with others under review. This work has also been presented at both national and international conferences.

Supervisor: Prof IT Rampedi

Dumbo, José Chissiu (PhD)

Mr Dumbo was born on 29/5/1983 in Sofala Province, Mozambique. He attended primary and secondary school in Beira and obtained a Bachelor in Biological Sciences at Eduardo Mondlane University in 2009. He also holds an MSc in Freshwater Biology and Inland Fisheries at the National Institute of Amazonian Research, Brazil (2014) and is currently employed as a lecturer of Physiology and Parasitology in the Department of Biological Sciences, Eduardo Mondlane University in Maputo. He is married to Louisa Tivana and the couple has two daughters, Celina and Ayla Mercy.

Various parasitic digenean species were collected from the catfish. Light and scanning electron microscopical studies, supported by DNA analyse resulted in the description of a new species *Masenia nkomatiensis* and redescription of *Glossidium pedatum* and *Orientocreadium batrachoides*. Parasite numbers varied between 8 and 231 per host and parasites attached to the intestinal wall with specialized structures that prevent dislodgement. The attachment structures destroyed the epithelial cover of the villi and caused detachment of large areas of epithelial tissue, excessive mucus production and catarrh. This resulted in severe inflammation. Histological sections revealed host tissue in the parasite intestine confirming their feeding on the host tissue and the resulting deleterious effect on the health of this important food source. Increased stress hormone levels could be correlated to environmental stressors in the polluted river. The study produced 3 ISI accredited papers as well as 1 national and 3 international conference contributions.

Supervisor: Prof A Oldewage

Ruiters, Ashton Kim (Botany)

Mrs Welcome (née Ruiters) was born in Namibia and matriculated at the Mondeor High School in Johannesburg in 2006. She completed a BSc degree in Zoology and Botany in 2011, a BSc. Hons degree in Botany and Plant Biotechnology in 2012, and an MSc. degree in Botany (*cum laude*) in 2015, all at the University of Johannesburg. In 2015 she enrolled for a PhD at the University of Johannesburg. She is currently employed as a scientist at the National Biodiversity Institute in Pretoria.

A first comprehensive inventory revealed that there are 1740 species of edible plants in southern Africa. Plant distribution data were overlapped in ArcMap (GIS platform) with shape files of 19 language groups and eight biomes. Correlations were estimated between four pair-wise distance matrices (language ancestry, geographical proximity and floristic and edible environments) with Mantel tests using the 'vegan' package in R. Spatial autocorrelation did not influence the selection of edible plants. Subsistence strategy (hunter-gatherer vs pastoralist vs agrarian) appeared to be the main driver of food plant selection. Surprisingly, the Apocynaceae had much higher residual values in the regression analyses, than all globally important food plant families. The study is highly relevant in the context of new product development and food security. The candidate presented the results at eight national and two international conferences and published two peer-reviewed articles in high impact international journals.

Supervisor: Prof BE van Wyk

Vieira da Costa, Giuliana (PhD)

Ms da Costa was born in São Paulo (Brazil) and holds an MSc in Economic Geology from University of Brasília. She enrolled for a PhD at the University of Johannesburg in 2015 and is currently Assistant Project Manager at Bureau Veritas in Mozambique.

Pyrite is the most common ore mineral in gold-bearing quartz-pebble conglomerates of Archaean age. Different types of detrital pyrite occur and have provided information on sediment provenance, depositional environment, and post-depositional hydrothermal overprint. However, the pyrite source is a long-standing debate.

In her doctoral study, Ms da Costa conducted petrographic, trace element, and sulfur isotopic analyses on detrital pyrite from the Witwatersrand Basin. She was able to show that a large proportion of the pyrite represents reworked diagenetic pyrite that formed with the aid of microbial sulfate reducers. Her results have a bearing on surface processes and gold mineralization in the Archaean geological record. Ms da Costa has presented her work at one national and one international conference and has published two peer-reviewed journal articles.

Supervisor: Prof A Hofmann

Co-supervisor: Dr A Agangi

See the back cover for the words of the National Anthem.



A word of thanks to the UJ Alumni Office for sponsoring the flower arrangements at the University of Johannesburg graduation ceremonies.

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National Anthem of South Africa

Nkosi sikelel' Afrika
Maluphakanyisw' uphondo lwayo,

Yizwa imithandazo yethu,
Nkosi sikelela, thina lusapho lwayo.

Morena boloka setjhaba sa heso,
O fedise dintwa le matshwenyeho,
O se boloke, O se boloke setjhaba sa heso,
Setjhaba sa South Afrika - South Afrika.

Uit die blou van onse hemel,
Uit die diepte van ons see,
Oor ons ewige gebergtes,
Waar die kranse antwoord gee,

Sounds the call to come together,
And united we shall stand,
Let us live and strive for freedom,
In South Africa our land.