RESEARCH
CANSA is one of the very few public funded organisations in South Africa that has sustainable funding for research. Funds, mainly donated by bequest, have been invested for use in enabling cancer research. The funds are currently used across five research programmes categorised Type A, B, C, D and E. CANSA’s core research focus is on epidemiology, early diagnosis, lowering the cancer risk and optimising patient care.

CANSA ensures that the scientific findings and knowledge gained from research realign our advocacy focus and strengthen our education and service delivery programmes to enhance public benefit. Each year, approximately R7 million is dedicated to direct research costs.

**TYPE A RESEARCH**

Our Type A funding programme is aimed at MBChB and PhD cancer researchers based at South African universities and research organisations. The purpose of this funding is to support high-quality research to advance management and improve outcomes for the most common cancers in South Africa. This research programme accepts applications on the following topics:

- Epidemiology and determinants of the burden of cancer in South African populations
- Health seeking behaviours and early detection and diagnosis of cancer
- Health promotion and risk reduction of cancer, with a particular focus on behavioural risk reduction
- *Optimal patient care including rehabilitation and palliative care services*
- Other health services and health system research relating to the above categories
- Health economics of cancer, including economic burden of cancer and its risk factors, and cost effectiveness research
- *Research relating to cancer biology/biochemistry/molecular biology* as these relate to early detection, risk reduction and patient care.

Grants of up to R1.2 million over three years are awarded to projects based on scientific merit. For the 2017 deadline, 47 applications were received of which nine projects were funded. We awarded R5 255 948 to this programme, of which, CANSA contributed R3 941 961. A total of six projects came to an end on 31 March 2018 and 15 are ongoing with nine planned to begin as of April 2018. See [https://www.cansa.org.za/type-a-research-projects/](https://www.cansa.org.za/type-a-research-projects/) on cansa.org.za for a detailed summary of projects focusing on basic science, clinical and public health research categories.

**PUBLICATION AWARDS**

CANSA rewards researchers who publish their work in accredited journals with an amount of R10 000 per publication. In total R350 000 was paid to the following researchers who completed their projects in 2016:

Professors Anna-Mart Engelbrecht, Annie Joubert, Catherine Kaschula, Jennifer Moodley, Amanda Swart, Willie Van Heerden and Dr Theo Nell.
GRADUATES ARISING FROM CANSA GRANTED PROJECTS ENDED 31 MARCH 2018

Cansa acknowledges the importance of building the capacity of a new generation of cancer researchers to further develop much needed advances in cancer research in South Africa. Where appropriate, Type A grants permit students to work under the supervision of the Principal Investigator and grant holder to obtain a postgraduate qualification. At the end of March 2018, a total of 11 researchers completed their CANSA research grants. We’re proud to be contributing towards the development of a new cohort of cancer researchers for South Africa.

Emanating from these projects were the following 27 degrees awarded to students:

• BMedSc = 1
• BSc Honours = 8
• MSc = 10
• MPhil = 1
• PhD = 7

At the following universities:
• University of Cape Town = 8
• University of Stellenbosch = 6
• University of Pretoria = 3
• Rhodes University = 4
• Cape Peninsula University of Technology = 4
• Wits University = 2

QUOTEs FROM RESEARCHERS

“The CANSA grant enabled a baseline learning from which we were awarded a 5 year NIH grant to establish an epidemiology research programme in cancer at Wits” - Maureen Joffe -

“My association with CANSA has been very fruitful and pleasant and I do foster the role the organisation played and still playing today in our quest to study (prevent) the incidence of cancer” - Wentzel Gelderblom -

“With CANSA funding, we embark, for the first time in SA, to utilise patient derived glioma tissue to develop a cancer sphere model. I really hope to, in the long run, use this as a preclinical screening system, to work together with the surgeons to provide the most powerful chemotherapy. Glioma patients have currently a life expectancy of 12-24 months after diagnosis. So, I am very thankful for the support received from CANSA” - Ben Loos -

Cansa DETECTIVE BOOKLETS
These booklets showcase some of the Type A research CANSA has funded. A new booklet, ‘Women’s Pathways to Breast Cancer Diagnosis and Care’, written by Prof Jennifer Moodley of the University of Cape Town, was produced and added to CANSA’s series. Go to http://www.cansa.org.za/cansa-research-detectives-booklets/ for a list of all booklets.
RESCOM MEMBER
CANS A would not be able to run the Type A funding programme without the invaluable expertise of our Research Committee (RESCOM), made up of a group of cancer research experts based at South African institutions. They contribute to funding and other decisions in support of CANS A’s Research department. We welcomed one new member to the committee:

Professor Johnny Mahlangu is a Professor (Personal) of Haematology, Faculty of Health Sciences at the University of the Witwatersrand and Head of School of Pathology, Faculty of Health Sciences at the University of the Witwatersrand and National Health Laboratory Service. He has a special interest in haemostasis and thrombosis, clinical trials and other aspects of clinical and diagnostic haematology and pathology.

TYPE B RESEARCH: REDUCING RISK
This is research conceptualised and conducted by CANS A, sometimes in collaboration with other institutions. Projects are focused on reducing public exposure to cancer risks.

- Evaluation of CANS A’s Anti-Tobacco Campaign - A priority is to look more critically at the way we communicate health information to the public and to explore ways of improving. A postgraduate student from UCT conducted a content analysis of campaign materials, as well as a focus group with students to ascertain perceptions of the campaign materials and information. The results provided useful feedback resulting in CANS A implementing some changes to improve our information and services.

- Knowledge, attitudes and behaviour surrounding e-cigarette usage - There is currently very little information regarding prevalence of e-cigarette usage in South Africa and the way in which e-cigarettes are used among the youth (for e.g. as a stop smoking aid or as a gateway to cigarette smoking). Further, public perceptions and beliefs regarding the safety of e-cigarettes is largely unknown in South Africa. A postgraduate student from UCT is currently conducting a study to collect some initial data on these issues to help inform CANS A’s messaging and health campaigns, as well as our advocacy work.

TYPE C RESEARCH: ENHANCING SERVICE DELIVERY
This is research conceptualised and conducted by CANS A, sometimes in collaboration with other institutions. Projects relate to optimising services to cancer patients and addressing their needs.

- IRONMAN (International Registry for Men with Advanced Prostate Cancer) Project: Funded by the Movember Foundation, CANS A is co-ordinating South Africa’s participation in a global observational study on advanced prostate cancer, overseen by the Prostate Cancer Clinical Trials Consortium aimed at determining the best way to manage advanced prostate cancer. Medical history, treatment information, blood samples, and patient-reported outcomes are collected from all participants to investigate which treatment and care practices deliver the best outcomes. The study aims to recruit 5 000 men globally, 450 of whom will come from South Africa, recruited from five different clinical sites working closely with CANS A. We’re excited to be involved and assisting address South Africa’s highest incidence cancer in men.

- Staff support project: Many of our service delivery staff play a significant role in supporting those with and affected by cancer. This can at times be challenging work requiring considerable emotional input. CANS A recognises that for the service delivery team to be able to offer a high-quality, sustainable support service, it’s important that they too are adequately supported. We initiated a study to assess the support needs of our staff and intervene to offer support in a feasible, effective and sustainable way. CANS A’s Head of Research is working with two researchers with experience in working with organisations that offer compassionate work. Data collection is complete with ten confidential in-depth qualitative interviews held including confidential online quantitative surveys done with 56 staff providing data for the needs assessment. This informed the development of phase two of the project, an intervention for support that was piloted over a six month period with two teams within CANS A, after which a quantitative and qualitative evaluation of the intervention was conducted. Data is currently in the final stages of analysis.

- Cancer Stigma Project: The stigma associated with cancer has been found to play a significant role in negatively impacting the psychosocial wellbeing of cancer patients, as well as cancer risk reduction behaviour and adherence to treatment. While there is research evidence of this internationally, this has not been examined in any detail in South Africa. The experiences of our Service Delivery team indicate that cancer stigma is a significant problem in many of the communities in which they work. CANS A launched a qualitative study in KwaZulu-Natal and Cape Town. A total of 40 interviews and six focus groups with cancer patients were conducted to explore experiences of stigmatisation, its impact, how people have coped and what their needs are for support. In addition, six focus groups were conducted with members of the public to explore from an external perspective why cancer is stigmatised.

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• Data is currently being written up and the results finalised as an academic publication to be used to inform interventions to address stigma in the communities.

• Evaluation of training for oncology registrars in palliative care: CANSA is co-funding with UCT, a study led by Dr Rene Krause, Prof Jeanette Parkes, Dr Liz Gwyther, Dr David Anderson and Dr Nadia Hartman, to evaluate a palliative care module being implemented with oncology registrars at six universities across South Africa. Findings will inform any improvements needed for the training on this extremely important topic.

TYPE D PROJECTS: COLLABORATIVE RESEARCH

These projects are funded by CANSA and usually take the form of a partnership between CANSA and one or more research institution with the objective of combining resources to achieve a common goal. Such projects have budgets in the region of R1 million.

• Vitamin D: Determinants of serum 25-hydroxyvitamin D levels in adults in the Western Cape Province of South Africa: There is some evidence that vitamin D deficiency has been found to be associated with an increased risk of breast, prostate and colorectal cancer. Exposure to solar radiation is a major source of Vitamin D production. Greater exposure is required by those with darker skin tones in order to produce Vitamin D. CANSA is funding a study led by Janicke Visser at Stellenbosch University to determine Vitamin D levels of people with diverse skin tones and geographic regions in South Africa at two time points (Winter and Summer) in order to establish whether darker skin tones are at risk for Vitamin D deficiency and therefore at increased risk. Data collection and analysis is complete and a manuscript is in preparation.

• Type E Projects

These projects are aimed at building the capacity of South African cancer researchers through funding or co-funding of symposia and congresses on cancer research as well as travel grants of researchers presenting at research conferences or attending training locally and internationally.

Travel grants were awarded to:

• Dr Kate Hamilton - attended the 49th Congress of the International Society of Paediatric Oncology (SIOP) in Washington to present a poster entitled ‘Differential survival rates in state funded and private funded paediatric oncology units in Johannesburg, South Africa’

• Dr Margie Venter - attended the SASCRO/SASMO Congress at Sandton Convention Centre to host a workshop entitled ‘Serious illness conversation workshop’

• Dr Nadia Beringer - attended a full-time observership and training on bone marrow transplants at Great Ormond Street Hospital in London, UK

• Prof Jeanette Parkes - attended the 49th Congress of the International Society of Paediatric Oncology (SIOP) in Washington as a co-organiser, speaker and Chair of a session

• Prof Alan Davidson - attended the 49th Congress of the International Society of Paediatric Oncology (SIOP) in Washington to convene and Chair sessions, for panel discussions and meetings

• Dr Jennifer Githaiga - attended the African Organisation for Research and Training in Cancer (AORTIC) conference in Kigali, Rwanda to present a poster entitled ‘Symptom awareness measures for breast and cervical cancer diagnosis in Sub-Saharan Africa: a literature review’

• Dr Zainab Mohammed - attended the African Organisation for Research and Training in Cancer (AORTIC) conference in Kigali, Rwanda to present two papers entitled ‘Non-Hodgkins Lymphoma in Africa: a literature review’ and ‘HIV-associated Multicentric Castleman’s Disease: a clinical review of 53 cases presenting to a single institution in South Africa’

• Prof Jennifer Moodley for hosting a cancer research symposium at UCT - The Cancer Research Initiative at the Faculty of Health Sciences, University of Cape Town hosted a Cancer Research Symposium entitled ‘Prioritising Cancer’, co-funded by CANSA on 17 February 2018. The aim was to foster integrated, interdisciplinary research to address the growing cancer burden. The programme covered the following topics across five sessions: Public health, cancer surveillance, ethics; Precision medicine and cancer therapies; Prevention and early detection; Palliative care and survivalship and Making a difference. The event attracted 120 delegates and a CANSA exhibit table on research was hosted. UCT cancer researchers showcased their research through poster presentations and displays. Several Type A CANSA-funded researchers, past and present, gave presentations at the event. CANSA’s Head of Research, Dr Melissa Wallace presented CANSA’s funding programme and priorities.
The AG Oettlé Memorial award is presented in remembrance of the late Dr Oettlé, a cancer researcher and epidemiologist working in the South African Institute for Medical Research in Johannesburg in the 1960’s, financed by CANSA. His research over 16 years strengthened the theory that environment may play a considerable role in causing cancer. He discovered an epidemic of oesophageal cancer in Africa and particularly the East Coast of South Africa. After his premature death, his family and colleagues decided to create the Oettlé Memorial awards to be awarded by CANSA to recipients who had significantly contributed to cancer control in South Africa.

2017 OETTLÉ AWARD

CANSA was delighted to present this award to Professor Greta Dreyer, who has devoted her professional life to the field of gynaecologic oncology in SA. Greta Dreyer graduated from the University of Pretoria in 1987 with an MBChB, an MMed in 1994 and a PhD in 2011. She is currently an Associate Professor and Head of the Gynaecologic Oncology Unit at Pretoria Academic Hospital and the University of Pretoria. Her unit admits about 400 new patients with cervical cancer per year. Professor Dreyer has vast experience in the management of cancer risk, including cancer risk estimation, genetic testing, counselling, cancer screening and cancer prevention strategies. This stems mainly from her intensive involvement with the Familial Cancer Clinic since 1997 and her involvement in HPV research and testing since 2004.

She actively engages in research in women’s cancer. Her main interests include viral oncogenesis, cancer prevention in women who are predisposed through inheritance or immune depletion. Greta is also interested in building research capacity and development of surgical skills in under-resourced areas.

Greta has trained 39 postgraduate students in an area of high relevance to the cancer landscape in South Africa and currently supervises 10 students. Her research outputs include 47 publications in peer-reviewed journals, 15 published conference papers/keynote addresses and five technical reports.