



## CRI QUARTERLY NEWSLETTER:

July – September 2022

### Welcome to the third CRI quarterly newsletter for 2022

Our quarterly newsletters showcase the many cancer-related research activities in the Faculty of Health Sciences to research colleagues, clinicians, funders and the public. Previous editions of the newsletter are published on the [CRI website](#).

### News

#### Special thanksgiving event in honour of Professor Lynette Denny

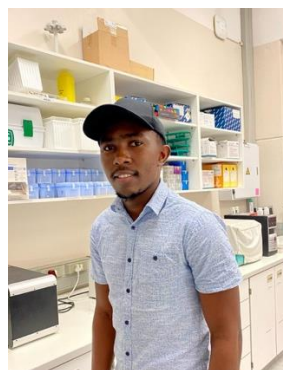
UCT Faculty of Health Sciences hosted a special thanksgiving event on Wednesday, 10 August 2022, to honour and celebrate Prof. Lynette Denny and her decades of service to the women of low- and middle-income countries worldwide.



Professor Denny is the former head of UCT Department of Obstetrics and Gynaecology and the Director of the university's Gynaecological Cancer Research Centre (GCRC)

#### 2022 PG CRI 3-minute thesis competition

The CRI Postgraduate Team hosted their third annual PG CRI 3-minute thesis competition. The event recorded a good turnout, with three winners emerging at the end, as follows: 1<sup>st</sup> place – Mr Karabo Serala, PhD student, Prince cancer laboratory and two 2<sup>nd</sup> places – Ms Carly Burmeister, MSc student, Prince cancer laboratory and Ms Maryam Karaan, MSc student, Barth laboratory.



Congratulations, Mr Karabo Serala



Congratulations to Ms Carly Burmeister

### Fellowship and Awards

- Dr Katherine Antel received the 2022 American Society of Hematology (ASH) Global Research Award. This award will enable her to continue her work on HIV-associated lymphoma and collaborate with the Dana-Farber Cancer Institute in Boston on cancer genomic research.
- Claire Bellis (PhD student) and Stephanie Ncube (PhD student), supervised by Prof Sharon Prince, were awarded second place for the best oral presentation and poster presentation, respectively, at the Department of Human Biology Research Day.
- Athi Welsh (PhD student supervised by A/Prof Greg Smith and co-supervised by Prof Sharon Prince) was awarded the Lindau Nobel Laureate Meetings award by the African Academy of Science. This meeting is a unique international forum for scientific exchange where around 30-40 Nobel Laureates and 500–600 young scientists from all over the world travel to Lake Constance in the south of Germany to discuss scientific research and foster the dialogue between generations and cultures.
- Athi Welsh was also awarded the prestigious NRF Research Excellence Award for Next Generation Researchers. This award is given to doctoral students who have achieved outstanding academic performance and demonstrate the potential for contributing significantly to the National System of Innovation.



Mr Athi Welsh and Prof Sharon Prince at the NRF awards ceremony

- Dr Sarah Day, a Senior Research Officer in the Cancer Research Initiative, was a winner of the Insight250, which is an award that recognises 250 global academic, enterprise, agency, technology, consulting and media leaders in research and insights. A spectrum of dimensions was reviewed, including professional experience, academic accomplishments, publication contributions, thought leadership, industry involvement, insight innovations and sector accolades, among others.

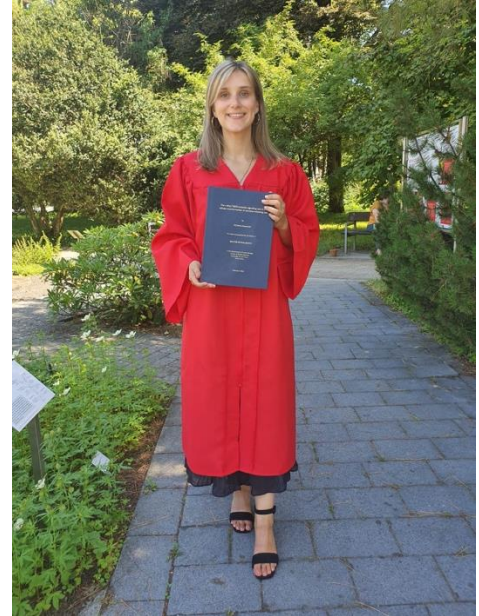


Dr Sarah Day

### Graduation news

- Dr Alexis Mufweba completed her Postdoctoral research project in the Prince Laboratory. We wish her well in her new career path.
- Dr Ellouise Adams submitted her MMed dissertation entitled “Diagnostic use of abdominal ultrasound in detecting EPTB or lymphoma in an HIV-endemic region”.
- Dr Victoria Damerell graduated in July 2022 (Supervised by Prof Sharon Prince and co-supervised by Prof Michael Pepper, UP) with a doctoral thesis

titled “The c-Myc/TBX3/nucleolin signalling axis in the cellular transformation of sarcoma-initiating cells”.



Dr Victoria Damerell

### Project updates

#### Grand opening of the newly renovated premises of the Khayelitsha Cervical Cancer Screening Project (KCCSP)

The MRC/UCT Gynaecological Cancer Research Centre, on Monday, 8 August 2022, celebrated the grand opening of the newly renovated premises of the Khayelitsha Cervical Cancer Screening Project (KCCSP). For 27 years, the Khayelitsha Cervical Cancer Screening Project has conducted research in Khayelitsha, Cape Town, screening around 60,000 women for cervical cancer in various high-level projects and studies. The opening was attended by various staff and members of UCT Faculty of Health Sciences/Dept. of Obstetrics & Gynaecology, including the dean of UCT’s Faculty of Health Sciences, Associate Professor Lionel Green-Thompson and the head of UCT’s Department of Obstetrics and Gynaecology, Professor Mushi Matjila.





Other dignitaries in attendance were MEC for Health in the Western Cape, Dr Nomafrench Mbombo, the Head of Health in the province, Dr Keith Cloete, and family physician at the Khayelitsha Community Health Clinic, Dr Leigh Wagner.

### **The Advancing Early Diagnosis of Cancer in Southern Africa - (AWACAN-ED) project update**

The AWACAN-ED Southern African School for Cancer Research was held between the 27th and 30th of September, 2022. The School aims to develop early career researchers by giving them opportunities to study, collaborate and have mentorship from national and international experts. The School had in attendance 14 students and 19 speakers. The speakers represented the University of Cape Town, the University of Zimbabwe, Queen Mary University of London, the University of Cambridge, Zimbabwe Cancer Registry, IARC, CANSA, Cancer World Health Organisation AFRO, UMTHA and the Well Woman Clinic. The lectures covered proposal development, literature reviews, research methods, and established and emerging evidence within the field of cancer.



At the AWACAN-ED Southern African School for Cancer Research, Harare, Zimbabwe

Alongside the research aspects, the Advancing Early Diagnosis of Cancer in Southern Africa (AWACAN-ED)

Project also aims to strengthen research capacity through training programmes and mentorship of emerging cancer researchers. We congratulate the four UCT students who received scholarships to fund their Masters and PhDs. The two PhD students are Denis Okova and Lactricia Maja, and the two Master's students are Sudarshan Govender and Kelechi Nnene.



Denis Okava



Lactricia Maja



Kelechi Nnene



Sudarshan Govender

### **Conferences/Congresses/Symposia**

#### **Annual Research Indaba of the SAMRC/UCT Gynaecological Cancer Research Centre**

SAMRC/UCT Gynaecological Cancer Research Centre's annual Research Indaba was held on the 20th & 21st of August 2022 at the Durbanville Hills Wine Estate. The research Indaba was a hybrid event, with 15 members attending in person and nine members (including members from the Eastern Cape) attending the online sessions. This year's indaba focussed on GCRC activities and achievements over the past seven years, with members showcasing the GCRC's flagship multidisciplinary project. The Centre further hosted two guest speakers, Drs Johan Schneider and Micheline Sanderson (University of Stellenbosch), to address GCRC members on the need for and best practices in biobanking



Attendees at the 2022 GCRC's annual Research Indaba



Dr Viseslav Boskovic presenting at the 2022 SAOA congress



Attendees at the 2022 GCRC's annual Research Indaba

## 2022 South African Orthopaedic Association Congress

The South African Orthopaedic Association Congress was held on the 5<sup>th</sup>-8<sup>th</sup> of September 2022. The event was well attended by members and delegates from within and outside South Africa. It also received sponsorships from various companies and organisations, including DePuy Synthes, MEDHOLD, SA Biomedical, Smith Nephew and many others.



Prof. Henrik Bauer presenting at the 2022 SAOA congress

## 7<sup>th</sup> European Society for Blood and Marrow Transplantation (EBMT) International Transplant Course

Dr Siphwe Baloyi, a clinical haematology fellow, attended the 7<sup>th</sup> European Society for Blood and Marrow Transplantation (EBMT) International Transplant Course in Barcelona, Spain, from 2-4 September 2022. This course aimed to provide trainees with an overview of relevant topics on haematopoietic stem cell transplantation (used in the treatment of various cancers).



Dr Baloyi and colleagues at the 7<sup>th</sup> EBMT International Transplant Course in Barcelona, Spain

### International Society of Laboratory Haematology

Prof Jessica Opie presented her research on Plasmablastic Lymphoma at the International Society of Laboratory Haematology meeting held in Bologna, Italy, from 8-10 September 2022.



Prof. Opie at ISLH 2022, Bologna, Italy

### NIH Fogarty Trainee Symposium

The Division of Clinical Haematology hosted the NIH Fogarty Trainee Symposium on 30 August 2022. The Fogarty trainees, supported by the NIH-Fogarty D43 grant, had the opportunity to present their research on a range of topics that included the Clinico-pathological landscape of lymphoma in Cape Town; Pathobiology of HIV-lymphoma; and Molecular Characterisation of Diffuse Large B-Cell Lymphoma in South Africa.

### UCT Department of Human Biology (HUB) Research Day presentations:

- Bellis C, Chakraborty S, Mlaza M, Del Bianco Sahm B, Pinto F, Pessoa O, Rezende P Teixeira, Costa-Lotufo L, and Prince S (2022). The marine-derived antibiotic chromomycin A5 targets the oncogenic TBX2: a new strategy to treat breast cancer. [Oral presentation](#)
- Burmeister CA, Khan SF, Schäfer G, Prince S (2022). Investigating the cooperation between the human papillomavirus (HPV) oncoproteins E6/E7 with the oncogenic T-box transcription factor 3 (TBX3) to promote cervical cancer.. [Poster presentation](#)
- Ncube SM, Nagarajan AJ, Prince S (2022). The c-Myc/TBX3/Hsc70/Nucleolin signalling axis in breast cancer. [Poster presentation](#)
- Mlaza MV, Bellis C, Chakraborty S, Costa-Lotufo L, Prince S (2022). Marine-derived chromomycin A5: a novel strategy to treat TBX2-driven rhabdomyosarcoma. [Poster presentation](#)

### Upcoming events

#### UCT Department of Radiation Medicine Annual Research Day:

In collaboration with Groote Schuur Hospital, the UCT Department of Radiation Medicine is hosting its Annual Research Day on 10 November 2022. The theme for this year is "Research- Getting back to Basics". Please see the poster attached. Abstracts are due on 17 October, and I can provide you with the program if you require it. The event will feature a multidisciplinary session on "Prostate Cancer", starting at 14:30. The aim is to provide an in-depth exposé regarding the multi-modal, tertiary level management of patients with prostate cancer. The format will be a clinical case presentation, followed by diagnostic imaging and therapeutic insights. Three cases will be presented with a panel of local experts from each discipline.



The annual research event will be held at Lecture Theatre 1, Groote Schuur Hospital

### Recent Cancer Publications (Faculty-wide)

1. van Heerden J, Lisa Christine I, Downing J, Davidson A, Hessissen L, Schoeman J, Ladas EJ, Abdelhafeez H, Georgia Odongo Arao S, Fentie AM, Kamal S. Current status of African pediatric oncology education efforts aligned with the Global Initiative for Childhood Cancer. *Pediatric Hematology and Oncology*. 2022 Aug 26:1-8.
2. Van Heerden J, Iumba LC, Assani K, Downing J, Davidson A, Hessissen L, Schoeman J, Israels T, Cox S, Abdelhafeez H, Arao SO. The conference report on the 14th International Society of Paediatric Oncology African Continental Meeting, 16–18 March 2022, Kampala, Uganda.
3. Nahvi I, Belkahla S, Biswas S, Nahvi I, Amor B. Advances and development of prostate cancer, treatment and strategies: A systemic review. *Frontiers in Cell and Developmental Biology*. 2022 Sep 9:1757.

4. John J, Marais B, Swanepoel P, Smit M, Comley N, Louw D. Small bowel intussusception caused by a metastatic testicular germ cell tumour. *South African Journal of surgery. Suid-afrikaanse Tydskrif vir Chirurgie*. 2022 Sep 1;60(3):207-9.
5. Malindi Z, Barth S, Abrahamse H. The Potential of Antibody Technology and Silver Nanoparticles for Enhancing Photodynamic Therapy for Melanoma. *Biomedicines*. 2022 Sep;10(9):2158.
6. Titinchi F, Sallies M, Wu HT. Mucoepidermoid carcinoma ex pleomorphic adenoma: A rare diagnostically challenging entity. *Oral Oncology*. 2022 Nov 1;134:106112.
7. Polf JC, Barajas CA, Peterson SW, Mackin DS, Beddar S, Ren L, Gobbert MK. Applications of machine learning to improve the clinical viability of Compton camera based in vivo range verification in proton radiotherapy. *Frontiers in Physics*. 2022:284.
8. Oluwole OG, Henry M. Genomic medicine in Africa: a need for molecular genetics and pharmacogenomics experts. *Current Medical Research and Opinion*. 2022 Sep 12(just-accepted):1-21.
9. Iskandar R, Taghavi K, Low N, Bramer WM, Egger M, Rohner E. Mathematical Models for Evaluating Effectiveness and Cost-Effectiveness of Cervical Cancer Control Policies in Populations Including Women Living with Human Immunodeficiency Virus: A Scoping Review. *Value in health regional issues*. 2022 Nov 1;32:39-46.
10. Abrahams C, Woudberg NJ, Lecour S. Anthracycline-induced cardiotoxicity: targeting high-density lipoproteins to limit the damage?. *Lipids in Health and Disease*. 2022 Dec;21(1):1-6.
11. Miguel RD, Hirata AS, Jimenez PC, Lopes LB, Costa-Lotufo LV. Beyond Formulation: Contributions of Nanotechnology for Translation of Anticancer Natural Products into New Drugs. *Pharmaceutics*. 2022 Aug;14(8):1722.
12. Prudden HJ, Achilles SL, Schocken C, Broutet N, Canfell K, Akaba H, Basu P, Bhatla N, Chirenje ZM, Delany-Moretlwe S, Denny L. Understanding the public health value and defining preferred product characteristics for therapeutic human papillomavirus (HPV) vaccines: World Health Organization consultations, October 2021—March 2022. *Vaccine*. 2022 22 August.
13. Munro MG, Balen AH, Cho S, Critchley HO, Díaz I, Ferriani R, Henry L, Mocanu E, van der Spuy ZM. The FIGO ovulatory disorders classification system. *Fertility and Sterility*. 2022 19 August.
14. Bapiro TE, Hayeshi R, Dandara C. Metabolism of anti-cancer drugs: Interplay involving pharmacology and pharmacokinetics. *Frontiers in Oncology*. 2022;12.
15. Harrison V, Khan SF, Damerell V, Bleloch J, ArulJothi KN, Sinkala M, Lennard K, Mulder N, Calder B, Blackburn J, Prince S. *Strongylopus grayii* tadpole blastema extract exerts cytotoxic effects on embryonal rhabdomyosarcoma cells. *In Vitro Cellular & Developmental Biology-Animal*. 2022 Aug 10:1-4.
16. Abdelhafeez A, Reljic T, Kumar A, Banu T, Cox S, Davidoff A, Elgendy A, Ghandour K, Gerstle J, Karpelowsky J, Kaste S. Evidence-Based Surgical Guidelines for Treating Children with Wilms Tumor in Low-Resource Settings. *Authorea Preprints*. 2022 Feb 18.
17. Dar TB, Biteghe FA, Kakar-Bhanot R, Aniogo EC, Malindi Z, Akinrinmade OA, Chalomie NE, Kombe Kombe AJ, Aboughe Angone S, Ndong JM, Ndong JD. Synergistic effects of radiotherapy and targeted immunotherapy in improving tumor treatment efficacy: a review. *Clinical and Translational Oncology*. 2022 Aug 1:1-7.
18. Adetunji TL, Olawale F, Olisah C, Adetunji AE, Aremu AO. Capsaicin: A Two-Decade Systematic Review of Global Research Output and Recent Advances Against Human Cancer. *Frontiers in Oncology*. 2022;12.
19. Mathers JC, Elliott F, Macrae F, Mecklin JP, Moslein G, McDonald FE, Bertario L, Evans DG, Gerdes AM, Ho JW, Lindblom A. Cancer Prevention with Resistant Starch in Lynch Syndrome Patients in the CAPP2-Randomized Placebo Controlled Trial: Planned 10-Year Follow-up. *Cancer Prevention Research*. 2022.
20. Rhee DJ, Jhingran A, Huang K, Netherton TJ, Fakie N, White I, Sherriff A, Cardenas CE, Zhang L, Prajapati S, Kry SF. Clinical acceptability of fully automated external beam radiotherapy for cervical cancer with three different beam delivery techniques. *Medical physics*. 2022 22 July.
21. Arowolo A, Malebana M, Sunda F, Rhoda C. Proposed Cellular Function of the Human FAM111B Protein and Dysregulation in Fibrosis and Cancer. *Frontiers in oncology*. 2022;12.
22. Jonas E, Bernon M, Robertson B, Kassianides C, Keli E, Asare KO, Alatisie IO, Okello M, Blondel NO, Mulehane KO, Abubeker ZA. Treatment of hepatocellular carcinoma in sub-Saharan Africa: challenges and solutions. *The Lancet Gastroenterology & Hepatology*. 2022 8 July.
23. Trauernicht CJ, van Eeden D, du Plessis FC. Measured, calculated, and egs\_brachy I-125 dose distributions in a gold plaque for retinoblastoma treatment. *Medical Physics*. 2022 6 July.
24. Soares NC, Ali A, Srinivasulu V, Sharaf BM, Giddey AD, Okendo J, Al-Hroub HM, Semreen MH, Hamad M, Al-Tel TH. Unveiling the mechanism of action of nature-inspired anti-cancer compounds using a multi-omics approach. *Journal of Proteomics*. 2022 15 August;265:104660.
25. Nahvi I, Belkahla S, Biswas S, Chakraborty S. A Review on Nanocarrier Mediated Treatment and Management of Triple Negative Breast Cancer: A

- Saudi Arabian Scenario. *Frontiers in Oncology*. 2022;12.
26. Bailly J, Jenkins N, Chetty D, Mohamed Z, Verburgh ER, Opie JJ. Plasmablastic lymphoma: An update. *International Journal of Laboratory Hematology*. 2022 Sep;44:54-63.
  27. Onywera H, Mabunda SA, Williamson AL, Mbulawa ZZ. Microbiological Determinants of Genital HPV Infections among Adolescent Girls and Young Women Warrant the Need for Targeted Policy Interventions to Reduce HPV Risk. *Frontiers in Reproductive Health*.:56.
  28. Aldera AP, Pillay K, Robertson B, Boutall A, Ramesar R. Genomic landscape of colorectal carcinoma in sub-Saharan Africa. *Journal of Clinical Pathology*. 2022 1 September.
  29. Rhee DJ, Jhingran A, Huang K, Netherton TJ, Fakie N, White I, Sherriff A, Cardenas CE, Zhang L, Prajapati S, Kry SF. Clinical acceptability of fully automated external beam radiotherapy for cervical cancer with three different beam delivery techniques. *Medical physics*. 2022 22 July.
  30. Joram GO, Burger H, Visser WI, Mohamed Z. Low-dose localised electron radiotherapy in a case of refractory mycosis fungoides. *South African Journal of Oncology*. 2022 28 July;6:5.
  31. Saidu R, Morhason-Bello I. Same-day test and treat for early detection and treatment of cervical cancer in LMICs. *The Lancet Global Health*. 2022 Sep 1;10(9):e1226-7.
  32. Castor D, Saidu R, Boa R, MBATANI N, Mutsvangwa TE, Moodley J, Denny LA, Kuhn L. Assessment of the implementation context in preparation for a clinical study of machine-learning algorithms to automate the classification of digital cervical images for cervical cancer screening in resource-constrained settings. *Frontiers in Health Services*.:81.
  33. Aldera AP, Pillay K, Robertson B, Boutall A, Ramesar R. Genomic landscape of colorectal carcinoma in sub-Saharan Africa. *Journal of Clinical Pathology*. 2022 1 September.
  34. Davidson A, Moodley J, Pillay K, Hendricks M, Stewart A, & Parkes J. The University of Cape Town's paediatric cancer database: Results from the first years (2019–2021). *South African Journal of Oncology*, 2022.

**Please send any cancer-related news, events, publications and conference information for the period July - September 2022 for inclusion in our next quarterly newsletter to:**