

APRIL 2017

SCIENCE @UJ

NEWSLETTER OF THE
FACULTY OF SCIENCE

LEADING SCIENTISTS, INNOVATIVE TECHNOLOGISTS





A MESSAGE FROM THE EXECUTIVE DEAN

The Faculty of Science had a stellar year with regards to research output in 2016; not only did we exceed the 300 publication units mark, but we summersaulted into new territory by producing more than 360 units of mostly journal articles and with 97% of these in international journals. We are extremely grateful to the 99 permanent academic personal who contributed to these publication numbers, and embark on programmes to urge more permanent staff into this illustrious group of highly productive researchers. The Faculty is of course indebted to the many visiting professors, research associates, postgraduate students and postdoctoral candidates without whom the Faculty would not be where we are in terms of research output. As far as teaching and learning is concerned, we look forward to graduating more than **653** students within the next year of whom **433** are undergraduate students. Our postgraduate student graduation number should improve

in 2017 as the faculty is making a huge push towards propelling students who are long overdue, out of the system successfully. We have enrolled 776 new undergraduate degree students and 240 new undergraduate diploma students by 28 February 2017, 66 of these students are Orange Carpet students (students with an APS of **37 and higher**).

This newsletter provides updates on recent achievements in research, fundraising (from True North Partners, TIA and the NRF), teaching and learning, academic networking (TENET/SAFIRE), conference-hosting and community engagement (e.g acknowledging Khoi-San contributions to botany). We applaud groundbreaking research in Geology (the identification of 2.5 billion year old bacterial fossils and that oxygenation of the pre-evolution atmosphere was not uni-directional) and GEMES (the potential harmful effects that climate change could have on South African tourism if we do not act now). We welcome back the intrepid explorers of Antarctica and congratulate Dr Njobeh on his inclusion in the WHO-expert committee providing advice on food safety standards. We acknowledge institutional support in upgrading the Biochemistry-laboratory facilities and acquiring state-of-the-art equipment in Physics. We congratulate staff and students who were recipients of awards and prizes, in particular Prof Ngila who achieved top recognition for her outstanding achievements in research thus far. We welcome new staff and say goodbye to those adventurers who will try new things in the coming years. With sadness we bid fare well to Mr Glen Schlachter who served the Faculty and institution faithfully for many years as the Technical Manager of the Science Workshop on APK. Most of all, we look forward to another groundbreaking year where we continue to expand boundaries in research, teaching, learning and community engagement.

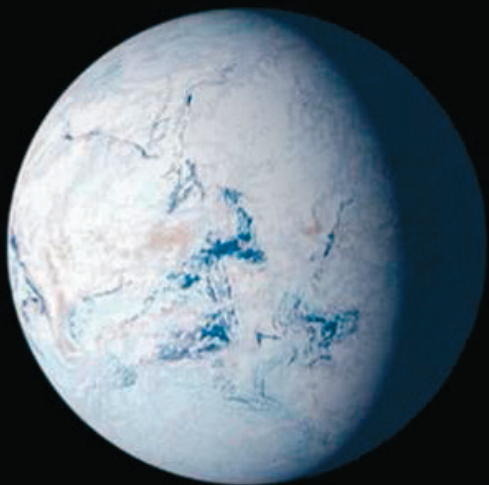


Participants in 2014 field excursion to collect fossils near the town of Kuruman in the Northern Cape Province of South Africa. From L to R: Clark Johnson, University of Wisconsin, Madison; Aaron Satkoski, University of Wisconsin, Madison; Nicolas Beukes, University of Johannesburg, South Africa; Breana Hashman, University of Wisconsin, Madison; and Kira Lorber, University of Cincinnati.
Photo/Andrew Czaja

UJ SCIENTIST IN GROUNDBREAKING BACTERIA FOSSILS DISCOVERY

The Geology Department's NRF A-rated scientist, Prof Nicolas Beukes, was involved in research conducted by the University of Cincinnati, uncovering 2.5 billion-year-old fossils of bacteria that predate the massive increase in the amount of free oxygen in the Earth's atmosphere about 2.4 to 2.2 billion years ago. This occurrence, termed the Great Oxidation Event (GOE), was a major milestone in the evolution of the Earth because it promoted the rise of most oxygen-using life forms, including humans. The study, published in the December 2016 issue of the high impact *Geology* journal of the Geological Society of America, received significant media attention. The researchers presented new evidence for bacteria found fossilized in two separate locations in the Northern Cape Province

of South Africa. According to Prof Beukes, the bacteria made a living by oxidising sulphur-rich chemicals that were abundant in the ancient, oxygen-free deep ocean floor. These bacterial fossils are the oldest known such organisms, and were fossilised in silica-rich rocks in the Gamohaan Formation that outcrop near the town of Kuruman. Scientists have postulated that there were organisms that lived without oxygen in certain environments, such as the deep sea floor, prior to the GOE, when there was very much less than 1% oxygen in the atmosphere. This bacterial fossil discovery confirms the hypothesis, and provides a remarkable insight into the resilience and abundance of life on an Earth without oxygen.



Planet earth.

NOVEL RESEARCH ON TIMING AND TEMPO OF THE GREAT OXIDATION

A trailblazing study investigating the timing and tempo of the Great Oxidation Event (GOE) and co-authored by Prof Michiel de Kock, the Head of UJ's Geology Department, was published in one of the world's most-cited multidisciplinary scientific serials in February, the *Proceedings of the National Academy of Sciences* (PNAS). According to the researchers, the first significant build up in atmospheric oxygen, the GOE, began in the early Paleoproterozoic in association with global glaciations and extensive volcanism while the Earth's landmasses were gathered in a single supercontinent called Kenorland. Importantly, the exact timing of and relationships among these events remained debated because of poor age constraints and contradictory stratigraphic correlations. Their study presents U-Pb ages for the extensive Ongeluk Formation lavas of the Northern Cape, which represent a large-scale magmatic event that took place near the equator in the Paleoproterozoic Transvaal basin of southern Africa at ca. 2426 Ma. The results force a significant reinterpretation of the iconic Transvaal basin stratigraphy and implies that the oxygenation involved several oscillations in oxygen levels across 10–5 present atmospheric levels before the irreversible oxygenation of the atmosphere. The rise in oxygen was always thought to be a simple unidirectional change, but this research shows it having gone through a series of ups and downs before settling at near present atmospheric levels. Climate, life and volcanism are intertwined during the GOE, and this study gives scientists the grounding to begin to understand these complex relationships by achieving international consensus on when these events affected the planet. The paper is available on open access via the following link:

<http://www.pnas.org/cgi/doi/10.1073/pnas.1608824114>.

CLIMATE CHANGE COULD LEAVE SOUTH AFRICAN TOURISM HIGH AND DRY, STUDY WARNS



IMAGE REUTERS/Mike Hutchings.

The Conversation published a significant article, "Climate change could leave South African tourism high and dry", co-authored by the HoD of UJ's Department of Geography, Environmental Management and Energy Studies, Professor Gijsbert Hoogendoorn, which argued that climate change poses a risk to South Africa's tourism industry if immediate action is not taken. According to the researchers, the sub-Saharan region is likely to be hard-hit by climate change over the years. "The region will experience temperature increases above the average global rate. Extreme weather events will become more common and the region's rainfall patterns are set to change. Some areas will experience increased rainfall and a heightened flood risk, while others are projected to experience a decrease in rainfall and become more drought prone." The article poses that there is still room for action as "understanding can improve the sector's capacity for effective adaptation and mitigation" (<https://theconversation.com/climate-change-could-leave-south-african-tourism-high-and-dry-69432>).

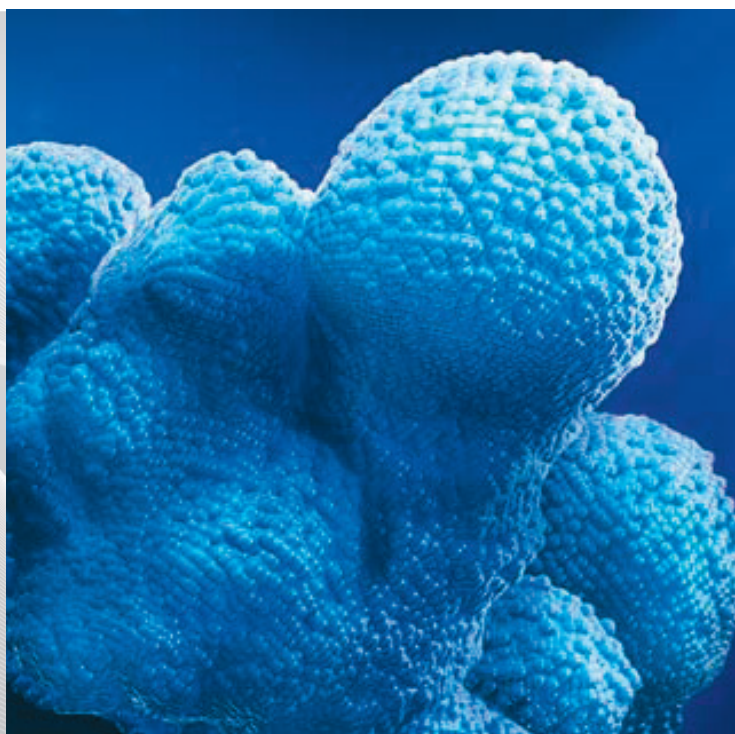


Image of an apoptotic cell undergoing 'blebbing' as part of its programmed demise.

ANTI-CANCER DRUGS FUNDING AWARDED TO BIOCHEMISTRY

UJ's Biochemistry Department received generous funding valued at R500000 from the Technology Innovation Agency (TIA) to continue its on-going research on anti-cancer drugs. Prof Marianne Cronje, HoD for Biochemistry at UJ, said in recent years, a re-examination of the knowledge of chemotherapeutic-induced cell death has been revisited due to the complexity of cell death mechanisms as well as the occurrence of resistance to treatments. The idea is to perhaps precisely activate or inhibit molecules and/or pathways that mediate the diverse forms of cell death, aiming ultimately to develop less toxic and more effective chemotherapeutic regimens. Certainly, most current therapies are of a 'blunderbuss' nature and the designing of target-specific chemotherapeutic drugs with minimal or less-severe side effects are desirable. Prof Cronje said unravelling and understanding the intricacies of the functioning of cells on a molecular level keeps her fascinated. "Translating this knowledge into something useful for mankind keeps me productive and getting paid to do both keeps me happy!"

True North Partners SA funds UJ Mathematical Sciences Students

The Faculty of Science received generous funding worth R951 079.09 from True North Partners South Africa (Pty) Ltd to support BSc Mathematical Sciences students in 2017. Secured by the Executive Dean of Science, Prof Debra Meyer, the funding is renewable scholarship for selected students who will also benefit from soft skills training and paid vacation-work where applicable, according to a Memorandum of Understanding between the two institutions.

ENHANCED TEACHING AND LEARNING OPPORTUNITIES AS SAFIRE JOINS EDUGAIN

The Tertiary Education and Research Network of South Africa (TENET) was thrilled at the South African Identity Federation's (SAFIRE) admission to eduGAIN as its 41st member and the first fully participating member from Africa. South Africa's membership of eduGAIN will provide local academics and researchers with an easy way to log into over a thousand participating services worldwide using their home organisation's username and password. Federated identity services play an increasingly critical role in facilitating access to big science projects, and so South Africa's participation in this space is an important milestone towards allowing South African scientists to collaborate further in international research. Prof Ina Wagenaar, Vice-Dean for Teaching and Learning at UJ's Faculty of Science, said the membership would vastly improve opportunities to effortlessly link to a global community to prepare students for global citizenship. "Scientists will be able to share resources in a wide variety of fields and thereby contribute to our goal of global excellence in Teaching and Learning." Information for South African research and education institutions wishing to participate in SAFIRE is available at <https://safire.ac.za/participants/idp/> and academics can visit <https://learn.nsrc.org/fedidm> to learn more about identity federation.



Prof Ina Wagenaar.





(Centre) Prof Catherine Ngila.

Congratulations to University of Johannesburg's Applied Chemistry Professor, Catherine Ngila, who was one of Africa's top five female scientists to be awarded \$20,000 (Sh2 million) each for excelling in science research in the year 2016, by the African Union (AU) Kwame N'krumah Regional Awards in partnership with the European Union and Third World Academy of Science. Prof Ngila attended the prestigious ceremony at the AU headquarters in the Ethiopian capital, Addis Ababa on 24 January 2017 just months after she was named a South African Department of Science and Technology Distinguished Woman Researcher under the Physical and Engineering Sciences category on 11 August 2016. She said she was humbled by this recognition and she attributes this excellent performance to the opportunities afforded to her by UJ, its Faculty of Science, the Department

PROF NGILA WINS PRESTIGIOUS AFRICAN UNION KWAME N'KRUMAH SCIENCE AWARD

of Applied Chemistry and the UJ Research Office. She would not have gone this far if it were not for her postgraduate students who are the pillar of research and development in any university, she added. "I am also grateful to the Department of Applied Chemistry staff for all the support they have given me over the years since joining UJ in April 2011. Prof Ngila has a research group of over 30 postgraduates and postdoctoral fellows co-supervised by other colleagues in the Department. She bid farewell to UJ at the end of March 2017, and Senate approved her appointment as visiting professor thereafter. Prof Ngila said joining UJ was the best decision she ever made in her academic professional career and she looks forward to continued future collaboration with colleagues for various research projects and postgraduate co-supervision.

YOUTUBE DOCUMENTARY SHINES LIMELIGHT ON INDIGENOUS KNOWLEDGE SYSTEMS



A YouTube documentary recently emanated from the fascinating work of UJ ethnobotanist and SARCHI Chair for Indigenous Knowledge Systems, Prof Ben-Erik van Wyk. Directed by Naima Sebe and rightfully named "The Professor", the 23 minute documentary tells the story of Koos Paulse, who, born with Khoi-San ancestry, is recognised as a "professor of the veld and a botanical colleague" by Prof van Wyk for this immense knowledge on indigenous plant use. This is a story about change, recognition and dignity (<https://www.youtube.com/watch?v=jOt5IE4ULpo>).

DR NJOBE JOINS GLOBAL EXPERTS COMMITTEE ON FOOD ADDITIVES AND CONTAMINANTS

A senior lecturer at UJ's Department of Biotechnology and Food Technology, Dr Njobeh Patrick, was appointed to serve on the Joint FAO/WHO Expert Committee on Food Additives (JECFA) from 2017 to 2021. The Food and Agriculture Organization (FAO) of the United Nations and the World Health Organization (WHO) administer the international expert scientific committee jointly since its inception in 1956, initially to evaluate the safety of food additives. Over the years, the committee has been saddled with the responsibility of delivering scientific advice for the establishment of global food safety standards of *Codex Alimentarius* and others. According to Dr Njobeh, assessing food additives and contaminants is critical, as additives have to be of value to the consumer rather than causing ill health, particularly when ingested at higher doses like the case of contaminants in foods. For over a decade, Dr Njobeh has been involved in research on assessing food and feed quality, addressing food and feed safety with emphasis on applying nanotechnology and other viable means of limiting and controlling fungal and mycotoxin contamination. He is an editorial board member and reviewer of different scientific journals and funding bodies including the NRF, MRC-SA and FWO-Belgium.



Dr Patrick Njobeh.



Dr Kowiyou Yessoufou.

FRENCH RESEARCH PRIZE FOR UJ ACADEMIC

The French Society of Botany awarded its 2016 research prize to UJ's senior lecturer in the Department of Geography, Environmental Management and Energy Studies, Dr Kowiyou Yessoufou. Published in *Botany Letters*, his paper "Assessing the phylogenetic dimension of Australian *Acacia* species introduced outside their native ranges" was said to spark debate in invasion biology when the study found that phylogeny might play different roles at different stages of the biological invasion process. The study used the Australian *Acacia* as the model taxonomic group, testing whether the process of biological invasion, from the introduction to the invasion stages, has a phylogenetic basis, as the invasion process of this group is very well documented. Dr Yessoufou said the findings are crucial in revealing the hidden phylogenetic basis driving why some species are introduced to a new environment and only some of them naturalize while others become invasive. He said it feels great to win an award, especially when you publish your work as part of your academic passion, and it gets the editorial board's attention.



Prof Bruce Cairncross (seated centre) and Mr Desmond Sacco (Chairman and Managing Director of ASSORE Ltd, seated left), are seen signing copies of the book Prof Cairncross and Professor Nic Beukes wrote "The Kalahari Manganese Field - the Adventure Continues". Olga Kaspera photograph.

GEOLOGY RESEARCH IN BOOK PUBLICATIONS

Prof Bruce Cairncross continues to excel in geological research book publications. He was invited to contribute a chapter in the book featuring 44 of the continent's most spectacular and interesting 'geosites', *African Treasures – Gemstones and Minerals of Africa* (2016), in addition to his recent co-authorship of *Microminerals of the Bushveld Complex* (2016) which identified 35 South African mineral species. Prof Cairncross also co-authored *The Kalahari Manganese Field - the Adventure Continues* (2013) with Prof Nic Beukes which he signed at the *Munich Mineralientage* (Munich Mineral Show) that took place in Germany in October 2016. The well-known mineral dealer Ian Bruce of "Crystal Classics" (standing) bought a large consignment of the books and sold them during the Munich Show.



Dr Derek Ndinteh.

PROMOTING LOCAL SCIENCE FOR GLOBAL IMPACT

The Faculty recently congratulated Dr Derek Ndinteh on a feature article, published by the German media house, *Deutschlandfunk*, applauding his solid stance to continue promoting local science for global impact. The article supports Dr Ndinteh's belief that African researchers, and indeed the continent, have strong potential to generate groundbreaking research outcomes locally without scientists having to go to Europe or the USA for research success. Dr Ndinteh made a virtue out of the hardship of an empty laboratory in Cameroon and said while high-tech resources may be scarce; there are centres of excellence all over Africa. Anja Bengelstroff wrote the original article, *Aus der Not eine Tugend Machen*.



New equipment stationed at the Physics Department.

NEW EQUIPMENT TO BOOST UJ PHYSICS RESEARCH

The Physics Department is now home to a new cryogenic free measurement system (CFMS) which was acquired through the National Research Foundation's (NRF) National Equipment Programme (NEP) Grant, and UJ funding allocated to the department's Prof Aletta Prinsloo and Dr Charles Sheppard with the support of various co-users in the Physics Department and from other institutions. The final sections of the world-class cryogenic apparatus was delivered at the end of October 2016, followed by training that was done by cryogenic development and installation engineer, Dr Yury Bugaslavsky from the UK during December 2016. "One of the most prominent features of this system is that it does not require cryogenic liquids for its cooling operations, making it much cheaper to operate than standard systems that functions in the same temperature range. In order to cool the sample, a separate supply of helium (He) gas is drawn from a small reservoir and circulated past the cryo-cooler that condenses it to a small amount of liquid He, thus making the system extremely cost effective", said the researchers who also thanked the NRF and UJ for making this dream a reality.

SA GEOLOGY TEAM LED BY DR HERMAN VAN NIEKERK IN ANTARCTICA

While the country enjoyed warm weather and sunny skies this summer, a team of South African geologists, led by UJ's Dr Herman van Niekerk and Mr Mike Knoper arrived in the cold and desolated highlands of Antarctica for geological research! Radio Sonder Grense and Channel 813 on DStv covered the expedition (<http://www.rsgplus.org/wetenswaardig/antarktika-5/>) every Saturday, where our intrepid Antarctic geologists, along with Knoper's Masters student, Johan O'Kennedy – doing a paleomag study of Jurassic dikes related to Gondwana breakup – spoke about their Antarctic adventures. Knoper delivered a stimulating public lecture about their research adventures in Antarctica on Auckland Park Kingsway Campus in March.



Preparations ahead of cold Antarctica



Prof Reinout Meijboom

CHEMISTRY DEPARTMENT HOSTS SUCCESSFUL CATSA CONFERENCE

UJ's Chemistry Department hosted the 27th annual conference of the Catalysis Society of South Africa (CATSA) at the Champagne Sports Resort (central Drakensberg) from 06 to 09 November 2016 where Prof Reinout Meijboom was Chair. The conference promotes widespread interaction among practitioners in the field and this year's academic sessions were in the areas of homogeneous catalysis, heterogeneous catalysis, bio-catalysis and electro catalysis. The eminent conference visitor was Prof Peter Wasserscheid from University of Erlangen-Nuernberg, Germany, and the department's Distinguished Visiting Professor, Koop Lammertsma, presented on controlling the dynamics of pentacoordination, toward enantioselective chiral-at-metal catalysis. Delegates also discussed an array of topics including electrochemistry, oxidation chemistry and Fischer-Tropsch synthesis.

REFURBISHED LABS AND OFFICE SPACE FOR BIOCHEMISTRY

The Biochemistry Department ended 2016 on a high note; settled and ready to accelerate productivity in its new home, the refurbished top floor of the C2 Laboratories at Auckland Park Kingsway Campus. The year-end lunch and inauguration of the department's new floor was attended by the Executive Dean of the Faculty of Science, Prof Debra Meyer, who acknowledged their research output and overall achievements in 2016, and said plant metabolomics – the scientific study of chemical processes involving metabolites – was still a major selling point for biochemistry research at UJ. She encouraged staff, postgraduate and postdoctoral candidates to maximise their potential at the new building, before being taken on a tour of the new facilities.



Biochemistry labs. Photo by Dr Gerrit Koorsen.

APPLIED CHEMISTRY APPLAUDED FOR EXCELLENT RESEARCH OUTPUT

The Department of Applied Chemistry was recently congratulated for its outstanding contribution towards the Faculty of Science reaching a milestone 350 publication units in 2016. The Executive Dean, Prof Debra Meyer, the Vice Dean of Research and Postgraduate Studies, Prof Andre Strydom, as well as the Vice Dean the Teaching and Learning, Professor Ina Wagenaar visited the department at the Doornfontein Campus, accompanied by the Head of Faculty Administration, Mrs Naomi Strydom and the Senior Faculty Officer for Research and Postdoctoral Studies, Mrs Leandri Snyman. Staff and postgraduate students were encouraged to persevere despite on-going challenges that include limited office and laboratory space. The Faculty is making headway in having these issues successfully addressed. Prof Meyer said it was important to uphold the values of fairness and transparency and to adhere to university policies in driving the Faculty's research agenda to greater heights. Prof Catherine Ngila's contribution as former Head of Department was acknowledged, and Dr Penny Govender applauded for her achievements in the role thus far.



Faculty leadership engaging staff at Doornfontein campus.

ACDB LAUNCHES 12 MONTH MALAISE TRAP PROJECT

UJ's African Centre for DNA Barcoding (ACDB) has embarked on a yearlong Malaise Trap Project envisaged to stimulate and educate undergraduate and postgraduate students from various disciplines about biodiversity on Auckland Park Kingsway Campus. This project forms part of an international collaboration between the Centre for Biodiversity Genomics (CBG; University of Guelph, Canada) and several international collaborators to document terrestrial arthropod diversity within "big cities". Set up by a team of ACDB postgraduate students on the campus lawns behind the library, the trap is an effective collecting tool used for scientific research, particularly to carry out biodiversity inventories. Every Wednesday morning, insects captured in the apex of the trap will be collected, taken to the ACDB laboratory, where samples are identified to order level and then shipped to the CBG where they will be barcoded. Once barcoded, all data will be uploaded on the Barcode of Life Datasystem and a species inventory will be produced.



Botany students setting up the Malaise Trap.

The Faculty of Science in partnership with the UJ Library launched its 2017 public lecture series on February 17. No stranger to the annual series, Physics lecturer, Dr Buyi Sondezi addressed a wide student audience on the topic: "Can I also understand Science?"



UJ STUDENT ELECTED TO INTERNATIONAL METABOLOMICS SOCIETY COMMITTEE



Prof David Broadhurst, Dr Julia Kuligowski, Fidele Tugizimana, Dr Stacey Reinke and Dr Warwick Dunn co-chairing a workshop at the 2016 conference.

A PhD student supervised by Prof Ian Dubery at UJ's Biochemistry Department was appointed as the secretary of the International Metabolomics Society's Early-career Members Network (EMN) Committee. Fidele Tugizimana delivered two poster-presentations from his doctoral research, and co-organized and chaired a workshop on the importance of experimental design, data acquisition and quality assurance in metabolomics at the Society's 12th Annual International Conference that was held in June 2016 in Dublin, Ireland, in addition to chairing one of the young scientists' sessions. Tugizimana was further selected to be also part of the Society's Strategy Task Group, and together with the Dean of UJ's Faculty of Science, Prof Debra Meyer, he serves as a member of the international organizing committee for the 13th edition of the annual conference which will take place this winter in Brisbane, Australia.



A group photograph at Department of Physics in North Orissa University, India, taken in December 2016 when Dr Pankaj Mohanty, pictured second from right in the back row, gave an oral presentation entitled: "Structural and magnetic properties nickel chromite" and was awarded a certificate for the best presentation by the Director of the Indore Centre.

SUCCESS STORIES OF STUDENTS IN SCIENCE

MATHS TOP ACHIEVERS 2016 RECOGNISED



Success stories at the awards breakfast.

The Department of Pure And Applied Mathematics handed out over 40 certificates of excellence and cash prizes to its 2016 top achievers at a special awards breakfast recently held at the School of Tourism and Hospitality. The mathematical geniuses aced the department's undergraduate and Honours modules, impressing their lecturers and the Faculty of Science Vice-Dean for Teaching and Learning, Prof Ina Wagenaar, who congratulated them at function. Not only did he obtain his Mathematics PhD at the incredible age of 25, Dr Francios Schulz went on to pursue an additional Honours degree in Applied Maths, achieving a pass mark of 99% in Lie Groups and Lie Algebras, and over 90% for Relativity A and B and his Honours project. It was Samuel Baloyi who scooped all three prizes in Pure Maths Honours. Other highlights included four Honours awards for Caswell Tseuoa, Rossana Ebrahim's 99% Introductory Mathematical Analysis pass, and Donne Stevenson winning two awards in the third-year class. Pure and Applied Mathematics HoD, Prof Willem Conradie, said: "The top achievers breakfast is always one of the highlight of the department's annual calendar. It is an opportunity to celebrate the talent and hard work of our best students." In February, the department also held a three-day Maths Camp for 17 students who scored distinctions in their first-year Mathematical Sciences modules in 2016.



The award for Best PhD Presentation at the Southern African Mathematical Sciences Association Conference held in November went to UJ student, Janet Osaye, supervised by the institution's graph theorist, Prof Peter Dankelmann on her study: "Bounds on average eccentricity of graphs".

ANOTHER WIN FOR BOTANY POSTGRAD STUDENTS



Dorcas Lekganyane, Prof Michelle van der Bank and Ryan Orton

Congratulations to UJ postgraduate students, Dorcas Lekganyane and Ryan Orton, for excelling at the 43rd Annual Conference of the South African Association of Botanists (SAAB) which was held in January at the University of the Western Cape. UJ applauded the duo in November 2016 when they delivered the Best Masters and Best Honours presentations respectively at the Botany and Plant Biotechnology Department's Postgraduate Research Symposium. History repeated itself at SAAB 2017 with Orton winning a cash prize and a certificate for the best oral paper presented by an Honours student. Not only did Lekganyane win a cash prize and certificate for the best oral paper by a Masters student, she also scooped the SAAB Best Young Scientist Award for the best oral paper delivered by a young botanist under the age of 30. "They've worked hard and I'm very proud of them," said their supervisor and Director of UJ's African Centre for DNA Barcoding, Prof Michelle van der Bank. The department is also proud of Courtney Long, its undergraduate student who received the conference award for Best Systematics Poster.

NEW APPOINTMENTS IN THE FACULTY OF SCIENCE

Dr Abayneh Ambushe	Chemistry	Senior Lecturer
Mr Arno Booyzen	Department of Geography, Environmental Management & Energy Studies	Lecturer
Mr Leereshen Gounden	Applied Chemistry	Instrument Technician
Mr Brian Greave	Academy of Computer Science and Software Engineering	Lecturer
Prof Ezekiel Green	Biotechnology and Food Technology	Professor
Dr Bonginkosi Kheswa	Applied Physics & Engineering Mathematics	Lecturer
Dr Simphiwe Simelane	Applied Physics & Engineering Mathematics	Lecturer
Dr Lungile Sithole	Biochemistry	Lecturer
Dr Kowiyou Yessoufou	Geography & Environmental Management & Energy Studies	Associate Professor

Compiled by the Faculty of Science Marketing Office

Faculty Marketer: Lunga Memela

Email: lungam@uj.ac.za

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Graphic design and layout: UJ Graphic Studio

