

# VISION

## COPING WITH CANCER

VISION, APRIL 2018

## UJ are treating cancer with silver-based drugs

A silver thiocyanate phosphine complex, called UJ3 for short, is showing promise as a low-dosage cancer treatment. The complex is part of a family of silver-based anti-cancer drugs discovered by researchers at the University of Johannesburg.

Research shows UJ3 to be as effective against human oesophageal cancer cells, as a widely-used chemotherapy drug in use today. Oesophageal cancer cells are known to become resistant to current forms of chemotherapy.

"The UJ3 complex is as effective as the industry-standard drug Cisplatin in killing cancer cells in laboratory tests done on human breast cancer and melanoma, a very dangerous form of skin cancer, as well," says Professor Marianne Cronjé, head of the Department of Biochemistry at the University of Johannesburg.

"However, UJ3 requires a 10 times lower dose to kill cancer cells. It also focuses more narrowly on cancer cells, so that far fewer healthy cells are killed," she says. Apart from needing a much lower dose than an industry standard, UJ3 is also much less toxic.

"In rat studies, we see that up to three grams of UJ3 can be tolerated per one kilogram of bodyweight. This makes UJ3 and other silver phosphine complexes we have tested about as toxic as vitamin C," says Professor Reinout Meijboom, head of the Department of Chemistry at the University of Johannesburg.

If UJ3 becomes a chemotherapy drug in future, the lower dose required, lower toxicity and greater focus on cancer cells will mean fewer side effects from cancer treatment.

UJ3 appears to target the mitochondria, resulting in programmed cell death to kill cancer cells – a process called apoptosis. When a

## Discovery Health - increasing cancer prevalence

"The number of members receiving oncology treatment has increased over the past 10 years due to the higher prevalence of cancer in South Africa and globally," said Dr Jonathan Broomberg, CEO of Discovery Health.

Scheme data show 33,985 members actively claiming for oncology-related treatment at a total cost of R3 billion over 2017. The top three cancers are breast (14,435 members), followed by prostate (12,122 members) and colorectal cancer (3,970 members). Soft tissue and thyroid cancer have seen the greatest increase in claimants, up 8.2% each from the previous period. The most expensive cancer to treat is lung cancer at an average monthly cost of R16,417. The highest oncology claim paid out was for multiple myeloma at R1.5 million.

"There have been significant advances in treatment regimens that include new cancer drugs, resulting in potentially life-saving options for patients. These treatments, however, come at a far higher cost than the older treatments they replace, which is a challenge for medical schemes to manage. Our responsibility as Discovery Health is to provide access to clinically relevant and appropriate care, and to ensure that this is done in a manner that is fair to all members of the Scheme," said Dr Broomberg.

cancer cell dies by apoptosis, the result is a neat and tidy process where the dead cell's remains are "recycled", not contaminating healthy cells around them, and not inducing inflammation.

The research was funded by the Technology Transfer Office of UJ, the National Research Foundation of South Africa, and the Technology Innovation Agency of South Africa.



## Help us to help people who are living with cancer

GO Health Clubs will be holding a Spinnathon to raise funds for CanSurvive at their three branches on Saturday 21 April. Come and join in or just pop in to meet members of our support group.



CANCER ALLIANCE

# WE CAN Summit

During March 2018 Nersan Govender, from Wings of Hope, represented the Cancer Alliance of South Africa at the WE CAN Summit in Lusaka, Zambia.

WE CAN is the Women’s Empowerment Cancer Advocacy Network, based in Seattle, Washington. Although its focus is on women’s cancer, the summit also focussed on other cancers as breast cancer also affects men.

Representatives were present from many African countries and it was a most interesting for Nersan to learn about the experiences in these countries which will assist all in the cancer space.



## Prostate MRI scans both increase detection of cancer and reduce over-diagnosis

A large international study conducted in collaboration with the University of Birmingham has found that an MRI scan and targeted prostate biopsies are significantly better at making a positive prostate cancer diagnosis than standard biopsies.

The PRECISION trial randomly allocated 500 men with suspected prostate cancer from 35 international centres. The trial found that using MRI to perform prostate biopsies lead to more of the harmful prostate cancers, and fewer harmless cancers being diagnosed, than the standard way of performing biopsies.

Researchers, led by University College London, found the MRI approach can also reduce the number of men undergoing biopsy by 28%, as men who do not present with abnormal areas in the prostate may be able to avoid biopsy altogether. This is particularly important as over one million men in Europe undergo biopsy every year and biopsies can be uncomfortable, costly, and carry a risk of infection.

Currently men who have suspected prostate cancer typically undergo a standard biopsy test called a TRUS (TRansrectal UltraSound guided prostate biopsy). However, TRUS biopsy has been known to have limitations and can both miss harmful cancers, and also diagnose harmless cancers that don't need to be identified.

PRECISION is the first international multi-centre randomised trial to show the benefits of using MRI at the start of the prostate cancer diagnosis process.

The University of Birmingham's Test Evaluation Research Group assisted in the design of the PRECISION trial and completed the analysis of the results.

Professor Jon Deeks, Head of the Test Evaluation Research Group and Deputy Director of the Institute of Applied Health Research at the University of Birmingham, said: "Assessing which of two different medical tests is best for patients is challenging.

"Good medical tests must not miss patients who have disease, and should identify patients early in their disease. This is so patients can be given the treatment they need, and get treated before disease becomes more serious.

"But the same tests may also wrongly suggest other patients need treatment, or refer them for unnecessary further investigations which are uncomfortable, expensive and inevitably create anxiety.

"Medical tests can harm as well as help, and it is essential to properly

evaluate the good and bad ways that they impact on patients when deciding which tests should be used."

Chief Investigator, Dr Veeru Kasivisvanathan, from the UCL Surgery and Interventional Science, funded by a National Institute for Health Research (NIHR) Doctoral Fellowship, presented the results of the PRECISION Trial at the 33rd European Association of Urology Congress, Copenhagen, with simultaneous publication in the New England Journal of Medicine.

Dr Kasivisvanathan said: "In men who need to have investigation for prostate cancer for the first time, PRECISION shows that using an MRI to identify suspected cancer in the prostate and performing a prostate biopsy targeted to the MRI information, leads to more cancers being diagnosed than the standard way that we have been performing prostate biopsy for the last 25 years."

Dr Caroline Moore, Reader in Urology at UCL and senior author of the study commented: "We compared standard prostate biopsy to the use of MRI, offering targeted biopsies to only those men who had a suspicious MRI.

"The MRI pathway detected more harmful cancers that needed treatment, and it reduced overdiagnosis of harmless cancers, even though fewer men had a biopsy in the MRI arm."

Professor Mark Emberton of University College London commented: "This study was the first to allow men to avoid a biopsy. If high quality MRI can be achieved across Europe, then over a quarter of the one million men who currently undergo a biopsy could safely avoid it."

The PRECISION trial was funded by The National Institute for Health Research (NIHR) and the European Association of Urology (EAU) Research Foundation.

### Thank you to Netcare !

CanSurvive Cancer Support wish to thank Netcare for their continued assistance and encouragement.

We value the support and generosity of Netcare and their staff and their commitment to helping us to improve support for cancer patients and their families by providing a comfortable and accessible venue and refreshments for our meetings in Parktown and Krugersdorp.



cancercare

### MONTHLY SUPPORT GROUP Cape Gate Oncology Centre

All welcome to join us  
in the Boardroom, first floor  
CancerCare Cape Gate

**Friday, 25 May from 10:00-12:00**  
**Topic: Healing through creativity**

**Friday, 22 June from 10:00-12:00**  
**Topic: Emotional freedom technique**  
**Call Caron, Oncology Social Worker**  
**for more info - 021 944-3807**

## Discovering Hands aid in the detection of breast cancer

Early detection in order to improve breast cancer outcome and survival remains the cornerstone of breast cancer control.

So far the only breast cancer screening method that has proven to be effective is mammography screening. However, mammography screening is very costly and is cost-effective and feasible in countries with good health infrastructure that can afford a long-term organised population-based screening programmes. And even there screening is not available to everyone. For example in Germany, only women aged between 50 and 69 are entitled to a mammography screening every two years, even though around 20% of breast cancer is detected in women under the age of 50.

In health systems with developed infrastructure, physicians regularly examine the breast as part of a routine female check-up (usually once or twice a year) in addition to the mammography. However, there is no standardised or evaluated method for such breast examinations (for instance in Germany) and it's provided at varying levels of time investment and care.

Discovering hands® trains and deploys visually impaired women with their highly developed sensory skills to detect the early signs of breast cancer.

"Medical Tactile Examiners" (MTEs) are trained to deliver physical breast examinations at doctors' practices. During a 9-month training period they learn how to use a standardised diagnostic method for examining the female breast. Additionally, all MTEs are trained in communication skills and breast-specific psychology, as well as administrative tasks typically carried out by a doctor's assistant. MTEs are either directly employed by resident doctors or hospitals, or they work for different practices and/or hospitals on a freelance basis.

Discovering hands® has a number of benefits:

1. Perceived disability is leveraged as a talent: By using the extraordinary sensory capabilities of visually impaired women, a perceived "disability" is transformed into a capability. A completely new field of meaningful employment is created
2. Standardised method: MTEs use a standardised examination method that has been developed specifically for the purpose of their work
3. More time for prevention and early detection: Typically, a regular breast examination carried out by a gynecologist takes between 1 and 3 minutes. The MTE invests at least 30 minutes for each session, not only examining the breast, but also educating patients on how to cope with the risk of breast cancer. Patients feel that they are well taken care of and receive the best possible preventive examination in a pleasant environment

Preliminary qualitative results show that MTEs detect ~30% more and ~50% smaller tissue alterations in the breast than doctors (5-8mm vs. 10-15mm). A clinical, peer reviewed study is currently being conducted at the University of Erlangen under the supervision of Prof. Beckmann.

More details on <http://www.discovering-hands.co/en/>

## A Forum for Her - for the women behind the men

The Us TOO call-in caregiver support group 'A Forum for Her' was established for the women behind the men affected by prostate cancer. Because prostate cancer is a couple's disease, the woman is often subject to her own concerns in addition to those she shares with her partner. A Forum for Her is a regular call series which focuses on women and offers important peer-to-peer support.

Moving forward, Us Too will also be developing call-in support groups for caregivers who are husbands or male partners of prostate cancer survivors. They recognise the importance of providing forums for support that focus on very specific experiences and challenges that group participants share. In an effort to maximise awareness and attendance, notices for all call-in support programmes will be sent to their full email distribution list.

To register for any of these calls, email [terril@ustoo.org](mailto:terril@ustoo.org) or call 877-978-7866.

For more information on A Forum for Her go to <http://www.ustoo.org/pdfs/AForumforHerPDFWebpage.pdf>



You are cordially invited to join us at our public meetings where breast cancer patients and their friends and families have an opportunity to mix with other patients and survivors, as well as to listen to talks on issues related to breast cancer.

Here are our Bosom Buddie Dates and themes for the rest of this year.

- 12th May - Mental health/motivation
- 16 June - Physical Well Being
- 28 July - Complementary healing
- 8th September - Move for Summer
- 13 October - Survivorship

**Meetings are held at Hazeldene Hall, 13 Junction Ave, Parktown, Johannesburg 9:30 for 10:00am,**

FREE ENTRY, Enquiries: [louise@mybreast.org.za](mailto:louise@mybreast.org.za) / 0860 283 343

Stay informed with The Breast Health Foundation:

Facebook: <https://www.facebook.com/BreastHealthFoundation/>

Twitter: <https://twitter.com/BreastBhf>

Instagram: <https://www.instagram.com/breasthealthfoundationsa/>

Website: <http://www.mybreast.org.za/>

***Bosom Buddies is a support initiative brought to you by The Breast Health Foundation.***

**WANT TO SUPPORT OR VOLUNTEER FOR BREAST HEALTH FOUNDATION?**

Check out their needs on ForGood at:

[www.forgood.co.za/cause/profile/the-breast-health-foundation](http://www.forgood.co.za/cause/profile/the-breast-health-foundation)

## DOWNLOADS

### Eating hints: before, during and after cancer treatment

Eating Hints is for people who are having or are about to have cancer treatment. Family and friends may also want to read this booklet.

You can use this booklet before, during, and after cancer treatment. It covers common types of eating problems and ways you can manage them. The booklet can be downloaded in PDF, ePub or Kindle format from [https://www.cancer.gov/publications/patient-education/eating-hints?cid=eb\\_govdel](https://www.cancer.gov/publications/patient-education/eating-hints?cid=eb_govdel)

### Kidney cancer therapies chart

A simple chart explaining FDA approved therapies for kidney cancer! With eleven approved therapies, it can be hard for patients to know what options are available. This simple chart explains brand/generic names of treatments, how they each work, and how most doctors prescribe them. To view it or print a copy to share with your doctor, go to <https://kccure.org/patient-information/>

### Pfizer, offers cancer patients a free app to help them manage their life with cancer.

Global pharmaceutical corporation, Pfizer, is offering cancer patients a free app to help them manage their life with cancer.

The LivingWith app, which is available for both iOS and Android devices, forms part of Pfizer's This is Living with Cancer™ programme, which aims to provide cancer patients with tools and resources to support and help them manage some of the daily challenges they face.

The LivingWith app provides patients and caregivers with a tool to organise certain important information in one place. Through the app they can build a network of support from friends and family to get help with daily tasks; record and remember important information from doctor visits; track mood, pain and sleep; organise and store important documents such as test results, medication details and insurance information; and receive information about local events and nutrition articles.

"Pfizer's new programming that goes beyond treatment is critical in helping patients and their care networks deal with the challenges associated with living with cancer," concluded Biblowit.

### What now? Questions to ask after a terminal diagnosis

Compassion in Dying have created a brilliant new booklet!

Following research with more than 600 people living with a terminal illness or caring for someone at the end of life, What now? is designed to help people find the information they need and ask questions, so that they can make informed decisions about their treatment and care – helping them to live well in the time they have left. What now? will be a helpful resource for health and care professionals working in a range of settings, as well as people living with terminal or life-changing illness and their families.

Download your copy from <https://compassionindying.org.uk/library/what-now-questions-terminal-diagnosis/>

### Understanding the PSA test: A guide for men concerned about prostate cancer

Are you thinking about getting a PSA test?

It's important to think about whether the PSA test is right for you before you decide to have one. The booklet describes what the PSA test is, who can have a PSA test and the advantages and disadvantages of the test, what the results might mean, and what will happen next.

<https://prostatecanceruk.org/prostate-information/our-publications/publications/understanding-the-psa-test>

### Prostate Cancer Staging Guide

Prostate Cancer Research Institute

<https://pcri.org/prostate-cancer-staging/>

### What are immunotherapy side effects?

This guide has been prepared to help you, as well as your family, friends and caregivers, better understand immunotherapy-related side effects and their management. It contains information on the most common toxicities associated with modern immunotherapies (known as "checkpoint inhibitors"), how your oncology team will manage these symptoms, and a few strategies you can use yourself to minimise their effects.

<http://www.esmo.org/content/download/124130/2352601/file/ESMO-Patient-Guide-on-Immunotherapy-Side-Effects.pdf>

## CanSurvive

CANCER SUPPORT

### Let's talk about cancer!

Join us at a **CanSurvive Cancer Support** group meeting for an interesting and informative talk, refreshments and a chance to chat with other patients and survivors .

#### Upcoming meetings:

**PINEHAVEN, WEST RAND**

- 21 April, Netcare Pinehaven Hospital

**CHARLOTTE MAXEKE Radiation Department,**  
Level P4 - 2 May

**CHARLOTTE MAXEKE Radiation Department,**  
Level P4 - 16 May

**PARKTOWN Hazeldene Hall (opposite Netcare Parklane Hospital) - 12 May 09:00**

**Enquiries: 062 275 6193**

or email [cansurvive@icon.co.za](mailto:cansurvive@icon.co.za)

[www.cansurvive.co.za](http://www.cansurvive.co.za)

[www.facebook.com/cansurviveSA](https://www.facebook.com/cansurviveSA)

The Groups are free and open to any survivor, patient or caregiver.

# Congratulations to Wings of Hope on the launch of their new Cape Town branch

On 7 April 2018, Wings of Hope officially launched its support group in the broader Cape Town area. Cancer patients and survivors shared their stories, which in itself was quite an healing process.

Keep a look out for the date of the next meeting on their Facebook page.

Their ambassadors, Wings of Hope Racing, were also there in full force to show their support.

The April meeting of the Wings of Hope Johannesburg branch hosted physiotherapist, Lesley Meyer, who specialises in chronic pain. In an interactive presentation, Lesley discussed the various methods one can use to deal with pain during and post cancer treatment.



## YE!

YOU'VE EARNED IT

The over-60s guide to discounts, benefits and savings

You've Earned It is THE brand synonymous with South African over-60s - baby boomers, seniors, retirees and pensioners, making it a trusted go-to resource for its readers.

YEI has the biggest Directory for seniors in South Africa, and it's growing. The savings and benefits communicated by YEI make a significant and meaningful difference in the lives of seniors. YEI also features the most relevant, informative and interesting content to its readers. Plus awesome competitions and ticket give-aways!!

We invite you to come and join the over-60 YEI community. All you need to do is to subscribe to the FREE fortnightly e-Newsletter at <http://youve-earned-it.co.za/subscribe-to-yei/>.

Why not take a look at You've Earned It? The website address is <http://youve-earned-it.co.za>. And don't keep it to yourself - share the information with your friends and family! We look forward to welcoming you to YEI!

## Internal radiotherapy

# Tackling cancer from within

Doctors are fine-tuning external radiotherapy for a direct hit on tumour cells. In this post, we're going inside the body to see how scientists are developing new ways of targeting cancer with radiotherapy from within.

There's more to radiotherapy than machines that target cancer from the outside. In fact, using radiotherapy to target cancer from inside the body outdates the external approach.

Internal radiotherapy comes in two main forms: brachytherapy and liquid therapy.

Brachytherapy, which literally means 'short-range therapy', gets up-close and personal with cancer through a radioactive source that's placed next to the tumour via surgery.

Whereas radioactive liquid therapy homes in on cancer via the bloodstream. In this case, radioactive molecules leave the blood and accumulate in tumours at a lethal dose to the cancer cells.

Both treatments share an important feature: the DNA-damaging radiation is delivered directly to tumour cells in a high dose, while surrounding healthy tissue receives a less damaging lower dose.

And now, researchers are working on new ways to make this targeting even more precise, so more patients can benefit.

Brachytherapy – getting up-close and personal with cancer

Brachytherapy isn't new. In fact, something that resembled brachytherapy predated modern external radiotherapy, before scientists had figured out how to generate beams of radiation using a linear accelerator.

Marie Curie discovered radium in the 1890s, and a few years later it was used to treat cervical and womb cancers by being placed inside the body's natural cavities, next to where the tumour was growing. Soon after, doctors started putting radium inside the body using surgery to treat breast, prostate, oesophageal and brain tumours.

Back then, doctors didn't fully understand the dangers of radioactivity to healthy cells. Many damaged their own bodies by handling Radium without proper protection. Today, safer radioactive sources, smaller doses, and clever new methods are used to reduce risk.

100 years on, the basic features of brachytherapy haven't changed. Today, there are two main types: high dose rate (HDR) and low dose rate (LDR) brachytherapy.

HDR brachytherapy gives the tumour a high radiation dose through a metal pellet that's placed next to the tumour for short bursts of time.

LDR brachytherapy uses lower radiation doses for longer. In some cases, the radioactive pellet is placed directly next to the tumour for a few hours or days, but sometimes it's inserted permanently and the pellet slowly releases radiation, which fades over several months.

Brachytherapy can be combined with other forms of cancer treatment, including surgery and external beam radiotherapy, to make it more effective.

### What are the advantages of brachytherapy?

Radiation can damage healthy tissue, so researchers are working hard to develop new external radiotherapy techniques that spare healthy cells (such as IMRT or proton beam therapy). But brachytherapy has been doing this for years. Because of its short range, the radiation reaches few healthy cells so causes minimal collateral damage.

Its physical proximity to the tumour also keeps radiation focused on the tumour if it moves during treatment.

But despite its advantages, brachytherapy isn't necessarily a better radiotherapy option. It's most suitable for small, solid tumours that haven't spread and are surgically accessible, most commonly cervical, prostate, breast and skin cancers.

### Radioactive liquid therapy – homing in on cancer

Doctors can also give internal radiotherapy as a liquid containing radioactive molecules called radioisotopes. They travel through the bloodstream and accumulate in tumours where the radiation can penetrate and kill nearby cells.

Some radioisotopes target tumours naturally, such as radioactive iodine. Iodine is naturally absorbed by the thyroid gland to make hormones, and doctors can exploit this process using radioactive iodine as a treatment for thyroid cancer.

Research is uncovering ways to target radioactive substances to

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**cancercare**  
by GVI Oncology

### Rondebosch Group

Venue: Waiting Room, 4th floor Rondebosch Medical Centre, Klipfontein road.

Last Monday of each month (except Sept.)

Time: 18:00 – 19:30

Contact Linda Greeff: 0219443700 for more info

### Panorama, Cape Town Group

Venue: Panorama Oncology, 1st floor, 43 Hennie Winterbach Street, Panorama  
10:00 to 11:30

Contact: Emerentia Esterhuyse 0219443850, emerentia.esterhuyse@cancercare.co.za

### Cape Gate Group

Venue: 51 Tiger Avenue, Cape Gate, 7560  
10:00 - 12:00

Contact: Caron Majewski, 021 944 3807  
caron.majewski@cancercare.co.za

### Outeniqua, George Group

Venue: 3 Gloucester Avenue, George  
10:00 - 12:00

First Wednesday of each month (except January)

Contact: Engela van der Merwe, 044 8840705,  
engela.vandermerwe@cancercare.co.za

## Tackling cancer from within

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tumours in other parts of the body too. Scientists like Professor Katherine Vallis, based at Oxford University and funded by Cancer Research UK, are designing ways to exploit the differences between cancerous and normal tissues to improve radioactive liquid therapy.

"We select a targeting molecule that we know will selectively bind to a particular type of cancer cell," says Vallis. "We then come up with a way of chemically attaching radioactive atoms to the carrier molecule."

They're testing this approach against certain types of cancer where cells produce too much of a molecule called EGFR on their surface. Here, the team uses a carrier molecule that sticks to EGFR, allowing it to accumulate around the cancer cells. Studies in the lab have shown that attaching radioactive Indium to the carrier molecule causes radiation to accumulate around cancer cells, stopping them from growing and dividing.

This concept has been tested in a trial of 15 women with EGFR-positive breast cancer. The treatment was well-tolerated and in 7 patients researchers were able to detect radiation accumulating inside the tumours.

The goal now is to increase the amount of radioactivity delivered to the tumour by attaching it to tumour-seeking nanoparticles.

### Going deeper

It remains early days for the experimental forms of radioactive liquid therapy that Vallis and others are working on.

And for the treatments that are available, choosing a safe and effective dose is particularly difficult. Doctors base this decision on the patient's weight, but this doesn't take into account how much radioactivity that patient's tumour will take up, or how much the neighbouring healthy tissue might be affected.

Scientists are working on ways to personalise the dose for each patient. One approach is to use the radioisotope as a signal for how much radiation has reached the tumour. Researchers hope to test this by giving a patient a small dose to see how much of it their tumour takes up, before applying a higher dose aimed at treating the cancer.

Vallis also has a vision that radioisotopes will one day be able to go further inside tumours than ever before. "We're working hard to come up with ways to not only deliver radioactivity specifically to cancer cells, but actually design the drug in such a way that it enters the cancer cell and delivers the radioactive atoms direct to the DNA," she says.

This would allow scientists to test radioactive atoms with an extremely short range – even smaller than the diameter of a cell. Once inside the target cancer cell, the radiation could reach and damage that cell's DNA, but wouldn't travel far enough to affect neighbouring healthy cells.

This has the potential to offer a more precise way of delivering radiotherapy to cancer cells while avoiding side effects.

And could take internal radiotherapy to new depths in the hunt for kinder, more effective treatments.

***This article originally appeared in Cancer Research UK's Science blog and is reprinted with their kind permission. <http://science-blog.cancerresearchuk.org/series/our-milestones/>***

## Africa is the new tobacco target

by Kerry Cullinan

Africa's health gains to go up in smoke if tobacco control is not addressed, experts warned delegates at the world's biggest tobacco control conference.

Tobacco consumption has increased by 52 percent in Africa since 1980, and 77 million Africans now smoke.

The biggest increases in smoking have been in Lesotho, where an estimated 54 percent of people now smoke and the Democratic Republic of the Congo, where 43 percent of the population smokes.

Experts predict that, if the current trend continues, 500-million Africans will be smoking in the next 30 years – bringing increases in cancer, heart and lung diseases.

In contrast, smoking in high-income countries has decreased substantially as people have become more aware of the serious health damage it causes, with a 44 percent reduction in the Americas and a third cut in Europe.

World Health Organisation (WHO) Director General Dr Tedros Adhanom Ghebreyesus warned that Africa was "ground zero" for the fight against tobacco companies.

"It's fitting that we are meeting in Africa because it is ground zero for the war on tobacco," Tedros told the World Conference on Tobacco or Health, which was held in Cape Town recently.

"Africa is seen as a growth market for the tobacco industry. Africa has made great strides on some health issues, such as HIV/AIDS, but the tobacco problem is in its early stages and is not being given sufficient attention."

Health Minister Aaron Motsoaledi said that "all the signs are there that the tobacco industry is staging a fight-back after a slew of tobacco control legislation in the past two decades".

"They are targeting young people in Africa. In the US, they are targeting African American people, the homeless and mentally ill. They are targeting young, working class and the most vulnerable people. We need activism against this onslaught," Motsoaledi urged the over 2000 delegates, including health ministers, at the biggest ever global tobacco control meeting.

Read more at <https://www.health-e.org.za/2018/03/12/africa-is-the-new-tobacco-target/>

## Palliative care training



**Hospice Wits**  
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Throughout the year Hospice Wits host various short courses: the 5-day Introduction to Palliative Care, 2,5-Day Grief, Loss and Bereavement Workshop, 5-day

Introduction to Paediatric Palliative Care, 3-day Non-Clinical Palliative Care, 3-Day Physical Assessment Workshop, as well as other client specific courses which they present on request.

**For further details phone 011 483 9100 or email [training@hospicewits.co.za](mailto:training@hospicewits.co.za).**

# Machines are built to repair themselves, and so can you

by Gary R. Epler, M.D.

At any given time, people have something that needs some healing attention. Healing is the process of restoring physical health from injury or disease and restoring mental and emotional health. Healing is a state of mind, and you can use your mind to help with healing.

Two basic requirements. Before talking about healing, you need to do two things. First, learn everything you can about the anatomy of the injury or the mechanism of the disease process from your doctor and review of established evidence-based websites. Second, use your best medical treatment option available, such as antibiotics, medications or surgery. Ask your doctor questions about the injury or disease, about the diagnostic process, how to monitor the process, and the treatment options including the natural history of the process. Ask questions until you thoroughly understand the answers. This will help you be in charge of the situation and begin healing.

Use your mind for healing. You need to have a positive approach to the injury or illness. Tell yourself, you can take charge and successfully manage this situation. Remember, in some situations, you may not be able to cure it, but you can always manage it, and that's good enough. Anger and a negative approach causes the neuro-linguistic trap. This occurs from repeatedly thinking of and verbalising anger and negative feelings (complaining) about the illness. This counterproductive activity establishes a bad neuropathway sending you down the road of perpetual aggravation and worsening the process. A positive approach neuropathway sends you down the road to strength and control. Use compassion as a companion approach. Have compassion, not anger, for your injury or diseased organ system.

Controlled breathing. Use controlled breathing. Breathe silently and equally in and out, without holding your breath at the top or the bottom of the breath. Move your lower abdomen out as you inhale, also called belly breaths. This will decrease stress which will help the healing process.

Visualisation. This can be used to help healing especially while in the

## About Dr. Gary Epler

Dr. Gary Epler is an internationally-known author and speaker. He is a pulmonary and critical care professor at Harvard Medical School. He has written four health books in the critically-acclaimed "You're the Boss" series about people taking charge of their health and disease including *Manage Your Disease*, *BOOP*, *Asthma* and *Food*



Dr. Epler discovered the treatable lung disorder bronchiolitis obliterans organising pneumonia (BOOP). He found a new parasite in South America, chronicled the nutritional needs of North African children, and managed the tuberculosis refugee programme in Southeast Asia. In addition to conducting clinical and research work, Dr. Epler strives to educate. He became editor-in-chief of an internet-based educational programme in critical care and pulmonary medicine offered by the American College of Chest Physicians.

alpha- or theta-brainwave state. These relaxed brainwave states help manage fear which is a huge initial part of an injury or illness. There are several ways to use visualisation, and you can develop your own. Here are four examples. First, mentally send healing energy to the specific body part that needs healing such as the elbow or knee or the organ system such as the heart. Learn about the anatomy or the illness because the more specific, the better. Second, visualise replacing dysfunctional and abnormal cells with new healthy cells. Begin with one cell, then two, four, eight until you reached millions. Third, visualise repairing damaged DNA in your cells as future cells will be healthy. Finally, with your mind, reignite your dormant healing genes involved in the injury or disease process.

Persist. The healing component of an injury or disease process can have a powerful influence in your life and if successful can restore your physical, mental, and emotional health. Healing is a state of mind, keep learning new ways to use your mind for healing.

## 'One-stop shops' set to speed up cancer diagnosis

"One-stop shops" aimed at speeding up cancer diagnosis are being introduced across England. The aim is to catch the disease earlier and prevent patients from being referred for several tests for different forms of the illness.

Patients often face delays when they have non-specific symptoms. The aim is that every patient is either diagnosed or given the all-clear within 28 days.

The rapid diagnosis and then treatment of cancer can be vital in saving lives. While cancer survival rates have improved dramatically over recent decades, patients who are not displaying very obvious signs of the illness sometimes struggle to access quickly the help they need. Those with more vague symptoms, such as unexplained weight loss, fatigue reduced appetite or abdominal

pain can be referred several times for different tests for different cancers, all wasting valuable opportunities to start treatment.

NHS England is now adopting an approach first developed in Denmark - introducing 10 specialist rapid diagnostic and assessment centres where patients will receive all the necessary investigations under one roof.

NHS England has developed the centres in collaboration with the cancer charities Macmillan and Cancer Research UK.

Sara Hiom, director of early diagnosis at CRUK, said: "We're confident that these 10 pilot centres will give us a much better understanding of what's needed to speed up the diagnosis and treatment of people with less obvious symptoms, improve their experience of care and, ultimately, survival rates.

"This is a first for this country and Cancer Research UK is delighted to be partnering with NHS England in this innovative initiative. If the project is a success, more of the centres will be established across England.

# CALENDAR

## April 2018

- 21 CanSurvive West Rand Group, Pinehaven Hospital, Krugersdorp. 09:00
- 21 GO Health Cyclethon for CanSurvive at Fairlands, Sandton and Northview Clubs.
- 24 Wings of Hope, German International School, Parktown. 9:30 for 10.00
- 17 CanSurvive Charlotte Maxeke Group, Radiation Floor P4.

## May 2018

- 2 CanSurvive Charlotte Maxeke Group, Radiation Floor P4.
- 8 Reach for Recovery West Kinglets and Queenies, Ruimsig, 13h30 for 14h00
- 12 CanSurvive Cancer Support Parktown Group, Hazeldene Hall, Parktown 9:00
- 16 Reach for Recovery (R4R) : Johannesburg Group. Meetings: Lifeline offices, 2 The Avenue, Cnr Henrietta Street, Norwood 14:45 for 14:00
- 16 CanSurvive Charlotte Maxeke Group, Radiation Floor P4.
- 17 CANSA Pretoria support group, 32 Lys Str., Rietfontein
- 19 CanSurvive West Rand Group, Pinehaven Hospital, Krugersdorp. 09:00
- 19 Wings of Hope, German International School, Parktown. 9:30 for 10.00
- 19 Bosom Buddies, Hazeldene Hall, Parktown, 9:30 for 10:00

## June 2018

- 4 **World Cancer Survivors Day**
- 6 CanSurvive Charlotte Maxeke Group, Radiation Floor P4.
- 9 CanSurvive Cancer Support Parktown Group, Hazeldene Hall,
- 9 Bosom Buddies, Hazeldene Hall, Parktown, 9:30 for 10:00
- 16 CanSurvive West Rand Group, Pinehaven Hospital, Krugersdorp. 09:00
- 20 CanSurvive Charlotte Maxeke Group, Radiation Floor P4.
- 21 CANSA Pretoria support group, 32 Lys Str., Rietfontein
- 30 Wings of Hope, German International School, Parktown. 9:30 for 10.00 – Birthday celebration.

## July 2018

- 4 CanSurvive Charlotte Maxeke Group, Radiation Floor P4.
- 10 Reach for Recovery West, Kruinpark Restaurant 13h30 for 14h00
- 14 Reach for Recovery (R4R) : Johannesburg Group. Meetings: Lifeline offices, 2 The Avenue, Cnr Henrietta Street, Norwood 14:45 for 14:00
- 14 CanSurvive Cancer Support Parktown Group, Hazeldene Hall, Parktown 9:00
- 18 CanSurvive Charlotte Maxeke Group, Radiation Floor P4.
- 19 CANSA Pretoria support group, 32 Lys Str., Rietfontein
- 21 CanSurvive West Rand Group, Pinehaven Hospital, Krugersdorp. 09:00
- 28 Bosom Buddies, Hazeldene Hall, Parktown, 9:30 for 10:00

## CONTACT DETAILS

CanSurvive Cancer Support  
Parktown and West Rand Group ;  
Contact: 062 275 6193 or cansurvive@icon.co.za

Charlotte Maxeke Group: Contact Duke Mkhize 0828522432  
Jabulani Group: Contact Sister Bongwiwe Nkosi: 0835760622

CancerCareSupport Group, 4th Floor, Rondebosch Medical Centre. Contact: linda.greeff@cancercare.co.za or phone 0219443700 for more info

CancerCare Cape Gate Support group: 10h00-12h00 in the Boardroom, Cape Gate Oncology Centre. |  
Contact: Caron Caron Majewski, 021 9443800

CancerCare Outeniqua, George Support Group. Contact: Engela van der Merwe, 044 8840705,  
engela.vandermerwe@cancercare.co.za

Cancersupport@centurion: Marianne Ambrose 012 677 8271(office) or Henriette Brown 072 8065728

Bosom Buddies: 011 482 9492 or 0860 283 343,  
louise@mybreast.org.za  
Venue: Hazeldene Hall, 13 Junction Ave, Parktown, Johannesburg. www.bosombuddies.org.za.

More Balls than Most: febe@pinkdrive.co.za,  
www.pinkdrive.co.za, 011 998 8022

PinkDrive: www.pinkdrive.co.za, Johannesburg:  
febe@pinkdrive.co.za, 011 998 8022;  
Durban: Janice Benecke: 031 201 0074/082 557 3079  
janice@pinkdrive.co.za

Cape Town: Ebrahim Osman: 021 697 5650  
ebrahim@pinkdrive.co.za

Prostate & Male Cancer Support Action Group,  
MediClinicConstantiaberg. Contact Can-Sir: 079 315 8627 or  
Linda Greeff: linda.greeff@cancercare.co.za, phone 0219443700

Wings of Hope Breast Cancer Support Group  
Contact wingsofhopecancersa@gmail.com.

CHOC: Childhood Cancer Foundation SA; Head Office:  
086 111 3500; headoffice@choc.org.za; www.choc.org.za

CANSA National Office: Toll-free 0800 226622

Netcare Clinton Support Group 10:00 Netcare Clinton Oncology Centre, 62 Clinton Rd. New Redruth. Alberton. Second Friday each month.

CANSA Pretoria: Contact Miemie du Plessis 012 361 4132 or 082 468 1521; Sr Ros Lorentz 012 329 3036 or 082 578 0578

Reach for Recovery (R4R) : Johannesburg Group, 011 869 1499 or 072 7633901. Meetings: Lifeline offices, 2 The Avenue, Cnr Henrietta Street, Norwood

Reach for Recovery (R4R) : West Rand Group. Contact Sandra on 083 897 0221.

Reach for Recovery (R4R) Pretoria Group: 082 212 9933

Reach for recovery, Cape Peninsula, 021 689 5347 or 0833061941 CANSA offices at 37A Main Road, MOWBRAY starting at 10:00

Reach for Recovery: Durban, Jenny Caldwell, 072 248 0008.t

Reach for Recovery: Harare, Zimbabwe contact 707659.

Breast Best Friend Zimbabwe, e-mail bbzfim@gmailcom

Cancer Centre - Harare: 60 Livingstone Avenue, Harare  
Tel: 707673 / 705522 / 707444 Fax: 732676 E-mail:  
cancer@mweb.co.zw www.cancerhrc.co.zw

## News in brief

### EBRT effective in relapsed/refractory follicular lymphoma

Findings from a small, retrospective study showed that external beam radiation therapy (EBRT) induced an overall response rate of 86% in patients with relapsed/refractory follicular lymphoma. At median follow-up of 3 months, 13 of 15 patients achieved a response with EBRT. The complete response rate was 73% (n = 11) and the partial response rate was 13% (n = 2). After 1 or 2 courses of EBRT, two-thirds of patients reached disease control. Summarising their findings, the investigators noted, "This small pioneer study suggests that a multimodality approach including external beam radiotherapy may achieve high success rate with minimal toxicities in relapsed and refractory follicular lymphoma although a great scope for improvement exists for radiation procedures."

<https://tinyurl.com/y7ja99yc>

### Cellular radiation linked to brain and heart tumours

Researchers from the Ramazzini Institute in Italy have shown that rats which were exposed to cellular radiation developed brain and heart tumours.

The study involved male and female rats, which were exposed from prenatal life until natural death to a 1.8GHz GSM far field for 19 hours per day. This is the largest long-term study ever performed in rats on the health effects of radiofrequency radiation.

The study found a statistically significant increase in the incidence of heart cancer tumours in treated male rats at the highest dose (50 V/m). Furthermore, an increase in the incidence of heart Schwann cells hyperplasia was observed in treated male and female rats at the highest dose (50 V/m), although this was not statistically significant.

An increase in the incidence of brain tumours was observed in treated female rats at the highest dose (50 V/m), although not statistically significant.

The International Agency for Research on Cancer (IARC) has previously classified radiofrequency radiation (RFR) as a possible human carcinogen.

According to the IARC, animals studies, as well as epidemiological ones, showed limited evidence of carcinogenicity linked to cellular radiation.

The researchers said the latest research provides sufficient evidence to call for the reevaluation of IARC conclusions regarding the carcinogenic potential of radiofrequency radiation in humans.

### Netcare Pinehaven Oncology Centre extends its services

The Netcare Pinehaven oncology centre, which was officially opened in October 2017 and is located at Netcare Pinehaven Hospital, has a capacity to provide treatment to up to 35 patients per day. The centre serves areas including Pinehaven, Featherbrooke, Krugersdorp, Roodepoort and Florida and even further afield.

Manager of Netcare Pinehaven Hospital's radiation unit, Pogiso Tlholoe, says that the facility's Elektra Synergy linear accelerator brings world-class, highly targeted radiation therapies to the region for the first time.

"This precise and highly targeted radiotherapy equipment, integrating advanced imaging technology, enables clinicians to accurately visualise tumours and minimise radiotherapy impacts on healthy tissue. This treatment is faster and more reliable than older radiotherapy treatment delivery systems. A range of therapies can be performed by means of the centre's linear accelerator including external beam radiation therapy, intensity modulated therapy, volumetric arc therapy, and stereotactic radiosurgery," said Tlholoe.

"In addition to offering advanced treatments, the team of multidisciplinary experts at Netcare Pinehaven oncology centre is committed to delivering personal, supportive care. The facility is also beautifully furnished and decorated, creating a tranquil and patient-centred environment for patients as they undergo their treatment," continued Tlholoe.

Cancer patients and their supporters are also able to attend a CanSurvive cancer support group meeting at the centre each month.

### Proton beam therapy poses lower risk for older esophageal cancer patients

When treating older patients with esophageal cancer, combining proton beam therapy with chemotherapy before surgery may be a better option than combining traditional radiation therapy techniques with chemotherapy, a Mayo Clinic research study shows.

"Elderly patients experience more post-treatment heart and lung problems and are at higher risk of death after surgery than are younger patients after receiving a combination of preoperative chemotherapy and radiation therapy," said Scott C. Lester, M.D., a radiation oncologist at the Mayo Clinic campus in Rochester, Minnesota.

The research study found that patients with esophageal cancer who were treated with proton beam therapy experienced lower rates of death and postoperative heart and lung problems, such as acute respiratory distress syndrome.

Standard X-ray radiation therapy techniques include 3-D conformal radiation and intensity-modulated radiation therapy (IMRT).

For the esophageal cancer study, researchers followed 571 patients treated with traditional radiation therapy and chemotherapy followed by surgery at the Mayo Clinic Cancer Centre, MD Anderson Cancer Centre, and the University of Maryland Marlene and Stewart Greenebaum Comprehensive Cancer Centre from 2007 to 2013.

Thirty-five percent of patients were age 65 or older at diagnosis and classified as "elderly" for the study. Forty-three percent of these patients received 3-D conformal radiation, 36 percent of patients received intensity-modulated radiation, and 21 percent received proton beam therapy.

The researchers analyzed and compared outcomes by the type of radiation treatment. They found that these older patients treated with proton beam therapy had lower rates of heart and lung problems after surgery and a lower postoperative mortality rate than did patients treated with standard techniques.

None of the patients treated with proton beam therapy experienced a postoperative death, which the researchers think is partially

related to the ability to reduce the radiation dose to important structures near the esophagus, such as the heart and lungs, with proton beam therapy.

<http://www.mayo.edu/research/forefront/proton-beam-therapy-poses-lower-risk-older-esophageal-cancer-patients?>

## Study finds broken circadian clock in human tumours

Human tumours appear to have a broken circadian clock, researchers at Vanderbilt University Medical Centre report in the journal *PeerJ*.

While the link between circadian clock disruption and cancer has been established in animal models, the new study provides the first direct confirmation of such dysregulation in human tumours.

Jacob Hughey, PhD, and colleagues have created a method to infer the “ticking” of the circadian clock using gene expression data from human tissue samples that lack time of day information. Here they use the new method to characterise circadian clock progression in a range of human cancer types.

“We find that the normal daily rhythm that we have in almost every cell in our body is strongly perturbed in tumour tissues,” said Hughey, assistant professor of Biomedical Informatics.

Long-term disruption of circadian rhythms, such as that posed by night shift work, increases risk for certain types of cancer. And recently researchers at the Salk Institute for Biological Studies have shown that, in mice and in human cells *in vitro*, drugs that activate the circadian clock kill cancer cells without posing toxicity.

“If that finding were to be borne out in clinical testing, our study would suggest restoring normal clock progression could be a broadly applicable anti-tumour strategy, because we’ve found dysregulation of the circadian clock across the gamut of cancer types,” Hughey said.

“More broadly, we now have a method that can give us a window into what the circadian clock is doing in other medical conditions even if our data don’t have time of day information.”

Psychiatric disorders would be among the many opportunities for further study using the new method, he said.

<https://www.healthcanal.com/cancers/244186-study-finds-broken-circadian-clock-human-tumours.html?>

## Targeted therapy larotrectinib shows promise in early trials

Initial results from a series of three small clinical trials of a targeted cancer therapy called larotrectinib suggest that it may be effective in patients—children and adults—with a wide variety of cancer types.

The drug disrupts the activity of TRK proteins caused by an alteration, known as a fusion, in a family of genes known as NTRK. In all three trials, larotrectinib treatment shrank tumours in many patients whose tumour cells overexpressed TRK fusion proteins.

And larotrectinib appeared to largely be safe, with little evidence thus far from the trials that it causes any serious side effects.

The trials were supported by Loxo Oncology (which developed larotrectinib), NCI and other NIH institutes, and several nonprofit groups.

Overall, among patients with the NTRK alterations who were treated in the trials, 75% experienced reductions in the size of their tumours (partial response) or their tumours stopped growing, the trials investigators reported February 22 in the *New England Journal of Medicine* (NEJM).

In seven patients, cancer was no longer detectable following treatment (complete response). And in a few patients, including several children with a rare form of sarcoma, tumours shrank enough that the patients were able to undergo surgery that could be potentially curative.

<https://tinyurl.com/y7j6ku5c>

## A gel that could help to stop cancer recurrence and metastasis

Groundbreaking research has revealed a promising strategy to stop the recurrence of cancer, and it comes in the form of a biodegradable gel.

Created by scientists at the Dana-Farber Cancer Institute in Boston, MA, the gel was designed to deliver immunotherapy directly to the area from which a cancerous tumour has been surgically removed.

Upon testing the gel on mice during the surgical removal of breast cancer tumours, the scientists found that it not only helped to prevent tumour recurrence at the primary site, but that it also eliminated secondary tumours in the lungs.

Senior study author Michael Goldberg, Ph.D. — of the Department of Cancer Immunology and Virology at the Dana-Farber Cancer Institute — and colleagues recently reported their results in the journal *Science Translational Medicine*.

For cancer that forms as solid tumours — such as breast cancer and lung cancer — surgical removal of the tumour is often the primary treatment option.

The researchers explain that when a cancerous tumour is removed, the immune system uses most of its resources to help heal the wound, rather than fighting any cancer cells that may have been left behind.

This can create what the team calls an “immunosuppressive” microenvironment, in which cancer cells can thrive and spread.

As Goldberg explains, the scientists set out to transform this immunosuppressive microenvironment into one that is “immunostimulatory” — that is, one that can attack and destroy residual cancer cells after surgery.

To achieve this feat, the researchers created a hydrogel loaded with drugs that stimulate dendritic cells, which are immune cells that are involved in the initial immune response. They “present” any foreign

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invaders or diseased cells — such as cancer cells — to T cells, which launch an attack.

The gel comprises a sugar naturally present in the human body, making it biodegradable, - is placed at the site from which a tumour has been surgically removed. The gel gradually releases the drugs over a prolonged period, which the team says increases its efficacy.

[https://www.medicalnewstoday.com/articles/321307.php?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=weekly](https://www.medicalnewstoday.com/articles/321307.php?utm_source=newsletter&utm_medium=email&utm_campaign=weekly)

## CANSA's Oettlé Memorial award 2017 to Professor Greta Dreyer

Greta Dreyer has been recognised and selected to receive the coveted AG Oettlé Memorial medal from CANSA for outstanding contributions to cancer research, training and clinical work. She has devoted all of her professional life since 1995 to the field of gynaecologic oncology in SA and continues to serve on numerous committees within the cancer platform and is relentlessly committed to advancing knowledge in this field. She continues to inspire and mentor many young scientists in the fight against cancer and help more women survive cancer.

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, of which about one hundred qualifies for radical surgery. She is personally involved in about fifty radical hysterectomies per year; operates on many ovarian cancer patients per year as well as numerous patients with other female cancers.

<http://www.cansa.org.za/oettle-memorial-award-2017-to-professor-greta-dreyer/>

## Second 'Cancer Research in Action' Conference

CANSA is excited to announce that the next Cancer Research in Action Conference will be held at the University of Pretoria, Prinsloo Campus from the 3rd to 5th July 2018. All CANSA's Type A research grantees will be invited to present their research, providing a comprehensive view of CANSA sponsored research at universities. Further details will be available at [www.cansa.org.za](http://www.cansa.org.za) in due course.

## Glasgow researchers find way to overcome chemotherapy-resistant AML

Treatment-resistance in patients with one of the most aggressive types of blood cancer may be overcome by combining a new targeted drug called venetoclax with chemotherapy, researchers at the University of Glasgow have shown.

Testing for activity of a cancer gene called 'Trib2' in patients with acute myeloid leukaemia (AML) could identify those people who would most benefit from this targeted treatment. Intensive chemotherapy, followed by a stem cell transplant, currently offers the best chance of a long term cure. But some people are unable to tolerate this treatment, or do not respond, and many more will relapse.

Researchers found that increased activity of a gene called Trib2 is responsible for the development of particularly chemotherapy-resistant leukaemia cells in around a quarter of AML patients. Trib2 switches on the production of BCL2 proteins, which promote cell survival and regulate against cell death. The BCL2 protein has been

linked to treatment resistance in other types of cancer, including lymphoma, breast cancer and prostate cancer.

An international clinical trial is currently underway using venetoclax in combination with low dose chemotherapy to treat older patients with AML who cannot tolerate intensive curative chemotherapy.

High levels of BCL2 are also linked to chemotherapy resistance in childhood AML, which accounts for 20% of childhood leukaemia. The Glasgow team will investigate whether their findings could be relevant to improving treatment for children with AML as well.

*The University of Glasgow*

## Turning DOWN radiation levels

A radical new treatment that equips the immune system to launch a 'search and destroy' mission for tumours in the body is set to transform how cancer is tackled.

In one patient whose lungs, liver and bones were riddled with cancer, the treatment reversed the disease so spectacularly that his tumours disappeared altogether within six months and five years later, there are still no tumours visible on his scans, according to radiologist Dr Silvia Formenti of the Weill Cornell School of Medicine in New York.

The technique, which uses conventional radiotherapy but with the power turned down, enables cells in the immune system to recognise the genetic fingerprint of cancer cells and seek them out.

Dr Formenti said she believed the treatment 'holds the potential to eradicate entire disease in people with several different types of cancer' – including those of the breast, liver and lung - and says: 'Everyone thought the only benefit from radiotherapy was shrinking the tumour. But targeting a tumour with a lower dose 'can alter the tumour cells, jump-starting the immune system'.

Her view was backed by leading London breast cancer surgeon Professor Kefah Mokbel, who thought it could work 'in all types of solid tumour cancer'. Explaining the process, Prof Mokbel, of the London Breast Institute, said: 'The radiation kills cancer cells and as it does so, cancer DNA is released. That stimulates immune cells to respond to what they see as a foreign body.'

<http://www.dailymail.co.uk/health/article-5513199/Experts-hail-seek-destroy-cancer-treatment.html>

## Brain metastases treatment documentary

Learn from leading radio-oncologists, neurosurgeons and physicists explaining how brain metastases develop and get insights about the latest technologies to treat them.

We are living in one of the most dynamic and exciting periods of medicine for cancer treatment. We are treating primary cancers with new and better options, enabling patients to live longer. The most common primary sites for brain metastases are lung, breast, skin, kidney, and gastrointestinal tract.

Advanced technologies and treatment options for secondary cancers to the brain – brain metastases – are helping improve survival rates and quality of life for patients, helping them live longer, fuller lives with better control of their cancer.

Together with the American Brain Tumour Association, Brainlab has developed a comprehensive documentary about these treatment options and about Brenda, a patient who is telling her story of how she dealt with this diagnosis.

<https://www.brainlab.org/brain-metastases-treatment/>

## Adjuvant chemotherapy not inferior to chemoradiotherapy in cervical cancer

Chemotherapy alone is non-inferior to concurrent chemoradiotherapy (CCRT) after radical hysterectomy among patients with early-stage cervical cancer with risk factors, according to a presentation at the 2018 Society of Gynecologic Oncology Annual Meeting on Women's Cancer in New Orleans.

CCRT is commonly used as adjuvant therapy for women with early-stage cervical cancer after radical hysterectomy, though it can lead to long-term radiation toxicity and fertility impairment.

For this study, researchers randomly assigned 324 patients with stage IB to IIA cervical cancer to receive adjuvant CCRT or chemotherapy; patients in the CCRT arm received external beam radiation therapy plus cisplatin; those in the chemotherapy arm received paclitaxel plus cisplatin.

Progression-free survival and overall survival were similar in both treatment arms, though the hazard ratio for relapse trended in favor of patients who received adjuvant chemotherapy (hazard ratio, 0.878; 95% CI, 0.418-1.845;  $P = .731$ ).

There were no significant differences in patterns of recurrence in the chemotherapy vs CCRT groups, though there was a trend towards a higher rate of distant failure among patients who received adjuvant CCRT.

The authors concluded that "adjuvant chemotherapy was not inferior to adjuvant CCRT and could be a standard treatment option for patients with FIGO stage IB–IIA cervical cancer with surgically confirmed risk factors," and added that "subgroup analysis and treatment-related adverse events, ovarian function, and quality of life are under analysis."

## FDA approves Apalutamide for some men with prostate cancer

The US National Cancer Institute advises that the Food and Drug Administration (FDA) have approved apalutamide (Erleada) for men with prostate cancer that has not spread (nonmetastatic) and is resistant to standard hormone therapy, also called androgen deprivation therapy (ADT).

The trial that led to the approval showed that treatment with apalutamide decreased the risk of metastasis or death by more than 70% compared with placebo.

"These are very dramatic results and, in many ways, exceeded our expectations," said lead investigator Matthew Smith, M.D., Ph.D., of Massachusetts General Hospital Cancer Centre. The treatment "will be an important option" for men with prostate cancer in this setting, he added.

"We're learning that using hormone therapy earlier in men with prostate cancer can delay metastasis and probably improve survival. But the balance of benefits and potential side effects will need to be evaluated on a patient-by-patient basis," said William Dahut, M.D., head of the Prostate Cancer Clinical Research Section of NCI's Centre for Cancer Research.

## New treatment for aggressive breast cancer

Approximately 10–15 per cent of breast cancer cases do not respond to treatment with hormone therapy, which means that they are more aggressive and often recur. An international research

team led by researchers at Lund University in Sweden has uncovered a way to treat these aggressive tumours through manipulation of the connective tissue cells of the tumour. The researchers are now developing a new drug that transforms aggressive breast cancer so that it becomes responsive to standard hormone therapy.

Breast cancer is one of the tumour types that is richest in connective tissue, providing a rationale for a major role of connective tissue cells in tumour growth.

There are a number of different types of breast cancer, each with different prognoses and treatment options. Patients with breast cancers that are hormone-sensitive (around 70 per cent of all patients) have the best prognosis, whereas approximately 10–15 per cent of patients have cancers that are insensitive to hormones and more aggressive (basal breast cancer). Basal breast cancers typically require more intensive treatment with chemotherapy, which may be associated with severe side effects.

"Our studies of the communication between breast cancer cells and their surrounding tissue have revealed a growth factor – PDGF-CC – which transmits information between the tumour cells and the connective tissue cells, mainly in basal breast cancers. Detailed analyses of around 1400 breast cancers showed that high levels of PDGF-CC in the tumour cells were associated with a poor prognosis", explains cancer researcher Kristian Pietras, Professor at Lund University.

"Previously, it was believed that the various subgroups of breast cancer originated from different cell types in the mammary gland. Our research has shown that connective tissue cells can also modify tumour cells directly with regard to their sensitivity to hormones, which has significant implications in the development of more effective treatments", states Professor Ulf Eriksson at Karolinska Institutet, a co-investigator of the study.

In experimental models, the researchers tested a new biological drug they have developed which blocked the PDGF-CC-mediated communication between the tumour cells and the connective tissue cells. Remarkably, this resulted in the transformation of the basal breast cancers into hormone-sensitive luminal breast cancers. As a consequence of this transformation, the tumours then became highly responsive to conventional hormone therapy.

<https://www.healthcanal.com/cancers/breast-cancer/243883-new-treatment-aggressive-breast-cancer.html?>

## Cancer stigma study

The stigma associated with cancer has been found to play a significant role in negatively impacting the psychosocial wellbeing of cancer patients, 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 CANSA's Service Delivery team indicate that cancer stigma is a significant problem in many of the communities in which they work.

CANSA launched a qualitative study in KwaZulu-Natal and the Western Cape to examine this in more detail. Interviews and focus groups with cancer patients were conducted to explore experiences of stigmatisation, the impact this has had, how people have coped and what their needs are for support and addressing this issue. Focus groups took place with members of the public to explore from an 'outside' perspective why cancer is stigmatised. This is being explored in different race and cultural groups where different 'mental models' or perceptions of illness and cancer may exist.