



A WEEK IN THE LIFE

of the UCT/GSH Department of Medicine



PREPARING FOR THE NEXT 100 YEARS

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“2014 marks 20 years of freedom in South Africa. It is an opportunity to reflect on what has been achieved over this period and cast our eyes to the future.”





PREPARING FOR THE NEXT 100 YEARS

Foreword by Bongani Mayosi
Professor and Head of the Department of Medicine, UCT



Professor Bongani Mayosi
Head of Medicine

2014 marks 20 years of freedom in South Africa. It is an opportunity to reflect on what has been achieved over this period, and cast our eyes to the future. We as the Department of Medicine at Groote Schuur Hospital and the University of Cape Town have decided to celebrate this momentous occasion in the life of the nation by telling the story of what we do, what we have achieved, the main challenges of our work, our legacy and our future.

This story is told through the lens of a photographer, Eric Bosch, who spent the first week of December 2013 with us, taking photographs of our varied activities. This photo-essay – ‘A Week in the Life of the UCT/GSH Department of Medicine – Preparing for the Next 100 Years’ – is the result.

It has been a pleasure and privilege for me to serve as Head of the UCT/GSH Department of Medicine. Established on 20 February 1920, it is the oldest Department of Medicine in Africa. I took over the leadership of the department eight

years ago and I would like to describe our story in terms of seven Ps: the People, the Patients, the Pupils, the Programmes, the Papers, the Pounds and the Prizes.

■ The People

The medical, nursing and administrative staff of the Department of Medicine are the people who make the institution a special place of service and care for the sick. And academically, we are arguably the best department of medicine in Africa. In 2012, to mark the launch of the

UCT Faculty of Health Sciences' centenary celebrations, the Department of Medicine hosted a special dinner to celebrate the members of the department who had one or more publications that had been cited by others at least 100 times. Such a publication (called a citation classic) represents a seminal contribution to medical science and is a rare achievement among academic physicians working in African medical schools. In the Department of Medicine, no less than 39 of the 60 academic physicians and scientists had at least one citation classic. It was said at the time that "this concentration of high achievers in one medical department is unprecedented on the African continent."

■ The Patients

The excellent people who work in the Department of Medicine are consumed by one priority: the patient. The patient is the beginning and the end of our work – be it in service provision, research, teaching or administration. The primacy of the patient in our work has been illustrated by our opposition to the proposed cut in hospital beds in February 2007, which led to a public outcry in Cape Town and an editorial comment in the *Weekend Argus*. These proposed cuts in services for the poor and indigent were not only reversed, but the numbers of beds had increased steadily over the past five years, resulting in the opening of two new medical wards. When it was observed that the mortality of medical inpatients was increasing year-on-year from 2004 to 2009 (South African Medical Journal 2013; 103:28–35), we restored the team-based Firm System in General Medicine, which is designed to improve the patient experience and health outcomes.

■ The Pupils

Our students benefit greatly from the environment of excellence in patient care that is delivered by the leading academic physicians in Africa. We continue the fine tradition of clinical teaching that we are known for the world over, at both undergraduate and postgraduate levels through the University of Cape Town (UCT). In addition, we have extended our postgraduate training programmes to benefit no less than 73 registrars and senior registrars from 16 African countries, with the majority coming from Nigeria, Libya and Botswana (see **Figure 1**). Sixty two percent of our African trainees are in General Internal Medicine, with the rest represented in almost all of the 12 sub-specialities of medicine.

■ The Programmes

In addition to the Supernumerary Registrar Programme, the Department of Medicine has initiated a number of programmes to strengthen clinical research in the Faculty of Health Sciences at UCT. We have worked in collaboration with colleagues from other departments to establish the intercalated MBChB/Bsc Med (Hons) and the MBChB/PhD programmes (in collaboration with the Department of Clinical Laboratory Sciences), the Clinical Research Methods Course and the master's degree in Public Health – Clinical Research stream (in collaboration with the School of Public Health and Family Medicine), the UCT Clinical Research Centre at Groote Schuur Hospital (as a joint venture with the Faculty of Health Sciences), and the acquisition of the new Whole-Body 3-Tesla Magnetic Resonance machine that will be dedicated to research. These programmes, and a myriad of other efforts and initiatives by members of the Department of Medicine, have arrested the decline in research activity that occurred in the



This emblem at the entrance to the new Mitchell's Plain District Hospital epitomises our commitment to the art of healing.

first 10 years of the new South Africa, and have ushered in a renaissance in academic activity in our department.

■ The Papers

The record of papers published per year by members of the Department of Medicine is a testament to the renaissance that is under way. The number of publications per year has increased from 136 in 2006 to 377 in 2013 – a 177% increase in productivity (see **Figure 2**). We are proud of the fact that members of the Department of Medicine are regularly published in the best medical journals of the world, including *Circulation*, *PLoS Medicine*, *The Lancet*, and the *New England Journal of Medicine*. There have been many seminal contributions from members of the department over the past few years, one of which was from Dr Chris Kenyon, the first senior registrar to train in infectious diseases (from 2008 to 2010), who discovered a new fungal cause of disseminated infection in people with AIDS. This seminal observation has opened up a new field of research in infectious disease that will ultimately improve patient care.

■ The Pounds

There can be no great achievements without the 'pounds'. I learnt early in my tenure as Head of Department (from a colleague and friend, Michael Bennish) that strong departments are built through grants. The research income of the Department of Medicine has increased from R23 million in 2006 to R66 million in 2013 (see **Figure 3**), excluding income flowing directly to large research units such as the UCT Lung Institute and the Desmond Tutu HIV Centre.

■ The Prizes

We are gaining national and international recognition for contributions to clinical science and medical education. The performance of members of the Department of Medicine has been recognised by many prizes over the years (see **Table 1**). The *Lancet* has featured biographies of four members of the Department of Medicine (Linda-Gail Bekker [2010], Bongani Mayosi [2012], Keertan Dheda [2014], and Karen Sliwa [2014]) thus solidifying the global reach of the influence of members of the department.

We have taken key steps on the journey to become one of the top departments of medicine in the world, in this the African century. How do we achieve sustainable and successful growth in ideas and influence into this future? The answer lies in the advice of Winston Churchill, who said: "there is no finer investment for any community than putting milk into babies." We need to invest in the best and brightest physicians that we train in the department. This will require the creation of new university posts in all current and new divisions that will augment the existing posts that are primarily funded by the provincial department. Our future will be guaranteed by the quality and vision of the leaders that we leave behind as our legacy.

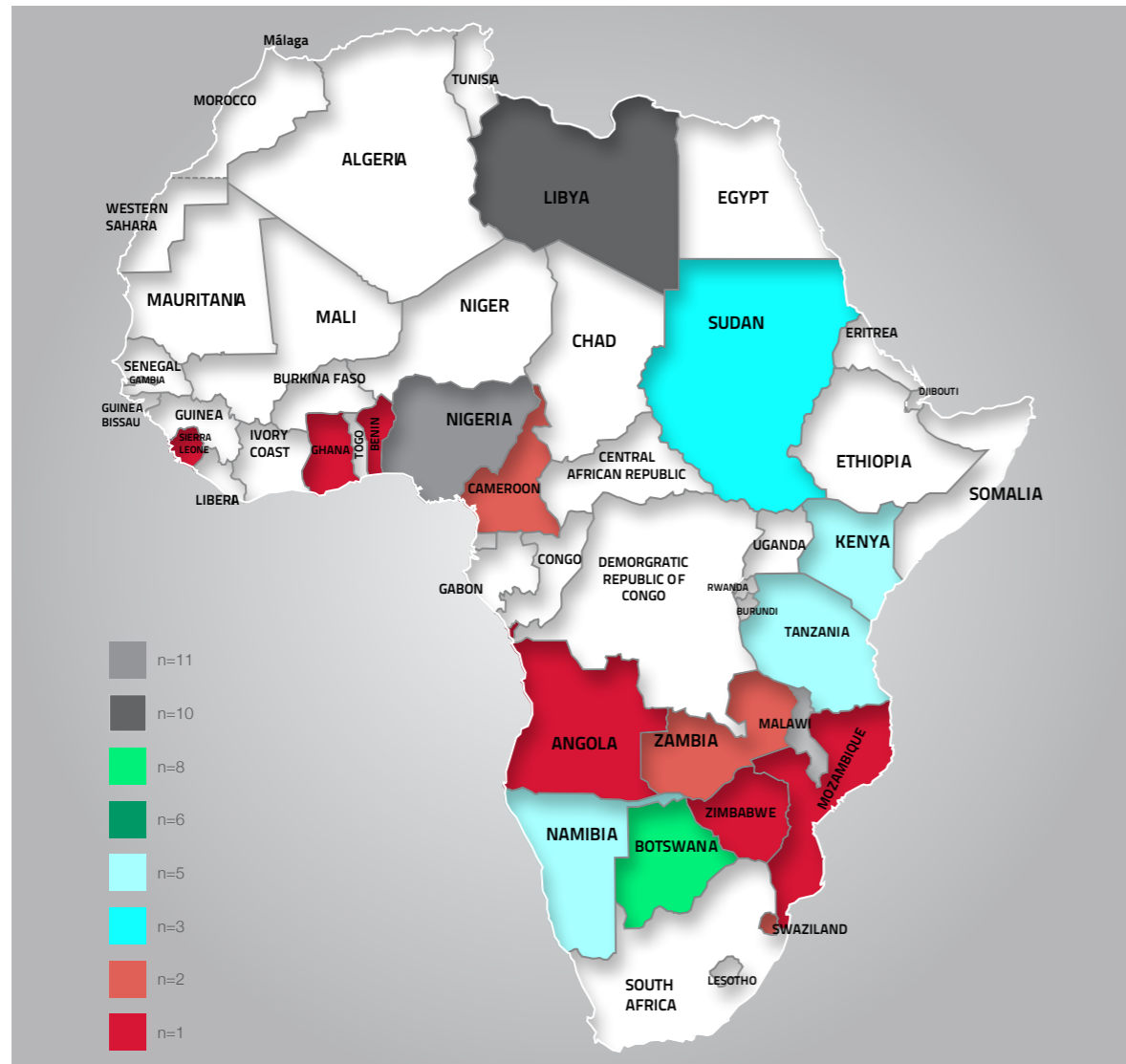


Figure 1: The number of supernumerary registrars from 16 African countries, who have trained in the Department of Medicine.

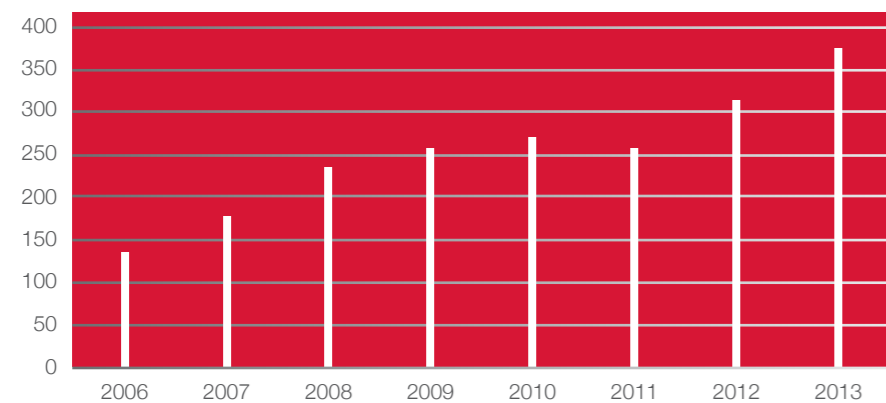


Figure 2: The rising number of scientific publications by members of the Department of Medicine.

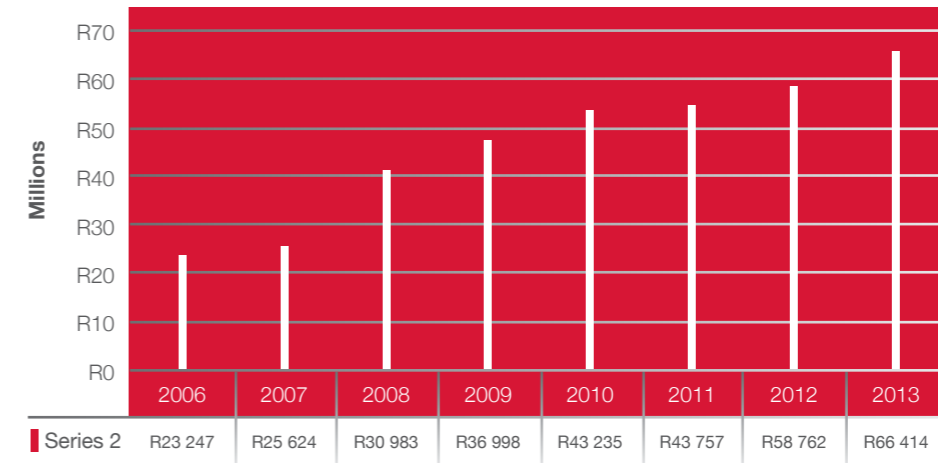


Figure 3: Research income from 2006 to 2013.

Year	Name	Prize
2014	Professor Robin Wood A/Professor Brian Rayner	National Research Foundation A-rating World Hypertension League Notable Achievement in Hypertension Award
2013	Professor Eric Bateman Professor Keertan Dheda A/Professor Graeme Meintjes Professor Karen Sliwa	Medical Research Council Platinum Award Medical Research Council Gold Award Medical Research Council Silver Award Paul Morawitz Award
2012	Professor Eric Bateman Professor Bongani Mayosi	European Respiratory Society President's Award and Alan Pifer Award National Science and Technology Foundation – BHP Billiton Award: To an individual for outstanding contribution to Science Engineering Technology and Innovation through Management and related activities over the previous five to 10 years or less
2011	Professor Bongani Mayosi Professor Lionel Opie	National Research Foundation Transformation of the Science Cohort Award National Science and Technology Foundation BHP Billiton Award to an Individual over a Lifetime
2010	Professor Keertan Dheda	Union Scientific Award of the International Union Against Tuberculosis and Lung Disease
2009	Professor Eric Bateman Professor Linda-Gail Bekker Professor Vanessa Burch Professor Bongani Mayosi Professor Robin Wood	National Research Foundation A-rating United Kingdom Royal Society Pfizer Award National Excellence in Teaching and Learning Award Order of Mapungubwe in Silver UCT Fellowship
2008	Professor Robin Wood	South African Medical Association Special Service Award
2006	Professor Lionel Opie	Order of Mapungubwe in Silver

Table 1: Major prizes awarded to members of the Department of Medicine – 2006 to first half of 2014.

CLINICAL SKILLS CENTRE

Using state-of-the-art
technology to teach hands-
on medical skills



Doctor Rachel Weiss
Director of Clinical
Skills Centre

Medicine doesn't get more real than in the simulated world of the Clinical Skills Centre (CSC). It is one of the fastest-growing entities in the Faculty of Health Science – providing simulation training to all medical and allied health programmes at the University of Cape Town.

“My vision and mission is to expand and organise a broad clinical skills programme at UCT, with the goal of graduating better-prepared and more practical, hands-on students in the most cost-efficient way,” says CSC director, Doctor Rachel Weiss.

She is looking to the future, where she sees the CSC having the mandate and responsibility for supporting simulation training in all disciplines, while contributing to the continuous professional development of nursing staff at Groote Schuur Hospital and surrounding healthcare facilities. The centre already runs a wide range of programmes and projects, including a mother and baby

> I am excited to see how interest in simulation is growing at UCT especially amongst the new generation of heads of department, consultants and registrars.



simulation unit, and incorporates digital technology in various applications.

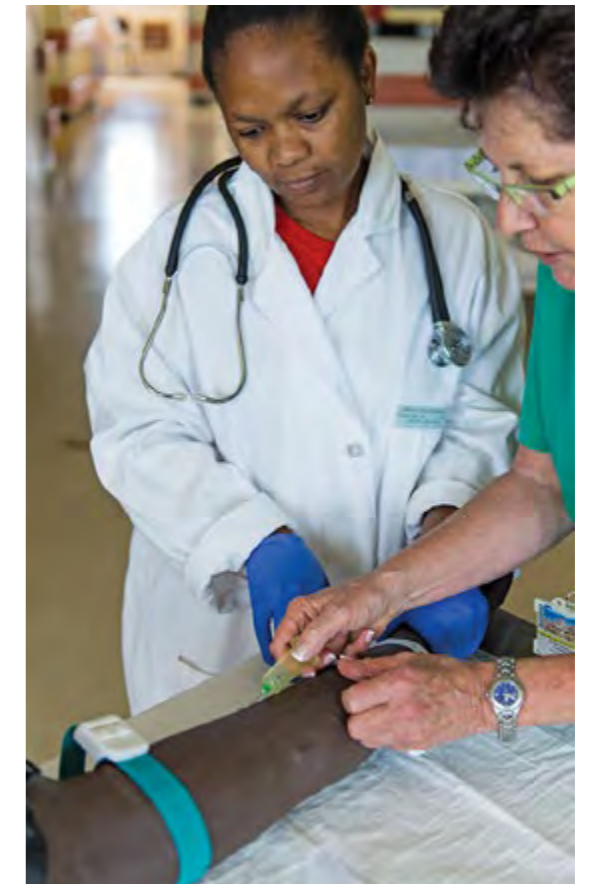
“I am excited to see how interest in simulation is growing at UCT, especially among the new generation of heads of department, consultants and registrars,” says Doctor Weiss.

CSC also plays a significant role in promoting community-oriented, patient-centred behaviour and attitudes in students through community engagement. In one instance, for example, third year medical students spent a day at the Western Cape Rehabilitation Centre and were tasked with discovering their patients’ story. “This cultivates an appreciation for patients as a primary source of learning and encourages students to develop a holistic view of health care,” says Doctor Weiss.

Finding the funds to keep this multi-faceted operation going, Doctor Weiss admits, is challenging. “Funding is only one part of the challenge; finding, training and retaining a skilled workforce is much harder!”

There is much more that CSC can do, she says. For instance, the centre is inundated with requests for basic and advanced life support courses, which will require financing and managing a larger team. “We also urgently need to develop a sustainable, multifunctional Simulated Patient Programme, in order to relieve the burden on over-exposed ward patients, to develop a greater focus on communication skills in the curricula and to create practice opportunities for nursing diploma students, who have very little access to patients.”

But Doctor Weiss must be doing something right. The graduating MBChB Class of 2013 presented her with the Distinguished Teacher Award in recognition of her contribution to the improvement of teaching and learning over the course of their undergraduate studies.



Gail Edelstein (right) showing Nosipho Tyembile the phlebotomy technique on a model.

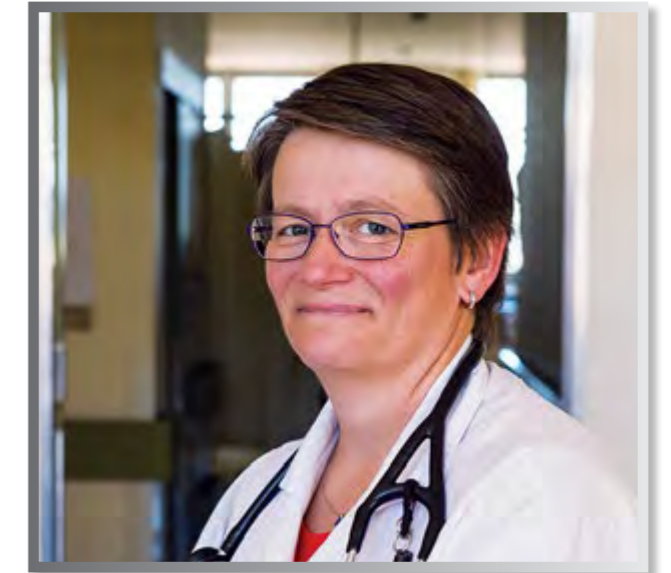
She sees this as added motivation to continue the work she has been doing. “I believe that while skills training should start in a simulation laboratory, students as well as nursing and medical staff need real clinical environments. In five years’ time, I want to be able to include students, doctors and hospital nursing staff in simulated, interprofessional, context-specific scenarios in theatre, in hospital wards and in clinics.”

The ultimate aim, says Doctor Weiss, is not just to give people the necessary skills to pass an objective structured clinical exam (OSCE) or skills test but to inspire and empower them “to provide the best possible patient care within the institutional context.”



DIVISION OF
**MEDICAL
EDUCATION**

Getting the best out of students



Professor Vanessa Burch
Head of
Medical Education

Over the past decade, the education portfolio within the Department of Medicine has grown considerably and a Division of Medical Education with a team of clinician educators and administration staff dedicated to running the department's wide range of undergraduate and postgraduate courses was established to help make sure that students benefit from the best teaching and assessment strategies.

Over the past five years, this function has been overseen by Professor Vanessa Burch, who has put together a team of outstanding clinicians who have developed considerable expertise in the scholarship of curriculum design, teaching, learning and assessment, with a strong emphasis on educational practices supported by hard data, a development coined 'Best Evidence Medical Education'.

> Working together as a team, clinicians alongside administrators, we have effected major improvements in our teaching and assessment strategies and our student throughput data, for both undergraduates and postgraduates, bear testimony to these educational advances.



Professor Vanessa Burch conducting a ward round.

“Working together as a team, clinicians alongside administrators, we have effected major improvements in our teaching and assessment strategies and our student throughput data, for both undergraduates and postgraduates, bear testimony to these educational advances,” says Professor Burch.

Key recent developments for undergraduates include the assessment of clinical competence using a directly observed objective structured clinical examination (OSCE)-style clinical examination of four cases rather than the traditional ‘short and long case’ format, and the introduction



Doctor Elana van Heerden, intern, preparing to carry out a procedure on a patient.

of a portfolio-based structured oral examination about six years ago. This examination has greatly improved the quality of bedside case presentations by undergraduate students.

In addition, a unique bedside-based language course, with a specific focus on teaching students to conduct medical interviews in isiXhosa and Afrikaans, was launched in conjunction with the Department of African Languages at UCT.

For postgraduates, the Division of Education successfully launched the new MMed dissertation programme in 2013 and has already graduated its first candidates.

In addition, an annual Refresher Course for candidates writing Part I of the fellowship examinations of the College of Physicians of South Africa was set up just over three years ago. Attendance has grown from about 30 participants at the first course to more than 120 registrations for 2014. Candidates come from all over South Africa as well as neighbouring countries, including Malawi, Namibia and Botswana.

The division also has an active outreach programme and has been instrumental in developing the core curriculum and the use of



Doctor Philasande Mkoko, medical registrar, writing patient notes.

portfolio-based learning and assessment in the Rural Clinical School at Stellenbosch University over the past three years, among other initiatives.

“The most exciting part of my work is the opportunity I have of growing and nurturing talented young clinicians and watching them grow to become respected colleagues. Nothing beats the thrill of engaging young minds, which stretch like ever-lengthening elastic bands,” says Professor Burch.

But she admits that finding ways of helping everyone succeed is not easy. “The most challenging part of my work is making tough decisions about students who struggle and need to repeat courses. But the return on the investment always brings a smile to my face. Many of my younger colleagues have excelled against enormous odds and have gone on to become role models for the next generation of students facing similar challenges.”

Professor Burch says that the only legacy that matters to her is the next generation of healthcare professionals in Africa. “Africa needs Africans who can lead and succeed and that is what I am here to facilitate!”



DIVISION OF
**ALLERGOLOGY
AND
CLINICAL
IMMUNOLOGY**

Helping South Africans cope with allergies



**Professors Paul Potter
and Stan Ress
Heads of Allergology and
Clinical Immunology**

Up to 20% of the SA population suffer from allergic diseases – and new allergens are constantly being discovered. Over the past two decades, over 20 new African allergies have been identified by the Allergology and Clinical Immunology Unit of the Department of Medicine.



> Identification of the interesting novel African allergies using our accumulated laboratory and clinical expertise is the most interesting aspect of our work and generates great excitement among the staff, referring doctors and patients.

Professor Paul Potter and Professor Stan Ress head up the Allergology and Clinical Immunology Unit, with its state-of-the-art laboratory at Groote Schuur Hospital. The laboratory has the unique capacity on the continent to investigate and identify novel African allergens.

“Exciting finds over the past few years have been the discovery of new African allergies to kikuyu grass pollen, buffalo grass pollen, *Eragrostis* pollen, *Acacia* species, Rhodesian flame lily, Abalone (*Haliotis Midae*), mopane worm, marula nuts, African pear, mogwagwa wild fruit, *Locusta Migratoria*, cobra venom (Rinkhals), wildebeest,

African penguin and African porcupine allergens,” says Professor Potter.

“Identification of the interesting novel African allergies using our accumulated laboratory and clinical expertise is the most interesting aspect of our work and generates great excitement among the staff, referring doctors and patients,” says Professor Potter.

He adds that the unit has also investigated and published unique African aspects of global allergens such as house dust mite allergy, alien trees (oaks and plane), fungal spore allergens, *Verbena hybrida*, cockroach and Imbuia wood allergy.

“The aerobiology service and its 30-year database and weekly aeroallergen reporting is also unique in the region,” he adds, proudly mentioning exciting clinical discoveries on the high prevalence of complement C6 and C5 deficiencies in the Western Cape.

“Our unit has also been able to provide cutting-edge novel treatment to hospital patients with hereditary angioedema through clinical trials we have been involved in at the UCT Lung Institute,” says Professor Potter.

The Allergology and Clinical Immunology Unit provides a 24-hour referral service for complex allergic diseases and also provides care for adult patients with primary immunodeficiencies. It has several projects and programmes, including aerobiology research, which involves defining pollen seasons in the Western Cape and identifying changes compatible with global warming.

The identification of more than 40 patients with hereditary angioedema and 80 patients with complement deficiency is also unique in Africa and a highlight of the unit’s achievements. “The extended identification of the genetic defects, frequencies and prevalence and prophylaxis, in collaboration with laboratories in Cardiff and UCT’s

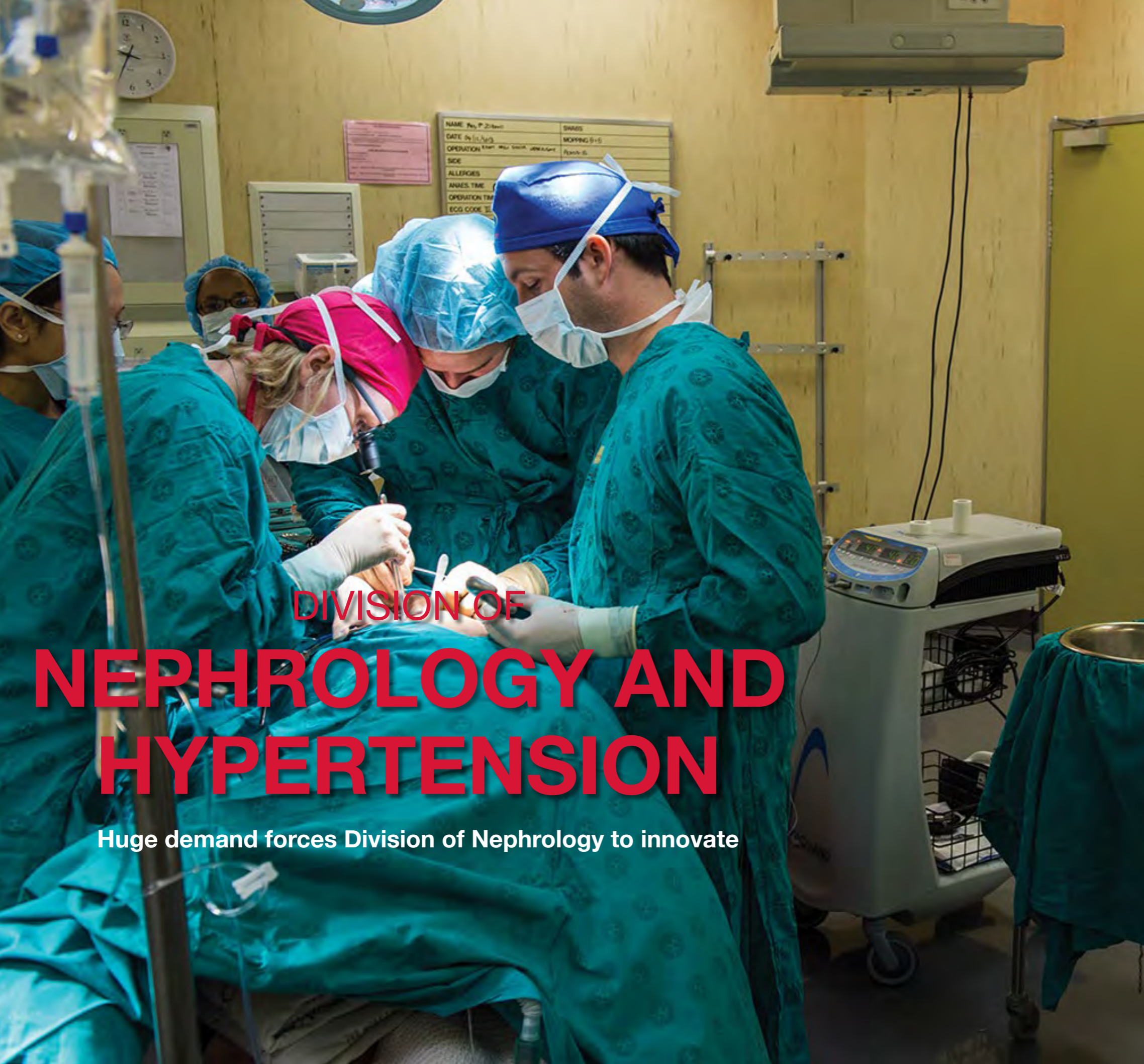


Dilys Berman, aerobiologist for the Western Cape.

Division of Chemical Pathology is also globally unique and has made us world leaders in this area of primary immunodeficiency,” he adds.

Through connections with the Allergy Society and the World Allergy Organisation, the unit has also contributed nationally and globally to the diagnosis and management of allergic diseases such as asthma, allergic rhinitis, chronic urticaria, atopic dermatitis and in the field of sublingual immunotherapy.

Both professors feel that there is an urgent need for the state to provide better normal and emergency treatments for a range of allergic conditions and immune deficiencies. “Considering that allergology is now an accredited medical field, it has become necessary to budget appropriate funds and infrastructure for this field to grow and to offer world class therapies in the future,” concludes Professor Potter.



DIVISION OF

NEPHROLOGY AND HYPERTENSION

Huge demand forces Division of Nephrology to innovate



Professor Brian Rayner Head of Nephrology and Hypertension

More than half of the patients who come to Groote Schuur with kidney failure are turned away due to a lack of resources. This is something that Professor Brian Rayner, Head of the Division of Nephrology and Hypertension, is desperate to change.

The Division of Nephrology and Hypertension is a major division at Groote Schuur with a busy and diverse clinical load. "There has been an exponential demand for our services, due to the burgeoning epidemic of chronic kidney disease (CKD)," says Professor Rayner.

Since taking over, he has concentrated on improving medical staff ratios in the division and through negotiation, sessional appointments and fellowships, has been able to increase numbers in the division, which has had massive implications and has enabled an improved and expanded service delivery.



> The most exciting thing for me is to see the fruits of my endeavours realised in improved patient outcomes, growth of our senior registrars into fully fledged nephrologists with improved training skills, and increased publications and degrees.



Immaculate Phungula, medical technologist, processing dialysers for re-use.

“As a secondary consequence, we have been able to free staff for research, training and administration,” says Professor Rayner. He mentions another area of improvement, namely the development of treatment protocols and standard operating procedures for common conditions. This has resulted in better care and improved outcomes. Frequent morbidity and mortality meetings have been instituted to monitor quality of care.

Many procedures are undertaken in the minor procedures, theatre and this has relieved pressure on theatre time and resulted in a significant reduction in waiting time for these lifesaving procedures as well as a major reduction in patient morbidity. All senior registrars are supported to attend the Boston Nephrology Course to assist with their preparation for the Certificate in Nephrology.

“Another major area is to concentrate our research activities on unique focus areas relevant to Cape Town and South Africa, namely hypertension, HIV-associated nephropathy, systemic lupus erythematosus (SLE) and a glomerulonephritis database,” says Professor Rayner.

The division’s publication record has grown tremendously and senior registrars are encouraged to present their abstracts at major international congresses.

“The most exciting thing for me is to see the fruits of my endeavours realised in improved patient outcomes, growth of our senior registrars into fully fledged nephrologists with improved training skills, and increased publications and degrees,” says Professor Rayner. But he admits that the most challenging thing undoubtedly is the rationing of care for patients suffering from end-stage kidney disease. “We have to turn away over 50% of patients with kidney failure from lifesaving treatment because of a lack of resources. I have to oversee this process and it is emotionally draining,” he acknowledges.

He also finds it difficult to increase the number of transplants per year. If he could increase this number, it would lead to greater opportunities to provide care for more patients with kidney failure.

“I would like to leave behind a world-class unit proficient in research, training and patient care, in the hands of proficient clinician scientists.”



DIVISION OF
**CLINICAL
PHARMACOLOGY**

**Dedicated unit explores ways to tackle
infectious diseases and HIV/AIDS in Africa**



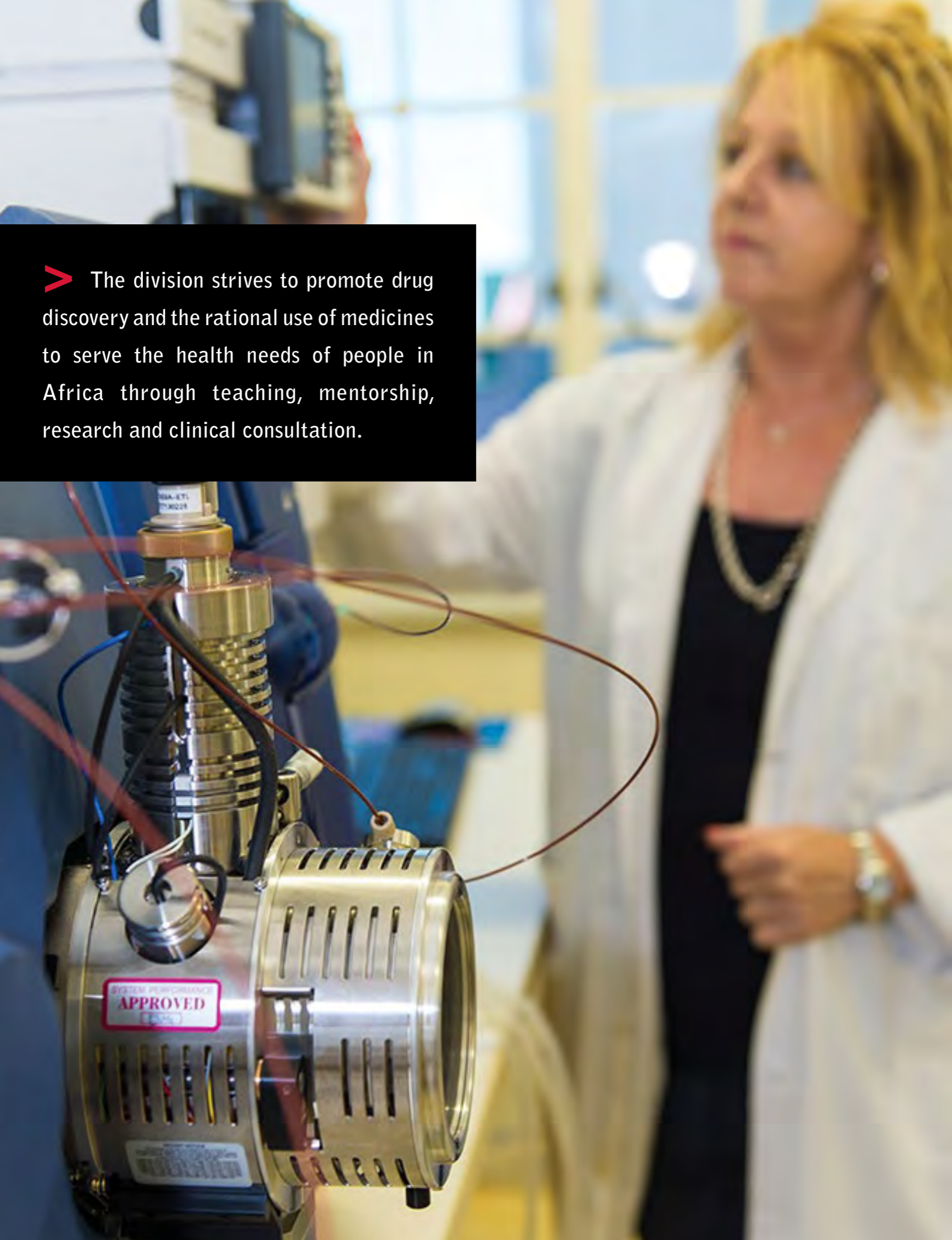
**Professor
Gary Maartens
Head of Clinical
Pharmacology**

Sub-Saharan Africa is one of the regions hardest hit by infectious diseases like malaria, tuberculosis and HIV/AIDS and the Clinical Pharmacology Unit at Groote Schuur Hospital, a designated World Health Organisation collaborating centre for medicines information, is leading the way in Africa in winning the war on these diseases.

Headed by Professor Gary Maartens, work in the division spans research, teaching and clinical services. "The division strives to promote drug discovery and the rational use of medicines to serve the health needs of people in Africa through teaching, mentorship, research and clinical consultation," he says.

"Research in these fields is broad and encompasses drug discovery pharmacokinetics, pharmacodynamics, pharmacogenomics, clinical trials, adverse drug

> The division strives to promote drug discovery and the rational use of medicines to serve the health needs of people in Africa through teaching, mentorship, research and clinical consultation.



reactions, and pharmaco-economic evaluation,” says Professor Maartens, who himself runs a broad research programme focused on the clinical pharmacology of HIV and tuberculosis.

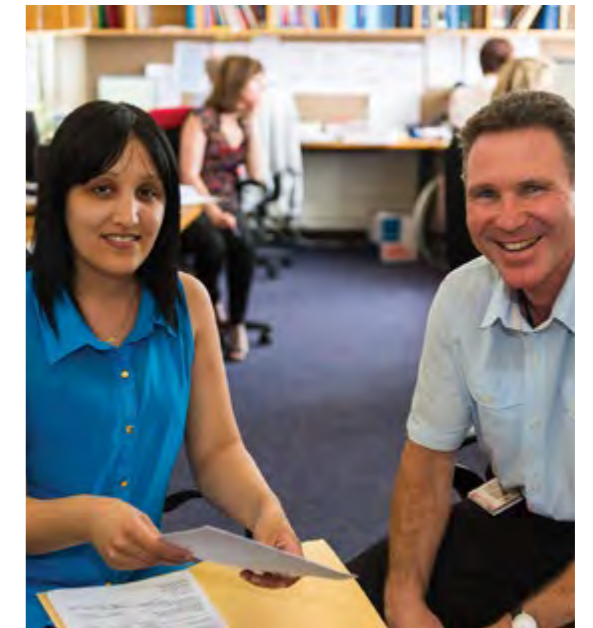
At the heart of the division is an analytical laboratory that plays a key research role, evaluating pharmacokinetics of both new chemical entities in small animal models for drug discovery and in patient samples for drug concentrations. It is the only South African centre accredited to develop new drug assays. The laboratory has funding from the AIDS Clinical Trials Group (ACTG) and the International Maternal Paediatric Adolescent AIDS Clinical Trials Group (IMPAACT) as an International Pharmacology Specialty Laboratory and has built up a track record second to none in the study of drug concentrations in African patients with HIV, tuberculosis and malaria, particularly among vulnerable groups.

In collaboration with Professor Kelly Chibale’s drug discovery group from UCT’s Department of Chemistry, as well as with other drug discovery groups, the division tests new chemical entities directed against infectious diseases in animal models and tissue culture.

Professor Helen McIlleron heads the clinical pharmacokinetics group, which conducts a series of pharmacokinetic studies evaluating antitubercular drugs, antiretroviral drugs, and the interactions between them in adults and children.

On the academic front, the division teaches undergraduate medical and physiotherapy students as well as postgraduates (PhD, MSc and honours). “A key function of the division is the training of registrars to become specialist clinical pharmacologists in our MMed programme,” says Professor Maartens.

The division provides a clinical and laboratory pharmacology service to Groote Schuur Hospital as well as secondary and primary centres within its drainage area.

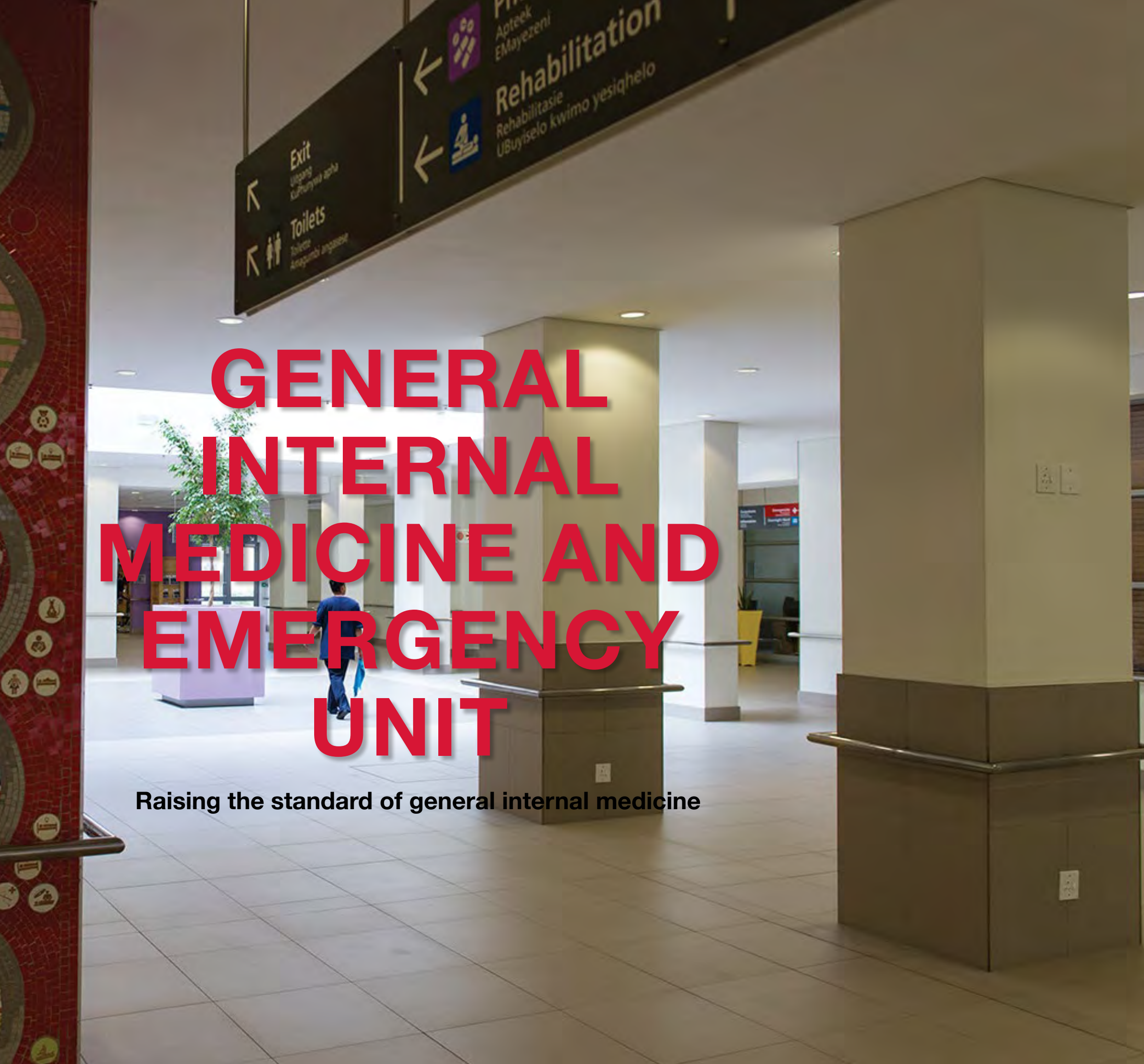


Samantha Hare and Professor Marc Blockman in the Medicines Information Centre.

And, in addition to its work on the frontlines of disease, it plays an important role in providing policy advice on the rational and cost-effective use of drugs for local hospitals, the Western Cape Provincial Coding Committee and the National Essential Medicines List Committee.

Also located in the division is the Medicines Information Centre, which provides a telephonic consultation service for healthcare professionals and runs the National HIV and TB Healthcare Worker Helpline. The division also produces the popular South African Medicines Formulary, currently in its 11th edition.

While Africa is caught in the middle of what Professor Maartens describes as the colliding plagues of TB and HIV/AIDS, the Division of Pharmacology is clearly rising to the challenge. Professor Maartens says that he is proud of the impact it is having on the African continent and is upbeat about progress in this area. “This is an exciting and fascinating area of study and research,” he says.



GENERAL INTERNAL MEDICINE AND EMERGENCY UNIT

Raising the standard of general internal medicine



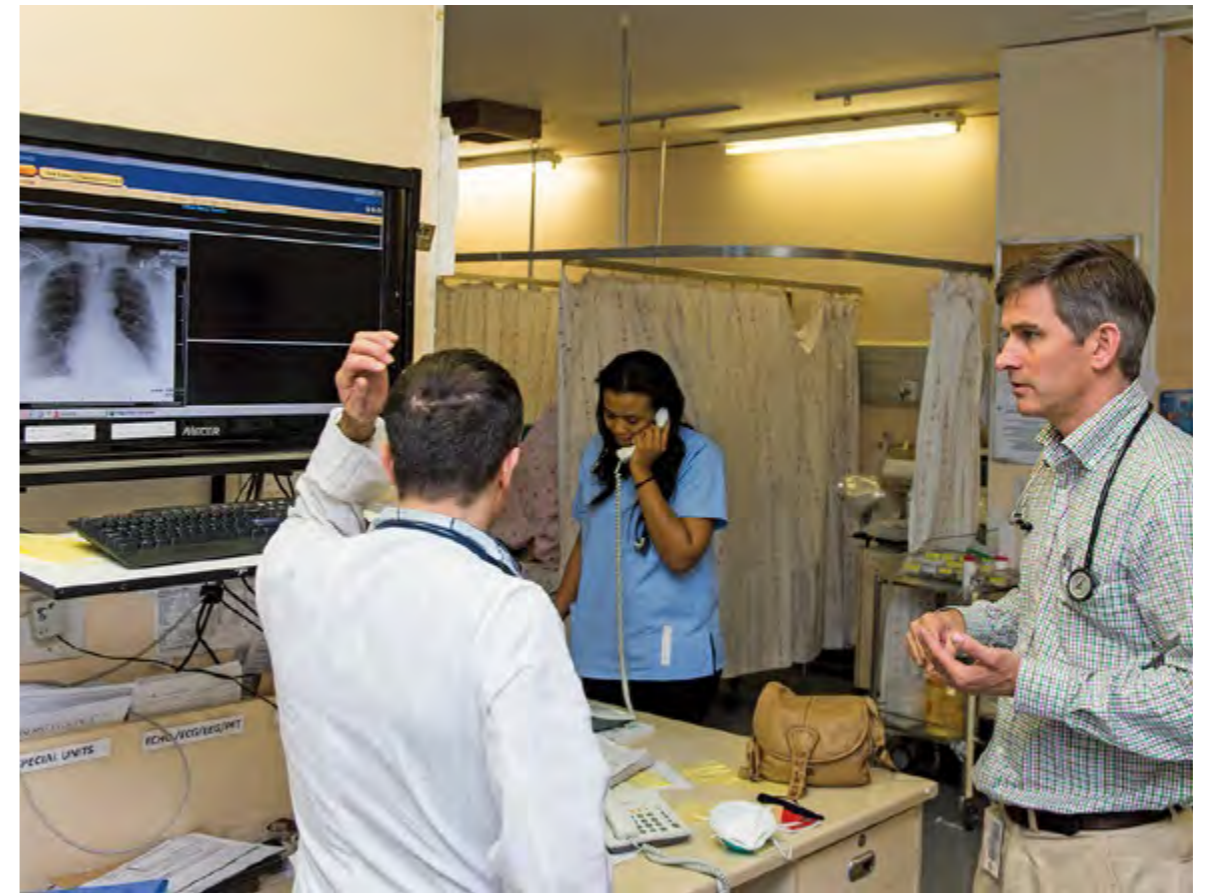
Doctor Peter
Raubenheimer
Head of the General
Internal Medicine
Platform

General internal medicine and emergency units are the first point of contact for many patients arriving at a hospital for medical help. It is here where they form lasting impressions of the health service when they need it the most; it is here where they feel cared for and looked after, or neglected and ignored.

“General internal medicine is about caring for people and not niching itself according to disease. The patient remains central,” says Doctor Peter Raubenheimer, head of the General Internal Medicine platform of the Western Metropole of Cape Town, which runs across four hospitals in the Western Cape: Groote Schuur Hospital, Mitchells Plain Hospital, Victoria Hospital and New Somerset Hospital.



> Definite highlights have been opening more beds, increasing staff numbers, defining the general service as the hub of the department's clinical activities and improved quality and efficiency.



Doctor Jerry Parolis (left) and Doctor Tom Crede, Head of GSH Emergency Unit, in conversation.

“The excitement comes from being at the centre of an essential service being provided to people in acute need of medical help,” says Doctor Raubenheimer. The major clinical challenges, which also offer the greatest rewards, are those of diagnostic difficulties and of managing very ill patients. He admits that challenges arise from working in a silo-based system and trying to break them down and working in more efficient and patient-centric systems are priorities.

“Definite highlights have been opening more beds, increasing staff numbers, defining the general service as the hub of the department's clinical activities and improved quality and efficiency,” he says.

General medicine's service platform for in- and out-patients is also the platform on which the majority of training of undergraduate and postgraduate students in the Department of Medicine takes place. “We constantly need to

examine whether we are producing the kind of doctors and specialists South Africa deserves and needs,” says Doctor Raubenheimer.

Doctor Raubenheimer wants to use the general medicine platform as an innovation hub/health incubator for new ideas and concepts in service delivery, which can be copied elsewhere. “We also hope to increase the reach of the division by improving outreach functions to primary care, in other provinces and to Africa.”

Improving the quality of the service rendered is also important to Doctor Tom Crede, who recalls finding a severely distressed emergency unit when he took over in 2010. He started by making changes to the working environment and focused on helping staff cope with the high-stress environment. This involved better organisation, appointing dedicated senior staff, and establishing an ‘open door’ policy for junior staff.



Doctor Nasief van der Schyff, Head of Medicine at Victoria Hospital, together with sisters Mariette Ross and Lynn van der Westhuizen on an ICU ward round.

“By improving co-operation with other colleagues, I think we have improved patient care significantly, probably best reflected by the drop in the number of complaints received from the public. This has so far been the most rewarding aspect of my five years in the job,” says Doctor Crede.

He is also proud of the creation of the palliative care service for the emergency unit. Before, patients were sometimes left to die on trolleys, away from family. By making contact with St Luke's Hospice and introducing basic palliative care concepts to both nursing and medical staff, more patients are able to die with dignity, surrounded by their families. “This has prompted positive feedback

from families, and may in fact, be a first for health care in South Africa,” says Doctor Crede.

“The emergency unit at Groote Schuur is often seen as the ‘face of medicine’, as it is the point of contact for patients and families. I would like to think that ultimately we can develop a service that not only prides itself on practising world-class medicine, but does so in an environment that is less stressful for professional medical staff and patients.”

Providing the best possible medical care is also a priority for Doctor Nasief van der Schyff, Head of General Medicine at Victoria Hospital. He is proud of the fact that despite severe resource limitations and high occupancy, the medical department

continues to provide excellent clinical service and remains a popular site for training.

He says that in order to efficiently address the needs of patients, several specialist services have been pioneered that are aimed at holistically improving the care offered to patients and their families.

“We were the first public hospital to pioneer the Abundant Life Programme, an innovative palliative care programme that aims to improve the quality of life of patients living with end stage organ failure. To date, more than a thousand patients and their respective families have been assisted by this programme. It has been internationally recognised and is currently subject to an international research collaboration involving Kings College in London.”

He points to working with young medical professionals and students as one of the highlights of his job. “We have created a unique, family-type environment at Victoria Hospital that promotes teaching and excellence.”

Due to time constraints and the lack of capacity, there is not a lot of time for research, something that Doctor van der Schyff laments. “We believe that that we are blessed with a wide range of clinical pathology, which would be an ideal environment to conduct clinical research. However, we are limited by our lack of capacity.”

He does believe, however, that he has helped to create a culture of teaching excellence and says an innovative approach in teaching undergraduate medical students has seen students excel and leave the department with a distinct passion for internal medicine.

At Mitchells Plain District Hospital, Doctor Gavin van Wyk has an additional set of problems, as he had to oversee the move of the GF Jooste Hospital to the new integration of the Mitchells Plain District Hospital. Due to reorganised services, a lot of extra strain was placed on an already overburdened service.



Doctor Gavin van Wyk, Head of Medicine at Mitchell's Plain District Hospital.

“I feel privileged to have been part of the decommissioning and commissioning of these hospitals – rare in a clinician's career. Mitchells Plain District Hospital is aesthetically and architecturally a magnificent building – long overdue in this community. This seems to play a positive role in the morale of staff and patients,” he says.

The hospital is viewed as a large district hospital with general specialist services, where complex medical patients are admitted. “Managing these patients and overseeing medical staff allows me to grow as a general physician and as head of department.”

He sees a bright future for the hospital and believes it could be a beacon of clinical and academic excellence; where patients receive the best medical care available and there is great work satisfaction amongst staff.



> We will continue to seek ways to offer the best patient care to the widest number of patients, while providing the best training ground for under- and postgraduates in the country – people who can take our work forward.



Doctors Asanda Jafta, Ismael Bandeker, and Bukiwe Peza in an academic ward round at the New Somerset Hospital.

“We are 20 years into our democracy. Communities, such as Mitchells Plain, Phillipi and the Klipfontein sub-district have previously been marginalised, but now have access to a state-of-the-art health facility. We need to provide a service that not only matches its magnificence but exceeds it.”

This drive to provide a superior service is also felt by Doctor Yakooob Vallie, Head of Somerset Hospital in Cape Town. For him, the most enjoyable part of his job is seeing patients and teaching students. “In-patients provide fascinating diagnostic challenges, while out-patients give time to interact with patients on a more personal level.”

His biggest challenge is keeping interns and registrars happy when under stress and he cites heavy caseloads as one of his biggest headaches. “Squeezing 90 patients into 71 beds needs deft discharge planning.”

But he is encouraged by his hospital's ability to cut its mortality rate in half, from approximately 15,6% in 2007 to 7,6% in 2013, despite a doubling of inpatient numbers and no increase in staff. It is clear that the biggest challenges in general internal medicine come down to specifics – patient care, staff morale, limited resources and strained capacity. But attention to detail has helped many department heads make significant improvements and enhance the service offered to patients.

Doctor Raubenheimer says there is a strong base to build on – and much still to do. “We have achieved a lot but our ambitions are not satisfied,” he says. “We will continue to seek ways to offer the best patient care to the widest number of patients, while with providing the best training ground for under- and postgraduates in the country – people who can take our work forward.”



DIVISION OF
**HUMAN
GENETICS**

Maximising the benefits of the genomic revolution for Africa



**Professor Raj Ramesar
Head of
Human Genetics**

In the Division of Human Genetics there is never a dull moment. The vast diversity of genetic disorders, coupled with the explosion of knowledge about genetics and molecular biology means that the department's clinical and research teams are constantly finding new information about the conditions seen in their patients and their families.

“Being exposed to complex patients and working with inspirational colleagues across disciplines, including research technology platforms, leads to exciting and meaningful research, which directly translates into patient benefits,” says Professor Raj Ramesar, who heads up the division.

“Planning tomorrow's research, of direct relevance to our clinics and patients, with intelligent and driven postgraduates, is possibly the most exciting thing we do.”

> As is to be expected with the rapid acquisition of genetic and genomic knowledge, the demand for and complexity of genetic consultations has increased, as has our participation in multidisciplinary clinics.



The past decade has seen a renaissance of sorts within the division. Since its inception, it has had a proud history as an extremely productive unit, both academically and clinically. However, for various reasons, by the turn of the century, the division's clinical component had been reduced to a few hardworking individuals and its continuation as a training unit was threatened.

Fortunately, the last decade has seen a steady growth and strengthening of the clinical team, along with the establishment of an efficient and innovative diagnostic laboratory and wide-reaching, productive translational research endeavors.

From a single doctor and two nursing sisters a decade ago in 2014, the clinical team includes two medical genetic specialists, three medical genetic registrars, two genetic nursing sisters and two genetic counsellors.

The past decade has also had some significant academic and training advances including the inception of the Master's programme in genetic counselling, the move of medical genetics from a subspecialty to a primary speciality, the commencement of regular Medical Genetic Education Programme (MGEP) courses for nurses, and, most recently, the addition of short courses in genetic counselling.

"As is to be expected with the rapid acquisition of genetic and genomic knowledge, the demand for and complexity of genetic consultations has increased, as has our participation in multidisciplinary clinics," says Professor Ramesar.

Academic outputs, as measured by publications and postgraduate student supervision from the clinical team, have also shown an increase, due to an increasing recognition of the value of research and its translation into clinical practice.

Research in the division's laboratories has also found its way to the diagnostic laboratories of the National Health Laboratory Services, resulting in

improved molecular testing, allowing more diagnoses to be made and more options for families across South Africa.

Administration has become more objective and better organised, with regular clinical meetings, improved diagnostic laboratory liaison and formal registrar and student assessments.

The division's growing stature bore fruit in 2011, when it organised and hosted a Joint International Conference of the African and Southern African Societies of Human Genetics. The event drew a record number of more than 500 delegates, mostly from across Africa.

This meeting, together with the Human Heredity and Health (or H3) Africa initiative, saw Africa being taken seriously by the international genetic community. The funding (by the National Institutes of Health in the USA, and the Wellcome Trust in the UK), for the initiation of the H3Africa consortium of projects, spanning Africa across a wide range of disease conditions, is certainly a dream come true, and one which will move towards improving the health of the citizens of our continent.

Genetics has massive potential to advance African health. Professor Ramesar says that in the years ahead, the division will seek to continue to improve its clinical service, informed by appropriate translational research, and drive cost-effective laboratory testing to improve the care it can offer to patients and their families.

Excellence in training for the next generation of medical geneticists – for South Africa and Africa – will also be a focus along with the education of communities and healthcare, workers alike and facilitating knowledge transfer between universities and the basic education sector.

"We want to allow maximum advantage to be taken of the genomic revolution in Africa, with careful attention to clinical utility and ethical practice," concludes Professor Ramesar.

DIVISION OF LIPIDOLOGY

Quietly blazing a trail in lipidology



Doctor Dirk Blom
Head of
Lipidology

Although small in terms of physical size and staff component, the Division of Lipidology is achieving big things in clinical drug trials, making quite a name for itself nationally and internationally.

“The Lipid Unit is very small and only has a single consultant,” says division head, Doctor Dirk Blom. “Nursing management has progressively withdrawn nursing support from the unit. The lipid unit has no registrars or interns and there is also no dedicated clerical support for the unit. It has to rely on volunteers, who often only stay for short periods of time.”

Yet despite these obstacles, the Lipid Unit has done phenomenally well. Doctor Blom says, “The unit remains at the forefront of drug development research in the field of lipidology and is particularly recognised for the work done in the fields of familial hypercholesterolaemia (both heterozygous and homozygous familial hypercholesterolaemia).”

“To my knowledge, the unit is one of very few in the world to have participated in clinical trials of three novel



> The unit is very active in clinical drug development studies and participates in eight to 12 international protocols at any given time. The administrative load associated with conducting clinical trials is substantial.



Bharati Ratanjee performing carotid ultrasound examination.

agents for the management of homozygous familial hypercholesterolaemia (lomitapide, mipomersen and evolocumab)."

Lipidology services and research at UCT date back more than five decades and have grown over the last few years. The unit provides carotid ultrasound services (assessment of carotid intima media thickness and screening for carotid stenosis) to patients and does screenings for suspected genetic hyperlipidaemia.

The unit also provides input at multiple medical education events throughout the country and internationally at a generalist and specialist level.

"The unit is very active in clinical drug development studies and participates in eight to 12 international protocols at any given time. The administrative load associated with conducting clinical trials is substantial," says Doctor Blom, who is also on the UCT Human Research Ethics Committee and the secretary of the College

of Physicians. While excited by the research the division does – and its potential to dramatically improve outcomes in patients with severe genetic dyslipidaemia – Doctor Blom says that raising sufficient funds to run the unit remains a constant challenge. In future, he would like to secure the long-term financial viability of the unit and to recruit additional staff, as well as to spread awareness about the dangers of certain conditions.

"Familial hypercholesterolaemia (FH) remains underdiagnosed and undertreated in most of the world, and South Africa is no exception. Early identification and treatment of FH saves lives. South Africa should establish a formal FH registry and cascade screening programme to identify patients with FH and ensure that they are treated appropriately. Such programmes have been very successful in several countries, with the Netherlands leading the way in this field."



DIVISION OF
CARDIOLOGY

The heart of the matter



Professor Mpiko Ntsekhe
Head of Cardiology

The Division of Cardiology is the oldest dedicated clinical cardiology unit in sub-Saharan Africa. It has a rich, proud history and tradition of delivering world-class clinical service; of teaching and training some of Africa's and the world's leading cardiologists; and of making significant contributions to efforts to improve local and international cardiovascular health.

“Improving the capacity and our capability to meet the increasing needs of a rapidly growing population of people with complex cardiac conditions, who require tertiary and quaternary care, while ensuring equitable access for all patients across the province, is an important ongoing challenge that the division is trying to address,” says head of division, Professor Mpiko Ntsekhe.

He details specific solutions that are currently being implemented to improve clinical service. These include



E17 CARDIOLOGY CLINIC

E17 13

> Improving the capacity and our capability to meet the increasing needs of a rapidly growing population of people with complex cardiac conditions, who require tertiary and quaternary care, while ensuring equitable access for all patients across the province, is an important ongoing challenge that the division is trying to address.



Professor Karen Sliwa, Director of the Hatter Institute for Cardiovascular Research in Africa.



Doctor Patrick Ntuli (senior registrar), Doctor Blanche Cupido (cardiologist), and Professor Mpiko Ntsekhe in the Cardiac Catheterisation Laboratory.

retaining, recruiting and training a team of cardiovascular health care professionals who are dedicated to clinical excellence and public sector healthcare, and who are conscious of the prevailing conditions and environment.

He also says expanding capacity to treat patients with complex disease through collaboration with colleagues from outside the public/academic sector is important, as is improving the available infrastructure, equipment and other material resources required to provide optimal patient care. The division also aims to make targeted improvements within the system of care to address issues of access for patients. Increasing collaboration across clinical academic units to enhance capacity is also a main area of activity.

In addition to contributing to teaching and training and complimentary programmes, the division also receives non-resident trainees from around the country and continent, for short focused periods.

“Research and academic excellence has been and remains central to the Division of Cardiology,” says Professor Ntsekhe. “The department has been consistently striving to improve the quality, quantity and relevance of the research output.”

The division works closely with the Hatter Institute for Cardiovascular Research in Africa, under Professor Karen Sliwa. Its impressive research and projects are geared towards consolidating and expanding existing efforts to combat the most serious cardiovascular threats to health, and to improve overall prosperity in Africa.

Professor Sliwa says recent highlights include the creation in 2010 of a dedicated cardiac disease and maternity clinic, specifically aimed at pregnant women with heart disease – a particularly common problem in Africa – and the expansion of the scope of the research that they do at the Hatter Institute to other African countries such as Cameroon, Kenya, Mozambique, Nigeria, Sudan and Tanzania. Another key achievement has been the setting up a number of international registries in nine African countries, on diseases relevant to Africa. “Based on the success of these registries, I have been invited to lead a large international registry funded by the European Society of Cardiology (EuroObservational Programme). The results of these registries will provide answers to important clinical questions and will subsequently improve patient care,” says Professor Sliwa.



> I would like to create a simple legacy of running a department that consistently finds solutions that allow it to provide best patient care, teaches and trains to the highest standards and contributes to solving the countries major problems through research.



The Coronary Care Unit Team (from left to right): M. Ntsekhe, B. Hlwempu, B. Cupido, F. Kasker, V. McAllister, Z. Prince, C. Viljoen, V. Bell, B. Dyantyi, A.C. Adams, S. Hoffman, C. Magerman, and H. Hadebe.

She also talks about expanding the Hatter Institute and forging strong collaborations with other laboratories. In future, she aims to establish a system where collaborators in Africa have ownership of their research data and hopes to see students achieve success in their own research fields. Student numbers at the Hatter Institute have increased from three in 2008 to 20 in 2014.

Professors Silwa and Prof Ntsekhe agree that they are united by the common aim of improving people's lives.

"Knowing that I get up and go to work with the real opportunity of contributing to making a difference to people's lives while doing what I really enjoy – clinical medicine, teaching, research is the

most exciting aspect of my job," says Professor Ntsekhe. The most challenging aspect is trying to deliver and achieve overall excellence despite the disconnect between the scope and scale of the problems and the resource capacity and infrastructural limitations at hand.

"It often feels like a heavy-weight boxing match with one hand tied behind one's back," he sums it up. Yet he remains optimistic. "I would like to create a simple legacy of running a department that consistently finds solutions that allow it to provide best patient care, teaches and trains to the highest standards and contributes to solving the countries major problems through research."



DIVISION OF
**CLINICAL
HAEMATOLOGY**

Taking the fight against HIV to the next level



Professor
Nicolas Novitzky
Head of
Clinical Haematology

The Haematology Unit in the Department of Medicine is busy, very busy. It houses many different units and research projects – from groundbreaking work on HIV and HIV-related cancers to the only public sector haematopoietic stem cell transplantation programme in the country.

“Our work is challenging but rewarding and we are making great strides in several arenas,” says Professor Nicolas Novitzky, who heads up the Leukaemia Unit. He says the Haematology Unit serves as a regional centre for the treatment of haematological malignancies, while patients from all over South Africa come here for stem cell therapy. “But lately, of concern is the substantial increase in the numbers of HIV-related malignancies and particularly Burkitt’s lymphoma and leukaemia,” says Professor Novitzky.

> We changed our treatment protocols to shorten the stay of patients in hospital and employed earlier high dose therapy and stem cell transplantation in a number of conditions, cutting lengthy stays in hospital. This led to a significant improvement in the overall survival of patients.

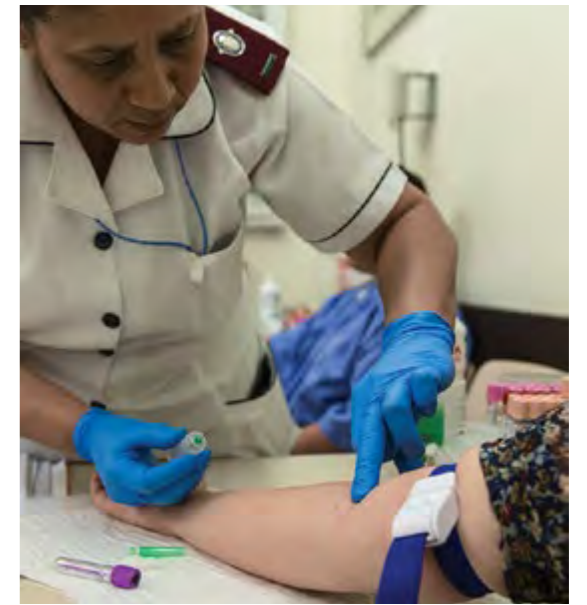


While the unit's workload has increased, the beds and allocated staff numbers seem to decrease, which has led to some innovations in treatment protocols. "We changed our treatment protocols to shorten the stay of patients in hospital and employed earlier high dose therapy and stem cell transplantation in a number of conditions, cutting lengthy stays in hospital. This led to a significant improvement in the overall survival of patients," says Professor Novitzky.

Other achievements have also been driven by necessity. One of the challenging issues in allogeneic stem cell transplantation remains graft vs host disease (GvHD), an immunological phenomenon. The unit developed a method of depleting T-cells in the transplant bag, so that the monoclonal antibody is not transferred to the patient, leading to optimal prevention of GvHD and minimal immunosuppression of the patient. In a dose cell response study, doctors were able to determine optimal antibody level, cell dose concentration to achieve maximum T-cell depletion without transferring the antibody in vivo.

But perhaps one of the most important successes of the unit has been the transformation of the transplantation programme from a research tool for highly selected patients to a therapeutic modality accessible to most patients with blood disorders who qualify for the treatment, regardless of their socioeconomic status.

"Indeed, in our unit, the outcomes of patients with aplastic anaemia are some of the best ever published, with 100% survival in a cohort of 32 consecutive patients studied," says Professor Novitzky. Moreover, depending on disease risk factors, the outcome of patients with haematological malignancies is also favourable with more than two-thirds surviving in the long term.



Sister Sharon Croy taking blood in the Haematology Clinic.

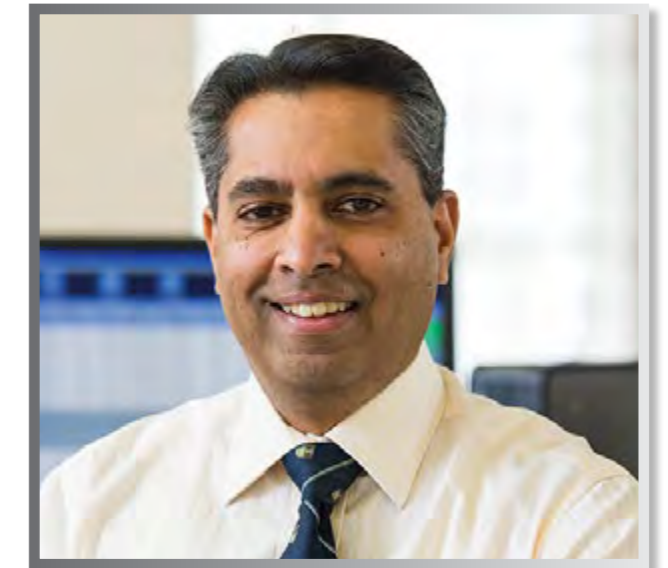
He points out that most of the programmes in South Africa are run by professionals who were trained in this department and using conditioning protocols designed at UCT.

Professor Novitzky admits that the greatest challenge remains HIV and the associated haematological problems. "South Africa has the highest burden of HIV/AIDS worldwide and the introduction of highly active antiretroviral therapy (HAART) has significantly reduced the incidence in HIV-associated cancers," says Professor Novitzky. But he is quick to point out that the same impact has not been seen for all HIV-associated cancers. Ongoing research is making great strides in understanding the disease pathology and potential types of cancer therapy treatments.

This means the unit is well placed to receive the steady increase of patients who – despite the roll-out of antiretroviral treatment to HIV-positive South African patients since 2004 – are continuing to appear at the doorstep of Groote Schuur Hospital.

DIVISION OF PULMONOLOGY

A powerful force in the fight against lung disease and TB



Professor
Keertan Dheda
Head of
Pulmonology

The Division of Pulmonology, or Respiratory Clinic as it is known, has experienced many seasons during the past 20 years – most of which have been presided over by Emeritus Professor Eric Bateman, who handed over the reins to Professor Keertan Dheda in 2013.

From small beginnings, the division has grown into the largest division of pulmonology in the country, surviving the downscaling of tertiary services and academic complexes in the 1990s. In 2000, a turning point was reached with the opening of the University of Cape Town Lung Institute.

A wholly-owned company belonging to UCT, the institute was established to extend both the clinical base for teaching and the capacity for clinical research by members of the Division of Pulmonology.



> From a global perspective, TB and pneumonia feature in the World Health Organisation's top ten killer list.



The Division of Pulmonology offers state-of-the-art lung function testing, including exercise-based testing.

"The last 13 years have seen impressive growth in this institution and realisation of its goal to increase both clinical capacity and research from the division," says Emeritus Professor Bateman.

In this time, five vibrant research groups have emerged, the institute now has more than 70 full-time researchers and is a platform for postgraduate research for members of the Division of Pulmonology. Publications from the Lung Institute have greatly boosted the outputs of the division and, with more than 40 papers a year, it is one of the leaders in research outputs within the Faculty of Health Sciences.

The division is now under the leadership of Professor Keertan Dheda, who also heads the Lung Infection and Immunity Unit (LIU), a fully accredited unit within UCT that comprises approximately 40 students and staff embedded within the Division of Pulmonology. The research focus is on lung infections and diseases of poverty, including tuberculosis (TB), pneumonia and HIV.

"TB and pneumonia are national priorities and TB is now the most common cause of death in South

Africa. There are highly resistant forms of TB that are untreatable and this has become a national and international health priority," says Professor Dheda.

"From a global perspective, TB and pneumonia feature in the World Health Organisation's top ten killer list," he says, proud that the LIU is also a WHO-associated African Network for Drugs and Diagnostics Innovation (ANDI) Centre of Excellence. Its work is funded by several international agencies including the Wellcome Trust, NIH, and the EDCTP (European and Developing Countries Clinical Trials Partnership). In recognition of this work, Professor Dheda has received several awards, including the 2010 International Union Against Tuberculosis and Lung Disease Scientific Award and some of the most prestigious scientific awards in the country, including the 2013 Medical Research Council (MRC) Gold Award, the 2014 Oppenheimer Fellowship and the 2014 National Science and Technology Forum (NSTF) BHP Billiton Research Award.

Professor Dheda and other members of the division serve on the editorial board of several prominent journals, including the *American Journal*



> The experience of the last decade has convinced me that research excellence and leadership will provide many of the answers that politicians and health service planners require to perform their work more effectively.

of Respiratory and Critical Care Medicine, Lancet Respiratory Medicine, and Nature Scientific Reports, among others.

Commenting on medical research in South Africa, Emeritus Professor Bateman says, "Research in South Africa is both exciting and challenging. But the multitude of good opportunities for research is limited by the poor funding from South African sources."

Fortunately, the Division of Pulmonology has had considerable success in competing for international grants, which have provided opportunities for postgraduate training. The Lung Institute budget, for example, has grown year-on-year to approximately R40 million per annum.

The resulting research has given the Lung Institute a reputation as an international leader in research therapies for asthma and chronic obstructive pulmonary disease, particularly in developing countries, and in research and implementation of methods for improving primary health care for chronic and infectious diseases in resource-poor settings.

The institute and the division have also been involved in important developments in new drugs for TB, in research on multi-drug resistant TB and extensively drug-resistant TB, in point-of-care diagnostics for TB, and in TB immunology and its interaction with smoking. Epidemiologic research has included studies of the burden of lung disease in South Africa, and detailed studies of chronic airways diseases arising from tuberculosis and HIV infection.

Emeritus Professor Bateman reflects on his years at the helm of the Division of Pulmonology: "The legacy is not necessarily in buildings and equipment, but rather in the quality of clinician scientists trained firstly as pulmonologists and then as scientists with a passion for addressing South African problems and finding practical solutions for improving care.



Emeritus Professor Eric Bateman, head: UCT Lung Institute, with Doctors Ruth Cornick and Sandy Picken from the Knowledge Translation Unit at the UCT Lung Institute who have formulated national guidelines, on how common diseases are managed in primary care.

Commenting on the state-of-the-art facilities offered by the Division of Pulmonology, Professor Dheda says, "The division offers a range of services and technologies that are at the time of writing unavailable in the private sector and in many hospitals, even in resource-rich settings. These include endobronchial ultrasound-guided biopsy of mediastinal glands, medical thoracoscopy, exercise physiology testing, a modern sleep medicine service, smoking cessation clinic and bronchial thermoplasty, a new radiofrequency-based treatment for severe asthma. The division is the only one in Africa offering this service." The division also co-provides a state of the art intensive care service. Through ups and downs, the Division of Pulmonology has always maintained a high standard, both in clinical services and in the Respiratory Intensive Care Unit under the direction of Dr. Richard Raine," says Emeritus Professor Bateman.



DIVISION OF NEUROLOGY

The leading neurology unit in sub-Saharan Africa



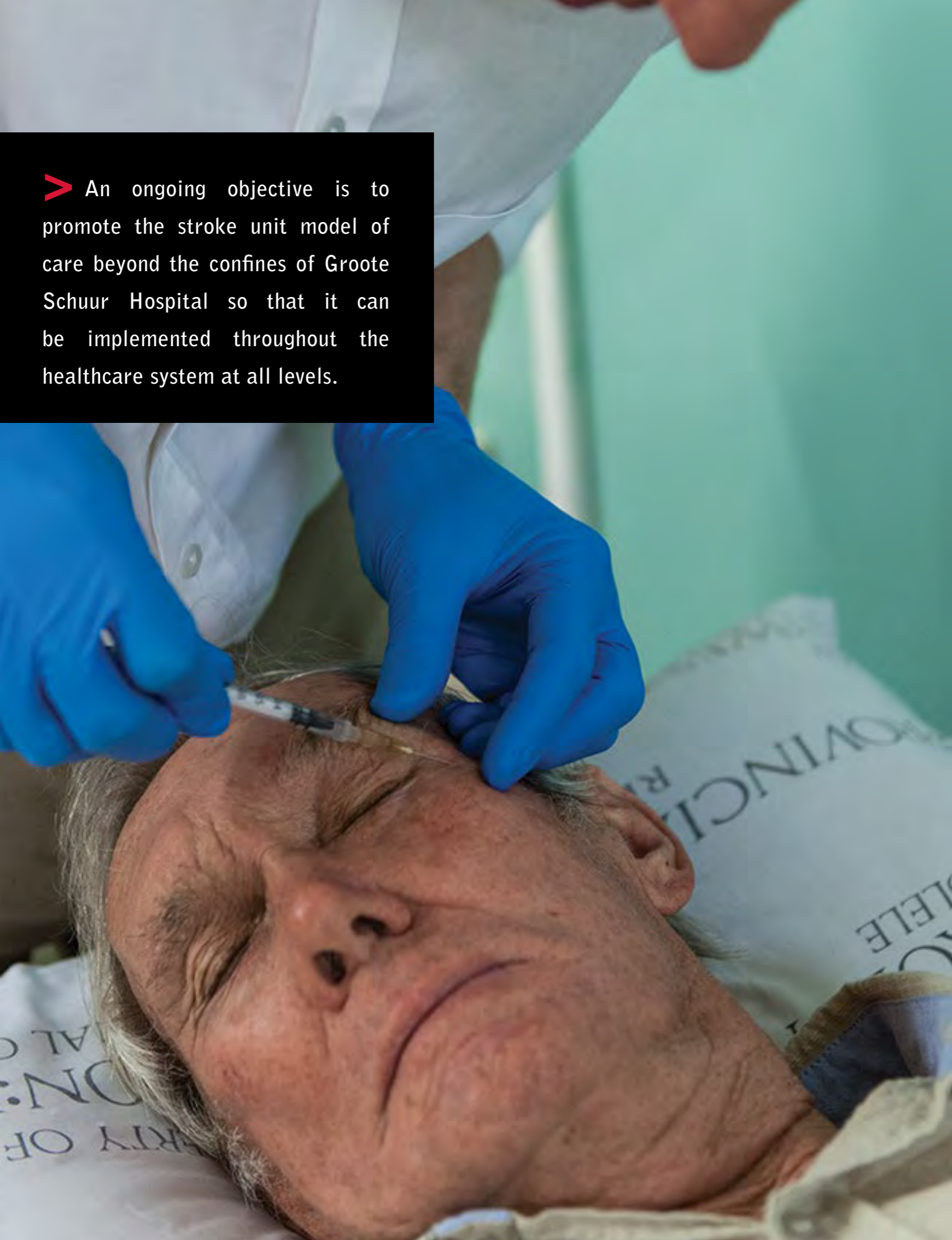
Professor Alan Bryer Head of Neurology

Professor Alan Bryer, Head of Neurology at Groote Schuur, will tell you that if you are unfortunate enough to have any neurological problems such as suffer a stroke, the best thing you could do would be to get yourself to Groote Schuur hospital.

“My colleagues in the neurology division based at Groote Schuur are among the most talented neurologists in the country, each with their own unique skill set and expertise,” says Professor Bryer. “This enables us to collectively look at creative and innovative ways of dealing with the challenges of improving our three platforms of activity, namely: providing the best possible clinical service, under- and postgraduate teaching, and research.”

Professor Bryer makes special mention of Doctor Eddy Lee Pan, who heads up the electrophysiology laboratory, Doctor Ross Tucker who has a special interest in epilepsy and Emeritus Professor Eric Bateman who leads research

> An ongoing objective is to promote the stroke unit model of care beyond the confines of Groote Schuur Hospital so that it can be implemented throughout the healthcare system at all levels.



and teaching in neuropathy and infectious disease, as well as Professor Jeannine Heckmann who established the first dedicated Myasthenia Gravis Clinic in South Africa and is considered the leading expert in this field. “She has conducted extensive clinical and laboratory-based research projects focusing on improving therapeutic strategies and increasing our understanding of the disease pathogenesis. She is the leader of our neuro-immunology and neuro-HIV research group and has successfully supervised several PhD and MSc (Medicine) research fellows.” says Professor Bryer.

As head of the division, Professor Bryer says that being able to attract and retain staff of the highest academic calibre has been a major achievement. “This enables us to provide excellent tertiary care to our patients with neurological conditions, but also to develop highly specialised quaternary clinics that are unique on the subcontinent.”

These clinics: the Stroke Unit; Neuro-HIV Clinic; Epilepsy Surgery Programme; Neurogenetics Clinic; Myasthenia Gravis Clinic; and Dystonia Clinic attract patients from far and wide. In addition, the centre’s in-house service has been extended to an outreach service to local hospitals such as New Somerset Hospital as well as periodic visits to the Eastern Cape.

Amongst these initiatives, Professor Bryer says that the one that he takes the most personal pride in is the stroke unit, which is the first and only comprehensive Stroke Unit in the public sector in sub-Saharan Africa. The unit has served as a model for stroke care in Southern Africa and has been involved in training staff from local hospitals and further afield including Worcester, George, Durban and Harare, Zimbabwe.

“An ongoing objective is to promote the stroke unit model of care beyond the confines of Groote Schuur Hospital so that it can be implemented



Ward-based patient activity to improve grip strength.

throughout the healthcare system at all levels,” he says. “One of the reasons that the unit’s model of care has not been widely implemented throughout our healthcare system has been the lack of adequately qualified personnel trained in stroke care. In conjunction with the Department of Health (DoH), we are therefore in the process of developing an effective training programme that can be used for in-service training in stroke care at all levels of the healthcare system in all provinces. This will extend our outreach capability across a much broader platform without being restricted to one or two centres.

“Our objective is to give effect to the national skills development strategy as part of the workplace skills plan. In addition to this effort there has been ongoing engagement with both policymakers and public



> Given the varied and unique skills of the staff within the unit, I am convinced that we can further enhance and establish our reputation as the leading Neurology Unit in sub-Saharan Africa.



Corien Theron, occupational therapist, assisting a patient to improve visuospatial skills.

advocacy organisations (such as the Heart and Stroke Foundation of South Africa) in order to improve stroke care and awareness widely in the country.”

Another highlight for the division has been the knowledge that the seminal work for Professor Bryer’s PhD on the spectrum and genetics of the spinocerebellar ataxias in South Africa has formed the basis for ongoing research projects in this field at both Master’s and PhD level at UCT and has also directly translated to improved clinical service by way of the implementation of a predictive testing service for these disorders that continues to be available at the Neurogenetics Clinic.

Looking forward, Professor Bryer says that the Neurology Unit at UCT will not miss a beat in continuing to provide the excellent generalised as

well as more highly specialised clinical services that are unique to the unit.

“We will ensure that the unit grows in strength in terms of research output relevant to local needs, and that it is regarded as a leader in innovative teaching methods that can be adapted and applied beyond the confines of our institution. Another objective is to foster a closer working relationship with the disciplines of neurosurgery, neuropsychology and psychiatry with a view to collaborative research activity and it is our goal that this initiative evolves into a formal neuroscience institute at our university.

“Given the varied and unique skills of the staff within the unit, I am convinced that we can further enhance and establish our reputation as the leading neurology unit in sub-Saharan Africa.”

DIVISION OF GASTRO- ENTEROLOGY

Dynamic teamwork powers the
Gastroenterology Division into the future



Professor
Sandie Thomson
Head of
Gastroenterology

The success of the Division of Gastroenterology can be attributed to the collective efforts of all of its team members – who work together like the well-oiled parts of a complex machine to achieve impressive results.

“We have a great team and I have plans to make them even greater! Then I want to get sacked as the manager!” jokes head of the division, Professor Sandie Thomson.

But he has reason to be proud of his team. As a surgeon heading up the medical gastroenterology division, his approach may have been considered less conventional. But he has seen to it that many changes were made in the division and that gastroenterology, hepatology and surgical gastroenterology liaisons have been reinforced.



> These activities and our experience with capsule endoscopy have been presented at national meetings, and we have received several awards for outstanding presentations.

“Some big developments have been the dedicated foregut service to complement its immensely strong hepatobiliary wing. An intestinal failure unit has also been established and these links form a great foundation on which to build,” says Professor Thomson.

He says efforts, in conjunction with the Division of Hepatology, have led to their subspecialty being considered for recognition by the Health Professions Council of South Africa (HPCSA). He mentions the accomplishments of team members, with some staff having developed Endoscopic UltraSound (EUS) to a state-of-the-art level in terms of pancreatic pathology.

“The next phase is developing the service for the luminal upper gastrointestinal (GI) cancers. This will allow us to further develop the endoscopic mucosal resection/dissection service where early cancers staged by EUS can be excised without formal surgical resection.”

In keeping with these developments in foregut pathology, the division has revitalised the Helicobacter dyspepsia research work with funding from Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) and another Discovery Foundation award to one of the senior registrars.

New equipment has revitalised key research projects set to make huge improvements to patients' lives. “These activities and our experience with capsule endoscopy have been presented at national meetings, and we have received several awards for outstanding presentations,” says Professor Thomson.

On the service side, the team has strengthened its equipment base to include colonoscopes and a donation of three gastroscopes from Storz. This has allowed the expansion of the colonoscopy service. To take the service delivery further forward the physical structure of the unit needs to be



Doctor Neliswa Gogela (senior registrar) in conversation with Professor Sandie Thomson.

redesigned. Concept plans have been formulated and Groote Schuur Hospital's management team has made it an official refurbishment project in the forthcoming year. These plans are integrally related to university faculty support for funding to develop the tele-education hub component. “Moving this project forward is to be one of my main focus areas,” says Professor Thomson.

But he notes that he has been concerned about having more of an impact in local communities. “Outreach has been neglected in the past and we have produced, through provincial structures, a document to develop endoscopy services in the metro,” he says. “The initial phase of this was the acquisition of equipment for Mitchell's Plain District Hospital and I am delighted to report that this service is up and running.”

Despite being the deputy editor of the *South African Journal of Surgery* and an Elected Fellow of the Royal College of Physicians of Edinburgh, Professor Thomson makes time to think ahead. “We have a responsibility to develop gastroenterology in Africa and several projects are under way in this regard.”

DIVISION OF INFECTIOUS DISEASES AND HIV MEDICINE

A key role player in the battle against HIV and TB



Professor
Marc Mendelson
Head of Infectious
Diseases and
HIV Medicine

The Division of Infectious Diseases plays a major role in the fight against HIV/AIDS and TB in the Western Cape, contributing significantly to research and helping to treat and educate poor communities about South Africa's biggest killer diseases.

“The division has grown substantially over the past few years and has come to include a weekly HIV clinic as well as outreach and support for surrounding hospitals,” says Head of Division, Professor Marc Mendelson.

The division has strong teaching capabilities and offers academic programmes for graduates and postgraduates, but it is in its research that it really shines. The Division of



> The clinical unit at Groote Schuur Hospital shares the research focus of HIV and TB, but also has broader interests in travel and tropical medicine research, as well as an increasing profile in antibiotic stewardship.



Professor Robert Wilkinson, Wellcome Trust Senior Research Fellow in the Institute of Infectious Diseases and Molecular Medicine and the Department of Medicine.



Professors Robin Wood and Linda-Gail Bekker of the Desmond Tutu HIV Centre.

Infectious Diseases has a prolific publication profile within the University of Cape Town, with one of the highest number of publications for any group within the institution.

Professor Mendelson says that this is thanks to the excellence of members of the division involved in full-time research, such as members of Professor Robin Wood and Linda-Gail Bekker's Desmond Tutu HIV Centre, Professor Robert Wilkinson's Mycobacterial Immunology Group and the work of Associate Professor Graeme Meintjes' many excellent studies.

"The clinical unit at Groote Schuur Hospital shares the research focus of HIV and TB, but also has broader interests in travel and tropical medicine research, as well as an increasing profile in antibiotic stewardship."

The division is home to the only GeoSentinel Travel Surveillance Network Site in Africa, a collaborative research project between the Centres for Disease Control in Atlanta and the International Society of Travel Medicine, and recent international publications have highlighted the high-profile research of this area.

All administration involving the division at Groote Schuur Hospital is undertaken by Professor Mendelson, who is also President of the Federation of Infectious Diseases Societies of Southern Africa. He also administers the GeoSentinel Network Site.

Despite the burden of duties, he remains excited by many aspects of his work. "Particularly rewarding is policy development for national government in infectious diseases, around strategic planning for non-HIV and non-TB infectious diseases and antimicrobial resistance." Other highlights include developing infectious diseases control at a national and regional level through his work with the Federation of Infectious Diseases Societies of Southern Africa (FIDSSA) and the national Department of Health, interacting with international colleagues through the GeoSentinel Travel Surveillance Network and working with bright, committed and enthusiastic infectious diseases subspecialist trainees and consultant colleagues.

One of the shining lights of the division is the Desmond Tutu HIV Foundation, one of the first



> Training seven infectious diseases subspecialists in six years and growing the unit from scratch to a functioning service, leading the development of infectious diseases in South Africa through FIDSSA and work with the national DOH has definitely been a highlight.



Professor Marc Mendelson conducting a ward round with a visitor (next to him), doctors Natalie Beylis (microbiologist), Sean Wasserman (senior registrar, fourth from left), Patryk Szymanski (medical registrar, fifth from left), Prudence Ive (senior registrar, sixth from left) and Sipho Dlamini (consultant, seated, facing).

public clinics to offer antiretroviral therapy to those living with HIV. Its activities include HIV prevention, treatment and training, as well as TB screening and management among some of the most vulnerable communities of the Western Cape. It operates symbiotically with the university's local field sites in the Nyanga and Masiphumelele areas of Cape Town.

Professor Mendelson says changing attitudes of healthcare professionals towards the subspecialty of infectious diseases (ID) and more recently surrounding the need for rational antimicrobial stewardship and proper infection prevention control is a big challenge.

The other significant challenge is the slow pace of change to engender staffing norms that are appropriate for the burden of disease that infections cause in South Africa. This hampers the opportunities for training and placement of trained ID physicians in secondary level and strategic district level hospitals throughout South Africa.

Outreach to clinics has also become an important aspect of the division's work. It contributes to clinical service at two sites in Khayelitsha, with specialists

performing consultations, attending ward rounds and helping specifically with HIV-TB assessments.

"Considering that 80 to 90% of young adults in Khayelitsha are infected by TB, there is definitely a need for TB preventive therapy which, when added to antiretroviral therapy, reduces the risk of TB by 37%," says Professor Mendelson.

"Training seven ID subspecialists in six years and growing the unit from scratch to a functioning service, leading the development of infectious diseases in South Africa through FIDSSA and work with the national DoH has definitely been a highlight," he says.

Looking ahead, he hopes to work on furthering the development of the ID service at Groote Schuur and UCT-affiliated hospitals through the rapid access ID service and the HIV rapid assessment unit. He also wants to expand antibiotic stewardship practice nationally and boost the training of more ID subspecialists so that high quality ID service is readily available throughout the country, rather than focused in the Western Cape, Gauteng and KwaZulu-Natal, and expansion of research and teaching activities of the ID clinical unit.

DIVISION OF GERIATRIC MEDICINE

Caring for the growing numbers of older persons in the nation



Professor Marc
Combrinck
Head of Geriatric
Medicine

Although it doesn't always get the focus it deserves, geriatric medicine, a subspecialty within internal medicine concerned with illness in older adults, is a crucial part of a comprehensive healthcare service.

“The greatest increase in the numbers of older people in the world is occurring in lower to middle income countries; old age is no longer the exclusive domain of the wealthy,” says Professor Marc Combrinck, head of the division. “Life expectancies at birth are rising again and the Western Cape has the highest number of older persons highest number of older persons in the country.”

Professor Combrinck says that the division operates a mainly outpatient-based clinical service with two weekly geriatric medicine clinics as well as a weekly Memory

INSTITUTE OF AGEING IN AFRICA

L51-15.5

RESOURCE
CENTRE

> Life expectancies at birth are rising again and the Western Cape has the highest number of older persons in the country.



Professor Marc Combrinck and Doctor Sebastiana Kalula discuss a case in the Resource Room of the Albertina and Walter Sisulu Institute of Ageing in Africa.

Clinic – the first of its kind in South Africa. The latter is run jointly with the Department of Psychiatry and the Albertina and Walter Sisulu Institute of Ageing in Africa (IAA) and provides a comprehensive assessment of all newly referred patients by a team comprising geriatric physicians, psychiatrists, a neurologist and neuropsychologists.

“The Memory Clinic has provided opportunities for sustained and improved health care, education and training, and collaborative research. It has also enabled linkages with national and community organisations such as Alzheimer’s South Africa and Dementia South Africa,” says Doctor Sebastian Kalula, Director of the IAA.

Professor Combrinck agrees that one of the most exciting aspects of geriatric care is that it requires a broad approach that involves not just the clinical aspects of disease in old age, but also its preventative and social aspects. “Most consultations are, in fact, family consultations. Our specific skills are in having to deal with multiple co-morbidities, non-specific presentations of illness,

the challenges of frailty and the requirements for social support,” he says.

In addition to its clinic work, the division also has in-patient beds and shares on-call and consultant duties in the Stroke Unit with the Division of Neurology, and provides a general consultative service in geriatric medicine to the hospital.

Professor Combrinck, who also holds a National Research Foundation Chair in Clinical Neurosciences Research, says that one of the highlights of his work in the division so far has been the initiation of a research programme in clinical geriatric neurosciences. “I have worked closely with colleagues in neurology as well as with Associate Professor John Joska of the Department of Psychiatry on the clinical problems of stroke in HIV infection, HIV-associated cognitive disorders, Alzheimer’s disease and motor neuron disease. For the first time in Geriatric Medicine we have supervised and graduated research students – two PhDs and six MSc’s.”



> Ageing is not a priority issue for government and other formal funding bodies. A lack of support for this area leads to human and financial constraints.



From left to right: *The Geriatrics team – Sonja Hendricks (secretary), Professor Marc Combrinck, Doctor Linda de Villiers (geriatrician), and Doctor Sebastiana Kalula (geriatrician).*

He adds that a greater focus on a comprehensive teaching programme in Geriatric Medicine for undergraduate medical students is next on the list of priorities.

“What I would desperately like to see is the re-establishment of a subspecialist training post in geriatric medicine for general physicians. This is critical if the specialty is going to survive; without it, we can have no succession plans.

Doctor Kalula agrees that an investment in the future of the division and the IAA is a priority, and that part of this will depend on their ability to raise the profile of geriatric medicine in order to attract more funding.

“Ageing is not a priority issue for government and other formal funding bodies. A lack of support for this area leads to human and financial constraints,” says Doctor Kalula.

The need is pressing. As clinic patient numbers increase, the resources of the division are coming

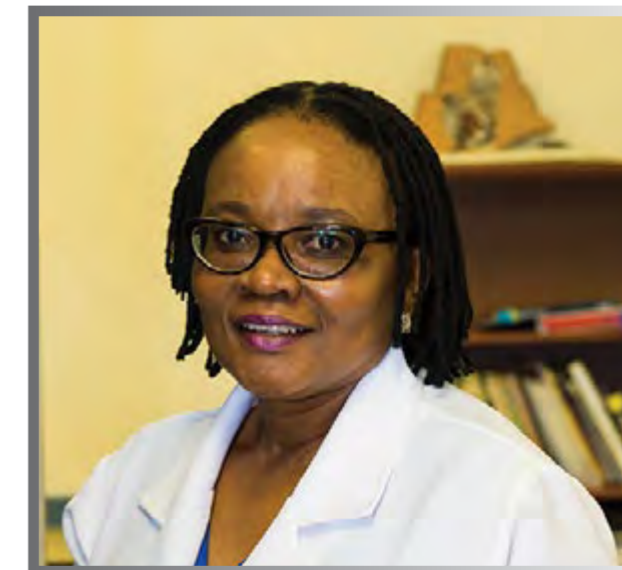
under increasing strain. “A major task will be to provide training to primary care physicians in the diagnosis and management of geriatric conditions. We have already begun this process, in collaboration with the South African Geriatric Society, by introducing a diploma course in geriatric medicine for general practitioners and primary care health workers in 2014,” says Professor Combrinck. Strengthening the necessary social services and backing from other allied health care professions is also a key drive.

“Clearly we have a larger role here in the advocacy and promotion of the rights of older persons. I should like to see comprehensive geriatric clinical care as part of a national health service that is based primarily on the needs of ill citizens and not their ability to pay. It should include all older South Africans, not just the well-connected middle classes, but the hundreds of thousands of older working-class citizens who have spent their lives building the nation state.”



DIVISION OF DERMATOLOGY

Winning the war on skin conditions



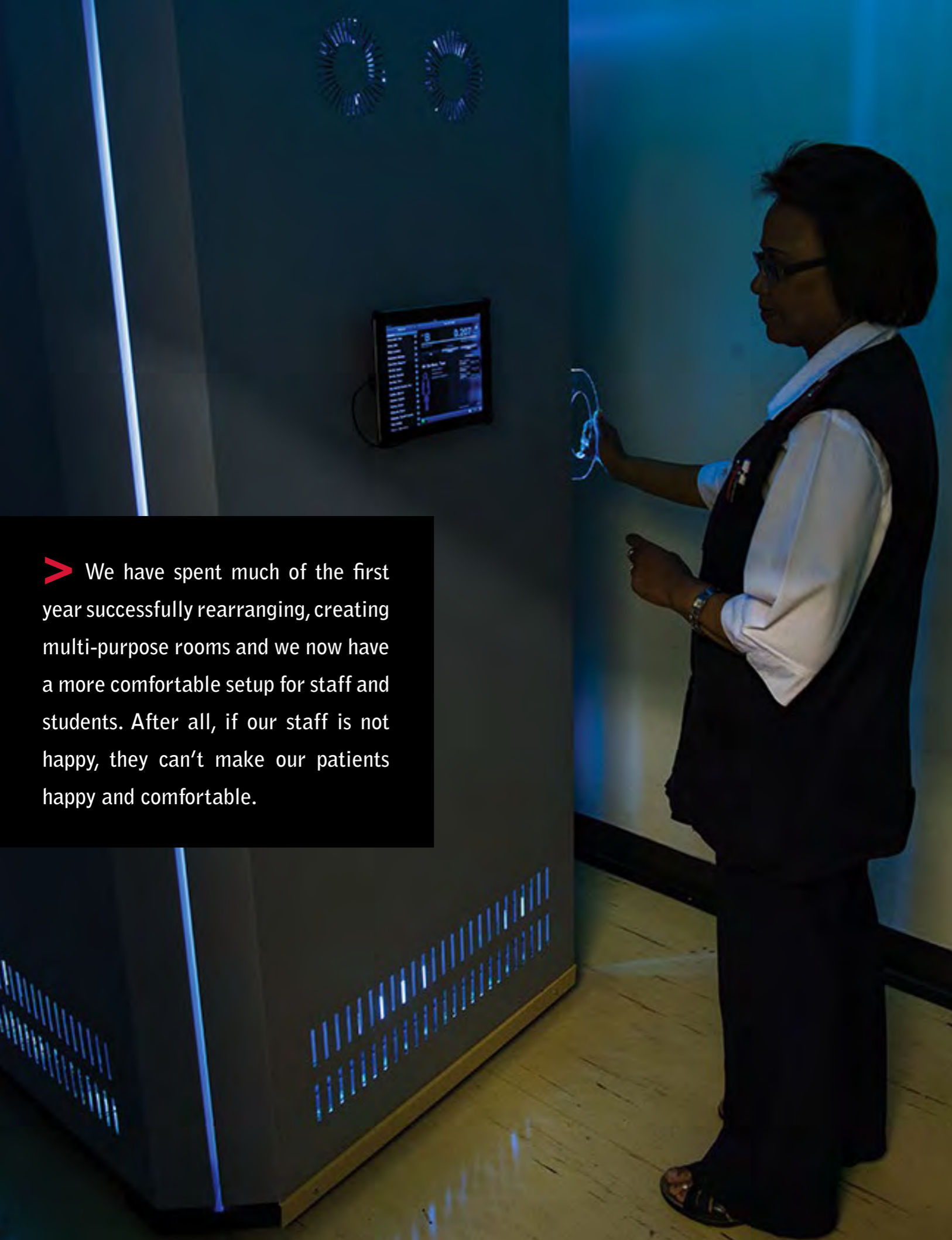
Professor Nonhlanhla Khumalo Head of Dermatology

From the disfiguring to the life threatening, the Division of Dermatology in the Department of Medicine is dedicated to improving patient care, as well as researching ways to treat and alleviate a variety of skin conditions.

Professor Khumalo has been at the helm of the division for the past 14 months. She says the most exciting part of her job is its variety, and says “no day is the same.”

“Looking after patients, teaching, supervising and collaborating in research projects with scientists and clinicians is what we do and this adds variety to each day,” she says.

The division offers clinical management of a variety of acute and chronic skin conditions. “We have general and specialist (phototherapy, skin tumour, hair, infectious disease: occupational) adult and paediatric outpatient clinics. Our 18-bed ward allows for the management of



> We have spent much of the first year successfully rearranging, creating multi-purpose rooms and we now have a more comfortable setup for staff and students. After all, if our staff is not happy, they can't make our patients happy and comfortable.



The Dermatology team, from left to right: Sister Pat Kelly, Cecily Heunis, Doctor Laduma Ngwanya, Vanessa Strydom, Doctor Sue Jessop, Professor Nonhlanhla Khumalo, Doctor Ranks Lehloeny, Sister Lynne Kennedy, and Nurse Judy Esterhuizen.

severely disfiguring dermatoses (such as extensive psoriasis and eczema) as well as life threatening drug reactions.”

Professor Khumalo's division also boasts an in-house dermatology laser unit, the only one in a public facility in South Africa, a phototherapy and a daycare unit, which treats around 60 patients a week.

While there have been a number of highlights as unit head, Khumalo says establishing the Hair Testing and Skin Toxicology Laboratory stands out. “This is an initial growth spurt in our aim to increase the basic science component to the work we do,” she says.

But running this division has its own set of challenges and according to Professor Khumalo, staff cited work-space as one of their biggest hurdles. “We spent much of the first year successfully rearranging space and we now have a more comfortable setup for both staff and students. After all, happy staff leads to happy patients,” she says.

When asked about her vision for the future, Professor Khumalo adds, “We already have a strong culture of world class clinical practice. Strengthening the basic sciences is achievable because our team includes young enthusiastic clinician scientists.”



DIVISION OF HEPATOLOGY

Paving the way for hepatologists in Africa



Professor Wendy Spearman Head of Hepatology

Over the past 20 years, both the burden of liver disease and the complexity of available treatment modalities have increased significantly – but the Division of Hepatology has risen to the challenge by creating a state-of-the-art department that is taken seriously not only in Africa but also in Europe and the US.

For Professor Wendy Spearman, Head of Hepatology, it is no small feat that the division has the only active porphyria service on the African continent with a combined diagnostic, therapeutic and research unit.

“Our team, together with colleagues from the USA and Wales were responsible for discovering the R59W gene defect responsible for variegate porphyria in South Africa.” She says new patients presenting with porphyria are offered a full biochemical diagnostic evaluation as well as genomic assessment.



Doctors Henry Hairwadzi (left) and Mashiko Setshedi (right) at work in the Liver Laboratory.

Professor Spearman is also proud of the fact that the division is the only place in South Africa to provide a dedicated liver service focusing on hepatology and liver transplantation in the public sector.

“The Liver Unit acts as a national referral centre for assessment of patients with both acute and chronic liver disease as well as for liver transplantation, in addition to providing a full-time telephonic consulting service on the management of acute and chronic liver disease.”

Professor Spearman stresses the importance of having a holistic approach to the management of liver

disease. “The clinical profile of patients admitted with liver disease has changed with HIV and associated liver disease and drug-induced liver injuries increasing,” she says. “Consequently, the clinical demand for specialised liver services has increased.”

New developments in the field include the advancements in treatment modalities including immunosuppression and antivirals, which have significantly changed the outcomes of many liver diseases such as autoimmune hepatitis and viral hepatitis, particularly if patients are referred and diagnosed early. Chronic hepatitis B can now be controlled with vaccination and is



Members of the Division of Hepatology: Back row, from left to right: Professor Peter Meissner, Fozia Francis, Doctor Mark Sonderup, Doctor Anne Corrigan, and Doctor Mashiko Setshedi. Front row, from left to right: Brandon Davidson, Doctor Neliswa Gogela, Professor Wendy Spearman, and Doctor Henry Hairwadzi.

potentially eradicable and chronic hepatitis C is potentially curable.

But Professor Spearman points out, “Many challenges still exist in terms of access to treatment, both in the state and private sector. The cost of newer curative antiviral treatment for chronic hepatitis C is unaffordable for most South Africans.”

She takes courage, however, from the many good things achieved by her division; like the first liver transplant, combined liver-kidney transplant and living-related liver transplant in Africa, all of which were undertaken by the division’s transplant surgeons.

“Our long-term survival figures for both adult and paediatric liver transplantation are excellent (overall 10-year survival figures greater than 65%), with a number of recipients surviving more than 20 years.”

Although transplantation is established as the treatment of choice for end-stage liver disease, the timeous access to donors, particularly for patients presenting with fulminant or subfulminant liver failure, has become increasingly difficult.

She also notes that the Liver Unit has successfully tested a novel bioartificial liver (human liver-derived cell line) developed by the University College of London Institute for Liver and Digestive Health, in an acute ischaemic liver failure animal model. The next phase, which is supported by a Wellcome Trust Grant, involves testing the clinical prototype in the animal model before embarking on clinical studies.

In order to address the need for trained hepatologists, an MPhil in Hepatology and Liver Transplantation has been registered and the HPCSA has approved subspecialty training in Hepatology.

It is important to think ahead, says Professor Spearman. “We are also in the process of establishing a one-year diploma programme in Clinical Hepatology, which is aimed at qualified medical practitioners both from South Africa as well as from other countries within Africa, enabling them to diagnose and initiate appropriate management and referral of patients with acute and chronic liver diseases in resource limited areas.”

DIVISION OF RHEUMATOLOGY

Aiming for excellence in teaching, research
and service delivery



Professor
Asgar Ali Kalla
Head of Rheumatology

A culture of holistic care for patients with rheumatic disease is encouraged in the Division of Rheumatology, with an emphasis on early diagnosis, a curiosity for identifying unusual aspects of clinical presentation, the hunger to pursue questions to their conclusion and a desire to learn more about disease mechanisms being key.

“The Division of Rheumatology has always aimed at excellence in the provision of service, teaching and training as well as research,” says the head of department Professor Asgar Ali Kalla. “Over the past five years or so, we have successfully managed to reduce the referral time for outpatients to our clinics so that new patients with systemic lupus erythematosus (SLE) and rheumatoid arthritis (RA) can be seen within two to four weeks after seeing a doctor at a peripheral clinic.”



> The major areas of research interest within the division relates to DMARD (disease modifying anti-rheumatic drug) therapy in rheumatoid arthritis, newer therapies in systemic lupus erythematosus and psoriatic arthritis as well as prevention of progression of osteoarthritis.



Front row, from left to right: Nurse Francis Scheepers, Sister Margaret Phillips, Professor Asgar Kalla, Sister Zylvia Pypers, Doctor Trevor Mnguni, Doctor Wesaal Latief, Sister Zuleikha Patel and Sister Ida Top. Backrow, from left to right: Sister Gwen Heydenrych, Sister Joyce Daggert, Melanie Burger, Doctor Nicky Brice, Doctor Lawrence Owino, Doctor Ntsika Nqeketo, Doctor Alan Tooke, Doctor Nur Abrahams and Doctor JR Vermaak.

Professor Kalla says, “The division is world-renowned for its teaching and training activities. I have been involved with the International League Against Rheumatism (ILAR) teaching portfolio and am also a member of the teaching portfolio of the African League Against Rheumatism,” says Professor Kalla, who takes great pride in his team’s publications in reputable journals and every international conference presentation.

Professor Kalla is currently on the Editorial Board of *Clinical Rheumatology*, the ILAR journal and is Editor-in-Chief of the AFLAR *Journal of Rheumatology*. He is also an ex-president of the South African Rheumatism and Arthritis Association (SARAA), a member of the National Action Network (NAN) for the Bone and Joint Decade (BJD) and served as General Secretary for AFLAR.

The major areas of research interest within the division relates to DMARD (disease modifying anti-rheumatic drug) therapy in rheumatoid arthritis, newer therapies in systemic lupus erythematosus and psoriatic arthritis as well as prevention of progression of osteoarthritis.

“The most exciting thing about working in rheumatology is watching young students and doctors develop proficiency in evaluating musculoskeletal problems. Unfortunately, the musculoskeletal component is neglected in the general medical training and it is essential for registrars and medical officers to have some rotation through rheumatology as part of their overall skills development,” says Professor Kalla.

“It is fascinating to see the evolution of senior registrars over the course of their two years from totally unfamiliar to extremely proficient. Many trainees only appreciate the enormity of the research potential in rheumatology towards the end of their training.

The most challenging aspect of working in rheumatology is the unavailability of certain medications for special needs in patients with rheumatoid arthritis,” reveals Professor Kalla. “The legacy that I would like to leave behind is one of collegiality, approachability and friendliness, combined with excellence in teaching, research and service delivery.”

ENDOCRINOLOGY AND DIABETES MEDICINE

A vibrant division committed to caring for people with endocrine conditions



Professor
Naomi Levitt
Head of Endocrinology
and Diabetes
Medicine Division

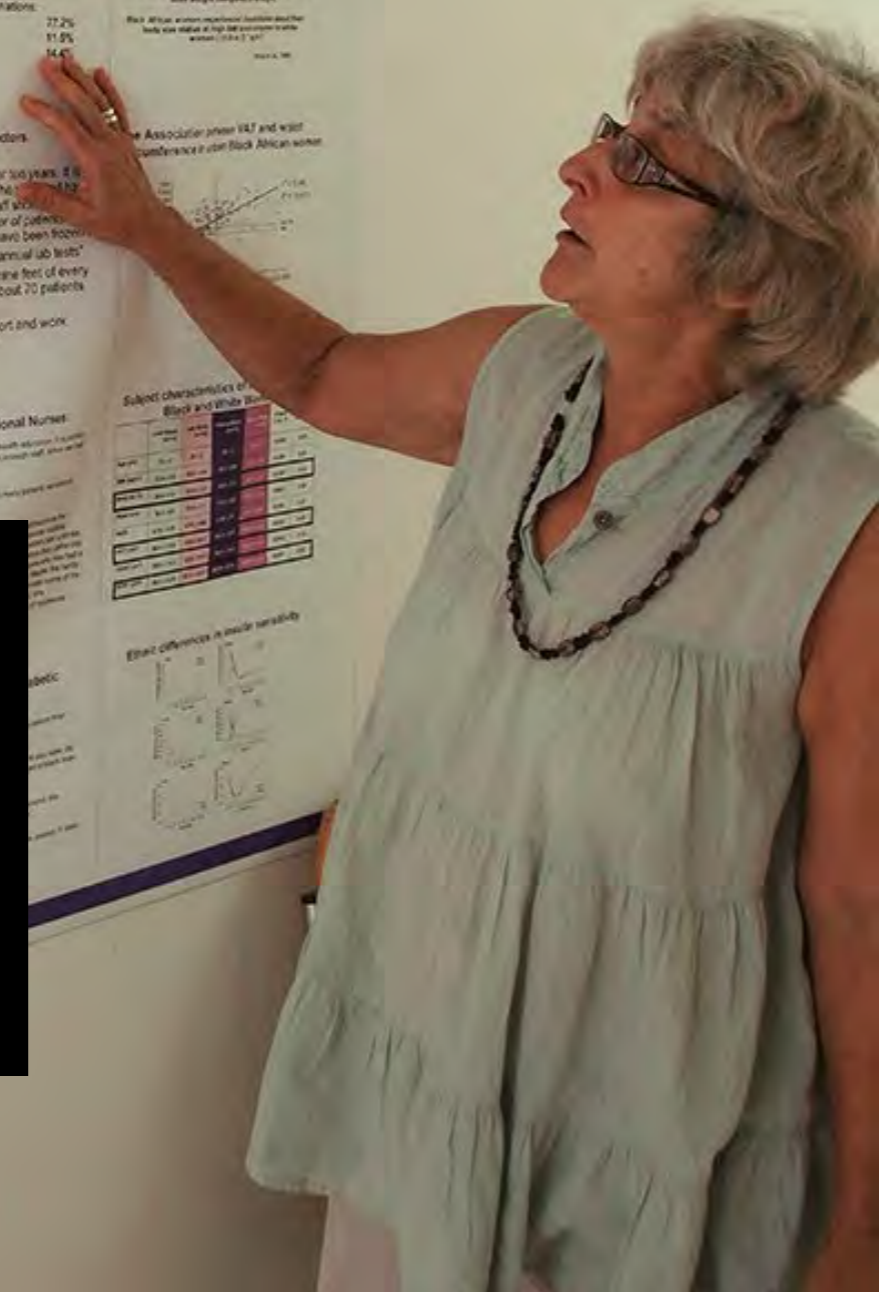
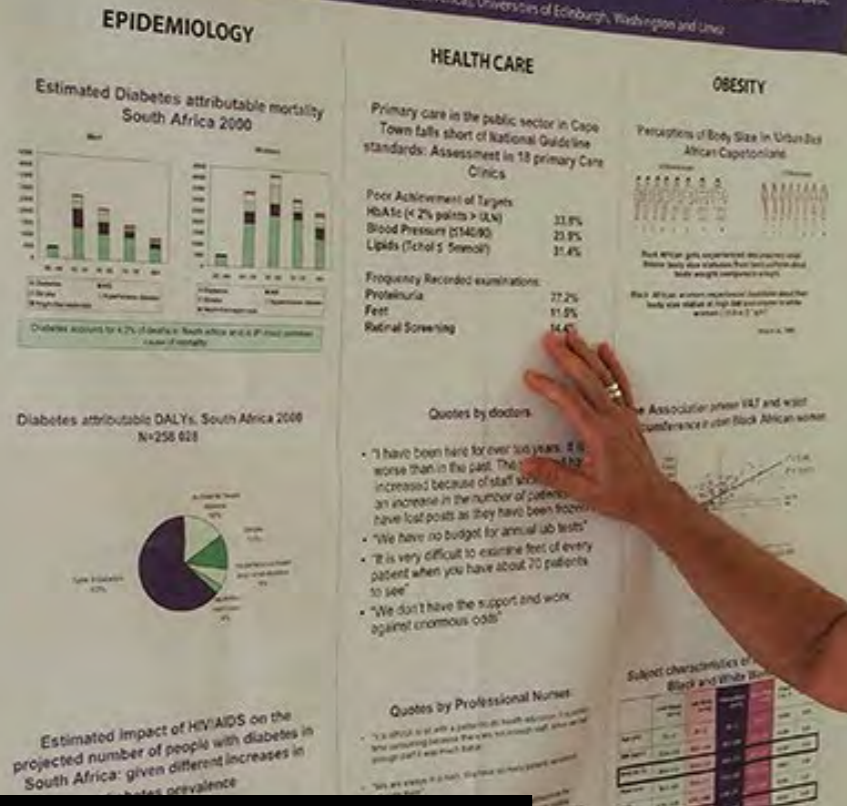
The Division of Endocrinology is unique in South Africa in that it runs the only clinic in South Africa offering comprehensive care to transgender patients. But the services of this small division extend well beyond this niche area to offer vital services to patients with a host of endocrinal disorders such as thyroid dysfunction and diabetes – as well as being recognised as the preferred centre for training for medical professionals in this area in Africa.

The division has undergone vast improvements over the past 10 years. “We have set out to make life easier for patients by introducing new measures,

RESEARCH IN UNDERSERVED COMMUNITIES IN SOUTH AFRICA: SELECTED EXAMPLES

Dinky (NS) Levitt

Epidemiology: Debbie Bradshaw, Rob Dornington, Vicki Lambert, Krista Stryn, Rosanne Norman
 Health Care: Krista Steyn, Aodhe Daniels, Jean Fourie, Nomonde Gwebu, Maya Patel, Cad Lombard, Monica Zwanenburg
 Obesity: Julia Goedecke, Vicky Lambert, Malcolm Collins, Jonathan Seck, Brian Walker, Tony Dhlomo, Courtney Jennings, Jodene Lohrbeck, Steve Kahn, Zandile Maza
 University of Cape Town, MRC (South Africa), Universities of Edinburgh, Washington and Lincoln



> I would like my legacy to be a vibrant division that is committed to and recognised for its role in improving the care for people with endocrine conditions in our community, while conducting relevant research and training the next generation of clinicians and researchers.



Doctor Ian Ross, consultant physician and endocrinologist.

like changing clinic times to ensure that patients can do biochemical tests or have blood drawn, visit the clinic and receive medication on the same day,” says head of division, Professor Naomi Levitt.

New multidisciplinary clinics have also been established. “There is, for instance, the thyroid cancer unit. It is the only unit in the Western Cape and receives referrals from the public and private sectors,” says Professor Levitt. Other clinics have been initiated for neuroendocrine, as well as radiation oncology, endocrine surgery, nuclear medicine and endocrine involvement. The transgender clinic seeks to attend to the clinical needs of patients wishing to undergo gender reassignment and is currently the only clinic in South Africa that offers comprehensive care to these patients – with psychiatry, plastic surgery and other endocrinology and psychology services available for patients.

Professor Levitt has served as president of Diabetes South Africa, established an Addison’s disease support group and has helped bring about a Klinefelter support group. She has served on national regional and international guideline committees and has contributed to the prescribed minimum benefit guideline for endocrinology, used by medical aid organisations as a standard of care.

The division also focuses on academic training by introducing endocrine case-based tutorials for the fourth year medical students and there is a sizeable portion of PhD students in the division. UCT is viewed as a preferred centre for training for candidates from the rest of Africa.

The research portfolio and output have expanded substantially – the division collaborates with many researchers internationally and nationally. “The birth of the Chronic Disease Initiative for Africa (CDIA), a research collaboration between several institutions in the Western Cape and beyond that is seeking to

develop and evaluate models for chronic disease care and prevention of their risk factor, has been particularly exciting,” notes Professor Levitt.

Specific niche areas of research are diabetes epidemiology, Addison’s disease, thyroid dysfunction, metabolic complications of HIV and AIDS, interaction between chronic infectious and non-communicable diseases (NCD) and developing and testing primary models models of care for people with NCD.

“It is difficult to select the most exciting thing that I do, as there are exciting aspects to all of the diverse elements of my work. But the least exciting is definitely administration,” jokes Professor Levitt.

She says from a training point of view, the teaching of budding endocrinologists and researchers – seeing them develop and grow into confident practitioners within their area of engagement is a definite highlight.

Professor Levitt says that the most challenging thing that she does is juggling the diversity of the work and attempting to meet all challenges.

“I would like my legacy to be a vibrant division that is committed to and recognised for its role in improving the care for people with endocrine conditions in our community, while conducting relevant research and training the next generation of clinicians and researchers.”



DEPARTMENTS OF
**ADMINISTRATION
AND FINANCE,
NURSING, AND
GROOTE SCHUUR
CLINICAL
DIRECTORATE**

Keeping the wheels turning



Lorraine Wakefield
Manager of
Administration in the
Department of Medicine

Behind the scenes of Africa's top Department of Medicine is a formidable team of people working to keep things running smoothly.

■ **Administration and Finance**

Lorraine Wakefield has been the Manager of Administration in the Department of Medicine for more than a decade. Joining as an Administrative Assistant back in 2000, she has played a key role in implementing new systems and processes for the department to get it into the shape it is in today.

"At first glance, there seemed to be no notable system for completing tasks. Records were typed on cards for students in the department and there was a very basic filing system," she remembers. "UCT had just introduced a new computerised finance system, which was not easily accepted by the person in charge of finance and who still chose to record all financial transactions in books.

“I realised I had to institute some very drastic changes in order to do away with old methods, encourage staff to become more computer orientated and strive to create an efficient service for a department that was growing in leaps and bounds.”

In 2006, when the new Head of Department was appointed, the department engaged in an administration review process to review the tasks of all administrative staff. As a result, a dedicated Human Resource Administrator and a full finance team were recruited. A new Professor of Medicine was appointed in 2007, who is responsible for the undergraduate and postgraduate education programmes in the department.

Responsible for all tasks, from hiring staff and motivating for salary increases and new posts where necessary, to ensure that key functions run smoothly, Wakefield also manages medical officer, registrar and supernumerary appointments in the department as well as keeping records and monitoring the wellbeing of these staff members for as long as they remain employed. She says that she loves to establish relationships, engage with staff members and keep track of their lives on a personal and working level.

“Of all the places I have worked throughout my lifetime, the Department of Medicine has been the most exciting, challenging and truly worthwhile learning experience,” she says.

A similar overhaul in financial processes and procedures for the department has been a crucial part of overall administrative improvements.

“The Department of Medicine is the biggest department in the Faculty of Health Sciences. We have the biggest general operating budget (GOB), Department of Higher Education (DoHET) and training grant and research component. Trying to get processes and systems in place were the initial challenges when I started in the

Department,” says Rukshana Champion, Principal Finance Officer.

During her time with the department, Champion has had to steer it through several financial hurdles, including the implementation of the new Intellectual Property Act in 2011, which impacted on new funding and created a new dimension with regards to costing, and the Value Added Tax apportionment ruling implemented in 2012. The latter had to be explained to academics and implemented within the department. And she expects that there will be more challenges to come.

“I have seen the department grow from R37 million in research income five years ago to R66 million in 2013. This excludes the GOB and DoHET grant. This alone testifies to the enormous growth in the department and therefore we need to move towards more system-driven processes to sustain and improve the level of service and cope with the demand for financial support,” she says.

“I believe I have planted the seed for a sustainable financial support service, provided that the necessary systems are put in place by the faculty to ensure supply meets the demand.”

■ Nursing

Maureen Ross, Head of Nursing at Groote Schuur, has been involved with the department for even longer than Mrs Wakefield and she has quite a story to tell.

“My first encounter with the Department of Medicine was in 1978. I was allocated as the sister in charge of a thirty-six-bed medical Ward F11. This was the so-called Coloured medical ward and the White ward, with 44 beds, was adjacent. Despite having only 36 beds, Ward F11 would regularly admit up to 48 patients on their



The members of the administration and finance hub are:
 First row: Zanele Magwa, Leslene Stott, Shameema Witbooi and Zameka Ndzotyana.
 Second row: Faiza Pearce, Monique Manuel, William Kayser and Blanche Hess.
 Third row: Tracey Fourie, Siphon Mankayi, Sharon Wakefield and Rukshana Champion.
 Fourth row: Liziwe Figlan.

intake days. The additional patients had to be nursed on camp beds. The irony of it all was that the adjacent Ward F1 had 44 beds, but their bed occupancy was 43%.

As a result of some lobbying, Ross and her head of department, together with the matron, Hamman, were able to get the hospital to act for change and swap the two wards around. “What a revelation!”

And was not to be the only one. Ross says that the department has always been a place where new ideas and innovations are given the space to thrive.

“One of the most exciting innovations was the creation of a Medical Admission Ward. Again, the Department of Medicine initiated this as a first within Groote Schuur Hospital,” she says. “This system allows us to visit the admission ward post-intake,



Maureen Ross, Head of Nursing at Groote Schuur hospital.

make contact with patients and identify their medical and nursing needs so that by the time they are transferred to their ward, all necessary equipment is available, which enables a smooth transition.”

Improving clinical services is at the heart of what Ross and her team strive to do. “As nurses, our core business is to ensure quality nursing care among our cosmopolitan rainbow nation.”

A big part of this, she says, is to ensure a capacitated workforce that is competent, professional and well trained. On an annual basis, nurses are afforded the opportunity to pursue both basic and post-basic training courses that relate to the daily execution of care modalities. Of course, attrition within nursing remains a challenge, which is why this investment in staff education and training is critical.



Doctor Bernadette Eick, Medical Manager for Medicine (2011 to 2013).

With regard to education, she says that it is heartening to see a greater emphasis on nursing research. “Twenty years ago we had only two registered nurses who had master’s degrees in nursing; today we have more than 20 who have gained this degree.”

Although not all nurses trained can find work at Groote Schuur, a situation that Ross says is a challenge, she feels that working at the hospital is a huge privilege. “The fact that our hospital is world renowned, and affiliated to one of the best universities, is a key part of what makes working here worthwhile. It is clear that the role of the nurse is especially valued within the Department of Medicine and this in itself contributes to a sense of identity within the multidisciplinary team.”



Monday morning report: Maureen Ross meeting with senior nursing managers.

Over the past few years, many nurses have been afforded exposure to the international arena by attending congresses, symposia and conferences, which further makes it a rewarding experience.

Nevertheless, the primary highlight in any nurse’s career is the situation where patients are admitted in critically ill conditions, but who recover and are able to be discharged back into their community.

“The motto for nursing, which I would like to leave as part of my legacy is: “Do it right, from the start.” This motto has a double meaning – to do things immediately and secondly, to do things correctly. The aim is also to ensure that as a division within this world-renowned hospital, we need to strive continually for the ‘best to get better’ to the extent that nurses are recognised as champions within the multidisciplinary team.”

■ Clinical Directorate

Doctor Bernadette Eick has been the medical superintendent responsible for the Department of Medicine since 2011. The employment of staff

and funding of medical services and facilities of the teaching hospital are part of her daily work.

“I believe we have been able to build foundations for a more focused and combined way of taking the services forward. We have been able to open more beds to cope with the patient load; we have re-introduced the Firm System and are working on having more meaningful information available to manage the service,” Doctor Eick says.

She is committed to improving patient care and outcomes as a cohesive team of clinicians and management, harnessing and exploiting each other’s strength to the sole benefit of the patient and in support of the staff. “Groote Schuur Hospital wants to be responsive to the requirements of the service and the clinicians and in support of the teaching and research needs, in line with our motto – ‘We serve’. As a manager, I would like to be remembered for providing solutions and support within the given framework of policies and resources.”

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The Department of Medicine owes a huge debt of gratitude to the many donors and funders who have invested in our work and our future. We would like to thank them here.

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Consultants and registrars attending the end-of-year function, Two Oceans Aquarium, Cape Town, 8 December 2013.





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