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DEAN'S DIVISION



I HEALTH SCIENCES EDUCATION

he division is instrumental in educational renewal, academic support and development in the faculty and plays a decisive role in the provision of perspectives on Health Sciences Education.

In 2017, the academic activities of the Division of Health Sciences Education focused on staff development, the Health Professions Education (HPE) Programme, student support, student development and research.

Staff development and teaching support in the faculty are priority tasks in the division, and 18 academic staff development sessions were presented during 2017, which included the annual course for newly appointed lecturers and workshops and/or seminars on student feedback, debriefing, clinical assessment, quality assurance, and professionalism, interprofessional education in simulation and student academic support and development.

Staff members were module leaders for four postgraduate modules in the HPE programme (HPEI7905; HPEA7905; HPER7905; HPEC7905) with a total student number of 22 PhD candidates, 6 research Master's candidates and 7 structured Master's candidates during 2017. During 2017, 9 students completed their studies in the Master's and PhD programmes.

The research activities revolved mainly around individual research projects of staff members and postgraduate study guidance of Masters' and Doctoral students. The division presented 9 papers/posters at national and international conferences and six articles were accepted for

publication in peer-reviewed journals.

During 2018 the division plans to focus on staff development and support and specifically on teaching and learning. The emphasis will be on skills and knowledge needed to teach, assess and support students more effectively.

Special attention will also be given to academic support and development and academic counselling. Guidance and related educational support services will be provided to all undergraduate and postgraduate students in the faculty, with the aim to maximize the overall educational experience of our students and the achievement of expected learning outcomes.

The Master's and doctoral programmes that were implemented in 2001 will continue to run in 2018 and it is anticipated that various students will complete their respective HPE degrees. This programme, which was the first of its kind in Southern Africa, promises to make a valuable contribution to the development of one of the most valuable resources of the faculty, namely, the academic staff, and to ensure that the teaching and training role of lecturers are fully professionalised. The supervision of the students who are currently concluding their papers, dissertations and theses gives a new dimension to the activities of the division and this research should also make a significant contribution to the enhancement of educational expertise in the field of health sciences education.

Liaison and collaboration with role players locally, nationally and internationally will be a priority.



he Division Student Learning and Development which previously formed part of the Division Health Sciences Education was re-established in 2016 and launched on 15 September 2017 (see pictures).

The two main focus areas of the division are academic development and academic support of students in the Faculty of Health Sciences. The aim of these focus areas is to contribute towards the academic success of students and this is achieved by designing and implementing programmes/strategies/mechanisms to develop and support students.

Vision: Our vision is to enhance student development and support, thus contributing towards the academic success of students in the Faculty of Health Sciences.

Mission: Our mission is to facilitate the acquisition of academic skills that can enhance the development of student learning, and design programmes and strategies that can support learning.

Values: Our values are guided by a humanistic approach and include the following: compassion, respect, excellence, integrity, innovation and collaboration.

The academic activities were aligned to the vision and mission of the division. The main activities in academic development are facilitation of acquisition of generic academic skills in the curricula in modules MGEN1513, LLLS1512 and MACC1512. These skills are further developed and honed during academic guidance sessions in the different curricula, including 15 group sessions and 153

STUDENT LEARNING AND DEVELOPMENT

individual consultations. Furthermore, a mentoring programme was coordinated to facilitate the social learning and integration of students.

Research in the division was aligned to the focus areas. This entailed papers presented at conferences, with one paper awarded 3rd position and the prize for best presentation, two research articles accepted for publication in peer-reviewed journals which will be published during 2017. In addition, teaching and supervision of two (2) Master's and five (5) PhD students, and collaboration with other faculties and departments in the university, contributed towards research in the division.

The expertise of staff was recognized through invitations such as membership in an editorial board, review of international conference abstracts, articles for peer-reviewed journals, task groups on students' academic success and a keynote address. Individual staff members continued to develop themselves by registering for a PhD study and completing an intermediate conversational Sesotho course.





SCHOOL OF MEDICINE



he MBChB programme continued to deliver excellent graduates. A total of 16 students (13%) obtained their degrees with distinction at the December 2017 graduation ceremony. External examiners specifically commented on students' professionalism and excellent patient communication skills.

Pass rates (MBChB programme 2017):

MBChB V: 98% / IV: 94% / III: 89% / II:71% / I: 90% / Learning Development Programme: 69%

The Health Professions Council of South Africa accreditation panel visited the UFS in October 2017 as a follow-up from the full accreditation visit in 2015 to review clinical training in the undergraduate programme. The visit was a great success and led to the HPCSA suggesting an increase in student intake from 160 to 180. The panel was also impressed with the efforts in ensuring continued quality in the undergraduate programme. The Schools of Clinical Medicine, Pathology and Biomedical Sciences (established in 2017 from the School of Medicine) continue to implement and address the recommendations of the HPCSA, including further implementation of primary care exposure at decentralised sites e.g. Trompsburg and Botshabelo. Accreditation was granted until the next full visit in 2020.

The MBChB programme implemented the amended UFS language policy in 2017, with a single English class. This was effected smoothly with additional tutorial sessions implemented by academic staff to address student

academic support. Lecture venues were adapted to accommodate larger class groups, and expansion to the James Moroka building was built to provide for additional classroom space.

Two fourth-year students, Marizel Koen and Marais Conradie, attended the University of Groningen Summer School in July 2017 with grants awarded as part of an agreement between the UFS Faculty of Health Sciences and Groningen University.

Undergraduate Programme Management (UPM) initiated a collaborative research project with the Department of Psychology, UFS, titled Resilience in undergraduate medical students at the University of the Free State. A grant was obtained from the Division Research Development at the UFS, and the empiric phase of data collection was completed in 2017. The investigators were Dr LJ van der Merwe (UPM) and Dr A Botha (Department Psychology).

A conference presentation was done at the SAAHE National Conference in July 2017 (Dr LJ van der Merwe): "Does using social media make me a better health sciences educator....or not?"

UPM continued its involvement in undergraduate teaching in the MBChB programme (MGEN 1513, MDOC 1513) and postgraduate modules (MGPV 7900).

UPM arranged and hosted two retreats:

Review of Phase III Semester 6 – the way forward (7 June 2017)

UPM teambuilding session – clarifying vision, mission and goals in the team (28 July 2017)

The Lecturer's Discussion Forum was initiated in 2017 for all academic staff involved in the undergraduate medical programme at the UFS:

13 September 2017: The effective teacher Question and Answer session (development of organogram to clarify roles and responsibilities of lecturers, module leaders, undergraduate programme management).

30 November 2017: *Teaching large classes* Collaborative session with Centre for Teaching and Learning on classroom engagement techniques.

A "Survival Skills Session" was held for the first time in 2017 for all first year MBChB students the Faculty of Health Sciences, as part of an orientation programme aimed at equipping students more effectively. This was also strengthened with the welcoming session held for first years and their parents in the Kopanong auditorium. The White Coat Ceremony was also hosted by UPM in February, where all first-years ceremonially received their white coats, and took part in a dedication towards developing professional identity. A number of second-year students participated in the ceremony, and the guest speaker was Dr Thabiso Mofokeng, Head of the Department of Internal Medicine.

A celebratory function was held for all final-year students on the day of announcement of examination results in November 2017. Prize winners and students graduating cum laude were announced, and academic and support staff joined in the function held in the foyer of the Francois Retief building.

Student support initiatives were emphasised including the following:

Regular scheduled student contact sessions with the programme director per semester / year group and with class / group leaders for information dissemination and as a platform to raise concerns / complaints with feedback to the relevant phase chairs;

Regular scheduled debriefing sessions for all students rotating at Obstetrics and Gynaecology with the clinical psychologist;

Scheduled debriefing sessions for Semester 6 students by the clinical psychologist;

Scheduled debriefing sessions for Semester 5 students by the clinical psychologist after mortuary visits;

Ad hoc debriefing and stress management sessions for all MBChB students according to requirements (e.g. exam stress);

Continued collaboration with the Division Student Learning and Development to ensure early identification of students at risk and proactive remediation.





he Clinical Simulation and Skills Unit comprises two divisions, Clinical Skills and Clinical Simulation.

The Clinical Skills Unit is responsible for the teaching of clinical skills to the second and third year MB ChB students and the practice thereof under supervision of medical personnel. The course is adapted to coincide with the theoretical modules taught at a particular time in Phase II, resulting in integration of practical skills and theory as it runs parallel to the theoretical programme in Phase II. The modules include MCLI2720 (GKV264) in Semester 4 and MCLI3713 (GKV353) in Semester 5.

The aim of the Clinical Simulation Unit to provide a facility where medical and other healthcare students or professionals can be exposed to training in a safe environment; training without harm to the patient; scenario-based learning; and debriefing.

The role of the Clinical Simulation and Skills Unit is to contribute to undergraduate, postgraduate medical education and CPD to:

- enhance the curriculums with clinical simulation;
- integrate simulation as a required component of the curriculum; and
- incorporate assessment to determine whether students have mastered the content and achieved the objectives.

During 2017 undergraduate medical students attended 361 training hours in the simulation unit and students

from nursing, optometry, physiotherapy and biokinetics attended training sessions as well. Several certification courses such as ACLS, ATLS, BLS and PALS were presented during the year accounting for 672 training hours, mainly over weekends.

The Unit was involved with training of patients and their families with haemophilia on how to administer factor VIII. This Home Infusion Workshop was presented in collaboration with the Department of Haematology and private companies.

Simulator replacements and upgrades for the time period 2017/2018.

With the expansion of the paediatric training and especially paediatric life support training to fifth year medical students and PALS courses for paediatric registrars and medical officers a MegaCode Kid Advanced with Simpad Plus was acquired to enhance the training of our students.



Intubation training is an essential part of the training of medical, ICU nursing and ICU registrar training. Intubation training is part of the skills training in the third to the fifth year. Because of the wear and tear two of the Airway Management Trainers had to be replaced. With the intubation training, we had to acquire two additional sets of laryngoscopes with blades.

Training of Urological examination forms an integral part of the training of students. An additional training model was necessary with the larger classes and wear and tear of the old models. Clinical Male pelvic trainer MK2 Standard was acquired

Obstetrics training forms an essential part of undergraduate training. It is difficult to teach students' vaginal examinations on real patients. The Prompt Flex Labour Progress Simulator helps with standardised training of students in the third and fourth years of training.

Students receive a lot of training in CPR and basic life support. The Little Anne QCPR upgrade kit allows effective monitoring of the quality of CPR provided and is essential for quality control. We acquired 6 upgrade kits and two Apple wifi 128 GB iPad to use with QCPR.



Sim View Mobile System a recording and debriefing system for all simulated scenarios to upgrade and augment current AV systems in the CSSUM.

PERSONNEL MATTERS

Mrs MGM Hattingh, the simulation and skills coordinator received her Masters' degree in Health Professions Education with distinction and presented an oral paper at the annual SAAHE congress in Potchefstroom.





he department had a particularly busy year. The HPCSA continued the department's unconditional accreditation at their October 2017 visit. Several national and international lecturers visited the department and

participated in workshops and tutorials with registrars. Various personnel members served in national committees and organisations. Amongst these are Dr Janine Lemmer who participated in the Free State and national NCCEMD and OASIS maternal mortality meetings; Prof Gillian Lamacraft who served on the institutional, Free State and national therapeutic committees; and Prof Johan Diedericks, immediate past President of SASA who served as CMSA senator until October 2017. He continues to manage the College of Anaesthetists Part 2 Examination Portfolio and to assist with national anaesthesia events.

Two successful weekend courses were presented in the School of Medicine Simulation Unit by Dr Philip Anderson and Dr Marianne Pearson for candidates preparing for the Diploma in Anaesthesia examination. Two theoretical simulation and hands-on courses, considered the country's best, were presented on regional anaesthesia under leadership of Dr André Theron and Dr Caro Louw with the assistance of other local consultants. Introductory and advanced transoesophageal echocardiography courses were presented in March and August with the assistance

of Dr Edwin Turton from Germany and local consultants. A higher than average pass rate was achieved in the Part 2 examination of the College of Anaesthetists by final-year registrars, and 7 distinctions were achieved in primary subjects by 20 registrars. Four research articles were published in accredited journals (one with international co-authors), and a further 6 abstracts were published. Clinical work continued at a high level despite the challenge of personnel constraints.



ANATOMICAL PATHOLOGY

embers of the Department of Anatomical Pathology attended and presented at a number of local and international pathology courses and congresses during 2017.

Prof J Goedhals was a member of the faculty at the 2017 Bushpath Diagnostic Surgical Pathology Course and Drs W Vergottini and L Maree presented cases at the Registrar Slide Seminar while Dr C Esterhuysen also attended Bushpath. Dr Maree presented a case at the Registrar Slide Seminar at the local International Academy of Pathology (IAP) Congress held in Johannesburg. Prof J Goedhals attended the Marion Malone Memorial Advanced Course in Paediatric Pathology held in Dublin and Dr G van der Westhuizen attended the Johannesburg Dermatopathology Symposium as well as the 29th Congress of the European Society of Pathology, held in Amsterdam. Dr L du Toit was joint winner of the Real Short Registrar Research Results Presentations held by the Faculty of Health Sciences, University of the Free State.

The department hosted two international speakers and one local speaker during the year. Prof Claude Cuvelier, Professor at the Department of Medical and Forensic Pathology, Ghent University, Belgium presented 2 talks on gastrointestinal pathology, while Prof Pieter Wesseling, Professor in neuro-oncological pathology at Radboud University Medical Centre, Nijmegen and VU University Medical Centre, Amsterdam, the Netherlands gave two talks on neuropathology. Dr Tomas Slavik from Ampath Laboratories, Pretoria presented the 2017 IAP travelling seminar on gastrointestinal pathology.

Dr Dan Zaharie, a neuropathologist from the University of Stellenbosch and the NHLS presented a short course at the UFS for registrars from the departments of Anatomical Pathology and Forensic Medicine.

Two registrars passed the FC Path (SA) Anat Part II exam and one registrar passed the Part I exam.



I BASIC MEDICAL SCIENCES

r Carlos Machado visited the Department Basic Medical Sciences on the 20th of April 2017 and presented lectures to second-year MBChB students and staff members in the department. He is currently an Adjunct Professor of Clinical Cardiology, University of Saint Augustine, Austin, USA. Dr Machado has been a medical illustrator since 1994 for the companies that hold the rights of editing Dr Netter's work. His illustrations can be seen in over 40 publications, among them the Clinical Symposia collection, the Netter Collection of Medical Illustrations, the highly acclaimed Interactive Atlas of Clinical Anatomy and in the last five editions of the best-seller Netter's Atlas of Human Anatomy, which has been published in 17 languages in over 70 countries.

Various personnel members were involved in research-related activities during 2017.

Dr T Gerber attended an International Conference on Education, Teaching and Learning, Dubrovnik (Croatia), 27-30 September 2017. Mr B Abrahams attended the LIMSC (Leiden International (Bio-) Medical Student Conference and a range of daily workshops, Leiden, Amsterdam, 15-19 March 2017. The conference is known as the largest biennial student conference in the world with close to 800 students attending from across the world. The programme included a number of internationally acclaimed speakers such as Prof Dr J van Rood (chairperson of the Eurotransplant and Europdonor Foundation) and Prof Dr Harry Büller (chairperson of the Vascular Medicine Working Group). Mr B Abrams also attended the Newton Fund Workshop for nGAP lecturers that was held 6-9 August 2017 in Port Elizabeth.

Dr N Moopela, Dr P Maass and Dr C Vorster attended the 6th Annual Conference of The African Society of Forensic Medicine held in Bloemfontein, 6-10 March 2017. The conference was themed Conflict and violence in Africa: the role of forensic medicine and science towards better public health. Ms T Ramphaleng delivered an oral presentation at the conference. Ms R van Zyl presented research results and Dr S van Zyl attended the 45th Annual Conference of the Anatomical Society of Southern Africa 2017, Cape Town, South Africa (23-26 May 2017). Dr van Zyl served as Vice-Chair of the Council of the Anatomical Society of Southern Africa in 2017. Dr Carina Vorster and Ms R van Zyl were newly elected Council members in 2017. Dr S van Zyl, Ms R Vorster, Ms M du Toit and Mr B Abrahams attended the 45th Conference of the Physiology Society of Southern Africa that was held in Pretoria (27-31 August 2017). Dr M Ferreira, Miss M du Toit, Mr M Muller and Dr A Vorster completed a Level 1 ISAK Anthropometry accreditation course (5-7 May 2017.) Dr M Ferreira was invited as presenter at a Clinical Investigator Certification course that was held from 09-13 October 2017 in Cape Town. Dr CO Larson attended a SAAHE congress in Potchefstroom and



a SAAHE Central Branch symposium (03 May 2017). Drs A Vorster, C Larson and S van Zyl attended a Nutrition Symposium, Bloemfontein, South Africa (22 June 2017). Ms. T Ramphaleng, a lecturer in the Department of Basic Medical Sciences (UFS), attended the 6th Annual Conference of The African Society of Forensic Medicine (2017) held in Bloemfontein. Ms. Ramphaleng's oral presentation was partly on her MSc work. The conference was themed "Conflict and violence in Africa: the role of forensic medicine and science towards better public health". Ms PC Vorster visited the Stellenbosch University for research skills development purposes from 3-7 July 2017. Dr C Larson also acted as HSAG reviewer in 2017. Dr. A Vorster serves as UFS Faculty Advisor for IMPULSE since 2017. IMPULSE is the first undergraduate, international and inter-institutional journal for neuroscience publications, founded in 2003. The Free State IMPULSE site is one of 37 peer review sites worldwide that was established since 2010. Student research manuscripts are submitted and distributed from the Appalachian State University to Associate Editors and their student reviewers at institutions around the world, whom then participate in the peer reviewing process according to specific guidelines and standards.

Twenty-five students participated in the MMed Physiology Part I exams; seventeen students passed the examination



and two students obtained distinctions. Twelve students participated in the MMed Anatomy Part I examinations; seven students passed and one student obtained a distinction.

Dr H Potgieter, Mr Van Zyl, Dr AM Gerber, Dr S van Zyl and Dr H de Villiers acted as supervisors for MMedSc and PhD students during 2017. Ms R Vorster and Mr M Muller acted as supervisors for BMedSc Hons students in Physiology in 2017. Four students, D Brooks, T Fouche, MF Jamneck and C Strydom obtained their BMedScHons (Medical Physiology) degrees and two students, KS Mpolokeng and WJ Henning their MMedSc (Anatomy) degrees at the June graduation ceremony. Ms Mpolokeng presented her research results, The prevalence of anatomical variations in the intraorbital part of the ophthalmic artery and its branches in cadavers, at the UCT Faculty research day and also at the 45th Annual Conference of the Anatomical Society of Southern Africa 2017, Cape Town, South Africa (23-26 April 2017). Various articles were published or accepted for publication; authors include CO Larson, J Bezuidenhout, S Van Zyl, LJ Van der Merwe, CM Walsh and G Joubert.

The new dissection hall facility was used for clinical workshops (Neurosurgery workshop and Orthopaedic Surgery workshops), postgraduate teaching seminars

and undergraduate workshops. The department hosted a short workshop, The Anatomy of Bite Marks as Forensic Indicators for third-year students from the UFS BSc Forensic Science programme, on 26 of September 2017, facilitated by Dr Sonja Brink and Dr Petra Maass. Using anatomical models and skeletal specimens, students were taught about the anatomical structures involved in mastication. This was followed by a series of demonstrations of how variation in dentition and bite force can be used in





the forensic interpretation of bite marks, as well as how it may hamper such interpretations. The session was greatly enjoyed by the students - some of which have not been exposed to working with human remains before - and staff alike. We hope to expand this workshop in future years, continuing our successful collaboration with our forensics colleagues. A spinal workshop took place on 06 March 2017 and two knee replacement workshops on 11 August 2017 and 13 October 2017 respectively.

Ms R Ebersohn and Ms R Vorster acted as external moderators in Anatomy and Physiology respectively, for the Henrietta Stockdale Nursing College during 2017. Dr AM Gerber represented staff members on the Senate and also served on the Faculty Board of the Faculty of Natural and Agricultural Sciences. Dr Henk Potgieter represented the Faculty on the UFS Council and on the management committee of UVPERSU. Ms Roné Vorster and Dr H Potgieter represented the department on the Science Committee of the School of Medicine. Various personnel members again represented the Department of Basic Medical Sciences this year, under the guidance of Dr S Van Zyl, at the UFS Open Day. Learners could obtain information on the medical programme in the Faculty of Health Sciences, as well as further information on the various subject areas presented in the department, e.g. Medical Physiology, Anatomy and

Cell Morphology, Biochemistry, Embryology, Histology and Anthropology.

Various projects were launched this year to raise funds for community service projects e.g. clothes, food parcels, magazines, books and Sesotho bibles were delivered at a local school and distributed amongst less fortunate families. Students of the Radiography Department, CUT, visited the museum from 07-08 June 2017 and from 26-27 June 2017 for training purposes, local attorneys groups made use of specimens for a consultation session with a forensic pathologist on 24 March 2017, Camelot International made use of the museum facility on 27 September 2017 for the training of their students and a team from AVBOB, interested in embalming procedures, visited our mortuary and museum on 10 July 2017 and 07 November 2017.

In closing, a word of sincere gratitude and appreciation is extended towards every staff member of the Department of Basic Medical Sciences for their dedication towards excellent training, continued curriculum development, thorough administration, as well as integrity and honesty in the field of research. The personnel are thankful for the blessings and prosperity they experienced in 2017 and look forward to 2018.

BIOSTATISTICS

he four full-time staff members of the department (Prof G Joubert, Ms M Nel, Mr FC van Rooyen, Mr MW Mamba) are involved in undergraduate teaching in the School of Medicine and School of Allied Health Professions. In the MBChB programme, Prof Joubert is the module co-leader of the MSSM research modules from semester 2 to 5. Seventeen undergraduate medical student projects were published during 2017. Ms Nel is the module leader of third year research modules for Nutrition and Optometry students. Dr Raubenheimer is an affiliated lecturer.

At postgraduate level, teaching is offered to Master's students in Family Medicine, Nursing, Occupational Therapy, Nutrition and Dietetics, Optometry, Physiotherapy, Sports and Exercise Science, and all newly registered registrars in the School of Clinical Medicine. Prof Joubert is the co-promoter of a PhD student in the Health Professions Education programme, and Dr Raubenheimer (affiliated lecturer) is the co-promoter of a PhD student in Nutrition and Dietetics. In 2017 staff members were members of 41 evaluation committees for postgraduate studies in the faculty.

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Staff members were co-authors of 29 articles published during 2017. Dr Raubenheimer (affiliated lecturer) contributed a chapter to a book published in this year.

As part of the statistical consultation service offered by the department, 145 new research projects were handled: 89 postgraduate projects, 46 undergraduate projects and 10 research projects.

Involvement in the broader research community consists of reviewing articles for a number of general medical or educational journals. All four staff members attended the annual conference of the SA Statistical Association in Bloemfontein in November 2017.

Dr Raubenheimer (affiliated lecturer) was awarded the Vice Chancellor's Award for Excellence in Teaching and Learning. Staff members were co-authors of a number of prize-winning presentations at the annual Faculty Research Forum. Prof Joubert was the first author of the prizewinning senior educational presentation; this was the fourth consecutive year that a staff member of the department was the first author for this prize.



he Department Cardiology is actively involved in the internal medicine training programme where lectures, discussions and clinical rounds in Cardiology are presented to students during the MBChB III, IV and V years.

 In the fifth (final) year, students attend a residency in the department for two weeks. Education is intensive and patient-oriented. Daily academic ward rounds with discussions of new patients, as well as daily training tutorials with discussions of structured subjects take place. The rest of the residency is dedicated to practical study / patient care, with participation in the patient care ward rounds by consultants and registrars. Students also attend the cardiac outpatient clinics. Patient-directed lectures to fifth-year students are presented by the Departments Cardiology and Internal Medicine.

> Training as a cardiologist commences after the doctor had been registered as a specialist physician. Candidates work as consultants in a structured, rotating training programme with the focus on various aspects of the skills that a practising cardiologist should possess.

> > Training in the technique of heart catheterisation is an important part of the training. Two qualified cardiologists, Prof EM Makotoko and Dr KN 📌 Moroka, perform all ♠ the teaching, so that all candidates follow the same techniques for a full diagnostic examination in

all cases. During the training the wellness of the patient is set as first priority. In patients with critical disease and where the patient's life could be in danger, the timely support with aorta counter-pulsation balloon pump and other supportive treatment is emphasised.

Percutaneous coronary intervention (PCI) is an integral modality for the treatment of patients with ischaemic heart disease. These techniques currently attract wider and greater application. Intravascular ultrasound examinations (IVUS) as well as fractional flow reserve (FFR) are done on certain patients to better evaluate coronary stenoses. These techniques are taught as part of the advanced heart catheterisation laboratory technique.

Fellows are trained in cardiac ultrasound techniques transthoracic and transesophageal. Transthoracic and transesophageal echocardiography training form an integral part of the training. Fellows spend time in the echocardiography laboratory acquiring the necessary skills. With the introduction of a 3D sonar apparatus, training in this highly specialised area is also presented.

Electrophysiological examinations, the placement of various permanent pacemakers, as well as the interpretation of ECG Holter examinations form part of the teaching programme. This extremely time-consuming examination is practice oriented, with the focus on patient selection for applicable examinations and ablations. To deliver a complete electrophysiological service and train specialists, a complete electrophysiological service is indispensable, and thus we are exceptionally lucky to have the service of Dr ND van der Merwe on a part-time basis. A number of biventricular pacemakers are placed for patients with serious heart failure that cannot be fully controlled using medical therapy. Over the past year, several patients with life-threatening dysrhythmia were presented with ICD (intra cardiac defibrillator) apparatuses.

The training of cardiologists in South Africa is done on a permanent basis. Currently a candidate is required to complete a training period of three years, with the conferral of a certificate of competence by the relevant training unit, and an examination must be passed. The exam is presented by the College of Medicine of South Africa.

Observation of complex cardiologic procedures is done locally as for TAVI, and valvuloplasty and closing procedures e.g. ASD, PDA in cooperation with Prof S Brown. For complex electrophysiological studies and ablation procedures, students do residencies at units where these procedures are performed regularly.

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Research in the department is divided into clinical research and contract research.

Contract research is a source of income for the Department of Cardiology's research and travel fund. This research is very important to allow members of the department the opportunity to work with new medicines, to build international contacts and to learn general research principles.

Dr Kgomotso Moroka had been enrolled in an electrophysiology training programme that ran for the whole of 2016 in various international venues. This programme is sponsored by Biotronik and is in preparation for a twoyear training period in electrophysiology. Cardiac electrophysiologists in South Africa are in short supply and we are excited for Dr Moroka who will commence with the two-year training course in cardiac electrophysiology in Slovenia in February 2018. Her training was made possible in part by combined funding from Biotronik and for this we are very grateful.

Dr Moroka intends to return to the Free State after her training to set up cardiac electrophysiology services. This will be an exciting development for the province as we do not currently have these services available.



revenue of R5 427 916.

he Universitas automated core laboratory is SANAS accredited and provides a 24 hour diagnostic service to the Universitas, National, Free State Psychiatric, and 3 Military Hospitals as well as private laboratories in Bloemfontein, Free State. In addition, it is the referral laboratory for other Free State, Northern Cape and North-West province regional laboratories, It processes approximately 100 000 tests per month month yielding an average monthly

The current NHLS-analyser supplier and reagent contract has expired and the Roche Cobas 6000 automated chemistry, endocrine and immuno-serological platforms are awaiting replacement via the NHLS procurement tender process.

In addition, the laboratory offers several manual tests including serum & urine protein electrophoresis and immunofixation, Bence Jones protein, cerebrospinal fluid (CSF) isoelectric focusing electrophoresis, blood brain permeability testing, CSF xanthochomasia urine pH, serum and urine osmolality, kidney stone analysis, gout and other fluid crystal identification using polarising microscopy, porphobilinogen and porphyrin testing, urine myoglobin, urine reducing substances and thin layer chromatography for identification of urine sugars, detection of cryoglobulins, blood gases & co-oximetry, whole blood pyruvate measurement, stool steatocrit and stool occult blood testing.

The Universitas Chemical Pathology Department provides undergraduate teaching and assessment services to medical students of the University of the Free State (UFS), Faculty of Health Sciences (Phase II modules: MMol 2618, MMol 1620, MNER3714 and MURI 2724) and is currently increasing its footprint into the medical undergraduate programme. There are plans for further expansion of teaching activities in proportion to the increase in departmental academic staff.

In addition, the Department participates in the in-service training of medical technology students from the Central University of Technology (CUT) and Vaal University of Technology (VUT) as well as technicians. The pass rate was 100% in 2017 (7 medical technologists and 2 technicians).

The Department is an HPCSA accredited postgraduate training site for Chemical Pathology registrars, medical science students (BSc Honours, MSc, PhD) and intern medical scientists. MMed teaching and assessment services are also provided to other clinical departments (Internal medicine, Anaesthesiology and the Surgical disciplines). Consultants are module leaders and examiners for the MCHP7900 and MCHI7900 MMed Chemical Pathology modules for the Surgery and Anaesthesiology departments' registrar training programmes.

There is an organised, intensive 4-Part Chemical Pathology Registrar Training Programme in place. Weekly academic activities include: seminars, case presentations, journal club, Internal Medicine clinical grand rounds, Endocrine & Disorders of Sexual Differentiation Clinic attendance, Endocrine ward rounds, wet and computer-based laboratory practicals, clinical case tutorials, lectures, hands-on laboratory based training activities and laboratory mathematics and statistics tutorials.

In addition, registrars attend a 17-week Molecular Biology course (including applied molecular techniques and practicals) and UFS FHS training workshops/lectures (research ethics, how to lecture, how to conduct research, research referencing software, on-line searches, plagiarism etc.). Their rotations include the Department of Pharmacology's mass spectrometry-based analytical laboratory.

Consultants & registrars are actively involved in National coverage for the Free State, Northern Cape and North West provinces. These services are conducted via telephonic & email communications as well as on-site meetings to enhance quality assurance, assist in the procurement of appropriate analytical equipment, laboratory trouble-shooting and clinico-pathological consultation to clinicians in these areas. Intern medical scientists and other scientist trainees will be trained once the Department has filled its vacant senior medical scientist post.

Both consultants, Prof Johan Kuyl and Dr Naicker, contribute to the NHLS nationally as members of the Chemistry Expert Committee (15 years' service). Dr Naicker also serves as the Chair of the NHLS Chemistry Technology Assessment Committee (CTAC) and part of the advisory team for the NHLS Proficiency Scheme. Both also contribute to the UFS Faculty of Health Sciences Management as members of the UFS Senate and Dr Naicker as the parttime Head of the School of Pathology. Between them, they are members of 22 UFS committees. Both contribute to the pathology discipline training nationally as MMed (internal and external) and College of Pathology (Chemical and Clinical Pathology) examiners. In addition, Dr Naicker serves as a College of Pathologists Council member representing Chemical Pathology for the triennium 2017-2020.

Dr Naicker was an invited speaker at the SMLTSA Free State Branch Academic meetings in April 2017 and March 2018 as well as NHLS-FSASP PathRed Congress in June 2017. Academic posters were presented at: UFS Research Forum in August 2017, XVI International Congress of Paediatric Laboratory Medicine (ICPLM) in Oct 2017 and International Federation of Clinical Chemists' (IFCC) Worldlab Conference in Oct 2017.



I HAEMATOLOGY AND CELL BIOLOGY

r Jaco Joubert, Dr Wattie van Rensburg and Prof Muriel Meiring presented a total of five posters at the International Society on Thrombosis and Haemostasis in Berlin in July 2017. Dr Leriska Haupt represented South Africa in December 2017 at the first International Symposium on



Prof Meiring retained a C3 rating from the NRF and various members of the department received research grants from the faculty and the NHLS Research Trust. Several prizes were won at the Faculty Research Forum. Members of our department were first authors or co-authors of eight international articles, and four South African articles. Five BMedSc(Hons) (Human Molecular Biology), one MMedSc (Human Molecular Biology) and one PhD candidate graduated.

The department presented a self-infusion workshop to persons from the Free State and Northern Cape with haemophilia, their parents and caregivers, at the Clinical Skills Unit of the Faculty of Health Sciences. Every fortnight we conduct national coverage haematology clinics at Kimberley Hospital.

Two registrars passed the FCPath(SA) Haem Part I exam and our HPCSA training numbers were increased to eight. We now have two supernumerary registrars from the SADC region, as well as four paid registrars. We renovated our registrar office. We installed a new Zeiss microscope with camera for projecting blood and bone marrow images at our clinicopathologic conferences.

Professor Chris Viljoen was appointed as part-time Head of the School of Biomedical Sciences. The department is benefitting from the new structure of the faculty. Although the department is straddled between the School of Pathology and the School of Biomedical Sciences, it seems that our specific needs are addressed more effectively. We are looking forward to the appointment of more scientists and pathologists.



HUMAN GENETICS

pid technological advances are constantly forcing the world of pathology to change. As new trends emerge, keeping up-to-date is a daunting task. Staying on top of these new technologies shaping the ndustry is essential for driving innovation, accomplishing goals, and remaining competitive. For this reason, the division introduced new technologies such as Next Generation Sequencing (NGS) and Quantitative Fluorescent PCR onto their diagnostics platform to stay competitive.

> NGS was employed for the screening for the two familial breast cancer genes, BRCA1/2. This cost-effective and sensitive test method resulted in a tremendous reduction in costs and turn-around times of a comprehensive screen of these genes. This technique, together with the employment of start of the art bioinformatics software, proved to be highly sensitive and resulted in the validation of a semi-automated pipeline for breast cancer diagnostics in the molecular laboratory.

> > The introduction of Quantitative Fluorescent PCR (QF-PCR) for an uploidy replaced a golden standard namely FISH aneuploidy. Using the same technology, the division also introduced a 50 mutation Cystic Fibrosis kit which now can differentiate between heterozygous and homozygous alleles, critical for the confirmation of clinical disease within a few hours.

> > > The molecular laboratory also expanded their scope by introducing a screen for microdeletions/duplications for patients with dysmorphic features and developmental delay using MLPA. This was supplemented by two additional kits to detect abnormalities in the sub-telomeric chromosomal regions. Real-time PCR is still employed to screen for the most common South African mutations responsible for various diseases such as Hereditary hemochromatosis, Porphyria variegate and others. This division acts as the referral laboratory for familial breast cancer screening as well as Fanconi anemia testing with DEBsensitivity.



MEDICAL MICROBIOLOGY AND VIROLOGY

he UFS Council confirmed the establishment of an independent Division of Virology within the newly formed School of Pathology. Dr D Goedhals was appointed as head of the division in November 2017. Dr MB Maloba joined

the Department of Medical Microbiology as head of the department in December 2017.

In addition to achieving a B3 rating from the National Research Foundation, Prof Felicity Burt was promoted to full professor with an inaugural lecture entitled "Catching a virus". Prof Burt currently holds a South African Research Chair (SARCHi) in vector-borne and zoonotic pathogens.

Staff members and students presented at a number of international congresses including the 31st International Papillomavirus Conference in Cape Town (A Bulane, Y Munsamy, T Sekee), the 2nd International Conference



on Crimean-Congo Haemorrhagic Fever in Thessaloniki, Greece (F Burt), and the 48th Union World Conference on Lung Health in Guadalajara, Mexico (A van der Spoel van Dijk). There were also presentations at national conferences including the 7th FIDSSA Congress (AE Ogunbayo) and the PathReD Congress (A van der Spoel van Dijk, AE Ogunbayo).

Postgraduate students in the department participated in the 3 Minute Thesis Competition, with Y Munsamy achieving second place and appointed winner of the People's Choice award in the PhD division, while AE Ogunbayo won the People's Choice award in the Master's division. Other presentation awards during the year included A Bulane who was the winner of the Dr Lehlohonolo Mathengtheng Trophy at the Faculty of Health Sciences Research Forum and AE Ogunbayo who won the best poster presentation award at the 3rd Annual Free State Department of Health Provincial Research Day.

F Burt and N Viljoen attended the CCHF Treatment by Using Monoclonal Antibody Workshop in Stockholm, Sweden which was part of the NRF STINT SA-Sweden collaboration held by Prof Burt and Prof A Mirazimi of the Karolinska Insititute, Sweden . The department hosted Dr Philippa Matthews in June to establish a new multicentre hepatitis B research collaboration with the University of Oxford and the University of Stellenbosch.



NATIONAL CONTROL LABORATORY FOR BIOLOGICAL PRODUCTS

National Control Laboratory continued with the vaccine testing programme for the South African Health Products Regulatory Authority in 2017. In addition to the routine testing of vaccines for the South African market, the NCL also performed testing for the Namibia Medicines Authority after a suspected adverse event. The NCL is one of twelve approved testing laboratories for the World Health Organisation prequalified vaccines programme and is accredited for the potency testing of measles, polio and yellow fever vaccines. The NCL tested vaccines from manufacturers in India, China, Russia, Brazil and Indonesia for the WHO targeted testing programme. The NCL quality assurance system is ISO 17025 compliant and the NCL has SANAS accreditation.

In November 2016, Prof. Derek Litthauer presented a lecture at the 17th International Conference of Drug Regulatory Authorities in Cape Town and submitted recommendations for a worldwide biological medicine testing network, on behalf of the WHO prequalification programme. The recommendations were accepted and Prof. Litthauer served as member of the steering committee of the network in 2017. Prof. Litthauer and Dr Quinton Meyer attended the first General Meeting of the WHO Network for Biologicals which was held on 31 October-2 November 2017 in Noida, India. The meeting was organized by the WHO Department of Essential Medicines and Health Products, Regulatory Systems Strengthening,

and hosted by the National Institute of Biologicals, Ministry of Health and Family Welfare of India. The SANCL is one of the first fourteen inaugural full members of the network with main objectives to share quality and technical information related to prequalified vaccines or other biological medicinal products, to reduce redundant testing, and to promote the development of harmonised common standards and to share best practices. Other full members of the network include Belgium, Australia, United Kingdom, Thailand, India, Indonesia and Cuba.

The NCL participated in two WHO collaborative studies during 2017; to establish a new bivalent oral polio vaccine international standard and a study to assess the suitability of a candidate vaccine to serve as the 7th International Standard for Rabies Vaccine. A report on the oral polio vaccine standard was published.

Dr Lizanne Meiring, the NCL veterinarian, attended various courses on laboratory animal science and research ethics as well as statistical method validation, presented at various venues throughout the country and attended the international conference of the South African Association for Laboratory Animal Science which was held in Stellenbosch in November. Ms Marli Watson, the QA and Safety officer, attended workshops to further develop her laboratory management skills. Dr Ruan Ells and Ms Marlena Visagie attended a high performance liquid chromatography course in Midrand in August.

Dr Yolandi Rood and Dr Ruan Ells were selected to attend the five day long Vaccines for Africa Workshop presented by the UCT VACFA Initiative in Cape Town in November 2017. Prof Litthauer and Dr Meyer attended the 13th Vaccinology Congress in Magaliesburg where Prof Litthauer presented a lecture on the regulatory mechanisms for ensuring vaccine safety from manufacturing to the end user. Prof Litthauer also attended the WHO workshop on adverse events following immunisation surveillance and causality assessment in Pretoria in September 2017.

NEUROSURGERY

he department had a particularly busy and challenging year. Members of the Department of Neurosurgery attended and presented at a number of local and international courses and congresses. These events included the Pierre Lasjaunias Neurovascular Education Conference, the 25th Ulm Spine week and a Robot Assisted Neurosurgery course in France.

The members of the department also attended a seminar at the Department of Anatomical Pathology where renowned neuropathologist, Prof Pieter Wesseling, gave two presentations on the WHO classification of diffuse gliomas and the diagnosis of CNS tumours.

The HOD, Dr J Basson, was elected as a Council member of the College of Neurosurgery (SA) and was awarded an associate fellowship of the College of Neurosurgery (SA). Dr A van Aswegen, a Faculty Member for the 2nd CAANS Continental Congress and a member of the Scientific Committee of the Society of Neurosurgeons of South Africa, was also appointed as an examiner for the College of Neurosurgery Intermediate exams. Dr A van Aswegen was also promoted to Head: Clinical Unit in September 2017.

The Department of Neurosurgery provided neurosurgical services to the patient populations of the Free State, Lesotho, Northern Cape and parts of the Eastern Cape. The total inpatient admissions were 1359 with operative interventions in more than 50% of the admissions.

The department was involved in teaching undergraduate medical, occupational therapy and physiotherapy students as well as postgraduate M Med candidates. One registrar successfully completed the FC Neurosurg(SA) Final exam. Prof Litthauer and Dr Meyer continued to serve on the Biological Medicines Expert Committee of the South African Health Products Regulatory Authority, served on an ad hoc expert committee for biosimilar medicines, and are on the panel for the review of full dossiers for the registration of new vaccines, biological medicines and biosimilars.





he field of Nuclear Medicine in South Africa and the rest of the world is expanding due to the development of hybrid cameras and new radiopharmaceuticals. These developments have a huge impact on the diagnoses and therapy of cancer.

The most advanced of these cameras, Positron emission tomography, combined with normal CTs (OETCT), is not yet widely available in South Africa due to the cost of the cameras and the radiopharmaceuticals. A more cost-effective alternative can be of great benefit. To achieve this, the focus should be on developing new radiopharmaceuticals that can be used with the current cost-effective gamma cameras, according to University of the Free State researcher, Dr Je'nine Horn-Lodewyk from the Department of Nuclear Medicine.

Fluorodeocyglucose (18 F-FDG), a radiolabeled glucose analogue, is currently the radiopharmaceutical most commonly used in PET/CT imaging for mainly oncology indications. Although it is considered the gold standard for imaging in several malignancies, it does have certain

disadvantages. An 18 F-FDG PET/CT diagnostic imaging study cost between R25 000 and R35 000 for a single patient in the private sector. The 18 F-FDG is also more radioactive, which requires much stricter handling and shielding to avoid high radiation dosages to staff and patients.

In the search for the ideal radiopharmaceutical for tumour detection, the South African National Nuclear Energy Corporation (Necsa) has developed a local synthesis process for ethylenedicysteine-deoxyglucose (EC-DG). EC-DG is also a glucose analogue similar to FDG. They succeeded in labelling the compound with Tecgnetium-99-metastable-pertechnetate (99mTcO4-), the most common nuclear medicine isotope used for approximately 95% of nuclear medicine procedures, creating 99mTc-EC-DG.

In partnership with Dr Horn-Lodewyk, this compound was successfully used in various animal models and clinical scenarios, resulting in approval by the Medicines Control Council to use in a human study. Research is also planned in order to investigate diagnostic accuracy in other cancers like lymphoma.

OBSTETRICS AND GYNAECOLOGY

rof DR Franken was invited to visit the Reproductive and Endocrine Unit, Department of Obstetrics and Gynaecology, University of Pretoria from 20-22 February 2017 to share

his expertise as well as participate in their academic and training programme for intern medical biological scientists specializing in Reproductive Biology.

As part of the community based education of our undergraduate students, they attend activities at Trompsburg and Springfontein. Dr JD Nortjé was one of the facilitators from the faculty who had to oversee these activities from 22-26 February 2017.

Dr E W Henn received two prizes in the first category for both of his presentations and Dr I Zondagh for her e-poster presentation respectively at the RCOG World Congress in Cape Town, 20-22 March 2017.

Dr EW Henn, Dr T Nondabula, Dr MT Honing, Dr TR Leroko and Dr CM Makgato are master trainers in the ESMOE (Essential Steps in Managing Obstetric Emergencies)



programme to train interns in the Free State to manage obstetric life-threatening emergencies. Dr NN Uzoho attended the Masters Trainer Course in ESMOE from 10-14 July 2017, as well as Dr MMP Marokane and Dr RJ Khalema from 19-22 September 2017.

Dr S M Baloyi conducted a workshop on Maternal Hypertension Management for Doctors working in District Hospitals, Parys, South Africa on 10 August 2017.

Prof Lut Geerts and Dr Lynel Nel, Department of Obstetrics & Gynaecology, University of Stellenbosch, presented a successful Basic Ultrasound Course and workshop for the training and personal development of our department's registrars and interested consultants, as well as interns from 26-27 August 2017 in the Faculty of Health Sciences, University of the Free State and UAH Complex.

Dr J D Nortjé organized a Medico-Legal Symposium at the Universitas Academic Hospital Complex on the 27th of September 2017 as this field poses a big challenge in the medical field of practice. Apart from avoiding the pitfalls for action, the symposium aimed to improve patient care. The symposium was attended by consultants, registrars, interns, nursing sisters and gynaecologists in private practice. There were several presenters, e.g. Adv Justice Finger, Adv Mene, Rev Majoe, Mr Clayton Hall, Dr Brand Claassen, Dr MG Schoon and Dr Llordaan.

Dr EW Henn hosted a successful SASOG CPD meeting in cooperation with Bayer for specialists on 23rd of November 2017 in Bloemfontein to update them on menopausal knowledge. Several gynaecologists in private practice attended this meeting.

Dr EW Henn hosted a successful interactive Advanced Perineal Repair Workshop in the Simulation Unit, Faculty of Health Sciences, University of the Free State on 24 November 2017 for labour ward personnel (doctors, interns, midwifes and nurses). The workshop was also attended by several gynaecologists in local private practice. The aim of the workshop was to identify and correctly repair obstetric perineal injuries based on current evidence.

Dr EW Henn completed his PhD degree in May 2017.

Dr MT Honing is the second fellow from the department to successfully qualify as a sub-specialist by obtaining the Cert Reprod Med (SA) in May 2017.

There were 12 distinctions in Obstetrics & Gynaecology for the MB ChB degree.

PSYCHIATRY

ne of the core functions of the department remains the teaching of students registered for a variety of degree courses. These include students registered for MBChB in their first, third, fourth and fifth years of study. Students take part in interactive small group discussions according to a structured programme during their clinical rotation in Psychiatry. External examiners commended the level of knowledge of undergraduate students during the final examinations.

The department hosted three workshops on child and adolescent psychiatry, as well as three workshops on

psychotherapy for mental health care practitioners. Dr Heidweiler from the University of Amsterdam completed a 3 month residency at the child and adolescent unit. Four research articles were published in accredited journals. Professor Pretorius and Professor Nichol both served on the Council of the College of Psychiatry. Dr L Nuss completed her training and registered as a specialist after passing the FCPsych examinations.





SCHOOL FOR ALLIED HEALTH PROFESSIONS





B Sports Coaching Programme- the first of its kind in South Africa!

The Department of Exercise and Sports Sciences responded to the national and international demand for the development of a sports coaching programme. The International Council for Coaching Excellence (ICCE), in conjunction with the Association of Summer Olympic International Federations (ASOIF) and Leeds Beckett University published the International Sport Coaching Framework (ISCF) in 2013. The framework is an internationally recognised reference point for the development of all coaches. According to the ISCF, sports coaches will typically be able to fulfil the six primary coaching functions:

- Set relevant visions, goals and strategy/plan for the programme/participant/athletes.
- Create an effective environment for the fulfilment of programme/participant/athlete goals.
- Build positive relationships with all stakeholders (i.e. participant/athletes, other coaches, club officials, parents, etc.)
- Conduct appropriate practices and where appropriate select and prepare for appropriate competitions.
- Make informed decisions related to programme/ participant/athlete training and performance in a dynamic environment.
- Reflect on one's own performance and embrace a lifelong learning attitude to the profession to strive for continuous improvement.

The proposed programme will empower students to fulfil the six primary functions and will make a significant contribution to the development of centres of coaching excellence in South Africa. The qualification is also directly aligned with the International Council for Coaching Excellence Standards for Higher Education Sports Coaching Bachelor Degrees as well as the South African Council on Higher Education Qualification preliminary standards for a Bachelor of Sports Coaching. The programme will be housed in the Department of Exercise and Sports Sciences that is part of the School for Allied Health Professions. The submission process will be completed before the end of March 2018.

Postgraduate teaching continued to be a highlight within the Department of Exercise and Sports Sciences, as evident by the sharp increase of student enrolments for the Honours, Master's and PhD programmes. There were 41 Honours, 26 Master's and 8 PhD students registered in 2017. Four PhD students and 5 Master's degree students submitted their studies for assessment in January 2018. Twenty-seventeen (2017) was also the final year in which the Department of Exercise and Sports Sciences officially offered the third year of Human Movement Science (61 students). The new Bachelor of Biokinetics was successfully launched with 12 students meeting the admission requirements. During the academic prize giving ceremony of the Faculty of the Humanities, the following prizes were awarded: PPS Prize to the best Honours student in Biokinetics: Kyle van Heerden - who also received the Biokinetics Association of South Africa medal for best Biokinetics Honours student in the Department

of Exercise and Sports Sciences; Kinderkinetics: Leandré van den Bergh, and Sports Sciences: Boela du Plessis. The best 2nd year student was Julene Becker. The award for the best 3rd year student was shared by Imke Prinsloo and Sharney Botha.

We as a department were also proud of Dr Riaan Schoeman, a staff member who obtained his PhD degree, while three staff members, Brenda Coetzee, Colleen Sinclair and Elna de Waal were enrolled for their PhD. Five (5) articles were accepted for publication in national (3) and international journals (2) during 2017.

Three staff members were also appointed as subject editors for 6 articles. Dr Riaan Schoeman, Dr Monique De Milander and Ms Elna de Waal presented four papers at the SASRECON Congress in Potchefstroom in October 2017, while Prof Derik Coetzee was invited as a guest speaker at the Athletics South Africa National Coaches Symposium held in Bloemfontein on 6-7th October 2017. The Kinderkinetics discipline within the department also conducted community service at Pholoho, Goggabie Daycare, Eersteling as well as Martie du Plessis school. During these sessions the students provided a variety of perceptual motor activities for children with autism or learning disabilities in addition to visual, auditory or physical impairments. Goggabie Daycare provided the opportunity to work with babies and at Eersteling Farm School the students presented sports programmes in order to expose the children to netball, hockey, tennis and soccer. Dr Monique de Milander was also re-invited to assist with the 2017 Healthy Active Kids South Africa Report Card - an initiative driven by Discovery Health, where the aim is to determine a variety of aspects such as physical activity levels, motor development of children, and nutritional status of children in South Africa. The 3rd year Human Movement Science students offered programmes to Lebone Village, Winky Direko and R.O.C foundation over a twelve week period. The activities they presented included sports and recreation activities to engage the children and to encourage active and healthy lifestyles. The children learnt new skills, practiced old ones and had fun whilst doing so.

The Department of Exercise and Sport Sciences – in collaboration with KovsieSport –launched the KovsieFit Gym in the Callie Human during May 2016. This initiative enabled the postgraduate students within the department to gain numerous work-integrated learning experiences. They were mentored by Mr Ben Zwane – famous group fitness training instructor. Post-graduate students presented their own group training sessions to members

of the KovsieFit facility in 2017. The Sports Science and Biokinetics Honours students were also involved with the pop-up gym initiatives in 2017, where they assisted numerous KovsieFit clients with fitness education, and provided demonstrations of various exercises that may improve cardiovascular health and achieve overall fitness and health improvements. The postgraduate students were also responsible for the scientific services rendered at KovsieFit, which included high performance testing and conditioning of athletes, as well as general fitness and wellness programmes. KovsieFit and the Sports Science Centre are accredited to allocate Discovery Vitality Active Rewards for each gym training session. Mpeko and Associates, a Biokinetics practice in collaboration with Sports Medicine and Physiotherapy, was registered in October 2017. Mpeko and Associates offer metabolic and orthopaedic rehabilitation services available at the Sports Science Centre, as well as Discovery Vitality health and fitness testing services. These expanding facilities create an optimal and essential learning environment for all postgraduate students within the Department of Exercise and Sports Sciences. We are proud to be involved in these entrepreneurial activities that provide essential services to our community.

Lastly, the indispensable support of all departments within the School for Allied Health Professions is humbly and gratefully acknowledged.





the implementation of the Prevention of Mother-to-Child Transmission (PMTCT) Programme in the Northern Cape. The outputs also included a publication on behalf of the African Partnership for Chronic Disease Research (APCDR) on the optimal threshold of waist circumference for detecting cardiometabolic risk in sub-Saharan Africa in the International Journal of Obesity. Another international publication with a wider sub-Saharan African focus assessed pica practices among apparently healthy women and their young children in Ghana.

Research outputs on the nutrition transition in the rural and urban Free State province, as well as a proposal to investigate the iodine status and thyroid function of South African pregnant women and the impact on their offspring, were presented at the 10th World Congress on Developmental Origins of Health and Disease in October 2017, in Rotterdam, Netherlands. Affirming the department's role in nutrition research in sub-Saharan Africa, a poster on urban food gardens and household food access in Lesotho, South Africa and Zimbabwe was presented at the 3rd International Conference on Global Food Security, in December 2017, in Cape Town.

Staff and students excelled at the 2017 Faculty of Health Sciences Research Forum, when Liska Robb was awarded the John van der Riet medal for her 2016 publication on the knowledge, opinions and practices of healthcare workers related to infant feeding in the context of HIV. Prof Corinna Walsh won the prize for presenting the best clinical paper in the senior category relating the findings of a 2016/2017 departmental study on the impact of a school feeding programme on Grade R learners in Ficksburg. Prof Walsh also received a certificate of recognition for presenting at the forum for 15 consecutive years. In addition, a student group under the supervision of Dr Ronette Lategan and Dr Elmine du Toit, was awarded the overall runner-up prize, as well the first prize for the best presentation in the School of Allied Health Professions at the Student Forum.

he Department of Nutrition and Dietetics had a very successful year in terms of academic and research achievements, service learning and community involvement.

In the undergraduate Dietetics programme, all the students passed successfully in 2017. Despite being the smallest of the departments in the School for Allied Health Professions, with only seven permanent academic staff members, the postgraduate Nutrition and Dietetics Programme had two Master's degrees awarded in 2017, whilst 14 Master's and four PhD students remained enrolled. The department also gained the services of a post-doctoral fellow.

Highlights of 2017 with regard to staff development included the inauguration of Prof Corinna Walsh as full professor. In addition, Prof Walsh was also elected as the Chairperson of the Nutrition Society of South Africa. Dr Louise van den Berg was promoted to adjunct professor and attained an NRF-C3 rating, bringing the number of rated researchers in the department to two.

In terms of research outputs, the academic staff members published nine research articles in peer-reviewed journals. These publications focused on high priority nutrition and health issues, including malnutrition in the

I NUTRITION AND DIETETICS

elderly residing in long-term care facilities, metabolic syndrome in urban African women and feeding practices of caregivers of rural toddlers. HIV remained a research focus area of the department, with publications on the health, lifestyle, clinical manifestations and household food security associated with HIV status in rural and urban communities in the Free State. Another publication audited



To further the department's commitment to community engagement and service learning, Eat&Succeed was launched as a web-based platform to combat food insecurity amongst students. Through recipes, demonstration videos, articles and tips, students are empowered to eat and live healthily on a shoestring budget. The initiative has drawn attention from various other universities who are interested in developing similar initiatives.

For the fourth consecutive year, the department, in collaboration with the Department of Paediatrics and Child Health, hosted a weekend getaway for children with diabetes. This camp not only empowered the children about living with diabetes, but the dietetic students as well. The third-years developed the recipes and prepared the food for the camp, emphasising great taste, sound nutrition and carbohydrate counting. The fourth-year students were responsible for creating and performing fun-filled educational activities with the children and looking after the children in general. One of the most creative educational games developed by the students for the 2017 camp was a deck of cards that teaches carbohydrate counting through traditional card games. The Department of Nutrition and Dietetics hopes to promote this innovative concept on a wider scale.

During 2017, undergraduate students as well as staff members presented various radio talks,

articles in the popular media, health presentations and exhibitions, as well as training sessions in various communities. The final-year students identified and planned a number of successful nutrition projects during which they also mobilised nonprofit organisations to improve the nutrition situation of communities.

Looking ahead, the Department of Nutrition and Dietetics envisions new and innovative, as well as collaborative teaching and learning, research and service learning engagements.



taff and students of the Department of Occupational Therapy have again delivered a successful 2017 with a pass rate of 93% across all four year groups. The department represented the School for Allied Health Professions on various faculty platforms and played an important role in fostering interprofessional relationships in the SAHP. This was also one of the strengths that was highlighted during the accreditation visit of the HPCSA during October 2017.

SCHOLARSHIP OF TEACHING

The academic programme comprises various teaching and learning activities in order to accommodate different learning styles and preferences of students. Blended teaching and learning methods enable us to reach all students more effectively through the use of didactic as well as experiential approaches. The Clinical Skills Unit (CSU) is utilized for skills training. Teaching and learning activities presented in the CSU include simulations, access to audiovisual material and practical sessions. This is made possible by support of the CSU staff who manage the specific setup required by lecturers for sessions presented there. The practical sessions in the CSU have contributed to the acquisition of practical skills and knowledge before students enter the clinical fieldwork areas.

SCHOLARSHIP OF RESEARCH

In the first of many collaborative research projects, Mrs Elize Janse van Rensburg (Occupational Therapy); Prof Pieter Blignaut (Computer Science and Informatics) and Dr Marsha Oberholzer (Optometry) received a UFS Interdisciplinary Research Grant 2016 to the value of R 80 000,00. The title of the project is Using Computerized Assessment of Eye Tracking to Enhance Clinical Observations and Interpretation in Occupational Therapy. This project was started in November 2015 and is still expanding in terms of collaborators and disciplines. Further application for funding for the continuation of the project is underway.

Mrs Elize Janse van Rensburg, in collaboration with Mrs Erna Liebenberg (Faculty of Education (Inclusive Education) and Mr Cornel van Rooyen (Biostatistics) also received an allocation of R 50 000,00 from the office of UFS Research Development. The title of the project is The Effect of a Sensory-Motor Stimulation Programme Presented at a Low Cost Sustainable Playground on the Development of Grade R and 1 Learners of a Rural School in the Free State.

During the South African Association of Child and Adolescent Psychiatry and Allied Professions (SAACAPAP)

Congress held in Cape Town in September 2017 Mrs Annamarie van Jaarsveld was awarded with the Discovery Clinical Excellence Award by the South African Institute for Sensory Integration.

Mrs van Jaarsveld presented a paper: Designing a Professional Master's Curriculum for Sensory Integration *Training* at the European Congress for Sensory Integration during May 2017 in Vienna, Austria. She was invited as a plenary speaker at the Iberia Congress for Sensory Integration during October 2017, which took place in Alicante, Spain. The title of her presentation was *Training* in Sensory Integration – an International Perspective.

Mrs Ronette Hough (Occupational Therapy), Prof Corina Walsch (Nutrition and Dietetics), Dr Marianne Reid (School of Nursing) and Miss Riëtte Nel (Biostatistics) have collaborated in a research project with the title **A** Health Dialogue Model for Patients with Diabetes: A Feasibility Study. Funding for this project was received from the Plume foundation / NRF & UFS 50/50 - TTK 160511164734. A study on patient participation in communication regarding postural alignment was conducted by Mrs Ronette Hough (Occupational Therapy), Dr Marianne Reid (School of Nursing) and Miss Riëtte Nel (Biostatistics). This research collaboration received funding of R38 000,00 from the Free State Department of Health.

Mrs Tania Rauch-Van der Merwe attended the Occupational Therapy Africa Regional Group International Congress (OTARG) from 10-13 September 2017 in Accra, Ghana. She presented a paper titled From Epistemic Alienation to Epistemic Freedom through an Archaeological Excavation of Occupational Therapy Knowledge. This paper is related to her PhD study. Several collaborations were explored including international evaluators for postgraduate theses and colleagues who are willing to share their expertise in postgraduate supervision.

SCHOLARSHIP OF COMMUNITY-BASED ENGAGEMENT

The Occupational Therapy Department continues to be committed to interprofessional education (IPE) and community based engagement (CBE) activities.Our finalyear students attend the four IPE sessions on campus and are all exposed to CBE activities during a week's placement at the Trompsburg platform. Staff from the department furthermore act as facilitators at the IPE session on campus and as facilitators at the Trompsburg CBE platform.

Third- and fourth-year students are placed at a social

services NGO in Bloemfontein where they serve various communities with limited resources. Therapeutic services in the form of assessment and intervention, as well as community projects, are offered in collaboration with social services and social workers. Occupational therapy students accompany other team members on outreaches to these communities, providing services such as parental guidance groups, individual client-centred intervention programmes to adults and children in the community and children in foster care. This valuable outreach takes occupational therapy services to those who cannot attend a clinic or who do not have the resources to pay for therapeutic services, but are in desperate need. During IPE activities occupational therapy students compiled an interview checklist for social work assistants when interviewing teachers of children who are removed from their parents' care. This is deemed as valuable IPE opportunities as the occupational therapy team works side by side with social development, the South African Police Service, early childhood development centres and other stakeholders in the community.

LEADERSHIP

Staff members are fulfilling leadership positions on various platforms on an institutional, faculty and school level. Prof Santie van Vuuren, an occupational therapist, is the Head of the School of Allied Health Professions from where she leads with insight and experience.

Staff members are also actively involved in leadership positions of professional associations and institutes. Mrs Annamarie van Jaarsveld is the chairperson on the Scientific Committee for the International Sensory Integration Congress (ISIC), to be held in Cape Town 26-27 May 2018. Mrs Elize Janse van Rensburg is a member of the above-mentioned committee. These two staff members are also involved in an international normative data collection project for the Evaluation in Ayres Sensory Integration (EASI) test development.

Mrs Elize Janse van Rensburg is a board member of the South African Institute for Sensory Integration (SAISI). Mrs Rialda Hattingh is a committee member of the Occupational Therapy Association of South Africa.

The department had to say goodbye to Mrs Cecile Henderson who retired at the end of 2017. She was an integral part of the department and made sure the administrative wheels turned smoothly for many years. The department welcomes Miss Clementine Sepadile, who was appointed in Mrs Henderson's post.



he Department of Physiotherapy maintains a high standard of undergraduate teaching and learning with an average student success rate of 97%. The popularity of the undergraduate physiotherapy programme is confirmed by the large number of undergraduate students applying to study physiotherapy, and the growing number of postgraduate students applying for master's and PhD degrees.

Community service learning is a main priority of the department and the visibility of the Physiotherapy students in the community is a clear indication of the department's commitment towards the growing need of health services in the community. Miss C Saaiman is actively involved in the planning of community service not only at departmental level but also at school and faculty level. The department is also actively involved in interprofessional training and utilises simulation to enhance the learning experience of the senior students in our department.

The highlight of fourth-year students within the

department remains their contribution at the yearly Comrades Marathon. This exposure to a major event also enhances the learning experience of the students in our department.

Staff achievements include one member of staff obtaining her PhD degree from the University of the Witwatersrand. Staff within the department offered six presentations and three poster presentations at the Faculty Research Forum - an amazing achievement.

Mrs Karen Bodenstein was the winner of the junior division of educational presentations. The presentation was titled Stressors and coping strategies among physiotherapy students: towards an integrated support structure. The presentation addressed the very important topic of stress and coping strategies of students – a phenomenon that is becoming more and more of a challenge not only within Allied Health Professions, but in all departments on the campus.

Three staff members presented presentations and posters at the World Congress of Physiotherapists which was held in Cape Town. Dr Corlia Brandt's abstract was nominated for an award during this prestigous congress. Miss

Cherezanne Marais presented a platform presentation at the Performing Arts Health Symposium with the title: Chronic ankle instability and associated self-reported function in professional ballet dancers in South Africa.









Community involvement forms an integral part of the department and as part of the department's community service, a gas heater and gas bottle were donated to Emelia House, a day care centre for children with multiple disabilities in Bloemfontein, by the staff of the department.





SCHOOL OF NURSING

NIVERSITY OF THE FREE STATE | **HEALTH SCIENCES** | 2018

TAKING THE LEAD

Several staff members were rewarded during 2017:

Mrs Mandie Jacobs and Dr Deirdre van Jaarsveldt were the winners of the Kerneels Nel medal at the Research Forum, Faculty of Health Sciences for their article: 'The character rests heavily within me': drama students as standardized patients in mental health nursing education. It was published in the Journal of Psychiatric and Mental Health Nursing, 2016, 23, 198-206.

Mrs Mandie Jacobs, Dr Marianne Reid and the Midwifery division of the School of Nursing (Mrs Elgonda Bekker, Dr Delene Botha, Mrss Vanessa Booysen, Charné Human, Maki Lesia and Winnie Motlolometsi) received the Vice-Rector's Award for Community Engagement in recognition of outstanding service, commitment and excellence.

SCHOLARSHIP DEVELOPMENT

The Schools of Nursing, Allied Health Professions and Medicine offered a short learning programme titled Simulation for Health Professions Educators under the auspices of the Academy for Continuous Nursing Education. Prof Mathys Labuschagne was the course coordinator. The feedback from the fifteen attendees was overwhelmingly positive and all the presenters were commended for their dedication, knowledge and enthusiasm.

Eight short learning programmes on national level were offered in Bloemfontein, Durban, Cape Town, Johannesburg and Kathu. Two hundred and sixtyseven students attended, including students from Zimbabwe, Namibia, Botswana and Kenya.

Three extensive workshops on preceptorship were offered to improve the quality of preceptorship in the School of Nursing. Workshops on assessment were offered for the staff of the Henrietta Stockdale Nursing College (Kimberley) and the Free State School of Nursing.

Five Master's students graduated during 2017 and Mrs Maria Phillips, a lecturer from the school, obtained her PhD degree.

Six peer reviewed articles and ten chapters in scholarly books were published.

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NEW ACADEMIC PROGRAMMES

The curriculum of the new Bachelor of Nursing programme was submitted to the South African Nursing Council (SANC) for approval. The Postgraduate Diploma in HIV and AIDS was approved by the Council of Higher Education (CHE) and will be offered in 2019.

The School of Nursing played a pivotal role in homogenising postgraduate diplomas in nursing on behalf of the Forum for Nursing Deans of South Africa (FUNDISA) for submission to the

The Directorate for Institutional Research and Planning (DIRAP) of the University of the Free State also approved a new short learning programme: Dispensing for Health Professions (DISP

INTERNATIONALISATION

Two Swedish exchange students enrolled for the psychiatric nursing module during the second semester of 2017.





Two staff members, Prof Annemarie Joubert and Mrs Ielse Seale, visited VIVES, University College in Kortrijk, Belgium from 10-15 December 2017 to explore cooperation and possibilities regarding the exchange of academic staff and students. The visit was in chief sponsored by VIVES, and three campuses were visited: Kortrijk, Roeselare and Brugge.

Several opportunities for the future were identified:

• Student (clinical placement) and staff exchange (teaching related).

- Collaborative research in areas such as simulation, interprofessional education and mental health nursing.
- Possible involvement with the School of Allied Health Professions.
- Co-supervisors for postgraduate students.
- Exchange of resources (simulation scenarios).



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