Postgraduate degrees in the Pharmaceutical Sciences conferred in 2015/2016

The Academy of Pharmaceutical Sciences takes pleasure in sharing postgraduate students' success. The titles of the research projects provide insight into the scope and nature of pharmaceutical research that is happening in the country. Unfortunately, due to space limitations, only the main supervisor of each research project has been listed.

Please note that this list is incomplete, as not all universities have submitted details of graduates and their research to the SAPJ.

The Academy congratulates all graduates and wishes them well in their future careers.

**Nelson Mandela Metropolitan University**

**MPharm**

S Ramkhalawon  
*Antibiotic stewardship: The role of the clinical pharmacist*  
Supervisor: Prof S-A Boschmans

**MSc**

N Isaacs (Cum laude)  
*Formulation and Process Optimisation of Ethionamide 250 mg Tablets using Quality by Design Principles*  
Supervisor: Prof G Kilian

**North West University**

**MPharm (Pharmacy Practice)**

AA Gajee  
*The renal safety profile of tenofovir as used in combination antiretroviral therapy*  
Supervisor: Dr M Viljoen

JJ Pienaar  
*Pharmacists’ perception of the implementation of the National Health Insurance in South Africa*  
Supervisor: Mrs I Kotzé

JA van Heerden  
*Assessment of potentially inappropriate medicine prescribing for elderly patients in the South African private health sector*  
Supervisor: Dr JR Burger

S de Villiers  
*Prescribing patterns of central nervous system drugs among children, adolescents and their families with/without treatment for ADHD*  
Supervisor: Prof MS Lubbe

J Dreyer  
*Self-reported use of methylphenidate by hostel students at a South African tertiary academic institution*  
Supervisor: Dr JR Burger

**L Goosen**

*Evaluation of the pharmacovigilance system in the Dr Kenneth Kaunda District in the North West Province*  
Supervisor: Prof MS Lubbe

**D Husselmann**

*Factors associated with prescribing and dispensing of schizophrenia treatment in the private health sector of South Africa*  
Supervisor: Dr R Joubert

**K Jacobs**

*An analysis of medication adherence among epileptic patients in the private health sector of South Africa*  
Supervisor: Dr M Julyan

**WP Meuwesen**

*Prescribing patterns of non-steroidal anti-inflammatory drugs in patients with chronic kidney disease*  
Supervisor: Dr JM du Plessis

**A Janse van Rensburg**

*Pharmaceutical care experiences and expectations in elderly patients in a private residency*  
Supervisor: Mrs I Kotzé

**PhD (Pharmacy Practice)**

I Fraser  
*Pharmacoeconomic modelling for policy decision-making: The case of sofosbuvir for hepatitis C infection in South Africa*  
Supervisor: Dr JR Burger

DD Pereko  
*Antibiotic use and resistance patterns in the Namibian private health sector*  
Supervisor: Prof MS Lubbe

LJ Rothmann  
*Medicine cost of chronic disease list (CDL) conditions in the South African private health sector*  
Supervisor: Prof MS Lubbe
MSc

DE Coutts (Pharmacology)
Behavioural, neuroendocrine and neurochemical studies on agomelatine in social isolation reared rats
Supervisor: Prof BH Harvey

C Csongradi (Pharmaceutics)
The effect of solid-state forms on the topical delivery of roxithromycin
Supervisor: Dr M Gerber

J de Beer (Pharmaceutical Chemistry)
Design, synthesis and evaluation of 3-hydroxyypyridin-4-ones as inhibitors of catechol-O-methyltransferase
Supervisor: Prof A Petzer

S de Bruyn (Pharmaceutics)
Development of a double phase dosage form for enhanced peptide drug delivery
Supervisor: Prof JH Hamman

WC du Preez (Pharmaceutics)
Cassava starch as modified release excipient in selected gliclazide oral dosage forms
Supervisor: Dr JM Viljoen

L Esterhuizen-Rudolph (Pharmaceutics)
Development of a compressed bead-in-capsule drug delivery system for sustained release
Supervisor: Dr JM Viljoen

M Hamman (Pharmacology)
Bio-behavioural effects of novel glutamate active compounds in a rodent model of depression
Supervisor: Prof L Brand

G Jacobs (Pharmaceutics)
In vitro evaluation of the cytotoxic, antibacterial and antioxidant properties of selected chitosan derivatives and mellitin
Supervisor: Prof LH du Plessis

R Joubert (Pharmaceutics)
Comparison of drug permeability in rat, pig and human in vitro models
Supervisor: Dr JM Viljoen

RJ Mabilika (Pharmaceutical Chemistry)
Synthesis and biological evaluation of novel artemisone derivatives
Supervisor: Prof DD N‘Da

I Oberholzer (Pharmacology)
A comparative study of N-acetyl cysteine and an experimental xanthone compound on behavioural, immune-inflammatory and redox biomarkers of depression in the Flinders sensitive line rat
Supervisor: Prof BH Harvey

E Pretorius (Pharmaceutics)
Gastrointestinal region specific insulin absorption enhancement by Aloe vera leaf materials
Supervisor: Dr DJ Steyn

PhD

JC Schoeman (Pharmacology)
Early-life exposure to fluoxetine and/or exercise on bio-behavioural markers of depression in early adulthood in stress sensitive rats
Supervisor: Prof CB Brink

T Swanepoel (Pharmacology)
Studies on N-acetyl cysteine as a therapeutic intervention in methamphetamine-associated bio-behavioural changes in an immune-inflammatory model
Supervisor: Prof BH Harvey

CJ van der Merwe (Pharmaceutics)
Effect of powder particle and punch type on the physical and compaction properties of tablets
Supervisor: Prof JH Steenekamp

NI Cheng (Pharmaceutics)
Malaria prevalence, management trends and the knock down resistance profile of Anopheles gambiae in Mbakeng, Cameroon
Supervisor: Prof AF Grobler

D Kilian (Pharmaceutics)
Pheroid TM technology in the transdermal delivery of selected non-steroidal anti-inflammatory drugs
Supervisor: Prof J du Plessis

M Milne (Pharmaceutics)
The physico-chemical properties and recrystallisation kinetics of selected amorphous active pharmaceutical ingredients
Supervisor: Prof ME Aucamp

S Mostert (Pharmaceutical Chemistry)
Monoamine oxidase inhibition by indanone and benzoquinone analogues
Supervisor: Prof JP Petzer

C Rambanapashi (Pharmaceutics)
An assessment of the biodistribution, biopersistence and toxicity of gold nanoparticles
Supervisor: Prof AF Grobler

SJ Robinson (Pharmaceutical Chemistry)
Synthesis of a series of novel 2-aminopyrimidine derivatives and their biological evaluation as adenosine receptor antagonists
Supervisor: Dr ACU Lourens

L Wallis (Pharmaceutics)
Pharmacokinetic interactions of Aloe vera gel polysaccharides with indinavir
Supervisor: Prof JH Hamman

PDW Wolmarans (Pharmaceutics)
Novel behavioural and pharmacological characterization of spontaneous stereotypy in the deer mouse
Supervisor: Prof BH Harvey
Rhodes University
MSc (Pharmacy)

SM Koekemoer (Pharmaceutics) with Distinction
Gradient high performance liquid chromatographic method for the simultaneous analysis of efavirenz, emtricitabine and tenofovir
Supervisor: Prof RB Walker

TE Mutsvairo (Pharmaceutical Chemistry)
Isolation, characterisation and biomimetic oxidation of selected marine natural products and their analogues
Supervisor: Dr D Beukes

AL Svogie (Pharmaceutical Chemistry) with Distinction
Investigation of a-aryl substituted 3-indolelanones as potential antiplasmodial agents
Supervisor: Dr C Veale

HMK Veerubhotla (Pharmaceutics) with Distinction
Development of captopril pellets using the principles of Quality by Design
Supervisor: Prof S Srinivas

PhD

EO Olawode
Synthesis and biological evaluation of novel thiazole-based compounds
Supervisor: Dr R Tandlich

T Umumararungu
Synthesis and exploration of resorcinol derivatives as Plasmodium falciparum Hsp90 inhibitors
Supervisors: Dr ED Goosen and Dr S Khaye

Tshwane University of Technology
MTech Pharmaceutical Sciences

MSL Mokhele
Sclerocarya birrea and Psidium guajava fruit extracts as functional excipients in granular and mini-tablet formulations
Supervisor: Prof C Tarirai

DTech Pharmaceutical Sciences

LA Thete
Intestinal delivery of isoniazid with a polymeric nanoparticulate system
Supervisor: Dr L Shoba

University of Limpopo (Medunsa campus)
MPHarm

AA Agoro
Lamivudine monotherapy used as a salvage therapy in a paediatric outpatient department at Dr George Mukhari Academic Hospital, Gauteng Province
Supervisor: Prof JC Meyer

M Kahts
The radiation exposure of staff who handle 18F-Fluorodeoxyglucose (18F-FDG) for positron emission tomography
Supervisor: Prof B Summers

L Malan
Role of the pharmacist in delivering point-of-care therapy for patients on warfarin in internal medicine wards, at a tertiary hospital, Gauteng Province
Supervisor: Prof AGS Gous

A Moosa
Patient knowledge regarding the management and prevention of type 2 diabetes at a community health centre in Pretoria
Supervisor: Dr S Bezuidenhout

MPharm

SM Katsinde (Pharmacy Practice) with Distinction
The participatory development and implementation of a facilitator’s manual for the promotion of exclusive breastfeeding
Supervisor: Prof S Srinivas

Tshwane University of Technology
MPHarm

AA Agyepong-Yeboah
Comparison of the International Normalized Ratios obtained by the CoaguChek XS coagulometer and by the Haematology Laboratory for patients on warfarin therapy at Dr George Mukhari Hospital: Gauteng Province
Supervisor: Prof AGS Gous

SP Dikgang
Factors affecting the successful completion of the dispensing course for doctors and nurses in the public sector in two health districts of Gauteng Province
Supervisor: Prof JC Meyer

MS Dolo
Job satisfaction of public sector pharmacists in selected Tshwane region hospitals
Supervisor: Prof B Summers

MD Fafudi
A review of the South African pharmacy licence approval process and relevant staff perceptions of the task and process
Supervisor: Prof R Summers

V Henge-Daweti
The need for therapeutic drug monitoring services in the hospital wards
at Cecilia Makiwane Hospital in the Eastern Cape, South Africa
Supervisor: Prof AGS Gous

RC Jacobs
Initial antimicrobial use in medical adult intensive care unit: Indication and cost analysis at Steve Biko Academic Hospital, Pretoria
Supervisor: Prof N Schellack

LN Mabilia
Antibiotic prescribing patterns amongst healthcare professionals in a paediatric ward at Van Velden Hospital, Tzaneen, Limpopo Province
Supervisor: Prof N Schellack

BC Mohale
Public sector hospital pharmacy compliance with national core standards in Limpopo Province
Supervisor: Prof N Schellack

TJ Mohlala
A retrospective analysis on the prevalence of drug-resistant tuberculosis over two years in South Rand Hospital, Gauteng Province, South Africa
Supervisor: Prof N Schellack

LM Schutte
The safety, efficacy and pharmacokinetics of two nevarapine prophylactic regimens in HIV-Exposed, preterm, low birth weight babies
Supervisor: Prof N Schellack

SV Vilakazi
Assessing the level of understanding in the management of acute ischemic stroke by casualty, medical and ICU doctors at Madadeni Provincial Hospital, KwaZulu-Natal Province
Supervisor: Prof N Schellack

MPharm

W Nambatya
Monitoring lipid and haematological abnormalities in paediatric patients on antiretroviral therapy at a Community Health Centre in the Cape Metropole
Supervisor: Dr K Ward

HA Sablay
Prescribing practice in a tertiary level paediatric hospital in South Africa
Supervisor: Prof P Mugabo

M Theunissen
Pharmacist’s perception of occupational specific dispensation (OSD): an exploration study
Supervisor: Prof N Butler

University of the Western Cape

MSc Pharm Sci

N Mutenda
Adverse effects experienced by patients on first line antiretroviral drugs used at Keetmanshoop Hospital, (NAMIBIA)
Supervisor: Prof P Mugabo

JB Ngilirabanga
A supramolecular derivatised study of BIS(Adamantan-1-aminium) carbonate
Supervisor: Dr H Samsodien

BL Geldenhuyse
Dissolution and antiviral activity of a novel nevirapine formulation
Supervisor: Dr H Samsodien

RE Elbakush
A crystal engineering study of selected sulfa drugs trimethoprim
Supervisor: Affiliated student

A Nkengla
Stability and dissolution of flavonoids in Sutherlandia-containing capsules under different gastrointestinal conditions
Supervisor: Prof J Syce

MSc

EE Fortuin (Cum Laude)
Novel aminoquinoline-polycyclic hybrid molecules as potential antimalarial agents
Supervisor: Prof SF Malan

MSc Pharm Admin

K Ford
The implementation of a risk based inspection planning model by the South African regulatory authority
Supervisor: Ms M O’Donoghue

T Kauki
An assessment of the quality of combined oral contraceptive pills containing ethinylestradiol 0,03 mg and levonorgestrel 0,15 in the Nyeri town of Kenya pharmaceutics market
Supervisor: Ms M O’Donoghue

A Lawana
South African Patent Law: Developing a balance between the rights of the patients and promoting innovation within the pharmaceutical industry
Supervisor: Ms M O’Donoghue

A Naraindas
The perceptions of health care workers regarding spontaneous reporting of adverse drug reactions
Supervisor: Ms M O’Donoghue
R Omar
Do pharmaceutical patents prevent access to potentially life-saving drugs in developing countries? An analysis of the multiple factors contributing to this challenge in South Africa
Supervisor: Ms M O’Donoghue

K Padayachee
A case study investigation on the common good clinical practice (GCP) deficiencies and causes encountered by the South African regulatory agency in relation to common good clinical practice (GCP) deficiencies experienced in the European Union
Supervisor: Ms M O’Donoghue

A Patel
Is paracetamol being prescribed and used at the correct therapeutic dose in the children population in South Africa?
Supervisor: Ms M O’Donoghue

M Phasha
The awareness of spontaneous reporting of adverse drug reactions in South Africa
Supervisor: Ms M O’Donoghue

K Thobeli
Pharmacovigilance ecosystems in off-label use of medicines
Supervisor: Ms M O’Donoghue

L Woldson
An investigation into the impact of improving communication to applicants by the Medicines Control Council of South Africa
Supervisor: Ms M O’Donoghue

PhD Pharm Sci

ON Mbamalu
Content levels, in vitro dissolution and predicted bioavailability of flavonoids from Sutherlandia frutescens leaf powder and aqueous extract
Supervisor: Prof J Syce

University of the Witwatersrand

M Pharm

M Manyikana
A multi-layered cryogel matrix system for buccal drug delivery
Supervisor: Prof V Pillay

L Singh
An architecturally-configured nanoparticulate system for targeted treatment of Hepatitis B Virus infection
Supervisor: Prof V Pillay

MSc Med

CT Chen
The effect of novel compounds on the growth of Plasmodium falciparum and haemoglobin formation
Supervisor: Ass Prof R van Zyl

TH Motau
The chemotherapeutic effects of synthetic and natural compounds
Supervisor: Ass Prof R van Zyl and L Harmse

T Kgesa
Novel variant for application as a prolonged release drug delivery system
Supervisor: Prof V Pillay

S Nciki
Validating the traditional use of medicinal plants in Maputaland to treat skin diseases
Supervisor: Prof S van Vuuren and A van Eyk

PhD

MC Braithwaite
A bioactive association platform delivery system for enhanced efficacy of pharmaceutical products
Supervisor: Prof V Pillay

M Govender
Sequential delivery of antibiotics and probiotics employing a dual release mechanism
Supervisor: Prof V Pillay and Prof S van Vuuren

PPD Kondiah
Development of versatile bio-stable oral polymeric delivery systems for proteins
Supervisor: Prof V Pillay

S Indermun
Pharma-engineering of a multifunctional microneedle array device for application in chronic pain
Supervisor: Prof V Pillay

MS Mufamadi
An implantable nano-enabled bio-robotic intracranial device for targeted and prolonged drug delivery
Supervisor: Prof V Pillay