## CONTENT

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Messages</td>
<td>2</td>
</tr>
<tr>
<td>Strategic Initiatives</td>
<td>4</td>
</tr>
<tr>
<td>National Research Foundation Rated Researchers</td>
<td>10</td>
</tr>
<tr>
<td>The Next Generation</td>
<td>14</td>
</tr>
<tr>
<td>Leading Research Centres</td>
<td>22</td>
</tr>
<tr>
<td>Fellows of the University</td>
<td>24</td>
</tr>
<tr>
<td>SAPSE Accredited Publications</td>
<td>26</td>
</tr>
<tr>
<td>Books and Chapters in Books</td>
<td>44</td>
</tr>
<tr>
<td>Research Grants and Contracts</td>
<td>48</td>
</tr>
<tr>
<td>Statutory and External Income</td>
<td>52</td>
</tr>
</tbody>
</table>

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**COVER**

The cover of this report illustrates the birth of the new University of KwaZulu-Natal by showing the logo of the merged University emerging from the logos of the previous University of Natal and University of Durban-Westville.
Message from the Interim Vice-Chancellor

A CORNERSTONE TO SUCCESS

Together with teaching and service, research is one of the cornerstones of the new University of KwaZulu-Natal. Research innovation has been enshrined as a principle of the University’s mission statement. This means that we recognize that through research, the university is able to maintain and enhance its impact on society and contribute directly to the development and welfare of South Africa and the African continent. But it also means that the university is committed, through its research, to engaging the world.

It is through research, therefore, that we excel as an institution, enhance quality of life and place our nation on a globally-competitive path. Today’s fundamental investigations will provide tomorrow’s knowledge, determining the quality of life for future generations. Research provides ideas, opportunities, and hope for the future.

In South Africa today, there are a number of issues that deserve our uncompromised intellectual attention: HIV/AIDS, hunger, crime, poverty, racial discord, to name but a few. As an antidote to ignorance, research is an enormously powerful tool. As academics, we have a duty to interrogate these issues and report our findings with courage, integrity and independence. In this way, we contribute to the growth of democracy in South Africa.

The recent merger of the former Universities of Durban-Westville and Natal has created a new institution with even greater academic expertise and intellectual resources at its disposal, and this strength has manifested itself recently in the University’s impressive research productivity ratings. With its vision to be the Premier University of African Scholarship, I believe the new university is poised to reveal to the world just how much of a contribution Africa has to make to global knowledge and development.

Professor Malegapuru William Makgoba
Message from the Interim Deputy Vice-Chancellor (Research)

BUILDING ON THE PAST TO CREATE A BETTER FUTURE

The DNA double helix, used as a visual metaphor in this report, represents our past, our heritage, our ability to adapt with versatility and our future as the newly created University of KwaZulu-Natal.

DNA is symbolic of the fundamentals of life and existence. This symbolism can be extended to the changes that the University is experiencing after the uniting of two major educational institutions in this province; the University of Natal and University of Durban-Westville to form the University of KwaZulu-Natal. In this context, DNA symbolises the changes and adaptations we will make to become the premier University of African scholarship that reflects the society in which it is situated – not only in terms of race, gender and class, but in terms of how it structures its values and priorities and how it responds to social needs.

This Research Report is a combined report of the previous University of Durban-Westville and the previous University of Natal. It comprises nine sections. The first section provides an overview of the University’s five Strategic Research Initiatives. The second section is a profile of the National Research Foundation rated researchers. The third section lists the newly graduating doctoral students together with some of the University’s most promising young researchers. The fourth describes the University’s award-winning Research Centres. The awards of Fellows of the University of KwaZulu-Natal are described in section five. The University’s thirty most prolific researchers are listed alongside a list of SAPSE Publications for 2003 in section seven. Section eight lists Books and Chapters in Books and includes the book that won the University Book Prize. The final section lists the Research Grants and Contracts for 2003 as well as Statutory and External Research Income.

Professor Salim Abdool Karim
Five strategic research areas have been identified by the University of Natal. These are areas where expertise has been built up over a long period of sustained research involving multi-disciplinary and international collaborations, and where University researchers have already made an impact on global research trends. These areas are HIV/AIDS, Economic Development, Water, Forestry, and Conservation. In addition to these, the full spectrum of research – from curiosity driven to applications based and participatory action research – is undertaken at the University. There is a strong emphasis on teamwork. Senior academics take pride in the mentorship they provide to graduate students.
HIV/AIDS

As the pre-eminent academic institution in the epicentre of the HIV epidemic in South Africa, the University of Natal has taken up the challenge of providing leadership in the response to HIV/AIDS, and of undertaking research to enhance and strengthen the broader societal response to HIV/AIDS. This leadership role in research and a groundbreaking comprehensive Aids programme for students and staff serve as the cornerstone of the University's Aids plan.

The University’s Aids Strategic Research Initiative includes several well-established HIV research groups and projects:

HIVAN (HIV/AIDS Networking Centre)

Headed by Professors Jerry Coovadia and Eleanor Preston-Whyte, HIVAN facilitates networking in HIV/AIDS related research, training and intervention in the province of KwaZulu-Natal. HIVAN undertakes both biomedical and social science research.

CAPRISA (Centre for the Aids Programme of Research in South Africa)

CAPRISA is a multi-institutional team, led by Professor Salim Abdool Karim, undertaking research on HIV epidemiology, pathogenesis, prevention and treatment. Funded by the US National Institutes for Health, CAPRISA has a large Fellowship training programme.

HEARD (HIV Economic and Research Division)

Since 1998, HEARD has grown under the leadership of Professor Alan Whiteside to become a well established unit with several international and local projects that investigate the socio-economic impact of Aids.

HAVEG (HIV/AIDS Vaccine Ethics Group)

Based in the School of Psychology and led by Professor Graham Lindegger, HAVEG conducts research and training on the ethical aspects of HIV vaccine trials.

HPP (HIV Pathogenesis Programme)

A key research group in the Doris Duke Medical Research Institute led by Professors Bruce Walker, Philip Goulder and Jerry Coovadia, this programme conducts research into HIV immunology and pathogenesis, predominantly in children.

AACTG (Adult Aids Clinical Trial group)

Led by Professor Umesh Laloo, this unit is part of the NIH-funded network of units conducting trials of therapeutics for HIV infection and its complications in adults.

CU-SA AITRP (The Columbia University - Southern African Fogarty Aids Training and Research Programme)

The CU-SA AITRP, led by Professor Quarraisha Abdool Karim, builds scientific capacity in HIV/AIDS and Tuberculosis research in several countries in Southern Africa to enhance continuing efforts to counter the HIV/AIDS and TB epidemics.

Africa Centre

Based in Hlabisa and the Doris Duke Medical Research Institute, this Centre conducts research on breast feeding and ARV drug resistance.
Economic Development

Integral to the University’s Mission is a strategic thrust towards research and knowledge production that expresses itself in practical interventions. Economic development is a national priority and the University makes full and innovative use of its existing capacity in this regard.

The Economic Development Strategic Initiative began to take shape in 2003 with the main objective of strengthening and enhancing applied and policy relevant research in the field of economic development. This Initiative is currently engaged with:

The School of Agricultural Sciences and Agribusiness

The School offers a wide range of programmes. It aims to produce the highest quality graduates and researchers who are able to meet the present and future scientific, technological, management and development challenges facing society in Southern Africa and in KwaZulu-Natal. A new Food Security Programme has been set up within the School.

The School of Business

The School of Business came into operation on the Pietermaritzburg Campus at the commencement of the 1999 academic year, drawing together academic staff members from Accountancy, Economics and Management Studies. A Centre for Entrepreneurship is under the umbrella of the School.

The School of Development Studies

The School’s multi-disciplinary research programmes, focusing primarily on development and reconstruction are internationally recognised. Areas of expertise are civil society, donor funding, industrial restructuring, informal and micro-finance, macro-economic policy, population, poverty, race, culture and development, regional planning and social policy.

The Economics Division of the School of Economics and Management

The Division of Economics within the School of Economics and Management on the Howard College campus comprises some 15 economists with experience in research and teaching in many countries. The staff are actively engaged in research and have particular strengths in the analysis of household surveys and macro-economics, international trade, economic development and environmental economics.

Industrial, Organisational and Labour Studies programme

This research programme provides a sociological focus on the changing nature of work and the institutions of the workplace. It explores the relationship between these changes and livelihood strategies.
Water

The University of Natal is an internationally acknowledged leader in water research. This research is multidisciplinary and multi-sectoral, involving the scientific, economic, social, environmental and engineering aspects of conservation and provision on the water-scarce African continent.

Water-related research is undertaken in several faculties and University-based projects and units, most of which also offer consultancy services. In addition to the academic programmes offered by the research centres listed below, water-related undergraduate courses and postgraduate courses are also offered by the Centre for Environment and Development (CEAD), the School of Civil Engineering, the School of Geological and Computer Sciences, the Centre for Government and Policy Studies.

School of Geological and Computer Sciences
This facility houses a state-of the art tool for the elemental analysis of water.

The Soil-Plant-Atmosphere Research Unit
This unit specializes in micrometeorology and agrometeorology (plant-water and soil-water relations).

The School of Botany and Zoology
The School provides specialized expertise in biological limnology, with particular reference to man-made lakes and integrated catchment management.

The School of Bioresources Engineering and Environmental Hydrology
This is the largest university hydrology research group in South Africa, specializing in process studies, land-use impacts, design hydrology and integrated water resource assessment.

The Institute of Natural Resources
The INR is an associate Institute of the University of Kwazulu-Natal and provides expertise in applied research and management of water resources, the development of decision-support tools of estuaries and freshwater management, and water conservation.

The Pollution Research Group
The PRG promotes cleaner production using process engineering tools with expertise in membrane technology, waste minimization, effluent management and processing, sonochemistry, computational fluid dynamics and life cycle analysis.
Forestry

Forestry is an important part of the South African economy, and KwaZulu-Natal is central to its various aspects such as wealth of forest-dependent rural communities, natural resources, conservation and tourism, processing, value adding and export of timber and forest products.

The strategic initiative of the University of Natal in Forestry is aimed at integrating various capacities across facilities and on-campus institutions engaged in forestry into a Forestry Centre of Excellence. Working together with its partners and stakeholders, government agencies, the private sector, non-governmental organizations and other institutions, the Centre will become a focal point for:

- building capacity in forestry through education and training
- addressing issues relevant to forestry through research and supporting policy formulation
- disseminating information on forestry through publications, technology transfer and outreach activities.

While the University has a base of expertise, the vision of the new Forestry Centre cannot be achieved without developing strategic partnerships that will provide a critical mass and a full range of skills of international calibre. Four groups with interests in forestry are located on the University campuses:

**Forestry and Forest Products Research Centre**

This is a joint venture between the CSIR and the University of Natal, which provide services in wood quality, solid wood processes, pulp and paper technology and IT solutions.

**Institute of Commercial Forestry Research (ICFR)**

The institute focuses on innovation in plantation silviculture of eucalypts, pines and acacias, hardwood nutrition, sustainability, tree improvement and growth and yield modeling. ICFR maintains two regional centers strategically located in Sabie and Kwambonambi.

**Institute of Natural Resources (INR)**

The INR, an associate institute of the University, promotes the wise and sustainable use of natural resources through the integration of conservation and development in which forestry plays a prominent role.

**Land Use Hydrology Group**

The Land Use Hydrology Group of the CSIR focuses on the hydrological effects of land-use change, with about 90% of its activities relating to the forestry sector.

It is planned that with time, the Forestry Centre will play a significant role as a regional hub of a pan-African forestry network. Discussions have been initiated with various international partners to explore and advance such a plan.
Conservation

The Inland Invertebrate Initiative (III) was identified in 2001 as one of the five strategic initiatives of the University of Natal. As the strategic initiatives evolved it became apparent that, despite its success, the III was too small and focused to fulfill the role of a University Strategic Initiative.

The University embarked on a process of consultation which resulted in Nature Resource Conservation being identified as an ideal strategic initiative. The University has a strong recognized tradition in Conservation Research, a wide capacity across a range of disciplines from Law, Economics, Social Sciences through to Biological Sciences, and a core of committed role-players.

Environmental Legislation

The world has identified a Biodiversity Crisis, and the Environment is a major focus within the new Constitution of South Africa. Legislation is currently being passed to enshrine Biodiversity Conservation into Law, including the Protected Areas and the Biodiversity Bills.

Inland Invertebrate Initiative

The Conservation Initiative was born in mid 2003 out of the Inland Invertebrate Initiative, with major stakeholders including the Environmental Law Unit, MBA in Conservation, Centre of Environment and Development, the Centre for Environmental Management, the Amarula Elephant Research Programme, and the Inland Invertebrate Initiative.

Biodiversity Conservation

Two focal projects have been identified for the Conservation Initiative to pursue. The first, to develop a comprehensive research focus for the University around the Greater St. Lucia Wetland Park, a world heritage site. This will be in partnership with the GSWP Authority, Ezemvelo KZN Wildlife, and other research institutions.

The second project is to link closely with Government, Parastatal Organizations, and NGO’s that have interests in Biodiversity Conservation.
The National Research Foundation’s (NRF’s) evaluation and rating of individuals is based primarily on the quality of their research outputs in the past (seven years) and is undertaken by national and international peers. Attaining a rating is therefore regarded as a significant achievement.

The categories are:

**Category A**
Researchers who are recognized by their peers as leading international scholars in their field for the high quality and impact of their recent research outputs.

**Category B**
Researchers who enjoy considerable international recognition by their peers for the high quality of their recent research outputs.

**Category C**
Established researchers with a sustained recent record of productivity in the field.

**Category P**
Young researchers (under 35) who have held the doctorate or equivalent qualification for less than five years at the time of application and who, on the basis of exceptional potential demonstrated in their published doctoral work and/or their research outputs in their early post-doctoral careers are considered likely to become future leaders in their field.

**Category Y**
Researchers younger than 35 with a doctoral qualification for less than five years who are recognized as having the potential to establish themselves as researchers within a five year period after evaluation, based on their performance and productivity as researchers.

**Category L**
Persons (younger than 55 years), who were previously established as researchers or who previously demonstrated potential through their own research products, and who are considered capable of fully establishing or re-establishing themselves as researchers within a five year period after evaluation. Candidates in this category who are eligible include:

- Black researchers
- Women researchers
- Higher education institution that lacked a research environment.
- Those who were previously established as researchers and have returned to a research environment.
**Faculty of Community and Development Disciplines – Howard College Campus**
- Dr JD Kvalsvig - School of Psychology (C)
- Prof F Frescura - School of Architecture, Planning and Housing (C)
- Prof NS Gwele - School of Nursing (C)
- Prof LR Uys - School of Nursing (C)

**Faculty of Education – Edgewood and Pietermaritzburg Campus**
- Prof R Morrel - School of Education (B)
- Prof RA Deacon - School of Education (C)
- Prof ER Dempster - School of Education, Training and Development (C)
- Dr N de Lange - School of Education (L)

**Faculty of Engineering – Howard College and Pietermaritzburg Campus**
- Prof S Adali - School of Mechanical Engineering (B)
- Prof CA Buckley - School of Chemical Engineering (B)
- Prof VE Verijenko - School of Mechanical Engineering (B)
- Prof ES Boje - School of Electrical, Electronic & Control Engineering (C)
- Prof EV Morozov - School of Mechanical Engineering (C)
- Prof GGS Pegram - School of Civil Engineering, Surveying and Construction (C)
- Dr IE Davidson - School of Electrical, Electronic & Control Engineering (Y)
- Prof G Bright - School of Mechanical Engineering (Y)

**Faculty of Engineering - Westville Campus**
- Prof M Carsky - Department of Chemical Engineering (C)

**Faculty of Health Sciences - Nelson R Mandela School of Medicine**
- Prof JH Botha - Department of Pharmacology (C)
- Prof N Gqaleni - Centre For Occupational & Environmental Health (C)
- Dr M Taylor - Department of Community Health (C)
- Dr AL Bates - Department of Microbiology, Biochemistry and Food Science (L)
- Mrs M Pillay - Department of Medical Microbiology (L)

**Faculty of Health Sciences – Westville Campus**
- Prof CM Dangor - School of Pharmacy (C)
- Prof LY Somova - School of Basic and Applied Medical Science (C)
- Prof SY Essack - School of Pharmacy and Pharmacology (Y)
- Prof T Gevender - School of Pharmacy and Pharmacology (Y)

**Faculty of Human and Management Sciences – Pietermaritzburg Campus**
- Prof DJB Brown - School of Language, Culture and Communication (B)
- Prof PMB R Denis - School of Theology (B)
- Prof JA Draper - School of Theology (B)

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**Michael Chapman, A-Rated Scientist**

Michael Chapman, Professor of English and Dean of the Durban Faculty of Human Sciences, is the University’s first A-rated researcher in the arts and social sciences. He is one of the three A-rated academics in the entire University, the other two being natural scientists. The NRF A-Rating is prestigious – it indicates that Chapman is recognized by his peers as a world leader in his field of South African and African literature.

Professor Chapman has produced major works on among others, the poets Roy Campbell and Douglas Livingstone, the new black poets of the 1970s, and the “Drum” short-story writers of the fifties. His study *South African English Poetry: A modern perspective* (1984) won the Sanlam Award for literary criticism. His literary history *Southern African Literatures* (1996) received the prestigious Bill Venter Prize for academic literature.
Faculty of Human Sciences – Howard College Campus

Prof MJF Chapman - English Programme (A)
Prof CJ Ballantine - Music Programme (B)
Prof JD Collier - Philosophy Programme (B)
Prof JJ Guy - Historical Studies (B)
Prof KG Tomaselli - Cultural and Media Studies (B)
Prof E de Kadt - Linguistics Programme (C)
Prof DJ Spurrett - Philosophy Programme (P)

Faculty of Humanities – Westville Campus

Prof EA Stiebel - School of Languages and Literature (C)

Institutes, Centres and Units

Prof AM Amory - Centre for Information Technology in Higher Education (C)
Prof P Turner - Forestry and Forestry Products Research Centre (C)
Dr NL Sefara - Forestry and Forestry Products Research Centre (Y)

Faculty of Law – Howard College and Pietermaritzburg Campus

Prof DJ McQuoid-Mason - School of Law (B)

Faculty of Management Studies – Howard College Campus

Prof GT Harris - School of Economics and Management (C)
Dr Dorrit Posel - School of Economics and Management (P)

Faculty of Science – Howard College Campus

Prof P Berjak - School of Life and Environmental Sciences (A)
Prof MJ Alport - School of Pure and Applied Physics (B)
Prof J Banasiak - School of Mathematical and Statistical Sciences (B)
Prof K Bharuth-Ram - School of Pure and Applied Physics (B)
Prof R Bharuthram - Research Office (B)
Prof RD Diab - School of Life and Environmental Sciences (B)
Prof TA Ford - School of Pure and Applied Chemistry (B)
Prof VG Gutev - School of Mathematical and Statistical Sciences (B)
Prof MA Heilberg - School of Pure and Applied Physics (B)

Prof JD Hey - School of Pure and Applied Physics (B)
Prof PGL Leach - School of Mathematical and Statistical Sciences (B)
Prof TM Letcher - School of Pure and Applied Chemistry (B)
Prof SD Maharaj - School of Mathematical and Statistical Sciences (B)
Prof DA Muholand - School of Pure and Applied Chemistry (B)
Prof NW Pammenter - School of Life and Environmental Sciences (B)
Prof R Perissinotto - School of Life and Environmental Sciences (B)
Prof JG Raftrey - School of Mathematical and Statistical Sciences (B)
Prof HC Swart - School of Mathematical and Statistical Sciences (B)
Prof GN Xu - School of Life and Environmental Sciences (B)
Prof AH Wilson - School of Geological and Computer Sciences (B)
Prof JA Coxe - School of Life and Environmental Sciences (C)
Prof AI Dale - School of Mathematical and Statistical Sciences (C)
Prof PA Danielmann - School of Mathematical and Statistical Sciences (C)
Prof TB Doyle - School of Pure and Applied Physics (C)
Prof WN Ellery - School of Life and Environmental Sciences (C)
Prof HB Friedrich - School of Pure and Applied Chemistry (C)
Prof KS Govinder - School of Mathematical and Statistical Sciences (C)
Prof ARW Hughes - School of Pure and Applied Physics (C)
Dr GEM Maguire - School of Pure and Applied Chemistry (C)
Prof BS Martinigh - School of Pure and Applied Chemistry (C)
Dr T Mayo - School of Pure and Applied Physics (C)
Dr J Reinhardt - School of Geological and Computer Sciences (C)
Prof RH Slotow - School of Life and Environmental Sciences (C)
Dr R Uken - School of Geological and Computer Sciences (C)
Dr GP Whitmore - School of Geological and Computer Sciences (Y)

Faculty of Science – Westville Campus

Prof G Naidoo - School of Biology (B)
Prof HK Xu - School of Mathematical Sciences (B)
Prof R Arreb - School of Computer Science and Information Technology and Systems (C)
Prof M Ariatti - School of Biochemistry and Microbiology (C)
Prof D Baboolal - School of Mathematics and Applied Mathematics (C)
Prof SB Jonnalagadda - School of Physical Sciences (C)
Prof KW Liu - School of Earth Sciences (C)
Prof DJ Marshall - School of Biology (C)
Prof S McCourt - School of Earth Sciences (C)
Prof RG Dri - School of Mathematical Sciences (C)
Prof VM Peddemors - School of Biology (C)
Prof B Pillay - School of Biochemistry and Microbiology (C)
Dr SR Pillay - School of Physical Science (Y)
Dr A Nicholas - School of Biology (L)
DAVE SPURRETT

P-Rated Scientist

David Spurrett is associate professor of Philosophy at the Howard College Campus of the University of KwaZulu-Natal. In addition to his NRF ‘P’ rating in 2002 he received the 2002 Vice-Chancellor’s Research Award at the former University of Natal, and a Distinguished Teacher’s Award in 2003. He has been a visiting researcher at King’s College London, and St John’s College, Cambridge. He actively pursues and publishes theoretical research in the philosophy of science, cognitive science and metaphysics, and is presently engaged in a number of empirical projects as well. He is also engaged in developing degree programmes, including graduate degrees, in cognitive science at the University of KwaZulu-Natal.
2003 Doctoral Graduates

Faculty of Commerce and Management Sciences - Westville Campus

Doctor of Administration

Balkaran, Rishidaw (Public Administration and Development Management)
Thesis: A Study of the Impact of the KwaZulu-Natal Tourism Authority on the Hospitality Industry
Supervisor: Professor S Moodley

Maharaj, Sonill Sooknunan (Public Administration and Development Management)
Thesis: A Strategic Review of the Quality Assurance process for Health Services in Public Hospitals of the Province of KwaZulu-Natal
Supervisor: Professor D Singh

Sarpong, Emmanuel (Public Administration and Development Management)
Thesis: An Investigation into the Management of Development Projects in the Eastern Cape
Supervisor: Professor D Singh

Doctor of Business Administration

Dawood, Abdulla Kader (Business Management)
Thesis: The Effectiveness of Merger between two Financial Services Organization
Supervisor: Professor E Thomson

Ramroop, Shaun (Business Management)
Thesis: Occupational Health and Safety in the eThekwini Municipality of South Africa: The Case for a Management Perspective
Supervisor: Professor J.J. McCarthy

Faculty of Community and Development Disciplines - Howard College Campus

Doctor of Philosophy

Maharaj, Aman (Development Studies)
Thesis: Sustainable private sector participation in water supply and sanitation? An investigation of the South African experience with international comparative case studies
Supervisor: Professor V Padayachee

Nyathi, Morris Dickson (Development Studies)
Thesis: Social Exclusion as barrier to poverty reduction: The case of Basarwa in Botswana
Supervisor: Professor J.D. May

Faculty of Education – Edgewood and Pietermaritzburg Campuses

Doctor of Philosophy

Bhana, Deevia (Gender Education)
Thesis: Making Gender in early schooling – A multi-sited ethnographic study of power and discourse: From grade one to two in Durban
Supervisor: Professor R Morrel
Promising Researchers

In addition to the major contributions of our NRF-rated researchers and the prodigious publication output of our most accomplished researchers, the University’s future research is being mapped out by researchers who are beginning to make significant contributions to their particular fields of study. Some of these scientists extend the University’s existing strengths in medicine and the sciences, especially those related to agriculture and the environment. But there are others whose work extends into the social, cultural and metaphysical spheres. Featured here are 16 promising researchers whose areas of interest give some indication of the research directions that the University will be following in the years to come.

Dr EB Farisani
School of Theology

Dr M Brown
School of Botany and Zoology

Dr WA Burnett
School of Botany and Zoology

Dr SD Johnson
School of Botany and Zoology

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Lyster, Elda Susan (Adult Education)
Thesis: Real or imagined worlds: an analysis of beginner level reading books for Adult Learners in South Africa
Supervisor: Professor J Aitchison

**Faculty of Engineering - Howard College and Pietermaritzburg Campuses**

**Doctor of Philosophy**

Apsey, Jason John (Mechanical Engineering)
Thesis: Smart Structural health monitoring of mining support units
Supervisor: Professor VE Verijenko

Clothier, Antony Neil (Civil Engineering)
Thesis: High Resolution space-time modeling of rainfall: the String of Beads model
Supervisor: Professor GGS Pegram

Gopal, Ajith Karamshiel (Mechanical Engineering)
Thesis: Low Velocity impact energy absorption of fibrous metal matrix composites using smart materials
Supervisor: Professor S Adali

Leske, Anthony (Chemical Engineering)
Thesis: The development of a method for the inclusion of salinity effects into environmental life cycle assessments
Supervisor: Professor CA Buckley

Rupprecht, Steven Michael (Mechanical Engineering)
Thesis: Best practice for personnel, material and rock transportation in ultra deep level gold mines
Supervisor: Professor VE Verijenko

**Faculty of Engineering - Westville Campus**

**Doctor in Philosophy**

Vadasz, Alisha (Engineering)
Thesis: Spatio-temporal dynamics of heterogeneously distributed populations
Supervisor: Professor AS Gupthar

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**Faculty of Health Sciences - Nelson R Mandela School of Medicine**

**Doctor of Medicine**

Bhimma, Rajendra (Paediatrics & Child Health)
Thesis: Pathogenetic Mechanisms in Children with Hepatitis B Virus Associated with Membranous Nephropathy
Supervisor: Professor HM Coovadia

Blaylock, Roger Selwyn (General Surgery)
Thesis: The Syndromic and Specific Management of Snakebite in Southern Africa
Supervisor: Professor JV Robbs

Corr, Peter David (Radiology)
Thesis: Severe Haemoptysis – A Clinicoradiological Study
Supervisor: Professor U Lalloo

Ms Carol Bertram
School of Education Training and Development
Dr Sheryl Hendriks
School of Community Resources

Dr Jerome Amir Singh
CAPRISA and School of Law

Mr Max Du Plessis
School of Law

Doctor of Philosophy

Bodley, Jennifer Ann (Pharmacology)
Supervisors: Professor J Botha, Prof L McFayden and Professor EM Preston -Whyte

Chelule, Paul Kiprono (Physiology)
Thesis: The Role of Mycotoxins and N-nitroso Compounds in the Aetiology of Oesophageal Cancer in Rural Black Populations of South Africa
Supervisor: Dr N Gqualeni

Dilraj, Athmanundh (Paediatrics & Child Health)
Thesis: The Immunological Response to Different Measles Vaccine Strains given by the aerosol and Subcutaneous Routes to School Children
Supervisors: Professor HM Coovadia and Dr FT Cutts

Lo Castro, Ann-Marie Elizabeth (Behavioural Medicine)
Thesis: A Comparative Cross-Cultural Analysis of the effects of Cancer on Loneliness, Stress, and Body Image Changes in terms of Pcyoneuro-Immunology and Relative to Quality of Life and Coping Behaviour
Supervisor: Professor L Schlebusch

Madurai, Savathree (Virology)
Thesis: The Molecular Epidemiology of HIV in KwaZulu-Natal: South Africa
Supervisors: Dr DF York and Professor AN Smith

Nathoo, Narendra (Neurosurgery)
Thesis: Traumatic Supratentorial Cerebral Contusions in Adults: Correlations of Outcome with Clinical Management, Molecular and Genetic Responses
Supervisors: Professor R Chetty and Professor JR Van Dellen

Pillay, Manormoney (Medical Microbiology)
Thesis: Transmission of dynamics of Tuberculosis in a South African Prison: Application of Molecular and Conventional Epidemiology
Supervisor: Professor AW Sturm

Sathar, Mohamed Aslam (Medicine)
Thesis: GB Virus-C/Hepatitis G Virus (GBV-C/HVG) Infection in KwaZulu-Natal, South Africa. Its Diagnosis, Distribution and Molecular Epidemiology
Supervisors: Dr DF York and Dr P N Soni

Faculty of Health Sciences - Westville Campus

Doctor of Philosophy

Valtchanova-Matchouganska, Anelia (Pharmacology)
Thesis: The Role of the Opioid Peptides and Antagonists in the Mechanisms of Cardiovascular Structure
Supervisor: Professor JAO Ojewole

Faculty of Human and Management Sciences – Pietermartizburg Campus

Doctor of Philosophy

Biyela, Ntandoni Gloria (Zulu)
Thesis: Selected animal – and bird proverbs as reflectors of indigenous knowledge systems and social mores: a study from Zulu language and culture
Supervisors: Professor A Koopman
Barton, Simon Ingram Robshaw (Sociology)
Theis: Rethinking the interface: the limits and possibilities of communication for development
Supervisor: Professor C Stilwell

Jamal, Ashraf-Ali (English)
Theis: Predicaments of culture in South Africa
Supervisor: Professor DID Atwell

Kahakwa, Sylvester Beyanga (Theology)
Theis: A Hays interpretation of the Christian concept of God
Supervisor: Professor MP Moila

Kathe, Bungishabaku (Theology)
Theis: To know and not to know YHWH: Jeremiah’s understanding and its relevance for the church in the DR Congo
Supervisor: Professor GO West

Leeb-Du Toit, Juliette Cecile (History of Art)
Theis: Contextualising the use of biblically derived and metaphysical imagery in the work of Black artists from Kwa-Zulu Natal: 1930-2002
Supervisor: Professor WR Guest

Leviel, Eric Claude Gabriel (French)
Theis: Simone de Beauvoir: l’invitation aux voyages – Une tude biographique et litteraire
Supervisor: Ms VM Everson

Mkhize, Nhlanhla Justice (Psychology)
Theis: Culture and the self in moral and ethical decision-making: a dialogical approach
Supervisor: Professor K Durrheim

Ngelisi, Mzimkhulu Justice (Psychology)
Theis: A Study of systemic processes influencing educational changes in a sample of isi’Zulu medium schools.
Supervisor: Dr JE Akhurst

Ngoetjana, Lucas Mogashudi (Theology)
Supervisor: Professor C Stilwell

Ngulube, Patrick (Information Studies)
Theis: Preservation and access to public records and archives in South Africa
Supervisor: Professor C Stilwell

Zwane, Protas Linda (Theology)
Theis: The Role of the Roman Catholic Church in South Africa in developing an authentic Christian sexual morality for Zulu Christians
Supervisor: Dr CP Ryan

Faculty of Human Sciences: Howard College Campus

Akal, Anthony Vincent George (English Studies)
Theis: Forms of community service: Guy Butler’s literary conditions
Supervisor: Professor MJF Chapman

Boloka, Gibson Mashilo Simon (Cultural & Media Studies)
Supervisor: Professor KG Tomaselli
Moodley, Visvaganthie (Linguistics)
Thesis: Language attitudes and codeswitching behaviour of facilitators and learners in Language, Literacy and Communication Senior Phase Outcomes-Based Education classrooms
Supervisor: Professor NM Kamwangamalu

Ramsay-Brijbal, Malini (Linguistics)
Thesis: A sociolinguistic investigation of codeswitching patterns among Zulu L1 speakers at the University of Durban-Westville
Supervisor: Professor NM Kamwangamalu

Sokoya, Grace Oluseyi (Gender Studies)
Thesis: Socio-Cultural constructions of gender roles and psychological wellbeing in farm-families of Ogun State, Nigeria: exploring the complexities
Supervisor: Professor A Muthukrishna and Professor SJ Collings

Subedar, Munira (Gender Studies)
Thesis: An analysis of the nature and effects of sexual harassment on secondary schoolgirls in South Africa: A case study of four co-educational schools in Pietermaritzburg, KwaZulu-Natal
Supervisor: De CE Burns.

Faculty of Humanities – Westville Campus

Doctor of Literature

Cele, Nokuzoia, Christina (Zulu Language)
Supervisor: Professor JP Zungu

Murugan, Ganas (Languages)
Thesis: The poetry of Subramania Bharatiar: its impact on the language, Religion and Culture of the Tamils in South Africa
Supervisor: Professor R Sitaram

Tra, Bi Gob Theodore (Languages)
Thesis: The Psychodynamic Interpretation of Selected Guoro Tales including their first time recording into writing in the Guoro Language
Supervisor: Professor PJ Zungu

Doctor of Education

Mudaly, Vomolan (Education)
Thesis: The Role and use of Sketchpad as Modelling Tool in Secondary Schools
Supervisor: Professor Michael de Villiers

Perumal, Krishnaveni (Education)
Thesis: Literacy in the Lives of Domestic Workers
Supervisor: Professor R Sookhraj
Sulaiman, Afolasade Airat (Education)  
Thesis: Self-Concept of Physically Disabled Adolescent Students in Inclusive Secondary Schools  
Supervisor: Professor O Bojuwoye

Faculty of Management Studies - Howard College Campus

Doctor of Philosophy

Casale, Daniela Maria (Economics)  
Supervisor: Professor DR Posel

Gumede, Vusi Tallman (Economics)  
Thesis: Export Behaviour in South Africa with special reference to small and medium manufacturing enterprises  
Supervisor: Professor MG Holden

Doctor of Business Administration

Firer, Steven Ronald (Graduate School of Business)  
Thesis: Exploring the intellectual capital contribution to company performance in an emerging economy: Evidence from South Africa  
Supervisor: Professor LJ Stainbank

Laxton, Dennis Mark (Graduate School of Business)  
Thesis: Reframing strategic IT project management  
Supervisor: Professor E Thomson

Piro, Albrecht Manfred (Graduate School of Business)  
Thesis: Product branding and consumer awareness: A sustainable strategy to increase shareholder value in the automotive component manufacturing industry  
Supervisors: Professor AB Lumby and Professor K Bhowan

Faculty of Law - Westville Campus

Doctor Legum

Eitelberg, Eduard (Mercantile Law)  
Thesis: Law of Money, Value and Payment  
Supervisor: Professor A O'Shea

Doctor of Philosophy

Bloomfield, Ewan Michael (Geological and Computer Sciences)  
Thesis: Geotechnical properties of the coastal sand dunes of South-eastern Africa  
Supervisors: Professor HD Schreiner & Professor CA Jermy

Bye, Alan Russell (Geological and Computer Sciences)  
Thesis: The Development and application of a 3D geotechnical model for mining optimization Sandisloot Open Pit Platinum Mine, South Africa  
Supervisors: Professor TR Stacey and Professor CA Jermy

Chimumbwa, John Mulenga (Life and Environmental Sciences)  
Thesis: The Epidemiology of Malaria in Zambia  
Supervisors: Professor CC Appleton & Dr BL Sharp
Koorbanally, Chantal (Pure and Applied Chemistry)
Thesis: A Phytochemical investigation of six Hyacinthaceae species
Supervisor: Professor DA Mulholland

Langlois, Angela (Pure and Applied Chemistry)
Thesis: Extractives from seven African medicinal plants
Supervisor: Professor DA Mulholland

McFarland, Kathryn (Pure and Applied Chemistry)
Thesis: Extractives from the Ptaeroxylaceae and Meliaceae
Supervisor: Professor DA Mulholland

Querci, Jacopo (Life and Environmental Science)
Thesis: Population genetics of the prawn penaeus indicus (Crustacea: Decapoda) in the Western Indian Ocean
Supervisors: Professor AT Forbes & DR GC Contrafatto

Redhi, Gyanasivan Govindsamy (Pure and Applied Chemistry)
Thesis: Thermodynamics of liquid mixtures containing carboxylic acids
Supervisor: Professor T Letcher

Tyiso, Sakiwo (Life and Environmental Sciences)
Thesis: Lipid peroxidation and the antioxidant systems in soybean seed maturation and germination
Supervisor: Professor MT Smith

Faculty of Science - Westville Campus
Doctor of Philosophy
Naidoo, Richard (Computer Science)
Thesis: Modified numerical algorithms for hyperbolic systems with source terms and applications
Supervisor: Professor S Baboolal

Faculty of Science and Agriculture - Pietermaritzburg Campus
Doctor of Philosophy
Arthur, Georgina Dede (Plant Physiology)
Thesis: Root-stimulating activity from various gelling agents used in tissue culture
Supervisor: Professor J van Staden
Chimsa, Mulugeta Diro (Plant Physiology)
Thesis: In vitro propagation of Enset (Ensete ventricosum) (Welw.) Cheesman
Supervisor: Professor J van Staden
Ciacciariello, Mariana, Veterinarian (Poultry Science)
Thesis: The productive response of broiler breeder hens to lighting and growth manipulation during rearing
Supervisor: Professor RM Gous
Graham, Martha Helena (Soil Sciences)
Thesis: The effect of various crop residues management practices under sugarcane production on soil quality
Supervisor: Professor RJ Haynes
Grussendorf, Sharon Joy (Physics)
Thesis: First principles quantum mechanical studies of Iridium: a focus on bulk and surface properties.
Supervisor: Dr N Chetty
Harris, Laura Marie (Mathematics)
Thesis: Aspects of functional variations of domination in graphs
Supervisor: Professor MA Henning
Hills, Paul Norman (Botany)
Thesis: Differential gene expression in germinating and thermoinhibited achenes of Tagetes minuta, L
Supervisor: Professor J van Staden
Hopkins, Cheryl (Biochemistry)
Thesis: The nutritive value of Italian ryegrass (Lolium multiflorum) selected for high dry matter and nonstructural carbohydrate contents
Supervisor: Professor C Dennison
Jarmaine, Caren (Agrometeorology)
Thesis: Potential for using trees to limit the ingress of water into mine workings: a comparison of total evaporation and soil water relations for eucalyptus and grassland
Supervisor: Professor MJ Savage

Kuhn, Manfred Edmund (Agricultural Economics)
Thesis: Improving access of low-income people to formal financial services: evidence from four microfinance organizations in KwaZulu Natal
Supervisor: Mr MAG Darroch

Lu, Sheng-Shan (Entomology)
Thesis: Biology and conservation of the threatened Karkloof blue butterfly (Orachrysops ariadne) (Butler) (Lepidoptera: Lycaenidae)
Supervisor: Professor MJ Samways

Matu, Esther Ngendo (Ethnobotany)
Thesis: Medicinal properties and in vitro responses of Maytenus senegalensis (Lam) Excell
Supervisor: Professor J van Staden

Rivers-Moore, Nicholas Andrew (Hydrology)
Supervisor: Dr GPW Jewitt

Shalo, Thato Lucy (Botany)
Thesis: Antibacterial and anti-inflammatory activity of medicinal plants used in Lesotho
Supervisor: Prof J van Staden

Sparg, Shane Gordon (Ethnobotany)
Thesis: Medicinal properties and growth of Merwilla natalensis
Supervisor: Professor J van Staden

Thompson, David Ian (Botany)
Thesis: Conservation of select South African Disa Berg species (Orchidaceae)
Supervisor: Dr T Edwards

Warburton, Louise Sarah (Zoology)
Thesis: The ecology and conservation biology of the Black-checked Lovebird Agapornis nigrigentis in Zambia
Supervisor: Professor MR Perrin
The University of Natal’s Research Centre for Plant Growth and Development (Pietermartizburg Campus) has been nominated as the top Council approved Research Centre for the 2003 Excellence in Research Award. The Centre, headed by Professor Johannes van Staden boasts some of the finest researchers who have contributed to its productivity.

Second place was awarded to the MRC Pregnancy Hypertension Unit, headed by Professor Jack Moodley. The Plasma Physics Research Institute, the Africa Centre for Health and Population Studies, the Research Group in Southern African Literature and the Space Physics Research Institute was placed third. The Centre for African Parrot Conservation, Centre for the Aids Programme of Research in South Africa (CAPRISA) and the Thermodynamics of Liquid Mixture and Solutions Research Group were awarded fourth place.

Research Centre for Plant Growth and Development

The Research Centre for Plant Growth and Development has now enjoyed five successful years of research, since its inception at the beginning of 1999 (originally the Research Unit for Plant Growth and Development). Research is conducted on the main themes of plant physiology, plant molecular biology and ethnobotany. These encompass multidisciplinary topics such as hormone physiology and growth, growth regulation by seaweed products, tree physiology, tissue culture, seed culture, seed biology, conservation biology, transgenic plants, new crops and products and medicinal plant research.

The excellent research facilities, coupled with a dedicated team of researchers, makes the Research Centre for Plant Growth and Development a very stimulating work place. The Research Centre provides a unique opportunity for research in plant sciences in South Africa, with a strong emphasis on high quality research. There exists a wide scope of interests and options for research, in a dynamic environment. It is a combination of these qualities which has enabled the Research Centre to be awarded the First Prize for the best performing Research Centre in the University of Natal for the second year running.
MRC/UKZN Pregnancy Hypertension Research Unit

The main thrust of the MRC/UKZN Pregnancy Hypertension Research Unit is Clinical and Experimental Research. This involves research into the aetiology and management of hypertensive disorders of pregnancy. Establishing the aetiology will allow for early detection of the disease and institution of appropriate therapy.

The Unit aims to: establish multi-disciplinary and multi-national collaborative projects to identify risk factors contributing to increased perinatal and maternal mortality associated with hypertensive disorders of pregnancy; and ensure that the findings of research become practical guidelines of management.

The MRC/UKZN Pregnancy Hypertension Research Unit has established links with WHO, FIGO and the University of Oxford, Perinatal Trials Unit.

The Unit has also become involved in relevant research which affects maternal health in the field of HIV/AIDS. It has been granted a substantial amount of funding to perform a clinical, randomised study on the use of prophylactic antibiotics to prevent infectious morbidity in HIV patients in labour. It is also associated with a number of other HIV trials (prevention of mother to child transmission of HIV). In this way, the burden of disease is reduced and clinical management improved, in both HIV and hypertensive disorders in pregnancy – major contributors to maternal mortality in South Africa.
Professor Dulcie Mulholland

Professor Dulcie Mulholland obtained her tertiary level qualifications at the former University of Natal, culminating with a PhD in Chemistry in 1979. She is presently the Head of the School of Pure and Applied Chemistry. Professor Mulholland has made many contributions to the University in research and teaching. She is internationally recognised as a leading natural products chemist. Her high quality research is of relevance to the wider community in terms of her involvement with studies on medicinal plants and her collaboration with traditional doctors. She has an outstanding record in the training of research students, having successfully supervised 18 Masters and 12 Doctoral degrees. Professor Mulholland has been invited as a keynote speaker at several international conferences, and also as a visiting professor at the Universities of Amsterdam and Nijmegen (Netherlands), University of Munich (Germany), University of Lausanne (Switzerland) and the University of Barcelona (Spain).

In assessing her as a researcher, a world renowned scholar states: "Some measure of the excellence of Professor Mulholland’s efforts in her field can be gauged from her success in being awarded substantial research grants, her invitation to take on the editorship of the “Journal of Ethnopharmacology” and the guest editorial she is writing for Phytochemistry on "Natural Products Chemistry in South Africa". At a comparatively young age she is now regarded internationally as the voice of authority in the field of medicinal plant chemistry in South Africa."

Professor Walter Geach

Professor Walter Geach is the Director of the School of Accountancy. He is a chartered accountant and auditor. He is also an Advocate of the High Court of South Africa. He was previously Professor at the University of Natal and a lecturer at the University of Cape Town. His publications include the Guide to Close Corporations Act, Handbook for Executors, Trustees and Curators, Britzuis’ Company Secretarial Practice, Guide to the Companies Act, Capital Gains Tax in South Africa: the essential guide. He is co-author of The Financial Advisers Development Series and Corporate Governance and Company Administration. Professor Geach is currently completing a new book entitled Legal Issues in Auditing and Accounting to be published in 2004.

Mr Abel Dlamini, accounting and audit partner with KPMG writes: “Whilst Professor Geach is a renowned academic and a celebrated writer of books, articles, and circulars in accountancy, tax, and company law, he has also distinguished himself in his identification with and understanding of the environment and background of students from disadvantaged communities”.

His encouragement and enthusiasm extends beyond lecturing to these students. He uses his network to secure opportunities for those who are needy and short of resources. He participates in development activities including the likes of ABASA (the Association for the Advancement of Black accountants) and other community and public organizations, in an unselfish manner, imparting his expertise.”

Fellows of the University

Fellows must be members of the permanent academic staff who have held an appointment at the University for a continuous period of three years prior to the closing date for nominations. They must have distinguished themselves in performance or in academic work of such high quality as to merit special recognition.

The originality and creativity as manifested in research work or in other applications of the discipline is considered with publications (or their equivalent) as the main evidence of original, distinguished academic work. Public presentation of work in the performing arts and in the fine arts is also recognised as being equivalent to research and publication. Three awards were made at the University of Natal and two awards were made at the University of Durban-Westville.
Professor Gonasageran Naidoo

Professor Naidoo, whose service to the University of Durban-Westville span three decades has in this period generated an impressive research profile in the area of Stress Ecophysiology with particular reference to coastal macrophytes. With over 50 publications in scientific journals, Professor Naidoo, was awarded a B-rating by the National Research Foundation. This category is reserved for researchers who enjoy considerable international recognition as independent researchers for the high quality and impact of their recent research output. Professor Naidoo, is the recipient of a number of prestigious awards, including the Fulbright Fellowship, the Alexander von Humboldt Fellowship and the Ernest Oppenheimer Memorial Trust Fellowship. He has held Visiting Research Professorships at the University of South Carolina, Louisiana State University, and the Westfalische Wilhelms University. The nominee has supervised and co-supervised numerous masters and doctoral candidates and has also served as External Examiner at the former University of Natal, Port Elizabeth and Botswana. Professor Naidoo, who holds membership of several scientific societies, has also served as Head of Department of Botany, Assistant Dean of the Faculty of Science and Chairman of the Faculty of Research Committee and as a member of several national bodies. Amongst these are the NRF Thrust Advisory Panel, the NRF Assessment Committee for Plant Sciences, the Water Research Commission and the South African Council for Natural Scientific Professionals.

Professor Naidoo, through his research achievements and contribution and service to the Discipline of Botany, and the Faculty of Science, has brought esteem to the University.

Professor Roseanne Diab

Professor Roseanne Diab is a graduate of the former University of Natal. After completing an MSc in Geography at the University, she moved to the University of Virginia, Charlottesville USA, where she obtained a PhD in Environmental Sciences in 1983. She is presently the Head of the School of Life and Environmental Sciences.

Professor Diab is recognised as one of South Africa’s foremost atmospheric scientists. She has won national and international acclaim for her research in atmospheric pollution and tropospheric ozone climatology. Her accomplishments in the field of tropospheric ozone resulted in her election to the ISCU, Commission on Global Pollution and Atmospheric Chemistry (CACGP), and an invitation to co-author an assessment of Southern Hemisphere tropospheric ozone for the UNEP/WMO Global Ozone Assessment for 1998. She has also been the recipient of a number of prestigious awards, including a Fulbright senior research scholarship, an Ernest Oppenheimer sabbatical leave grant and a Rockefeller Foundation residency at the Bellagio Centre in Italy. She has inspired a research ethos in her many graduate students, providing opportunities for them to work at laboratories abroad and present papers at international conferences.

According to a leading scholar in the field: “While she established her excellent national research reputation in South Africa in air pollution and wind power potential climatology, it has been Professor Diab’s work in the last ten years on tropospheric ozone that has brought her international recognition. Her research in this field, begun at the time of the SAFARI-92 international collaborative project, has produced an outstanding body of work. The excellence and innovative nature of her research in this field has been recognised by her ongoing research collaboration with some of the leading international scientists in this field, in particular Dr Ann Thompson of NASA Goddard Space Flight Centre in the USA”.

Professor Norman Pammenter

Professor Norman Pammenter has served the University with distinction both as a teacher and a researcher since 1973 as a research assistant. After completing a BSc Honours degree in Chemistry, he broadened his interest into plant science and obtained a PhD in the field from Leeds University (UK).

As a distinguished scholar, Professor Pammenter has presented invited keynote addresses or plenary lectures and/or acted as a rapporteur at several international conferences and workshops. He has been invited as a visiting professor at universities in Europe and the USA, including the prestigious Outstanding Scientist Hospitality grant from the University of Firenze, Italy. Apart from his research contributions, Professor Pammenter is also a dedicated lecturer and supervisor, having successfully supervised/co-supervised 26 Masters and ten Doctoral students. In assessing him as a researcher, one of the referees states: “Professor Pammenter is the quintessential scientific investigator, one who is able to discern from a morass of facts and suppositions a clear practical route to eliminating alternatives through well-designed and executed experiments. The clear evidence of this ability is to be seen in his wide-ranging papers which have made fundamental contributions in many fields.”

Another leading scholar comments: “His main research achievements include seminal contributions to our understanding of the physiology of desiccation-sensitive seeds, his work on the ecophysiology of coastal sand-dune flora, and his work on water relations and hydraulic architecture of trees. He is frequently sought-after as an editor of international journals and as a referee of scientific papers submitted to journals in the UK, USA, Canada, France and Germany. He has presented many important papers at international scientific meetings and has greatly influenced the early careers of many plant physiology students in South Africa who will continue his fine tradition of high-quality scholarship.”

In an academic career spanning thirty years, Professor Pammenter has served the University with distinction.
2003
Publications

Faculty of Commerce and Management Sciences – Westville Campus


Faculty of Community and Development Disciplines – Howard College Campus


Faculty of Education – Edgewood and Pietermaritzburg Campuses


University of Natal Most Prolific Researchers (2002)

Each year in November, the Research Office collates all the available information on research productivity and calculates the 30 most prolific. The calculation is based on SAPSE units (cut-off >3) and university productivity units (cut-off >225).

Faculty of Community and Development Disciplines-Howard College Campus

Prof Vishantie Sewpaul
School of Psychology and Centre for Social Work
sewpaul@ukzn.ac.za

Prof Sewpaul has pursued her interests in the area of Globalisation and Emancipatory Pedagogy. She has written a special edition on Global Standards for the Journal of Social Work Education with contributors from different parts of the world.

Faculty of Education - Edgewood and Pietermaritzburg Campuses

Dr Roger Deacon
School of Education
deacon@ukzn.ac.za

Dr Deacon's current research is focused on the origins of early modern education and related political rationalities, the politics of war, and comparison of the work of Norbet Elias and Michel Foucault.
Faculty of Engineering – Westville Campus


Faculty of Health Sciences - Nelson R Mandela School of Medicine


Absence of factor V

Twenty five years postmenopausal woman with osteoporosis.

Gray AL, Botha JH and Hoffman D. 2003. South Africa Family Practice

Gray AL. and Mathibe LJ. 2003. South Africa Family Practice


Faculty of Health Sciences - Westville Campus


Faculty of Human and Management Sciences - Pietermaritzburg Campus

Prof Jonathan Draper
School of Theology
draper@ukzn.ac.za

Prof Draper’s research investigates African modes of hermeneutics. He is currently working with a research team on indigenous interpretative responses to the Bible, in this case on a Zulu prophet from Nqutu in the 1920’s called George Khambule and his use of the Johannine literature, particularly the book of Revelation.

Prof John Robbs
Department of General Surgery
surgery-robbsj@ukzn.ac.za

Prof Robbs specializes in gunshot injury management, HIV-Related vasculopathies, CT scanning in pre-operative assessment and diabetes in peri-operative neurological morbidity.

Mr Andy Gray
Department of Pharmacology
graya1@ukzn.ac.za

Mr Gray’s research interests include the development of quality management tools for pharmaceutical services at District level, policy analysis (particularly the processes of development and implementation of drug policies, rational drug use, (particularly in the elderly and in relation to antimicrobial use) and the application of Highly Active Antiretroviral Therapy (HAART) in resource constrained settings.

Prof Draper’s research investigates African modes of hermeneutics. He is currently working with a research team on indigenous interpretative responses to the Bible, in this case on a Zulu prophet from Nqutu in the 1920’s called George Khambule and his use of the Johannine literature, particularly the book of Revelation.


Faculty of Human and Management Sciences – Pietermaritzburg Campus


Faculty of Human Sciences – Howard College Campus


Faculty of Humanities – Westville Campus


Faculty of Humanities – Westville Campus


University of KwaZulu-Natal

SAPSE – Accredited Publications continued


Faculty of Law – Westville Campus


Faculty of Law – Howard College and Pietermaritzburg Campuses


Williams RC 2003. "Expenditure incurred in the production of income must be distinguished from a distribution of income already earned; the former is deductible for income tax purposes, the latter is not". Obiter, 24 (2): 525-526.


Faculty of Science – Howard College Campus


Faculty of Law - Howard College and Pietermaritzburg Campuses

Prof Michael Cowling
School of Law
cowling@ukzn.ac.za

Prof Cowling’s research interests are in monitoring the criminal Justice System, and delivering justice to the community as a whole. This also entails analysis of the relationship between various institutions within the justice system and community at large.

Dr Ileana Dimitriu
English Studies Department
dimitriu@ukzn.ac.za

Dr Dimitriu is currently involved in two large NRF group projects “Postcolonialism: a South African perspective and “Women Writing Home”. Both projects involve approaches based on principles of cultural translation and comparative literature on the South/North axis.

Prof Michael Kidd
School of Law
kidd@ukzn.ac.za

Prof Kidd’s current areas of research focuses on Environmental law, particularly pollution control, water and compliance and enforcement and water, at both domestic and international levels.


Milton A, Cooke JA and Johnson MS. 2003. Accumulation of lead, Zinc and cadmium in a wild population of Clethrionomys glareolus from an abandoned lead mine. Archives of Environmental Contamination and Toxicology, 44: 405-411.


Faculty of Science – Westville Campus


Faculty of Science and Agriculture – Pietermaritzburg Campus


Prof Dulcie Mulholland
School of Pure and Applied Chemistry
mulholland@ukzn.ac.za

Prof Mulholland researches the chemistry of natural products in collaboration with traditional healers.

Prof Trevor Letcher
School of Pure and Applied Chemistry
letcher@ukzn.ac.za

Prof Letcher’s main research area involves experimental and theoretical chemical thermodynamics. In particular he is involved in the separation of liquid mixtures by solvent extraction and by extractive distillation.

Prof Norman Pammenter
School of Life and Environmental Sciences
pammenter@ukzn.ac.za

Prof Pammenter is a plant ecophysiologist involved in studies on how plants function at the macro-level. He also looks at how this is influenced by, and influences, the interaction of plants with their physical and biotic environment, forestry and conservation issues.

Faculty of Science and Agriculture - Pietermaritzburg Campus

Prof Ignatius Nsahlai
School of Animal and Poultry Science
nsahlai@ukzn.ac.za

Prof Nsahlai researches solutions to problems attending to the dismal productivity of farm animals, particularly ruminant livestock, which thrive largely on low quality roughage diets in resource limited communities.


Beukes M. 2003. VL position 34 is a key determinant for the engineering of the stable antibodies with fast dissociation rates. Protein Science, 15: 381-386.


Ferguson NS, Gous RM and lij PA. 2003. Determining the source of anti- nutritional factor(s) found in two species of lupin (L. albus and L. angustifolius) fed to growing pigs. Livestock Production Science, 84: 83-91.


Effects of irrigation-induced salinity and the distribution of Southern African Daily flight activity and flocking behaviour


Prof Colleen Downs
School of Botany and Zoology
downs@ukzn.ac.za
Prof. Downs main area of research is the ecophysiology, conservation and management of Southern African vertebrates. She is currently involved with research together with postgraduates and colleagues on tortoises, avian frugivores and nectarivores, Cape parrots, pelicans, dassies, oribi, bushbuck, and feral cats. Her other interest is Science Education.

Prof Mike Perrin
School of Botany and Zoology
perrin@ukzn.ac.za
Prof Perrin’s current area of research includes: optimizing diet to improve the captive breeding of rare and endangered parrots; studying the ecology and conservation of biology of African parrots.

Prof. Mike Perrin
School of Mathematics, Statistics & Information Technology
henning@nu.ac.za
My research field is graph theory which is an exciting and rapidly growing area in discrete mathematics. I have worked on several topics in graph theory such as average connectivity in digraphs, distance in graphs, domination theory in graphs, extremal graph theory, graph colourings, hamiltonicity, homogeneous embeddings of graphs, Ramsey theory, and Steiner distance in graphs.
Faculty of Commerce & Management Sciences - Westville Campus


Faculty of Community and Development Disciplines - Howard College Campus


Faculty of Education – Edgewood and Pietermaritzburg Campuses


Faculty of Engineering - Howard College and Pietermaritzburg Campuses


Faculty of Health Sciences - Nelson R Mandela School of Medicine


Faculty of Health Sciences - Westville Campus


Faculty of Human and Management Sciences – Pietermaritzburg Campus


UNIVERSITY OF NATAL BOOK PRIZE

The University of Natal Book Prize for 2003 in the Academic Book Category was awarded to Dr Siuah Ng from the School of Mathematics, Statistics and Information Technology on the Pietermaritzburg campus for his book HyperModels In Mathematical Finance: Modelling Via Infinitesimal Analysis.

The book takes a look at basic problems of financial mathematics and uses a "non-standard approach to the subject". Although aimed at students working in this field and financial practitioners, the book's appeal goes far beyond these sectors.

African Studies Association Text Prize

Professor John Wright from the School of Human and Social Studies was awarded the African Studies Association Award for 2003. The ASA Text Prize, which recognises the best critical edition or translation into English of primary source materials on Africa, was awarded to The James Stuart Archive Volume 5: Recorded Evidence relating to the history of the Zulu and neighbouring peoples.

Faculty of Law – Westville Campus

Faculty of Management Studies - Howard College Campus

Faculty of Science - Howard College Campus

Faculty of Science – Westville Campus

Faculty of Science and Agriculture - Pietermaritzburg Campus
RESEARCH GRANTS AND CONTRACTS 2003:
(more than R100 000)

Faculty of Community and Development Disciplines – Howard College Campus

Prof A M Habib: The State of Giving in South Africa
Atlantic Philanthropies 3,000,000

Prof A M Habib: Globalisation, Marginalisation and New Social Movements in Post Apartheid SA
Ford Foundation 2,800,000

Prof A M Habib: The State of Social Giving in South Africa - To contribute to the development of more effective poverty intervention strategies
National Development Agency 1,700,000

Prof A M Habib: The State of Giving in South Africa
MOTT Foundation 1,480,000

Prof A M Habib: Assistance to complete the last phase of the RASSP for civil Society - Research Analysis and Skills Strengthening Programme
Embassy of Finland 1,040,000

Prof A M Habib: The State of Giving in South Africa
Grant No. 1035 0733
Ford Foundation 759,000

Prof FJ Lund: Risk, Vulnerability and Poverty in the informal economy
University of Cape Town 272,874

Miss P Maharaj: “How, not, if, condoms are used: an investigation into male condom usage by young people in KwaZulu-Natal, South Africa.”
University of London 433,800

Prof J D May: Programme for the development of the research infrastructure and the evidence base for pro-poor social policy in South Africa
Department of Social Development 4,240,090

Prof J D May: A study of poverty dynamics in rural areas of the Limpopo province and KwaZulu-Natal
University of Cape Town 255,360

Prof J D May: Vulnerability and Poverty Monitoring System in the Maldives
United Nations Office for Projects Services 145,124

Prof E M Preston-Whyte: Research to inform the World Health Organization’s evidence base for promoting healthy sexuality and sexual health in the context of the global HIV/AIDS pandemic by building understanding of the social, cultural and historical meanings and nature of dry sexual practices
Ford Foundation 630,000
Research Grants and Contracts

Prof L R Uys: Multi-country research into care of AIDS sufferers NIH Grant No. 1R01 TW00395-01
University of California - San Francisco 15,972,530

Prof L R Uys: To design and pilot test an Integrated Community Home-based Care system for Malawi
Government of Malawi 1,336,289

Mr I A K Valodia: Budgets and the Informal Economy - Center File: 102272-001
International Development Research Centre 177,000

Dr D L Veeran: Assessing the effectiveness of intervention projects for street children in KwaZulu Natal through the development and use of appropriate evaluation methodology-South Africa
Water Research Commission 2,240,000

Dr B S Rigby: Validation of mathematical models and development of benchmark cases for RTDs real-time simulator
Eskom Enterprises (Pty) Ltd TSI Division 205,200

Dr I E Davidson: The spatial modeling of a Photovoltaic components for sustainable development”
University of the WRC “Biotechnological co-treatment of saline and sewage wastewaters with integrated recovery and reuse of water and organic and inorganic components for sustainable development”.
SAPPI Management Services (Proprietary) Limited 342,000

Prof C A Buckley: Situational Analysis of Six Rural Communities’ Project
National Development Agency 3,848,000

Prof R E Schulze: K5/1430/1 Global climate change and water resources in Southern Africa: Potential impacts of climate change and mitigation strategies
Water Research Commission 2,240,000

Faculty of Health Sciences – Nelson R Mandela School of Medicine

Prof D Abdool Karim: Training Workshop: “Research Grant Applic.& Scientific Manuscript Writing for African Scientists involved in AIDS Vaccine R&D & AIDS-related Research”
World Health Organisation 111,160

Prof S S Abdool Karim: Prophylaxis and Treatment of opportunistic Infections relating to AIDS at Municipal Clinics in Pietermaritzburg
Oxfam GB 378,000

Prof S S Abdool Karim: Understanding HIV/AIDS stigma and discrimination at a community level-perspective from rural KwaZulu-Natal
The Joint Oxfam HIV/AIDS Programme in South Africa 218,357

Dr R Pawinski: ECI KZN Global Fund Programme to fight AIDS, Tuberculosis and Malaria
Dr A J Herbst: Poverty, Inequality and Health in Economic Development NIH Grant 1RO1 A103710A-01
Massachusetts General Hospital 1,246,624

Dr P Kiepiela: Early treatment of acute HIV infection in pregnancy.
Dr P Kiepiela: HIV Pathogenesis Program   Modification 1R01 AG20275-03
Exemias Pharmaceutical Corporation 224,000

Dr M Bennish: North-Central California-Center for AIDS Research Sub-contract under NIH Grant No. 5 P30 AI049386-02

University of California-Davis 193,674

Prof H M Coovadia: Neutralizing human mAbs: Phase 1 study in HIV-exposed babies Grant No. 1R01 AI05710A-01
National Institute of Health 3,645,000

Prof H M Coovadia: CTL-Mediated Control-Paediatric/ Adult C-Clade Infection Grant # 5R01 A146995-04

Massachusetts General Hospital 1,850,310

Prof J P Jordaan: A Phase III randomized controlled study comparing the survival of patients with unresectable hepatocellular carcinoma (HCC) treated with Thymitaz to patients treated with Doxorubicin

Princeton University 370,393

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Princeton University 370,393

Dr P Kiepiela: Early treatment of acute HIV infection in pregnancy.
University of Oxford 456,750

Prof H M Coovadia: CTL-Mediated Control-Paediatric/ Adult C-Clade Infection Grant # 5R01 A146995-04

Massachusetts General Hospital 2,250,000

Alpha General Hospital 630,000

Prof R E Schulze: K5/1430/1 Global climate change and water resources in Southern Africa: Potential impacts of climate change and mitigation strategies
Water Research Commission 2,240,000

Faculty of Health Sciences – Nelson R Mandela School of Medicine

Prof D Abdool Karim: Training Workshop: “Research Grant Applic.& Scientific Manuscript Writing for African Scientists involved in AIDS Vaccine R&D & AIDS-related Research”
World Health Organisation 111,160

Prof S S Abdool Karim: Prophylaxis and Treatment of opportunistic Infections relating to AIDS at Municipal Clinics in Pietermaritzburg
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Prof S S Abdool Karim: Understanding HIV/AIDS stigma and discrimination at a community level-perspective from rural KwaZulu-Natal
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Massachusetts General Hospital 2,250,000

Dr A Mosam: AMC Operation Centre
University of Alabama 237,575

Dr R Pawinski: ECI KZN Global Fund Programme to fight AIDS, Tuberculosis and Malaria

Department of Health 13,986,268

Dr N C Rollins: Amendment to Agreement for research under NIH Grant 5U01 HD38900-03: Micronutrients and Enteric Infection in African Children
New England Medical Center Hospitals 2,019,048

Faculty of Engineering – Howard College and Pietermaritzburg Campuses

Prof D R Arnold: Investigation of the gasification of digestor liquors generated by Sappi pulp and paper mills.
SAPPI Management Services (Proprietary) Limited 342,000

Prof C A Buckley: Sub-Agreement with Rhodes University for the WRC “Biotechnological co-treatment of saline and sewage wastewaters with integrated recovery and reuse of water and organic and inorganic components for sustainable development”.
Rhodes University 445,740

Dr I E Davidson: The spatial modeling of a Photovoltaic Fuel-cell generator for localised load management
Eskom 196,650

Mr A M Forbes: Mapping bushman painting sites
National Lotto 3,077,270

Dr G P W Jewitt: Smallholder System Innovations in Integrated Watershed Management
International Water Management Institute 2,267,867

Prof G G Pegram: National Flood nowcasting system towards an integrated mitigation strategy
Water Research Commission 1,314,000

Prof G G Pegram: Daily rainfall mapping over South Africa: (2) Modelling
Water Research Commission 423,800

Dr B S Rigby: Validation of mathematical models and development of benchmark cases for RTDs real-time simulator
Eskom Enterprises (Pty) Ltd TSI Division 205,200

Dr M Bennish: North-Central California-Center for AIDS Research Sub-contract under NIH Grant No. 5 P30 AI049386-02

University of California-Davis 193,674

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New England Medical Center Hospitals 2,019,048
Research Grants and Contracts

Prof A W Sturm: Cholera vaccine project
Department of Arts, Culture, Science and Technology 200,000

Dr T Welz: Reduction of MTCT of HIV in resource-limited countries Hlabisa CTA 159-02

Elisabeth Glaser Paediatric AIDS Foundation 2,400,000

Faculty of Human and Management Sciences – Pietermaritzburg Campus
Prof G C Lindegger: MRC SAAVI grant for the period 2003-5
Medical Research Council 4,630,212

Ms H E van Rooyen: Establishment of a mentorship programme for HIV/Aids Counsellors
Department of Health 893,998

Mr D R Wassenaar: Core support to the Ethics Law and Human Rights thematic working group of the AIDS Vaccine Program
UNAIDS-WHO HIV Vaccine Initiative 259,005

Faculty of Human Sciences – Howard College Campus
Ms D R Bonnin: New spaces of democracy in post-apartheid Durban, South Africa
Open University 125,721

Department of Economic Affairs and Tourism (KZN) 600,000

Prof A Sitats: To provide research support in the industrial re-structuring programme
Department of Economic Affairs and Tourism (KZN) 300,000

Faculty of Management Studies – Howard College Campus
Prof A W Whiteside: To enhance in-country capacity to assess the socio-economic impact of HIV/AIDS in selected development sectors, Contract No AAS 010
Action Aid SIPAA 2,004,384

Prof A W Whiteside: Operationalising Aids in Development Research in Southern Africa Extension of Grant No. B - AOT-9-00-97-00375 00
US Agency for International Development 1,875,000

Prof A W Whiteside: Demographic and Socio-Economic Impact of AIDS in Africa
University of North Carolina at Chapel Hill 833,940

Prof A W Whiteside: Impact of HIV-AIDS on the education sector in 100 countries
International Institute for Educational Planning 320,738

Faculty of Science – Howard College Campus
Prof R D Diab: Environmental Management Plan Training for Tourism Enterprises Wild Coast
World Wide Fund For Nature 342,000

Prof W N Ellery: Wetland Rehabilitation Programme
Water Research Commission 4,000,000

Dr A Kindness: Fundamental research into the application of Capillary Electrophoretic methods for the separation of key PGM anions and the development of an analytical procedure-Rustenburg Platinum Mines Ltd
Anglo Platinum Research Centre 107,844

Prof R H Slotow: Research Collaboration Agreement between Universities of Groningen and Natal
University of Groningen 1,500,000

Prof R H Slotow: Collect, treat and ship elephant fecal samples from South Africa. Contract 0301066
University of Missouri - Columbia 187,500

Faculty of Science and Agriculture – Pietermaritzburg Campus
Mr H C Bester: An investigation into techniques to prevent metal loss from smelting slag heaps
Billiton PLC 1,356,421

Mrs P M Caldwell: Fungicide control of soybean rust
Protein Research Trust 174,450

Dr T M Everson: Bergville Landcareland project: Development and implementation of sustainable management practices in the Bergville district of the KwaZulu-Natal
Agricultural Research Council 228,000

Dr M L Hamer: South African Invertebrate Conservation
Earthwatch 173,999

Mrs S L Hendriks: Ensuring Food Security: Sustainable livelihoods through farm and non-farm enterprises
Ford Foundation 1,240,000

Dr M L Hamer: The extinction crisis faced by many invertebrate species in SA
World Wide Fund For Nature 106,000

Mrs J N U Jaganyi: Collection of baseline data and information on the utilization of the Pongolo floodplain and the possible impacts of increase irrigation
International Water Management Institute 130,000

Prof K P Kirkman: Nature Conservation and Management: Biodiversity in coastal Maputoland (northern KwaZulu-Natal)
Norwegian Council For Higher Education 3,643,500

Prof M J Lawes: Ongoye Resource Survey: Phase 1
World Wide Fund For Nature 112,462

Campbell Collections Dr D P Peters: An Assessment of Skills Development Needs in the Use of Digital Technologies for Libraries and Archives in South Africa
The ETDP Sector Education & Training Authority 113,314

Mrs J N U Jaganyi: Collection of baseline data and information on the utilization of the Pongolo floodplain and the possible impacts of increase irrigation
International Water Management Institute 130,000

Prof K P Kirkman: Nature Conservation and Management: Biodiversity in coastal Maputoland (northern KwaZulu-Natal)
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Prof M J Lawes: Ongoye Resource Survey: Phase 1
World Wide Fund For Nature 112,462

Campbell Collections Dr D P Peters: An Assessment of Skills Development Needs in the Use of Digital Technologies for Libraries and Archives in South Africa
The ETDP Sector Education & Training Authority 113,314

Prof Y N Seleti: Survey of Workers in the South African Library/Archives Sector
The ETDP Sector Education & Training Authority 100,320

Quality Promotion Unit Ms D J Webbstock: Develop and pilot a comprehensive Service Learning Quality Assessment framework
Joint Education Trust 220,000
## Statutory and External Income

### External Research Income in 2003

<table>
<thead>
<tr>
<th>Faculty/Unit</th>
<th>Total Awarded 2003</th>
<th>Grant Income</th>
<th>Received 2003</th>
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<td><strong>TOTALS</strong></td>
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### Statutory Income from the NRF for 2003

#### Former University of Natal and University of Durban-Westville

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<tr>
<th>Faculty/Department</th>
<th>Focus Areas</th>
<th>THRIP</th>
<th>THUTHUKA</th>
<th>Faculty Total</th>
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