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THE LIFE SCIENTIST’S PASSION

ASSISTANCE FOR UNIVERSITIES IN ZIMBABWE

LOWDOWN ON HIGHER DEGREES
THE STATE OF THE PhD IN SADC

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As readers will have noticed, Limpopo Leader has a brand new look – and it’s thicker too, up from 32 pages to 40. Limpopo Leader, as the University of Limpopo’s flagship magazine, has been appearing regularly since August 2004, so it’s time for a bit of a makeover. Accordingly, the cover and masthead have been redesigned. We think the new look is definitely more eye-catching, yet still in keeping with the seriousness of the university’s mission.

**What do readers think? Let us know.**

There’s a change in the frequency, too. Since inception, the magazine has been published quarterly. From 2011 the frequency will be reduced to three a year, appearing in an Autumn edition (at the beginning of March), a Winter edition (at the beginning of July) and a Spring edition (at the beginning of November).

**Here’s a note to alumni.** It will be remembered that a special alumni magazine, *On the Move*, appeared towards the end of 2009. Last year, a whole Limpopo Leader, the Spring edition number 23, was earmarked as an ‘alumni special’. What is going to happen in 2011? Our idea is that instead of a separate magazine or a special edition – which implies that alumni are a breed apart – each edition of Limpopo Leader should have a whole section dedicated to alumni matters: achievements, opportunities and contributions. In this way, alumni will be drawn more fully into the affairs of their alma mater, where they belong. But again, **what do readers think?**

Of course, you don’t have to be a rocket scientist to see that these changes are at least partly influenced by financial considerations. The challenge has been to maintain maximum coverage of the highest possible standard while at the same time reducing production costs. The highest of these have in the past been those required for printing and then for distribution. The best way forward, therefore, has been to contemplate reductions in print runs and distribution lists.

This will inevitably mean the end of free copies for many in the university family. But don’t lose heart. You could **subscribe to ensure your copy**. Or you could **make sure we have your e-mail address**.

Some exciting interactive IT developments are in the pipeline. Make sure you don’t miss out. And either way, **tell us what you think?**

**LETTERS TO THE EDITOR**

Preference will be given to short letters. Aim for a maximum of 100 to 150 words, otherwise expect your epistle to be edited. Please give contact details when writing to us. No pseudonyms or anonymous letters will be published.

Address your letters to The Editor, *Limpopo Leader*. PO Box 2756, Pinegowrie 2123, South Africa. E-mail: dgrwrite@iafrica.com Fax: 011-7912390.
EDITORIAL

WELCOME TO OUR bigger new-look Limpopo Leader, which is crammed with evidence of an institution in vigorous growth and displaying a real dedication to its mission: to be world class in its commitment to finding solutions for Africa, particularly in the continent’s rural manifestation. Let’s look at some of the subjects that are dealt with in this edition.

Do you remember those Victorian Englishmen – Charles Darwin and Alfred Wallace – who so radically changed our understanding of the world, not least of our own origins? They’re given a mention as avid collectors of specimens in our coverage of two important life-sciences repositories on the Turfloop campus: the Biodiversity Museum and the Larry Leach Herbarium. This theme of collecting is more or less continued into a story that emanates from the Department of Biodiversity in the School of Molecular and Life Sciences. Here’s a Bulgarian-born life scientist who came to Africa to see the animals, and whose postgraduate students are, among other things, identifying endangered plant species and growing them in the laboratory in preparation for replanting in the wild. It’s the enthusiasm that really grabs the imagination.

Our neighbours to the north have been having a rough time of it – not least Zimbabwe’s higher education institutions. Now you can read about what’s being done about it by other universities in SADC. It’s a story one leg of which begins in Nazi Germany in the 1930s and ends with a Turfloop academic’s involvement in the laying of the fibre optic cabling that will bring embattled Zimbabwe universities much closer to the wider world.

There’s a great deal more that will be of interest. Read how Belgian money is helping to broaden research into infectious diseases (at Medunsa) and the rise of chronic diseases of lifestyle at Dikgale (not far from Turfloop). Belgian support is also in evidence in the establishment of a Centre for Spatial Analysis and Modelling (conveniently called a C-SAM) which links into a national network of such centres and brings huge volumes of data within the reach of University of Limpopo researchers and students alike.

Recent attention both in South Africa and beyond has focused on the linkages between higher education and general socio-economic development of countries and regions. Now read about the way in which countries are measuring their success in the formation of knowledge economies by counting the number of doctorates their universities confer. And where does the University of Limpopo stand in the PhD log table?

There’s a lot more besides. Enjoy the read. And don’t forget to subscribe.
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Job Matlebjane - Assistant museum technician on turfloop campus

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UNIVERSITY LIBRARIES ARE NERVE CENTRES. Technology helps
Scientists have always had this mania for collecting things. Not least the life scientists, confronted as they always have been by the dazzling array of families and genera and species and subspecies that characterise the natural world.

‘The passion for collecting which leads a man to be a systematic naturalist, a virtuoso or a miser, was very strong in me,’ Charles Darwin said about his own childhood. And of course Charles Darwin became one of the most famous life scientists of all time.

After his famous voyage on the British survey ship, the Beagle, he returned to England with thousands upon thousands of samples of insects and small animals and the flowers and seeds of South American plants, and of course birds – most significantly, perhaps, all those examples of finches from the Galápagos Islands that were to play a significant part in Darwin’s later evolutionary ruminations about the Origin of Species by means of Natural Selection.

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2 The title of Darwin’s famous book on evolution.
Another man who was prominent in the development of the new way of thinking about the natural world was Alfred Wallace. Here was a man who earned his living by collecting unusual biological specimens from the most inaccessible parts of the world and selling them to museums and private collectors back in 19th century England.

It can even be said that collecting and collections formed the fuel that drove the development of the theory of evolution – a theory that is now universally accepted as a fundamental principle of all life on earth. Collecting still serves an important role in scientific research, no less so at the University of Limpopo than at all the most august scientific institutions around the world.

Assembled here is information on three special collections at Turfloop and one at Medunsa, and why and by whom they are being maintained. Readers should prepare themselves for glimpses into the fascinating world of collecting myriads of examples of living things and thereby understanding them better.
Professor Susan Dippenaar was adamant that the museum is not a specialised scientific collection, but rather an aid for teaching students about the almost unbelievable range of zoological life in the world around us – and of which we also form a part.

Fair enough. Dippenaar’s view – she’s a senior academic in Turfloop’s School of Biodiversity – is borne out by the museum’s mission statement. The museum strives to educate learners and the community about the biodiversity of the animal kingdom, their environment and conservation, through various displays …

Nevertheless, the sense of collecting and collections permeates the halls and stairwells of the museum. On the ground floor, for starters, can be found the big 12 African insects, the big five mammals, and the big six birds. Higher up in the building, and in the museum halls themselves, can be found examples of sponges, jellyfish, sea walnuts, all manner of worms, an elephant foetus, invertebrate and vertebrate fossils, caterpillars, crabs, snails, butterflies, reptiles, birds, and plenty of mammals, including omnivores, carnivores and primates.

The museum, according to the brochure, was initiated and constructed in 1972 and officially opened in March the following year. There’s even a picture of some university staff wading through the surf, collecting things ‘for the marine tanks and mounted specimens’.

But the teaching emphasis in the museum declared by Dippenaar does predominate. At the entrance to the museum proper (just past the Nile crocodile, which is one of the oldest living reptiles, although the one in the museum mercifully is not alive) is a large illustrated board that provides a succinct overview of where zoology fits into the whole evolutionary chain of life on our planet. Here, in fact, is Robert Whittaker’s five-kingdom taxonomic classification of all living things³.

The first kingdom is Monera where algae can be found. The second is Protista, home of single cell organisms. Next come the Fungi kingdom for lichens and mushrooms. Then there’s Plantae which includes all non-vascular and vascular plants. And finally there’s our kingdom, Animalia, which holds all the invertebrate and vertebrate animals in its sway. Such contextual information should help to steady the nerves of many first-year students – until it is realised that each kingdom is divided into various phylums, each phylum into several classes, each class into orders, each order into families, each family into numerous genera, and each genus into hundreds of species. So before visitors have turned the first corner in the museum, the whole amazing spectacle of life has been suggested to them. But of course the rest of the museum deals only with one of the Kingdoms listed above, that of the animals.

But is the museum being used? Dippenaar answers in the affirmative. Apart from the regular lectures that take place at the sites of various specimens or collections, hundreds of individual students visit the facility, or the reading room housed within it, each year. ‘In 2010, a total of 631 students availed themselves of this opportunity,’ Dippenaar said.

Even more impressive are the increasing numbers of schools that visit. ‘In 2009, just over 30 schools brought around 800 learners. Last year (2010), nearly 2 400 learners from 51 Limpopo schools saw the Nile crocodile and the hundreds of other birds and worms and fishes and skeletons that are housed in this invaluable resource that celebrates the precious diversity of life on our tiny planet.

It’s a resource that requires constant maintenance and updating. In this regard, enter Bea Jordaan. She’s officially a principle technician. In practice, she runs the whole building, looking after its services like water and electricity supply, as well as air-conditioning and the single lift that serves its five storeys.

‘I’m also in charge of the five vehicles that are attached to the School of Biodiversity,’ she explained. ‘I ensure that their maintenance plans are adhered to. But I must admit that my main attention is focused on the museum.’

Jordaan has been working on the Turfloop campus for the past 27 years. She originally trained as a window-dresser in Johannesburg. But the window-dressing school flooded the market with its graduates, so Jordaan wandered about the UK and Europe for three years before finding a job in Pieterburg (now Polokwane) where her father was running a transport business. Then in 1983, she got a job in Turfloop’s animal unit. She took a diploma course in animal

³ Whittaker was an American plant ecologist, prominent in the 1960s and 1970s
laboratory technology; and this, together with her window-dressing design and display skills, have been used to good effect as her involvement in the museum has deepened. Now, with the help of Professor Dippenaar’s biological expertise, she is virtually the museum’s curator.

‘I absolutely love my job,’ she said. ‘We have no proper budget for the work we do – we’re currently revamping many of the displays – but it doesn’t dampen my enthusiasm too much. Oh, and here’s my assistant, Job Maribe Matlebjane. Look at the lovely job he’s made of mounting this porcupine skeleton. Look at the quills in its tail. That was his idea.

‘It’s a never-ending business, this museum. But I think it was Confucius who said: if you really enjoy your job you’ll never do a day’s work in your life. That certainly describes the way I feel about this place.’

Why not donate your unused life-science books and magazines to the Biodiversity Museum’s reading room? Or maybe you’ve got something else that you think might be useful to the museum. In the first instant, make contact with Jordaan on bea.jordaan@ul.ac.za or Dippenaar on susan.dippenaar@ul.ac.za and discuss your ideas with them. The museum is definitely a project worth supporting.
A Reference Library of Plants

Tucked away in one of the oldest parts of Turfloop campus stands an unmarked building which houses the Larry Leach Herbarium, thus named last year (2010) to honour a man who devoted his life to the study of euphorbia species. And tucked away in the herbarium is the current curator, Bronwyn Egan.

‘Let me explain the name. Our herbarium houses Larry Leach’s euphorbia collection,’ Egan says, ‘which is one of the most comprehensive in the world.’

In Limpopo Leader 8 (Winter 2006) this collection was described: 1,000 dried specimens of the euphorbia species found in southern Africa, 920 specimens preserved in spirits in bottles, and a whole greenhouse (adjacent to the herbarium) housing over eighty living plants. In addition, there are three dedicated filing cabinets crammed with Leach’s written material plus a vast collection of photographs, microscope slides, drawings and maps, and even some rolls of early 9mm-format movie film.

In the 2006 article, despite this valuable collection and one housing lichen specimens (not yet curated) assembled by one of the world’s foremost lichenologists, Turfloop’s Professor Dirk Wessels, the herbarium was described as ‘quite small’. But it’s grown considerably since its establishment 27 years ago, and its showing signs of definite revitalisation and growth (after a period of dormancy without a full-time curator) since Egan’s arrival in May 2008.

‘Our focus is definitely on the plants of Limpopo,’ Egan explains. ‘We currently have around 12 000 specimens in the collection, plus a further 1 600 preserved in spirits. And we’re receiving specimens from other sources all the time. I also do some collecting of my own. Oh yes, I enjoy this tremendously. I love being out of doors – and I love the idea of collecting.’

Egan laughed quite gaily. ‘I’m sure you’re going to ask what a zoologist thinks she’s doing in a herbarium. I don’t really know. All I can say is that I’m thoroughly enjoying myself. You might see nothing exciting about working with dead plants in files in big cabinets. But there’s plenty of contact with people needing information, and I just love teaching the students.’

But as Egan describes the processes that are necessary to maintain and grow the Larry Leach Herbarium, it becomes obvious that she thoroughly enjoys working with the dead plants as well.

‘There’s the whole process of accessioning new acquisitions,’ she explained. ‘The material usually comes in enclosed in the simple presses that have been used in the field. Our first job is to identify and correctly label the samples. The labelling system is standardised: starting with the phylogenetic order and species, as well as where, when and by whom it has been collected. By this time the plant material must have been thoroughly decontaminated: we do this by freezing the material.

‘Then follows the important process of placing the new specimens on our computerised database, which in turn is integrated into the bigger national database housed in Pretoria. This places our collection, as it grows, into the
whole complex picture of South Africa’s botanical taxonomic landscape.

‘In this sense,’ Egan adds, ‘it’s easy to see the importance of our herbarium. We’re contributing to the national picture, while at the same time serving an important provincial function. Apart from a private collection of 5000 specimens in the Soutpansberg, we are the only fully curated and fully functional herbarium in Limpopo.’

The Larry Leach Herbarium is attached to the School of Biodiversity in the Faculty of Science and Agriculture. There are plans afoot to move the Herbarium to posh new premises in the new Science Discovery Centre currently under construction on the Turfloop campus. When will this occur? Egan shrugs her shoulders. Meanwhile, the collecting and accessioning of Limpopo’s botanical heritage goes on.

EGAN SAYS:

‘Let me explain the name. Our herbarium houses Larry Leach’s euphorbia collection,’ Egan says, ‘which is one of the most comprehensive in the world.’

4 ‘Taxonomic’ is derived from the noun ‘taxonomy’, a term familiar to all life scientists. It signifies that branch of biology concerned with the classification of organisms into groups based on similarities of structure, evolutionary origin, etc.
Professor Roumiana Nikolova says she likes the name change of the department in which she works on the Turfloop campus. ‘It used to be the Botany Department,’ she explains. ‘Now it’s the Department of Biodiversity in the School of Molecular and Life Sciences, Faculty of Science and Agriculture and combines botany and zoology disciplines. The idea of biodiversity gives individual plants a definite context, not only with regard to the part they play in the biosphere, but also it seems to define them in relation to human activities and uses. In this way, the new name gives both staff and students more scope and opportunity to think creatively about science.’

Current research run by some botany staff and postgraduate students amply justifies these comments. The research is focused on ‘Conservation of plant biodiversity and sustainable utilisation of indigenous plants beneficial to the communities in Limpopo province’.

Nikolova explained that the research group had two goals. The research side was focused on indigenous plants: identifying drought resistant strains, either evolved or developed through breeding; and then looking at the ability of some plants to reduce the impact of pollutants such as heavy metals on the environment and on the indigenous vegetables and their nutritional potential in the form of proteins, fatty acids, carbohydrates, as well as various vitamins and antioxidants.

‘The other intentional goal of the group,’ Nikolova explains, ‘deals with educational issues and with the development of our students – and our staff. We deliberately try to stimulate creative thinking, the development of writing and presentation skills, and generally work towards the production of well-educated, self-confident and reliable scientists in accordance with the needs of the market.’

This linking of the academic and research activities of the university with the market-driven real world is a favourite Nikolova theme. She talks persuasively of building the research capacity of both staff and students to the highest doctoral level (the students involved in the current research are either Honours or Masters students), and as persuasively about ‘gender equality and ethnic diversity’. However, her deepest focus seemed to be with the market. She is keen for the department to produce scientists who are employable and who can make a useful mark in their fields, and above all whose knowledge could be used to generate general economic advantage.

In her own words: ‘We want to assist in satisfying southern Africa’s increasing demand for scarce scientific and technological skills, and we want deliberately to generate linkages with respective employment sectors.’

This vigorous free-market awareness is not too surprising in a scientist – Nikolova is a plant physiologist and biochemist – who was educated in Eastern Europe. She was born in Bulgaria in the 1950s, and attended Sofia University for her higher education, completing a five year qualification equivalent to an MSc in biochemistry and microbiology in South Africa. She then moved to the Czechoslovakian Academy of Sciences where she gained her PhD in biological sciences, with a merit award in plant physiology, in 1983.

‘My interest in Africa really began while I was studying for my doctorate in Prague,’ Nikolova says. ‘I lived in one of
the international hostels and shared a flat with a girl from Zimbabwe who was studying nursing. She used to entertain me with stories about all the wonderful wild animals in her home country!’

These early influences, coupled of course with professional opportunity, led to Nikolova’s academic career unfolding in southern Africa. In 1989, Nikolova went to Bulawayo where she became a lecturer in the department of applied biology at the University of Zimbabwe there. (‘Yes, I very soon went to the Wankie game reserve⁵ to look at all the wonderful wild animals!’) Three years later she moved to the University of Transkei as a senior lecturer in the botany department. And seven years after that (in 1999) she came to Turfloop.

But she was less interested in talking about herself than she was in introducing Limpopo Leader to botany students and staff. We sat facing each other in a tutorial room. There were five post-graduate students and three staff members. In turn, they introduced themselves and spoke briefly about their areas of research. Here’s the summary:

• **Phillemon Ramalepe** is working on vivo and *in vitro* propagation of certain species of medicinal and ornamental plants with economic potential. His home is just outside Tzaneen, one of Limpopo province’s principal lowveld towns. The main thrust of his research is to attempt to enhance the economic potential of his chosen plants using tissue culture techniques.

• **Lerato Hoveka** has identified a rare species of *Euphorbia* that is surviving on only five of the rocky outcrops that abound in the rural areas around Turfloop. The reason for this near extinction is rapid human development in the area. Lerato is artificially propagating the species for replanting in the wild.

• **Potia Sepadi’s** research interests are on the impact of mining activities on the vegetation around Jane Furse in the southern parts of Limpopo province. Toxicity of heavy-metals such as copper, zinc and chromium have inflicted severe damage to the biosphere in some areas, and Portia is searching out those indigenous plants that can help to restore the natural order of things through the process of phytoremediation.

⁵ Now the Hwange National Park.
Biodiversity in action

If readers would like to find out more about these exciting and far-reaching initiatives, contact Professor Nikolova on roumiana.nikolovar@ul.ac.za or nikolovarv@yahoo.com

**FIND OUT MORE:**

- **Reneilo Mashiloane**, who is working with Professor MJ Potgieter, has narrowed her search for medicinal plants actually being used by rural communities to one specific village in the old Lebowa homeland. She has compiled an exhaustive checklist of the plants, including details of the plants themselves, and the medical uses to which they are being put. This is a valuable contribution to the documentation of indigenous knowledge.

- **Emmanuel Mogotlane**, comes from the densely populated old Lebowa. He has focused his attention on soya beans and their place in the maintenance of rural food security. His research, under the supervision of Dr PW Mokwala, revolves around the genetic transformation of the crop to increase its resistance to drought – especially in an area that has become progressively hotter over the past decade – and at the same time to increase its nutritional value.

The botanical group of the Department of Biodiversity is small but extremely dedicated. There’s Helena du Plessis, a lecturer who was born in North West province and completed her MSc at the University of Pretoria. Her area of expertise is mushroom cultivation, but she also has a keen interest in plant tissue culture and in what she calls ‘water wise gardening’. In Sandy Lennox’s background are associations with Kirstenbosch, the University of Cape Town, and also the University of Pretoria. She is a research assistant in plant biotechnology with special interest in micro-propagation of medicinal plants that are becoming endangered due to overuse. Frank Nukeri, the senior laboratory assistant, hails from the Louis Trichardt area in northern Limpopo. He’s interested in indigenous vegetables, especially those preferred by the communities; and he’s looking at ways to improve their nutritional value without changing their taste, and at ways to improve their availability by commercial planting.

‘We really are an exciting and creative group’ comments Professor Nikolova, ‘and all our work does fit into an overarching framework that can be labelled “natural resource management” in which the varied interests of all our botanists, both on the staff and in our post-graduate programmes, can easily be contained. We are also grateful for the support from the technical and management staff in the Department of Biodiversity and the Faculty of Science and Agriculture that enabled us to develop further the facilities of our plant tissue culture laboratory.’

Nikolova spoke also of plans to establish a ‘functional nursery’ under the control of the Biodiversity Department that would be devoted to the mass propagation, either *in vivo* or *in vitro*, of endangered plant species, particularly those with high commercial potential, and then to reintroduce them into their natural habitats. Coupled with this initiative, a community-based project on the sustainable propagation and utilisation of valuable plants would be launched.

‘We are not afraid of the hard work involved,’ Nikolova concludes. ‘But we do need help with the basic resources necessary to launch these projects.’
THE UNIVERSITIES UP NORTH HAVE BEEN STRUGGLING TO SURVIVE
ASSISTANCE FOR ZIMBABWE HIGHER EDUCATION

Couch it in the most diplomatic language you can think of, the reality remains: Zimbabwe’s higher education sector has been in serious danger of collapsing. This is why South African universities have rallied to a call from the Southern African Regional Universities Association (SARUA) for serious assistance to their counterparts up north.

But just how serious is the situation? In a discussion paper prepared by SARUA in April last year (2010) it was stated that ‘Zimbabwe’s higher education sector today faces significant challenges that not only undermine the output of its institutions in core areas such as teaching, learning and research, but also threaten its very survival’.

What are the major causes for this near collapse of what used to be one of black Africa’s strongest higher education systems? SARUA is careful with its words when it answers. ‘The underlying driver remains a difficult socio-political context,’ and this in turn had led to ‘the progressive economic meltdown witnessed over the last decade, in particular the hyperinflation that spiralled out of control from 2000’. SARUA notes that six of Zimbabwe’s nine public universities were still in their infancy when the economic meltdown began. Their lack of established institutional resilience was quickly exposed.

An example of what this has meant can be found at the new Lupane State University on the main road between Bulawayo and the Victoria Falls. Buildings to house facilities for 600 students began to be erected in 2005. A further 8-trillion Zimbabwean dollars were allocated in the 2007/08 financial year, but this colossal-sounding sum proved insufficient to complete the campus, with not a few structures remaining at foundation level only.

Another problem confronting universities north of the Limpopo is what the SARUA discussion paper identifies as ‘a massive exodus of senior academics’. As an example, the University of Zimbabwe in Harare, the country’s oldest higher education institution and in previous times reckoned to be one of the best in Africa, in its heyday employed well over 1 000 professors. By 2007, however, less than 630 academic staff in total remained, a situation that has led to the closure of numerous departments across the various faculties.

‘It was a situation that could not be allowed to continue,’ CEO of SARUA, Piyushi Kotecha explains. ‘The weakening of Zimbabwean universities would inevitably mean the weakening of higher education in the SADC region as a whole.’

In fact, it was the Zimbabwe Universities’ Vice-Chancellors Association (ZUVCA) which set the ball rolling. They wrote to SARUA in December 2009, in response to which SARUA undertook a rapid needs assessment of the Zimbabwe higher education sector.
The Universities Up North Have Been Struggling To Survive

The next thing to happen was the holding of a SARUA workshop in Cape Town in April last year (2010). The title given to the workshop was ‘Rebuilding Higher Education in Zimbabwe’ and it was chaired by Professor Yunus Ballim, Deputy VC Academic at Wits. Many high-ranking academics and university administrators from Zimbabwe and South Africa participated in the discussions, as did representatives from other African regions, and organisations such as the African Development Bank, and the United Nations Institute for Economic Development and Planning.

To emerge from the workshop was an agreed document, now widely referred to as ‘The Cape Town Accord’ which included an important ‘call for action’ by South Africa’s universities to assist their neighbours across the Limpopo. ‘The goodwill from the South African Vice-Chancellors was tremendous,’ Kotecha recalls, ‘and the final “call for action” was in fact a synthesis of the suggestions and commitments made by them.’

The ‘call for action’ is divided into three parts, namely: short-term, medium-term and long-term actions, as follows:

- **Short-term actions** would deal with things that individual South African institutions could do, through one-on-one relationships with Zimbabwean institutions. Many such relationships already exist in various research areas, and the Cape Town Accord suggests that they should, where logistically and practically possible, be deepened to include staff secondments, staff exchanges, and making staff from South Africa available to serve as research supervisors. In addition, the advantages of using information and communication technologies (ICTs) to transmit lectures and other teaching and learning activities should be fully explored.

- **Medium-term actions** are centred on the appointment of a full-time special representative or envoy whose task would be to serve as intermediary between Zimbabwean and South African higher education institutions and agencies. In practical terms, Sarua and Zuvca would make the appointment, and Zuvca would ensure that Zimbabwean universities worked through the envoy to establish their priority needs. The task of this envoy would be to confirm these priorities, formulate strategies in response to the identified needs, identify the implementation modalities and institutional arrangements, and design a detailed action plan complete with implementation budgets.

- **Long-term actions** would consist largely at this stage of using the emergency situation in Zimbabwe as an opportunity for re-envisioning the university sector in that country and of evaluating its contribution to higher education in SADC generally, and the consequent importance of stabilising the long-term sustainability of the sector in Zimbabwe.

Although not specifically referred to in the Cape Town Accord, another important strand of the initiative relates to the possible linking up of Zimbabwe’s languishing universities to the South African university fibre optic network that plays an increasingly important role in integrated teaching and learning and research, and perhaps most importantly in keeping contact with the global knowledge society. (See our story on page 15, Individual Effort Means a Lot.) As early as 2007, SARUA had published an important basic ICT status review, which presented a generally gloomy picture of conditions in SADC universities.

Of course, Zimbabwean institutions were in a worse position than most. An example of this was one institution with around 3 000 students, but only four computers, several of which were used by administrative staff. But by 2010 the situation was rapidly improving across the SADC region. New SARUA research on ICT Infrastructure and Connectivity was indicating that ‘there is now adequate fibre infrastructure available in almost every SADC country for universities to take advantage of’ – and at steadily decreasing costs.

This is good news for Zimbabwe in particular, where improved connectivity could be used, along with all the standard knowledge-sharing uses, to link Zimbabwe academics in the diaspora directly into the lecture halls back home.

But there are smaller and often less visible initiatives that are also working for the rebuilding of higher education in Zimbabwe. You can read about one of these in the insert on page 15.
The council for Assisting Refugee Academics (CARA) has a proud history. It was established in the United Kingdom in 1933 in response to the persecution of Jewish academics across Europe by fascist regimes. During the darkening days of that fateful decade, CARA assisted 1,500 important German and other European intellectuals, 16 of whom later won Nobel Prizes in their fields, 18 received British Knighthoods, and well over a hundred were elected Fellows of the Royal Society and the British Academy.

Now this intrepid organisation has become involved in Zimbabwe.

Working with the Zimbabwe Council on Higher Education, the Zimbabwe Diaspora Development Interface, the Britain-Zimbabwe Society and the International Organisation for Migration, CARA convened a consultation process with Zimbabwean universities and academics that was held in March and April last year (2010). Having established at first hand the critical issues facing higher education in Zimbabwe — including the human and physical resource gaps and financial instability of the country’s universities — a set of practical assistance measures was devised. These included:

- The creation of a database to register the human resource gaps in Zimbabwean institutions, to be used to link potential academics working abroad or in local industry and commerce to vacancies at the universities.
- Encourage those academics working out of the country to return, or at least to consider temporary returns to help address staffing shortages, and to offer training and capacity building for local staff.
- Create a pilot programme linking Zimbabwe universities to those in South Africa and the United Kingdom, using V satellite connections as a temporary measure to provide virtual lectures, as well as tutoring and research supervision.
- Other responses noted the physical resource gaps and need for increased financial stability, and offered suggestions for improving these situations.

Wherever academics are in trouble, there CARA will be found. This more open policy began in the late 1980s when the organisation became involved in the difficulties being experienced by academics in Iraq.
Here's a story of one University of Limpopo academic’s personal involvement with higher education in Zimbabwe. He’s Norman Nyazema, professor of Pharmacology in the Pharmacy Department on the Turfloop campus. Nyazema was born in that country (in Salisbury in 1951) and went to school there. But after a year of tertiary education, he left for England. He saw few opportunities for real study in the isolated UDI country that was being torn apart by internal politics, and finally civil war. He stayed in the United Kingdom for a decade, living and studying in Liverpool, and finally gaining his doctorate in pharmacology at the university there.

‘I always say,’ he quips, ‘that I has born in Southern Rhodesia, started school in the Federation of Rhodesia and Nyasaland, finished high school in UDI Rhodesia, and then finally returned to work in Zimbabwe.

He returned in 1981, just after independence, and worked for 20 years at the University of Zimbabwe in Harare, where he finally became the director of post-graduate training in the College of Health Sciences there. Nyazema came to South Africa in 2002, but his connections to Zimbabwe – and to Africa generally – were not severed. His mother and siblings still live in Zimbabwe, and he’s a regular visitor there. In addition, he’s on the World Health Organisation Africa Region technical board on anti-retrovirals.

That’s what is generally known. What is perhaps less well known is his involvement, as conditions in Zimbabwe descended into economic meltdown, in the general welfare of ordinary people. In 2010 he published a scientific paper in the Journal of Developing Societies entitled ‘The Zimbabwean Crisis and the Provision of Social Services: health and education’. In his conclusion, he asserts with characteristic forthrightness ‘that in both sectors of education and health, lack of clear vision, (an) unpalatable political environment and corruption have undermined the two sectors for which Zimbabwe was known to have scored positive gains in the early years of independence’.

Perhaps, though, it is in the field of ICT connectivity that Nyazema has been most interestingly involved. It’s a tangled field, certainly as manifested in SADC and other
regions in Africa, where national interests and regulations, or a lack of them, intertwine with commercial and public service users in the various countries involved. The Southern African Regional Universities Association (SARUA), established in 2005, has early recognised the potent advantages for universities to be electronically connected to each other, to other research and government bodies, and to the international academic world at large.

As an early research document on the subject from SARUA observed: ‘If a few key stakeholders co-operate and synchronise with the development of the East African Submarine System (EASSy) and its access loops to landlocked countries, the goal, to provide African universities with network access on a similar level as their peers on other continents, will be reached.’

Very briefly, the EASSy project will link with fibre optic cabling the east coast of Africa, from the Sudan Red Sea coast all the way down to South Africa, with access loops to landlocked countries like Uganda, Rwanda and Burundi, as well as Malawi, Zambia, Zimbabwe and Botswana. The SADC countries mentioned here are in an advantaged position because South Africa is already internationally connected via fibre optic cabling running down the west coast of Africa and giving direct access, ultimately, to Europe and America. All that needs to be done to connect SADC universities to these powerful communications networks is to lay the national fibre optic infrastructure.

And that’s where Nyazema comes into the picture. Together with a visionary entrepreneur, Nyazema assisted in the launch of Econet, now the largest telecommunication company in Zimbabwe. In fact, he was the company’s inaugural chairman.

As you read this, Econet is laying fibre optic cabling throughout Zimbabwe – and the country’s nine universities will soon be connected. It could make the difference between a permanent languishment for these institutions and their recovery and the ultimate reconstruction and development of the entire country.

Nyazema is no longer the chairman of Econet, although he’s still closely involved in the affairs of the company. In fact, he’s more interested at the moment in corporate social responsibility than he is in laying cables.

‘The cables will come into their own in due course,’ he says, ‘but our scholarships will have an immediate beneficial effect on deserving Zimbabwean students who are being given the opportunity to continue their studies abroad. But of course we’ll make sure that they come back and pay their dues to the country of their birth.’

That is certainly what Nyazema himself is doing.

**FIND OUT MORE ABOUT UNIVERSITY CONNECTIVITY IN SADC**

A good starting point is SARUA. This association, founded in 2005, clearly views ICT connectivity as one of the region’s top educational priorities. In 2006, SARUA published *Optical Fibre for Education and Research Networks in Eastern and Southern Africa*. This was followed in 2007 by an ICT status review. In 2008, *Opening Access to Knowledge in Southern African Universities*, which deals with ‘access (to) and use (of) the new abundance of global knowledge and ideas’, had as a central assumption the availability of high-level ICT infrastructure and connectivity. And again in 2010, SARUA published updated research on the subject under the title *ICT Infrastructure and Connectivity: New Capacity, New Opportunities*. Visit www.sarua.org for more information.
‘Make sure your life is happy and balanced.’
Dr Shingai Mutambirwa, Acting Head of the Department of Urology at Medunsa, believes that this is the most important advice he gives his residents. A Zimbabwean who was in exile in Canada for 12 years, then returned to Zimbabwe to finish his schooling and obtain his MbChb, he has made a point of infusing life with charm.

‘Stress is a big killer when people let it be. And often it’s just because people haven’t taken enough time to see how happy their lives really are.’ Mutambirwa is a fan of poet and philosopher Kahlil Gibran, and quotes his perspective on truth and contentment. ‘Truth is a deep kindness that teaches us to be content in our everyday life and to share with the people the same happiness.’ He is a supremely contented man.

He is the son of two PhD professors – his mother has hers in anthropology and his father in urban planning; both were obtained from the University of Zimbabwe (then University of Rhodesia), before Ian Smith’s unilateral declaration of independence. The family then went into exile in Canada, returning to their home country in 1980 when it achieved independence.

His parents are still part of the university academia. They love their country, he explains simply. ‘Yes, there are problems, but they don’t want to be anywhere else in the world.’ His parents, both now in their 70s, until recently headed the departments of psychology (his mother) and geography (his father).

Having spent practically all his childhood in Canada, Mutambirwa returned to start high school in Harare, which he completed with flying colours. Not many symbols below ‘A’ featured on his report cards. He was then sponsored by the Zimbabwean government to attend the Godfrey Huggins School of Medicine in Harare, which he did from 1984 to 1988 and graduated Cum Laude with a Doctorate of Medicine as the youngest graduate to date.

His internship at Harare Central Hospital, Pararinyetwa Hospital, and Bikita Mission Hospital (both also in Harare) for two years was hectic – with occasional four-day shifts – but generally problem-free, says Mutambirwa. It was during this period that Professor Alpheus Segone, until
recently the Head of the Department of Urology at Medunsa, encouraged him to pursue his studies in urology. He’s been at Medunsa and Dr George Mukhari Hospital since then – and believes he made the best choice he could have.

He was a Medical Officer in urology until 1992 and then a registrar from 1992 to 1996, graduating Cum Laude in FCS (Urology) and achieved the Lionel B Goldschmidt Medal in Urology for Distinction.

When he finished his specialisation, he was released to visit the United States for six months as an American Urological Association Visiting Scholar. He came back, despite clamours for him to super-specialise in paediatric urology, and steadily moved up the ladder in the department. He became a Senior Specialist in 2001, and Acting Head of Department in 2009. He describes his progress as ‘an excellent seamless flow from attaining my medical degree to doing this’.

He adds, ‘I have been extremely happy here at Medunsa and Dr George Mukhari Hospital since I arrived. The atmosphere at Medunsa, and particularly in my department, is just lovely. Yes, I’ve been offered jobs at other universities in South Africa, but I’m really not interested. I’ve seen this department transform with a growing number of black and female graduates – it’s a rainbow department, and it’s extremely encouraging.’

He’s enthusiastic about the opportunities that he and his colleagues have as well. ‘We have more operating time than probably any other urology department in the country.’ And it’s a department that is rubber-stamped to expand as the government circumcision programme gains momentum. He maintains too, that the department’s future holds more transformation, more research, and more training, keeping it at the forefront of urological studies in the country. The biggest challenge he says that they face is the budget for the refurbishing and upgrading of the hospital.

The subject of South Africa also has Mutambirwa waxing lyrical. ‘This is the best country in the world to live in,’ he says emphatically. While he does have an abiding love for his home country, it’s not a realistic place to be working in right now. South Africa has it all, as far as he’s concerned.

Mutambirwa has, through his knowledge, skills and exceptional eloquence, made a good name for himself in South Africa – on the airwaves as an expert and personality on SABC programmes, e-tv, Metro FM, Khaya FM, and 702 Talk Radio, and in public – on topics that include issues such as sexual dysfunction, prostate cancer, benign prostate disease, incontinence, and chronic pelvic pain syndrome. ‘Urology is an extremely interesting and wide ranging sphere of medicine. In fact, about 30 percent of general practitioner work covers urological issues.’ He is, to all intents and purposes, a mine of information and advice on all matters urological – much of which is gained through reading. This quickly takes him to another quip. ‘Getting a medical degree is quite easy; you just have to do a lot of reading. Doctors often take themselves too seriously; they shouldn’t. They must make sure they have balance in their lives between work and play – and they must read more.’

He maintains that he always has enough time in the day – for work, for friends, for gym, for innumerable memberships and directorships with associations and businesses, and of course, for reading. Or as American psychologist, Scott M Peck put it: ‘Until you value yourself, you won’t value your time. Until you value your time, you will not do anything with it.’

DR SHINGAI MUTAMBIRWA SAYS:

‘Stress is a big killer when people let it be. And often it’s just because people haven’t taken enough time to see how happy their lives really are.’
The official launch of the development partnership between the University of Limpopo and the Flemish Inter-university Council (VLIR) in Belgium took place on the Turfloop campus on Monday 25 October last year. This marked the culmination of several years of work and the beginning of a programme comprising five project clusters that include and strengthen a great deal of existing research and community outreach endeavours emanating from both the Turfloop and Medunsa campuses.

The slogan of this groundbreaking partnership – ‘Human wellness in the context of global change – finding solutions for rural Africa’ – provides an excellent indication of its overarching aims. The programme is intentionally multidisciplinary; and it both supports and integrates what before tended to be individual efforts across the various faculties and schools of the local university. But it is equally the way in which the partnership has been constructed that is groundbreaking.

For a start, the programme is jointly managed by academics at the University of Limpopo and their counterparts in various Flemish universities. In this sense, it’s a real north/south partnership that benefits both parties, and is a move away from the earlier ideas of ‘aid’ as beneficence from the developed world to the struggles and backwardness of the developing one.

Professor Robert Colebunders, the Flemish co-ordinator of the VLIR-UOS programme, succinctly summed up this reality when he told guests attending the official launch: ‘We’re living in a global world. The problems we all face are global. No country or region is immune; and no one can find solutions on their own. That is why we need global partnerships like this one to solve the problems. So, what can we, a small country in Europe, bring to this specific global partnership? The answer is: funding, motivation to view the challenges of southern Africa as our challenges, as well as our expertise and networks.’
Professor Dirk Wessels, the VLIR-UOS co-ordinator at the University of Limpopo, spoke of the ‘grand challenges’ that the Belgian partnership would begin to address. ‘We’re talking about global change, particularly in terms of climate and what impact increased warming will have on our populations. We’re talking about the human and social dynamics as these environmental changes occur. We’re talking about the need for new sources of energy, particularly renewable energy. And finally we’re talking about sustainable agriculture, and shifting rural perceptions from subsistence farming to activities that depend much more heavily on technological innovation and the exploitation of indigenous resources and knowledge in ways that are sustainable rather than depleting.’

In the pages that follow, readers will be taken into some of the detail of this remarkable partnership programme. Four projects in particular will be examined. The first deals with the use of demographic surveillance in the prevention, control and management of chronic diseases in a rural community not far from the Turfloop campus. The second takes us onto the Medunsa campus where infectious diseases, particularly the gastro-related ones, are being researched. The third, also at Medunsa, deals with the development of public health interventions that really work. And the fourth returns us to Turfloop where an important regional centre for spatial analysis and modelling (C-SAM) is currently being installed.

**PROFESSOR ROBERT COLEBUNDERS SAID:**

‘In Belgium we can see that South Africa is key to solving problems in Africa, and the University of Limpopo is an important part of South Africa’s resources. It’s a large institution with a good structure and varied facilities, and its rural focus plays to its obvious strengths.’

**PROFESSOR DIRK WESSELS SAID:**

‘The plan is to use the support from Belgium to establish centres of excellence and expertise at the university. There’s a real SADC connection here, with opportunities for regional co-operation. The slogan I always like to use is this: sharing minds, changing lives.’
For the past sixteen years, a dedicated scientist working at Turfloop – first for the University of the North, now for the University of Limpopo – has been tracking the health fortunes of people living in villages in a deep rural area not far from the university campus.

The scientist is Professor Marianna Alberts, Swedish-born, and with a first degree in pathology (now more generally called ‘medical science’) from the University of Lund in southern Sweden. The project she’s been running for so long is called the Dikgale Demographic Surveillance Site, and through its annual censuses Alberts has been able to follow the trend of increasing non-communicable and chronic diseases of lifestyle in her target population as rural economic development has begun to improve in the post-apartheid era.

But what had induced Alberts to come to South Africa to pursue her career in medical science. It was while attending an international student camp that she met two girls from South Africa. This gave her a definite direction. She emigrated in 1954. She worked first for the Human Biochemistry Department at the Human Sciences Research Council, and then for the South African Institute for Medical Research. In 1963 she was awarded her doctorate from the University of Pretoria. The title of her thesis: ‘A comparative study of the chemical composition of aortas from black and white subjects’. Not long after this, Alberts moved to the University of the North where in 1979 she was promoted to head of the Department of Medical Laboratory Sciences, where she and her post-graduate students researched cardiovascular diseases, immunology in liver disease, and hypertension. She retired in 1986.

She did what? Retired in 1986? That’s 25 years ago. She laughs in her quiet way. ‘The university asked me to do a bit of part-time lecturing. I agreed. I can honestly say that this was my happiest time – largely because there was no admin. Then the Dikgale thing came up. We got funds from Europe. It was a project that completely consumed me.’

With help from health scientists from the University of the Witwatersrand, the Dikgale Demographic Surveillance Site was demarcated and the annual censuses launched. The demarcated area was 71 square miles in extent and comprised 1 200 households living in eight villages. Approximately 8 000 individuals were directly involved. Every year since inception a detailed census has been taken that records in detail all births and deaths, all in and out migrations, as well as the economic and educational status of individuals and households, and also indicators of their diets and symptoms of disease. The data gathered have been stored on computers where it has been possible to make increasingly valuable annual comparisons – and to track trends, especially as they relate to lifestyle and indications of disease.

Alberts said that the local work at Dikgale had been greatly enhanced by the sort of international comparisons made possibly through Dikgale’s association with INDEPTH (the International Network of Field Sites with Continuous Demographic Evaluation of Populations and their Health).

Alberts was quoted in an article that appeared in Limpopo Leader 1 in August 2004 as saying: ‘It is through this international focus that our work is corroborated and placed in a broader focus. For example, we have already observed that stunting in children was widespread in
Dikgale, and that this in turn may lead to non-communicable diseases later in life due to a reduction in physical activity. We also know that our proximity to an urban area (greater Polokwane) has increased the intake of foods higher in calories and fat and lower in fruit, fibre and vegetables than traditional homegrown rural fare. What we didn’t know, until the international comparisons made possible through INDEPTH, was that we were reflecting a global trend.’

But if Alberts was at first consumed by the project, her interest levels have lately been given another huge boost. ‘In fact, am completely consumed all over again,’ Alberts admitted, because Dikgale has been included as a specific project in the multi-faceted but carefully integrated VLIR-UOS programme that links the University of Limpopo with six Flemish universities in Belgium. ‘The Prevention, Control and Management of Chronic Diseases in a Rural Community’ is now the official name of the Dikgale project. With the VLIR-UOS link has come brand new funding which in turn is leading to a dramatic expansion of activities.

Working with her Flemish counterpart, Professor Jean-Paul Van geertryden, Alberts has enlarged the work at Dikgale in the following ways:

• The size of the demarcated site will increase to incorporate 15 villages instead of the original eight.
• The number of people in the communities directly involved will increase from 8 000 to 40 000.
• The number of field workers involved in the annual censuses will increase from four to 17.
• Appropriately trained personnel will for the first time introduce the ‘verbal autopsy’ technique of establishing exactly the cause of death.
• The training of community health workers, and the upgrading of clinic expertise to deal with strokes, heart ailments and diabetes will be introduced by the provincial Department of Health.
• Increasing numbers of postgraduate students will now be attracted to, and will be able to be accommodated in, the project.

‘We were a bit isolated here,’ Alberts admits, ‘and this new expertise from Europe is truly welcome. It’ll broaden our view of the task in hand. In particular I welcome the expert understanding that Europe will bring to the social determinants for non-communicable diseases. And out of this collaboration is sure to flow more doctoral students and more publications.’

Only one question remains. When will Alberts ever have time now to actually retire?
Improving the capacity of the University of Limpopo to perform research in infectious diseases, and thus decreasing morbidity and mortality from these diseases, are the overall aims of Project 8 – Infectious Diseases – under the umbrella of the far-reaching initiative by the Flemish Inter-University Council (VLIR).

The initiative, initiated in April 2010 and officially launched in October 2010, sees eight departments across the University of Limpopo benefiting from academic co-operation with universities in Belgium, as well as seed funding for a five year period, with the option of extending it to 10 years. An overview of the VLIR programme, as well as the university projects covered by it, ran in Limpopo Leader 22.

Professor Jeffrey Mphahlele, head of the Department of Virology, is the co-ordinator of the VLIR projects at Medunsa, and Professor Maphoshane Nchabeleng, head of the Department of Microbiological Pathology in the Faculty of Health Sciences at Medunsa, is project leader of Project 8, along with her Flemish counterpart, Professor Herman Goossens, head of the Laboratory of Medical Microbiology at the University of Antwerp.

Nchabeleng is hopeful that the overall aims will be more than achieved. ‘We want to see a groundswell of interest in conducting research projects from a broad spectrum of clinicians, covering many of the departments here in the Faculty of Health Sciences. Already there is progress – it is slow, but it is nonetheless progress.’ She says invitations have been extended and research proposals are being presented and assessed, under the umbrella of Project 8.

Projects adopted for Project 8 fall within the various specific disease-related objectives; objectives that relate to capacity increase; as well as an objective relating to stakeholders. They are:

1. Improving the management of HIV and its co-infections
2. Studying vaccine preventable diseases
3. Improving the diagnosis and management of pulmonary and extra-pulmonary TB
4. Studying the prevalence, mechanisms and determinants of anti-microbial resistance, as well as the development of strategies for the screening and prevention of the spread of infections
5. Studying the prevalence of selected sexually transmitted infections and antibiotic resistance
6. Studying the prevalence and causes of congenital and perinatal infections
7. Training researchers in areas of epidemiology, bio-statistics and infectious disease research

8. Putting an infrastructure in place for infectious disease research

9. Making a contribution to guidelines for appropriate diagnosis, care, and management of selected infectious diseases, and for appropriate use of anti-microbial agents to limit the spread of resistance in the region and among hospitals of Limpopo province.

‘We are already seeing a change in the mindset at Medunsa about the huge value that conducting collaborative research projects can add to the university’s research capacity,’ comments Nchabeleng. ‘We know that time is a major factor in clinicians’ lives, but we’re seeing that this boost through Project 8 is encouraging an increased interest and involvement.’ At this stage, Nchabeleng says that about 40 projects have been and are being assessed, which fall within the parameters of Project 8’s objectives. ‘We need to remember that Project 8 is really a platform for research, offering seed funding to research projects. We’re encouraging those who have presented projects that are viable to develop proposals to source further funding.’

Three research projects are already underway as part of the year one activities, covering anti-microbial resistance, HPV (human papillomavirus) and pulmonary and extra-pulmonary TB.

In terms of staff development, Nchabeleng adds that already three staff members have been motivated to register for PhDs. ‘This is an excellent opportunity because through VLIR, we have direct access to a number of people from Belgium universities who have PhDs and can offer guidance and expertise, as well as supervision.’

‘It is an opportunity that is too good to pass over, it will motivate many of us who have been dreaming of doing a PhD one day.’ Her own area of interest is Antimicrobial Resistance in Micro-organisms and Hospital Infection Prevention and Control. ‘Every time there is an outbreak of infection in hospitals, there is often association with a breakdown in infection prevention and control measures. It frequently costs lives. This begs further intensive research – and coming up with solutions that doctors and all healthcare workers can respond to. If I can change one doctor’s behaviour regarding the rational approach to prescribing of antibiotics I will feel as if I have accomplished something worthwhile. It’s the overuse of antibiotics that is a primary driver of resistance.’ Nchabeleng says that though these micro-organisms are simple, ‘they seem to have a brain that’s cleverer than ours. As soon as a new antibiotic is introduced, they are already changing and developing resistance to it.’ Her commitment to further research in this field is unwavering.

Indicators have been set for performance assessment at the end of each year, which Nchabeleng is confident will be met – even so far as to extend Project 8 from a five-year to a 10-year programme. She adds that already three honours students have been successfully trained in the relevant areas and next year there will be Masters of Science, Masters of Medicine and PhD students. This is a noteworthy achievement for the institution.

‘This VLIR project has given us opportunities on a plate. It’s good news for research – particularly for the widening of research activities through many different departments in the university; it’s also showing signs of leading to a lot more collaboration between departments, between clinical departments dealing with patients and research-intensive departments, and between the two campuses; and it’s all in the interests of the progress of medicine.

‘It’s ideal,’ Nchabeleng concludes, ‘particularly for those of us who have been dreaming.’
Finding practical methods to solve real health problems is at the heart of the Public Health Intervention project being run by the National School of Public Health at Medunsa under the auspices of the VLIR-UOS initiative. Professor Supa Pengpid, Head of the Department of Health System Management and Policy, has been elected leader of Project 7.

Pengpid has been in South Africa for 10 years and with Medunsa for five. She obtained her Doctor of Public Health degree in Thailand and served as Director of the Department of Health Education and Health Promotion in Thailand’s Ministry of Health. She attended a training course on Participation, Decentralisation and Civil Society, at Monash University. Pengpid then won a scholarship from NRF in South Africa as a post-doctoral research fellow to conduct post-doctoral research in South Africa. She has extensive global experience and knowledge in the field of health promotion and quality of health care services, and this, together with her passion to see research resulting in constructive change has ably equipped her to head this project.

Project 7 incorporates collaboration with several departments and disciplines both in and outside Medunsa – Public Health, Family Medicine, Physiotherapy, and Human Nutrition departments, social workers, the SA Medical Research Council and the Human Sciences Research Council. ‘It’s a mixed team, and unlike the other projects, we have only a few experienced senior researchers on this team,’ Pengpid says, but it’s not a disadvantage in her estimation. What she has is a single-minded and well-equipped team that is embracing the opportunities offered by this project and is making inroads into the projects that fall under the Project 7 umbrella. She also has a team committed to helping her achieve her goal for the Department of Public Health to become a Centre of Excellence for public health intervention research in Africa.

**Pengpid outlines the four sub-projects:**

**Sub-project 1**: ‘The health of our healthcare workers is a major concern. Many of them are overweight and unhealthy and are high risk for chronic diseases such as hypertension, heart disease, diabetes, cardiovascular disease, bone and joint problems, and even cancer. They should be an example of good health to our communities, but often their health is so poor that they cannot even do their jobs effectively.’

The two parts to this sub-project include firstly, ensuring that all healthcare workers are vaccinated with Hepatitis B vaccine, and then focusing on policy and implementation to increase coverage. Rosemary Burnett is leading this team.
The second part is obesity management. 'It’s a critical health issue,' says Pengpid, who has determined that this is a relatively untouched area in research. Dr Linda Skaal, one of the team members, conducted a survey among healthcare workers in the hospital which showed that 75 percent of them are overweight, of which, 50 percent are obese and severely obese. 'If they can’t be healthy, how can they have the authority to tell the community to live healthier lives?’ Pengpid says the survey also showed that about 30 percent suffer from chronic diseases.

'This is a subject that’s considered difficult to discuss with people who are overweight, and we often hear that African women must be fat because that’s how their men prefer them. This is in fact not true. Recent studies show that men today prefer slim women,' adds Pengpid.

Pengpid says the obesity management project – which is already underway, headed by Skaal – needs to resolve the fundamental problem that the healthcare workers have the knowledge about the health risk factors associated with obesity; but they don’t adjust their behaviour to their training and education.

Sub-project two: Alcohol and drug abuse, is a serious social problem in this country. Pengpid believes that active intervention can have a positive effect on behaviour, and the team is working with an international network of alcohol intervention initiatives that implement brief screening and counselling in the out-patient department. 'People in South Africa are reluctant to ask alcohol-related questions, but we believe this can help to change behaviour. We hope to establish a positive response to this intervention and eventually have these basic screening and counselling techniques incorporated into South Africa’s health system.' The alcohol and drug abuse sub-project will also extend to research into solutions to the problems that are rife among school children and university students. The researchers in this group include Dr Linda Skaal, Hendry van der Heever and Dr Kebogile Mokwena.

Sub-project three: Social aspects of HIV among children. This two-part project involves firstly, the disclosure of HIV status to children. Pengpid says it has become evident that people – health care workers and parents of HIV-positive children – have no idea how to disclose status to children, and so they often don’t. Health care workers need to be taught the value of disclosure to children, and then taught how to equip parents to disclose HIV status to children. Sphiwe Madiba is working on this project, which also includes her Doctor of Public Health thesis.

The second part is determining what the health, social, and education impacts are on children living in child-headed families as a result of parents dying of HIV/AIDS. Dr Mathilda Mokgatle-Nthabu completed her PhD on this project in the local community, and continues supervising MPH students who are working in this field.

Sub-project four: This project on infant and young child feeding relates to breast feeding, underweight children, and malnutrition. This sub-group is led by Professor Una McIntyre, with team members including Dr Paul Chelule and Busi Ntuli.

The other section to this sub-project concerns the anti-vaccination lobby and how this affects the health of young children. Burnett is leading this ground-breaking research.

These sub-projects within Project 7 will take the team through the next five years, after which Pengpid is convinced it will continue into the full 10-year project period. And the result, she believes, will be an upsurge in the interest in and the adoption of intervention research methods.
Imagine the possibilities: a computer that can predict the impact of global warming and population growth on our natural resources well into the future. What the human challenges will be; what the water and food demands will be in relation to the ability of the land to produce them; and much more. Well, such computers exist – and a facility with these and more capabilities is soon to be installed on the Turfloop campus of the University of Limpopo.

We’re not talking about ‘thumb sucks’ here. In the 1980s, there were supposedly computer-calculated predictions about the spread of HIV/AIDS in sub-Saharan Africa which showed that most of the region would be catastrophically depopulated by the late 1990s. Other predictions, this time done on computers by reputable actuarial scientists, proved to be much more accurate, and the trends that were predicted have very much come to pass. The key explanation for the variation lies in the data that were fed into the computers in the first place. Coupled with the data was the availability of skilled human resources to programme the computers adequately and to ‘read’ the results.

Sophisticated data and sophisticated expertise: that’s what the Regional Centre for Spatial Analysis and Modelling (C-SAM, for short) at Turfloop will deal in and produce.

Let’s start with the data. Channelled into the Turfloop C-SAM will be a wide variety of data support from various sources: The Applied Centre for Climate and Earth System Studies (ACCESS); the South African Department of Science and Technology’s Global Change Grand Challenge Research Plan (GCGCRP); a great deal of geographical and meteorological data from EUMET in western Europe and GEONET in the Americas; the SAEON platform which hosts data from the South African Risk and Vulnerability Atlas, the South African Earth Observation system, and a prototype World Data Centre for Biodiversity and Human Health in Africa (WDCBHH); the CSIR Built Environment and Geospatial Analysis Framework (GAP-3); and the CSIR’s ‘Working for Water’ project that monitors the environmental impacts, especially regarding water quality, in the areas of Limpopo province experiencing rapid mining and industrial development.

We don’t have to be rocket scientists to realise the enormous research and intervention potential that can be derived from permutations of all this data, or specific sections of it. Taken together, it represents the raw material for looking into the future and finding the most appropriate responses to the dramatic changes that almost certainly await us.

‘It’s extremely exciting stuff,’ says Professor Dirk Wessels, local co-ordinator of the South African end of the VLIR-UOS Belgian connection that links the University of Limpopo with
six Flemish universities in Belgium. ‘Our own university has put in a million Rand. The VLIR programme brings in important expertise. The CSIR will also contribute, because our C-SAM will be one of several linked CSIR centres around the country.’

Dr Parvin Shaker is the local project leader for the C-SAM, and for its services to the individual projects housed within the VLIR-UOS programme, while the Flemish project leader is Professor K Vanhoof of Hasselt University in Belgium.

The Turfloop centre, to be housed in the Science and Agriculture building, will cost just over R12-million to set up and run for the first three years. The centre will comprise offices, a library and seminar room, with most of the space being allocated to undergraduate and postgraduate fully computerised ‘laboratories’ where the workstations are coupled through local area networks (LANs), and where students and researchers will work with the extensive databanks available. A ‘server room’ to house the extensive ICT physical infrastructure is also being planned.

Only the consulting function will be housed in Polokwane, closer, at least initially, to the main client which will comprise the various provincial government departments. In addition, this consulting function will be consciously aligned with the province’s ‘Knowledge Economy’ initiative.

The initial fields of study to which the Turfloop C-SAM will contribute will be the following:

• **Urban and regional planning** will benefit from the use of computer generated spatial analysis and modelling to produce ‘optimised plans’ for the design of resilient human settlements and activities.

• **Environmental impacts, climate change and related subjects** will be a speciality of the centre where the emphasis will be on focused regional climate models, impact assessments, and the monitoring of climatic change.

• **Health and Epidemiology** themes are important in a local, national and international context, and the monitoring and understanding of the causes and effects of major diseases will form a substantial research theme.

• **Resource management, especially water**, will be another important theme, particularly as water quality and availability relates to the proposed massive new mining and petrochemical developments in the province.

But the initial focus for the Turfloop centre will be on the production of work-ready graduates in this specialised field, and on improving the quality of recent graduates through continued education programmes. Then there are plans to introduce an undergraduate ‘spatial analysis and modelling course with a mathematical bias’, as well as a dedicated Honours level programme designed to produce ‘work-ready graduates’. But the research potential will not be ignored. Research is essential for high quality teaching; and in any case research will be essential if the spatial analysis needs of the provincial government are to be satisfied.

And there’s the VLIR-UOS programme to be serviced as well. As examples, take the two projects that have been described in some detail on pages 22 and 24 of this issue of Limpopo Leader. The first project is concerned with the rise of lifestyle diseases in rural communities; the second with a broad spectrum of research relating to infectious diseases and their control. It goes without saying that the facilities soon to be available at Turfloop’s C-SAM will strengthen these projects.

‘Thought has also been given,’ says Wessels, ‘to a business component where the C-SAM will offer its specialist facilities and services to visiting scientists, to state and private sector agencies and companies in Limpopo, and to governments in SADC. The centre, once it is established and adequately staffed, will be a major asset for the University of Limpopo and for the region in which it operates.’

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**IMAGINE ...**

a computer that can predict the impact of global warming and population growth on our natural resources well into the future. What the human challenges will be; what the water and food demands will be in relation to the ability of the land to produce them; and much more.
At the crux of a massive new initiative is the intriguing question, ‘how does knowledge flow?’ The initiative is CUPP – Community-University Partnership Programme – which is being piloted in four rural-based universities, namely Limpopo, Fort Hare, Venda, and Zululand. The aim is to develop a tool for improved response to community aspirations, and for addressing the problems of poverty, underdevelopment and inequality that are still so rife in South Africa.

Dr Chris Burman, head of the University of Limpopo’s Development, Facilitation and Training Institute (DevFTI) in Polokwane, is excited about this programme and what it has the potential to achieve. Within the context of the University of Limpopo, he says the programme – subtitled, Mapping Community Engagement Impacts at the University of Limpopo – has three main goals. These are to develop a holistic view of knowledge flows that result from community engagement at the university and their impact; to set up a sustainable ‘community engagement office’ at the university that is aligned to the CUPP initiative, as well as to the vision of the university to ‘find solutions for Africa’; and to build capacity at the university to tackle the challenge identified by the Department of Science and Technology (DST) to ‘increase South Africa’s ability to anticipate the complex consequences of change’, in the words of DST Minister Naledi Pandor.

Burman explains, ‘In 2009 the DST identified five emergent Grand Challenges that needed to be urgently addressed. The fifth and final grand challenge is termed “humanity’s behaviour and dynamics in the face of continuous change”, which the department said is at the core of virtually every major challenge facing South Africa in particular and the African continent as a whole – from improving education and skills levels, to reducing crime; managing HIV/AIDS; developing a sustainable approach to energy; managing xenophobic attitudes; and building more inclusive communities.’ It was in consequence to this challenge that the DST launched CUPP as a pilot initiative designed to begin the process of addressing these complex challenges.

At the same time the University of Limpopo was establishing the Rural Development and Innovation Hub (RDIH), at the Turfloop campus to ‘ensure broad-based approaches to rural development challenges by harnessing the various
perspectives, disciplines, technologies, skills and theories that the university can offer through smart partnerships and teamwork,’ according to the concept document.

‘The DST was keen to shift universities away from “ivory tower” approaches when it comes to community engagement because they believed this tends to limit potentials for understanding communities and their needs. At UL Community Engagement tends to be perceived as peripheral or incidental activities for university academics and students. We clearly need to broaden our understanding and involvement. The fact is that Community Engagement has definite development opportunities for communities, for the university’s identity as well as for building the knowledge economy. It can also be an effective work experience for our students.

‘At the same time, our research indicated that the university’s community initiatives are effectively driven by academic individuals to the extent of 66.7 percent,’ explains Burman. ‘We needed to find a way to support these academic drivers and build the critical mass of Community Engagement at the university.’

It all fitted neatly together.

‘The University of Limpopo’s CUPP initiative anticipates first setting up a CUPP office that includes a help desk and a research office; and mapping out Community Engagement between the community and the university as a baseline to the project.

‘This map will help us better understand the local knowledge economy. We’ll look at a wide range of knowledge; what sort of knowledge is flowing; how it flows in different contexts, what sustains or facilitates these flows, what hinders them, what direction are different types of knowledge flowing, and what are the impacts of these flows at different nodes in the many networks circulating around UL.

‘We’ll be able to visualise where knowledge flows freely between the university and the neighbouring communities and where there are obstacles that slow or stop the flow. We’ll be able to determine the impact of the knowledge that emanates from Community Engagement and identify where the relationships exist by finding out what sort of knowledge is emerging – for instance whether it’s a knowledge asset (the sort of knowledge that makes sense to people in their contexts and has some value to stakeholders) or inert information (information contained that will only be useful if it is transferred to a new context so that it can contribute to future actions).’

The methods that will be used to develop this knowledge map will largely include both quantitative and qualitative sense-making and narrative techniques which will contribute to the DST’s attempts to tackle the Fifth Grand Challenge. A team of investigators have been trained in narrative techniques to collect data, which will be used along with more conventional methods of inquiry.

While it is an intensive and massive undertaking, it is ‘doable’, says Burman. ‘The potential benefits for a clear understanding of how communities respond to knowledge and how we as a university can contribute to future knowledge generations and how that knowledge makes a real difference to rural life are huge. Changes will be able to be made to how knowledge is shared once the obstacles to knowledge flows are identified. Learnings will be shared, and the findings can help bolster the existing Community Engagement Policy for the University of Limpopo.

‘It can go so far as to contribute to a national understanding of the value of Community Engagement as a vehicle for change – in the face of continuous change,’ Burman states – with a good deal of optimism and confidence.

DR CHRIS BURMAN

is excited about this programme and what it has the potential to achieve.
Several recent research studies support the growing conviction that substantial numbers of doctoral graduates are an indispensable component of sustainable development. These studies, the most important of which were completed late last year, begin to provide a picture of the state of PhD studies in South Africa, with opportunities for comparison with the SADC region in one direction, and the international situation in the other.

Why undertake this kind of research? The answer is relatively straightforward: because universities are experiencing fundamental changes in the way they perform those core functions linked to knowledge creation. These include: changes brought about as a result of increased internationalisation, the development of knowledge societies, and the globalisation of markets due to the growth of internet technologies. Such changes have persuaded African universities to attempt to reposition themselves in order to fit in with global trends.

Another important research report, the ASSAF PhD study\(^8\), deals with the situation in South Africa, has a more inward looking approach, dealing as it does with the practical question of ‘how to meet the demands for high-level skills in an emerging economy’. Through the collation of a variety of quantitative and qualitative data, it has been possible to provide ‘an account of the status of the PhD in South Africa’ and to set out specific recommendations for what needs to be done to scale up the numbers of doctoral graduates produced in the country.

Both main research focuses – the concern with external realities, and concern with internal demand on the other – combine to speak directly to the role of universities in national and regional socio-economic development. The studies also provide important pictures of the status quo with regard to PhD studies in the geographic areas under their scrutiny. When these pictures are combined with basic statistics that were assembled by the Southern African Regional Universities Association (SARUA) in 2008, some chilling comparisons emerge.

Let’s start inside the SADC region itself.

SADC comprises approximately 250-million people spread unevenly across its 14 member states. Equally uneven is the spread of public universities across these countries. When SARUA undertook its baseline study of SADC higher education (published in 2008 under the heading of Towards a Common Future) there were 66 universities, 23 of them in South Africa. South Africa’s preponderance is reinforced when university student enrolment is considered: the total for the SADC region was 1,07-million, of which 69,8 percent were enrolled at South African universities.

When it comes to the enrolment and graduation of PhD students, the situation for SADC countries (excluding South Africa) is even more precarious. The following statistics will help to illustrate this:

- Out of the total SADC enrolment figure of 1.07-million students, only 10 578 (or 1 percent of the total) were enrolled in doctoral programmes. If the South African contribution is removed from the equation, the total number of students enrolled at SADC’s remaining 43 public universities drops to just under 325 000, of which only 685 (0,2 percent of the total student population) were working towards their doctorates.

- Graduation statistics follow this trend. Out of the total doctoral degrees gained across the SADC region’s public universities, 1 274 graduated from South African institutions. This means that SADC’s other 43 state-funded universities produced only 143 PhDs between them.

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\(^8\) The PhD Study: an evidence-based study on how to meet the demands for high-level skills in an emerging economy was undertaken by the Academy of Sciences of South Africa (ASSAF) and completed in September 2010.
The doctoral degree has become a proxy both for individual achievement and for measuring a country’s capacity for original research.

Advances in disciplines such as science, mathematics and technology are acknowledged worldwide as a key element in building vibrant and sustainable economies and societies.

-Naledi Pandor, Minister of Science and Technology, speaking at the launch of the African Doctoral Academy at Stellenbosch University in January 2011.

Turning our attention to Africa more generally, another study has focused on six universities in West and East Africa. Unlike in the SADC region, where growth in PhD students (particularly in South Africa) has been steady but small (just over 6 percent a year), these universities have experienced ‘a phenomenal growth rate’ in doctoral student enrolments since 2005. The period began with 373 enrolments across all six universities, and ended (in 2009) with 1,454, an increase of 390 percent. One study attributed most of this growth to dramatic increases in female enrolment for PhDs in education, the social sciences and humanities, resulting in an improved gender mix of 69/31 in favour of males. (In South Africa, the gender mix among doctoral graduates in 2007 was 58/42 in favour of males.)

But the high growth rates of students entering West and East African universities has brought major institutional and administrative challenges. And in spite of the high growth rates, there are still not enough PhDs being produced, particularly in the science, engineering and technology (SET) subjects. The situation is similar to that pertaining in the SADC region, and also in South Africa as the continent’s most prolific producer of doctoral graduates. Wherever we look, there simply aren’t enough of them.

According to the ASSAF study, out of a list of 34 countries worldwide, South Africa is placed 33rd. The top country on the list, Portugal, produces a massive 569 PhDs for every million of total population. Switzerland (454), Sweden (427), Finland (375), and Germany (297), complete the top five countries on the international list. Other significant achievers are the United Kingdom (288), Australia (264), Norway (208), the United States (201), France (172), and Japan (132). The final five countries on the list, all with scores of under 50 PhDs per million of total population are Turkey (48), Iceland (32), Mexico (28), South Africa (26), and Chile (13).

As the only representative from the African continent, South Africa is an important marker. The country also has some unique characteristics, thanks to its divided past, that still linger in the statistics.

In 2007, the most recent year included in the ASSAF PhD study, most of the country’s doctoral graduates were white men in their thirties. Females comprised 42 percent of the graduates, while black Africans who make up nearly 80 percent of total population produced only 32 percent of PhD graduates. The main reason for this disparity appears to be economic, with black graduates frequently under family pressure to earn in the job market, or simply under pressure to raise the necessary funding to continue their academic careers to PhD level.

Equally concerning is the distribution of PhD graduates across the various disciplines. Of the 1,274 PhDs produced...
in 2007, only 454 (or 35 percent) were awarded in the crucially important fields of science, engineering and technology (the SET subjects). The majority of PhDs are produced in the social, economic and management sciences, and religion. The continuing relatively high proportion of religion doctorates reflects the ‘soft-option’ approach encouraged by apartheid education authorities who linked salary increases and promotions to level of qualification rather than the subject in which the qualification was achieved.

The third apartheid-past characteristic that is still evident in the South African higher education system, and that reflects in the country’s PhD statistics, is the performance chasm that exists between the established erstwhile white universities, and the so-called previously disadvantaged institutions that were created to cater to specific ethnicities (particularly those established in the independent and semi-independent homelands), where the recruitment of high quality academic staff remains a serious problem. This situation is clearly indicated in the spread of doctoral graduates (in 2007) across the 23 South African universities. The top six PhD-producing universities, all previously white and urban-based, accounted for 65 percent of the doctorates produced. At the other end, the bottom six, all previously disadvantaged under apartheid, produced less than 2 percent of the nation’s doctoral graduates.

But how many doctoral graduates should South Africa be producing? The sobering answer to this question is expressed by the Department of Science and Technology in their 10 year plan (2008 to 2018) entitled Innovation Towards a Knowledge-based Economy. By 2018, the country should be producing around 6 000 SET PhD graduates each year. This needs to be seen in relation to the 454 SET PhD graduates the country managed in 2009.

The recent research studies dealt with above provide recommendations that could help to rectify the current under-production of PhDs. The main ones are:

1. Escalate the numbers of doctoral graduates by making use of overseas universities. This happened extensively during the apartheid era – and most graduates did return home.

2. Expand significantly the levels of funding for doctoral studies, with a particular focus on shifting the majority of students into full-time study.

3. Establish a web-based central doctoral programmes database as a foundation for continuous data collection and analysis of key performance indicators.

4. Set up dedicated schools in charge of doctoral studies at the regional level to encourage inter-university teams working together to establish centres of excellence that would internationalise their research efforts.
5. Urgently address pipeline issues such as the quality of school leavers. A sharp increase in the numbers of students coming to universities is required, and innovative programmes will need to be put in place to retain as many as possible in postgraduate studies.

6. Apply strong quality assurance measures to the doctorate, on the one hand, to prevent irresponsible massification motivated by funding incentives, and on the other hand to deepen the quality of all doctorates.

7. Strengthen the relationship between universities and industry and science councils, so that larger numbers of doctoral students are trained and supported through learning in practice while at the same time remaining in touch with on-campus expertise.

8. Advocate public understanding and support for the PhD by generating greater awareness of its significance in general socio-economic development.

It should be obvious from this mix of recommendations that there are significant differences in the developmental stages of higher education systems in South Africa compared with the rest of sub-Saharan Africa, including SADC. But the point needs to be re-emphasised that the disparity between South Africa and the developed world, certainly with regard to the production of PhDs, is as wide.

These differing levels of development and productivity need to be taken into account when considering doctoral programmes at SADC universities. But these levels should not be seen as the constituents of a competition. There is a growing awareness in the world that the only sensible way forward is in active co-operation. This is why the recommendation that South Africa look to resources beyond its borders to increase the number of doctoral graduates makes sense. Should SADC, from its own level of higher education development, be looking to South Africa to do the same thing?

There does seem to be a strong argument against strict go-it-alone autonomy on an individual university basis, or indeed on a strictly national basis. A more co-ordinated and co-operative approach suggests itself. South Africa’s often painful ‘size and shape’ exercise in the late 1990s and early 2000s is an example of this kind of approach. How do individual universities fit into the national higher education system while at the same time remaining useful to the geographical areas in which they operate? And should these considerations begin to be applied at the regional level, or will national interests prove to be too strong?

One final comment. Higher education stakeholders in SADC should take care that too much emphasis on the production of PhDs as agents for accelerated development is not allowed to transform the region’s universities into knowledge-generating structures that resemble inverted triangles. We need to recognise that high ambitions must be built on solid foundations. Universities will need to walk before they can jog, and jog before they can sprint. But this note of caution should not be allowed to obscure the fundamental and obvious need for capacity building within universities and national groupings of universities. It is the obvious starting point for future improvements in university output, and should form an immediate focus for all those concerned with the state of higher education in the SADC region.9

HOW DOES THE UNIVERSITY OF LIMPOPO FARE?

On the PhD production log table of South African universities, the University of Limpopo is placed 14th out of 23. In 2007, the university produced 17 PhD graduates, which accounted for 1.3 percent of South Africa’s total production. In 2000, the university produced only six PhD graduates, and production peaked in 2004 with 20. By 2009, however, the figure had slipped back to eleven. Who were the log leaders? In 2007, the University of Pretoria produced 170 doctoral graduates and Stellenbosch 153. Together, these two institutions produced a quarter of the country’s PhDs in that year.

This article has been condensed from a SARUA background paper on PhD production in SADC.
‘Publish or perish’ is the clarion call to academics throughout Africa from Professor Gboyega Ogunbanjo, an inexhaustible researcher, publisher, editor, mentor, and academic, and since January 2011, the committed Acting Director: School of Medicine, Faculty of Health Sciences, Medunsa. This appointment follows 18 years of continuous service to the university’s Department of Family Medicine & Primary Health Care, where he’s Head of Department.

Ogunbanjo has accumulated a formidable list of qualifications after his name, including MBBS, FCFP (SA), M Fam Med (Medunsa), FACRRM (Fellowship of the Australian College of Rural and Remote Medicine), FACTM (Fellowship of the Australasian College of Tropical Medicine), FAFP (SA), Cert. Travel Med (Wits), FWACP(Fam Med) (Fellowship of the West African College of Physicians), FAIMER (Fellowship in International Medical Education and Research) (USA), all of which represent a lifetime of passion for learning, dedication to his chosen profession, and a deep desire to see others achieve according to their potential.

Ogunbanjo was born in Lagos, Nigeria, the eldest of six. His father’s philosophy was unequivocal – ‘a good education opens doors’ – and he and his siblings lived by that maxim.

Ogunbanjo’s education had a distinctly British flavour, and his high school years were spent at a secondary school dubbed ‘Eton College in Africa’, run by Nigerian and British missionaries. He then attended the University of Lagos where he achieved his MBBS.

Nigeria was the first African country to make community service compulsory after achieving a tertiary qualification; a policy that had a positive effect on the country. Postings were made according to needs in different areas of the country. ‘This helped to integrate the country as new graduates were sent to areas they wouldn’t otherwise have chosen; many settled, finding spouses and starting families in their new “homes”. It also improved basic services to outlying areas,’ says Ogunbanjo, who was posted to Badagry General Hospital, close to the Benin border, where he stayed for four years.

Then under the Nigerian Technical Aid Corps, Ogunbanjo was posted to Mozambique where he worked for two years in Maputo hospitals before moving to Queen Elizabeth II Hospital in Maseru, Lesotho as an Expatriate Registrar in Obstetrics & Gynaecology. During this period a professor from Bloemfontein used to visit the hospital to share his knowledge of operating techniques. On his suggestion, Ogunbanjo applied to Medunsa’s Department of FM&PHC – a transition from obstetrics & gynaecology. Five minutes into the interview, Professor Sam Fehrsen, then HoD for Family Medicine, made a call and announced, ‘We’ve got our man!’ and Ogunbanjo’s distinguished career in FM&PHC at Medunsa was launched. It started with outreach work in rural clinics in KwaZulu-Natal and the Expanded Programme on Immunisation in Mpumalanga. At the same time he completed his M Med in Family Medicine.

He was based in Bronkhorstspruit, as his duties and responsibilities adjusted to the needs of the area and Medunsa’s involvement with community healthcare. The period was challenging and productive. ‘My responsibilities at Medunsa were Principal Family Physician, Senior
Lecturer and Academic Head of FM&PHC. In Kwamhlanga, I was Academic Co-ordinator for Mpumalanga, which included being Medical Co-ordinator for Medunsa Joint Appointees in various Mpumalanga departments.

‘It led to some exciting developments. For instance, KwaDwesi had no functional hospital at the dawn of South Africa’s democracy as a moratorium had been declared on building new hospitals. So we drew up innovative plans for a short-stay facility, which became Kwamhlanga Hospital.’ By this stage, Ogunbanjo was Acting District Manager and was instrumental in the official opening of the facility that brought desperately needed health care facilities to the Ndebele people. ‘The place is still dear to me. It has expanded into a 153-bed hospital and is a popular training site for Medunsa’s sixth year Family Medicine students. It’s on its way to becoming a Level 2 hospital.’

The years based in Bronkhorstspruit were full, and saw him steadily progressing health services in the region, co-ordinating programmes and activities, and managing the Masters in Family Medicine and the Undergraduate Family Medicine Programme in Mpumalanga.

His passion for research and his commitment to helping students produce publishable papers had become increasingly evident and in 2003, Ogunbanjo was appointed Deputy Dean of Research for the Faculty of Medicine. This evolved into the Acting Directorship of Research and Partnerships for the University of Limpopo to September 2010.

While in this position, he determined to create incentives for academics to publish their work, and initiated a policy change that saw a percentage of the subsidy that the university gets paid for work published by its academics going directly to the academic, with an added portion being allocated to that academic’s credit within his or her department. It made a difference to attitudes to research, says Ogunbanjo, who strongly believes that the percentage should be further increased.

His own research activities are prolific and inspiring, having supervised, published and presented numerous projects, dissertations, articles, book chapters, papers and posters over the years. As far as people within his department are concerned, though, he’s referred to as a ‘slave driver and workaholic’ – an appellation he’s comfortable with. ‘These are the people who’re grateful for the relentless pushing and who acknowledge that without it, they wouldn’t have achieved as they did.’


His most recent editorial achievement is his pride and joy. He’s Editor-in-Chief of the new African Journal of Primary Health Care & Family Medicine. ‘We needed a journal in Africa for African academics to have their work reviewed and published and this journal is filling that gap. It’s an online publication, with one printed edition containing 30 original papers per year.’ In his first editorial, Ogunbanjo says, ‘Since its inception as an online journal in 2009, the website has been inundated with submissions of good quality original articles, reviews and case studies from the African continent.’

Ogunbanjo’s achievements, awards, and extramural memberships and positions are numerous. They include, for instance, the university’s Senate Award for Research Excellence, which he’s won seven times since 2002, as well as Senior Vice-President of the Colleges of Medicine of South Africa. But for Ogunbanjo, ‘It’s not about the titles and awards, it’s about getting the work done.’

OGUNBANJO SAYS:

‘We needed a journal in Africa for African academics to have their work reviewed and published and the new African Journal of Primary Health Care & Family Medicine is filling that gap.’
Did you know that there are two main libraries at the University of Limpopo, one on the Medunsa campus containing more than 70,000 books and journals, and one on the Turfloop campus with more than 200,000 books and some printed journals? The latter library houses various specialist sections, such as an Africana collection, a law library, and a comprehensive assemblage of government documents such as gazettes and Acts of Parliament. In addition to the main libraries, there are also two specialised medical libraries, both located in the Polokwane/Mankweng Hospital Complex.

The way in which all these libraries are organised and staffed provides further insights into the crucially important services they offer. Each library is divided into four sections: acquisitions (where new titles are purchased), technical services (which is responsible for cataloguing), client services (which staffs the lending library facilities), and information services (which facilitate user access to information irrespective of location by developing and fostering direct and effective communication between the library and academic departments). This last section is staffed by subject librarians who specialise in the needs of the various faculties. This means that there should be (one subject librarian post is vacant) three subject librarians servicing the needs of the three faculties (Humanities, Management and Law, Science and Agriculture) that are housed on the Turfloop campus and one at Medunsa Campus servicing the faculty of Health Sciences. Under each subject librarian are assistant librarians who specialise in providing for the information needs surrounding the various schools, or groupings of schools in each faculty.

At the head of all these services is an Executive Director of Libraries, Mrs Makgabela Chuene. She’s a home-grown person through and through. She grew up in ga-Dikgale district, a stone’s throw from the campus of the University of the North (now the Turfloop campus of the University of Limpopo). She obtained her undergraduate degree at the then University of the North and got her Honours and Masters degrees at UNISA and Long Island University (New York). She acted as the University Librarian in 2004 and again from December 2006 to April 2009 when she became the acting Executive Director of Libraries of the merged University of Limpopo. She was appointed permanently to this position on 1 January 2010.

Chuene has worked tirelessly to consolidate and improve the university’s libraries. In 2004, for example, significant changes were made to the way in which the Turfloop library used its periodical and journal purchasing allocation. Library staff noticed that many of the journals received were rarely used, the covers still virtually unopened when newer issues replaced them. Subscriptions to the least-used periodicals were terminated, and subscriptions to less costly online journals became the norm.
At the same time, many new publications became available through online databases. Online subscription prices negotiated by the South African National Library and Information Consortium reduced costs still further and increased the range of publications available. Through these adjustments it was hoped that the savings of around R4-million could be diverted each year to the purchase of new books. This was not to be, due to the financial constraints that the university was experiencing. The Medunsa Campus Library subscribes to about 550 print periodical titles, most of which will eventually be replaced with electronic versions.

With regard to the general under-preparedness of new students enrolling at the main campuses of the University of Limpopo, Chuene says that important progress has been made. Bearing in mind that most high schools in Limpopo remain seriously under-resourced, it should come as no surprise that very many new students do not know how to use the libraries and computers. A course in information literacy has therefore been designed, and is currently a module in the university’s Centre of Academic Excellence bridging courses. The purpose is to develop 21st century information and technology competencies and the skills for lifelong learning.

‘Our libraries will continue to offer traditional information services while also embracing information technology. In addition there is a 24/7 online reference service called Ask-a-Librarian, and electronic information in the form of e-books and e-journals is beginning to be popular. We keep up with technological advances affecting libraries,’ Chuene adds, ‘and where possible apply them for the benefit of our users.’

Plans are well advanced to optimise database usage by creating links that will enable University of Limpopo library users to search many databases simultaneously, and to have access to, among a range of off-campus facilities, the Library Online Public Access Catalogue which has recently updated to become a Webopac, which is a library catalogue on the Web with various additional functionalities. The catalogue is available via the library page on the university website or through the new address http://140.140.16.30:2082. In addition, users based at the Turfloop campus have access to databases and electronic information originally subscribed to by Medunsa and vice versa.

‘We have also started,’ explains Chuene, ‘to develop an Electronic Theses and Dissertations Repository, where University of Limpopo theses and dissertations are prepared and processed for online access. The next phase will be to develop an Institutional Repository by uploading all research publications by our university staff and students. This will result in research efforts and output of the university being locally and globally known and accessed.'
In addition, the libraries are to be redesigned to accommodate these technological changes and to make libraries aesthetically inviting. Some space should be converted to allow those who would like to study in groups to do so without disturbing those who want to study in quiet.

To promote library services generally, a comprehensive ‘Communications Plan’ is being developed through which users will be updated and made aware of developments and changes in library facilities, collections and services. Staff members are also being trained in using social networking technology to communicate with students and staff. In addition, a library website has been established, which will serve as a gateway to our entire stock of books, journals and other periodicals, with sophisticated search facilities to assist students and staff to find what they’re looking for.

The Libraries receive their budgets from central university coffers. ‘As can be imagined, the achievement of most of our ambitions will require rigorous fundraising,’ Chuene says. ‘But we are prepared to roll up our sleeves because we know that the libraries are of high importance to the institution generally. They are the nerve centres and repositories of knowledge without which a university could not effectively function.’

HOW TO HELP ...

Donate your unwanted but relevant books. This is the message from the executive director of libraries, Mrs Makgabela Chuene. In fact, she’s given a list of the subjects where donations would be particularly welcome. Here’s the list: agriculture, environmental studies, indigenous knowledge, optometry, pharmacy, nutrition, law. Chuene asks that all books donated should have been published in the past five years. In fact, it’s a good idea for potential book donors to make contact with Mrs Chuene in the first instance by e-mailing her on doris.mokala@ul.ac.za. Donations of new computers and monetary contributions will be most welcome. This will help, Chuene explains, in developing collections, enhancing information access, and where possible in redesigning library spaces.
Please help us update our ALUMNI database with current contact information, so that we can continue to be in touch with all University of Limpopo alumni.

**UNIVERSITY ALUMNI FORM:**

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<td>When were you at UL? (e.g. 1993 – 1996):</td>
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<td>Degree(s) obtained:</td>
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<td>When was/were your degree (s) obtained:</td>
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<td>Degrees obtained at other institutions (Please specify):</td>
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<td>Occupation:</td>
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<tr>
<td>Special achievements / honours:</td>
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</tr>
</tbody>
</table>

**Please return the completed questionnaire to Clare-Rose Julius:**

**Tel:** 011 791 4561 **Fax:** 011 791 2390 **Cell:** 072 545 2366

**Postal address:** P O Box 2756, Pinegowrie 2123, Gauteng, South Africa

**Email:** info@porcupinepress.co.za

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