

VISION

COPING WITH CANCER

VISION, MAY 2017

WHO to begin pilot pre-qualification of biosimilars

This year the World Health Organisation (WHO) will launch a pilot project for prequalifying biosimilar medicines, a step towards making some of the most expensive treatments for cancer more widely available in low- and middle-income countries.

In September, WHO will invite manufacturers to submit applications for prequalification of biosimilar versions of two products in the WHO Essential Medicines List: rituximab (used principally to treat non-Hodgkin's lymphoma and chronic lymphocytic leukemia), and trastuzumab (used to treat breast cancer).

The decision comes after a two-day meeting in Geneva between WHO, national regulators, pharmaceutical industry groups, patient and civil society groups, payers and policymakers to discuss ways to increase access to biotherapeutic medicines. WHO also plans to explore options for prequalifying insulin.

Biotherapeutic medicines, which are produced from biological sources such as cells rather than synthesised chemicals, are important treatments for some cancers and other non-communicable diseases. Like generic medicines, biosimilars can be much less expensive versions of innovator biotherapeutics. They are usually manufactured by other companies once the patent on the original product has expired.

As the patents of some biotherapeutics have expired, more biosimilars are being produced. Like generic medicines, biosimilars could help to increase access to treatment in lower-resourced countries and provide a solution to escalating health costs in high-income countries.

World Pancreatic Cancer Coalition

The 2nd Annual World Pancreatic Cancer Coalition Meeting was held in May in Montreal Canada. Carla Bailey represented Pancreatic Cancer South Africa at the meeting.

The Coalition's mission is to drive transformational change for all those affected by pancreatic cancer and promote World Pancreatic Cancer Day, which this year will be held 16 November 2017.

80 participants representatives of 40 organisations in 20 different countries gained knowledge, sharing best practices, and made plans to help tackle this terrible disease.

Gold standard in cranial radio-surgery technology comes to S A

In a first for Southern Africa, the cutting edge radio-surgical technology, Leksell Gamma Knife Icon, used in the treatment of selected brain tumours, head and neck tumours, vascular malformations in the brain as well as functional disorders, has been installed at Netcare Milpark Hospital in Johannesburg.

The new Gamma Knife Icon centre, which has been established at is the first of its kind in Southern Africa.

Innovator biotherapeutic products are often too expensive for many countries, so biosimilars are a good opportunity to expand access and support countries to regulate and use these medicines," said Dr Marie-Paule Kiény, WHO Assistant Director General for Health Systems and Innovation.

If WHO finds that the biosimilars submitted for prequalification are comparable to originator products in terms of quality, safety and efficacy, the medicines will be listed by WHO and become eligible for procurement by United Nations agencies. Many low- and middle-income countries also rely on WHO prequalification before buying medicines. An additional benefit of WHO prequalification could be to increase competition and further reduce the price of medicines.

"Biosimilars could be game-changers for access to medicines for certain complex conditions," said Dr Suzanne Hill, WHO's Director of Essential Medicines and Health Products. "But they need to be regulated appropriately to ensure therapeutic value and patient safety."



Pelvic radiation and its complications

by Dr Yastira Ramdas

Radiation therapy is a critical treatment modality in the management of patients with pelvic tumours. New highly conformal external-beam and brachytherapy techniques have led to important reductions in recurrence and patient morbidity and mortality. However, patients who receive pelvic radiation for malignancies may experience a unique constellation of toxicity because of the anatomic locations, combination with concurrent chemotherapy and/or surgery, as well as potential surgical interventions.

Now, there are two types of effects of radiation therapy, acute effects and late side effects. Most people suffer some acute side effects. They are self-limiting and usually resolve two to three weeks after treatments. They will occur with both external beam and brachytherapy treatments. And there is no way to determine who will or will not suffer side effects, or which side effects, as well as the severity of the side effects.

Why does radiation therapy cause side effects?

High doses of radiation therapy are used to destroy cancer cells. Side effects occur because radiation therapy can also damage healthy cells and tissues near the treatment area. Today, major advances in radiation technology have made it more precise, leading to fewer side effects.

For some people, radiation therapy causes few or no side effects. For others, the side effects are more severe. Reactions often start during the second or third week of treatment. They may last for several weeks after the final treatment.

The organs at risk when treated with pelvic radiation therapy are the colon, small bowel, the bladder, ureters, urethra, the genital organs and spinal cord, skin, soft tissue, muscles, bones, vasculature, nerves in the radiation field, and the lymph - lymphatic system.

Short and long term side effects

Skin changes such as redness, irritation, blistering, thickening, and hair loss. In the long term, such changes may be permanent.

Bladder inflammations, with burning, increased frequency, bleeding, or other painful urination. Damage to the urinary tract may increase bacterial infection (radiation-induced cystitis). Severe damage to the bladder may require surgery.

Inflammation of the anus, rectum, or bowel, leading to diarrhoea, cramping, spasms, or bleeding. Long term effects may include bowel damage that requires surgical correction or a colostomy.

Fatigue

Swelling in the pelvis or legs (lymphedema)

Stiffness of the pelvic region.

Nerve damage affecting the legs or causing loss of control of the bladder or rectum.

Vaginal irritation, shrinkage (stenosis), discharge, bleeding, pain.

Women

Ovarian damage resulting in loss of fertility.

Premature menopause.

Durban born Dr Yastira Ramdas is a Radiation Oncologist working at Netcare's Waterfall City, Pinehaven and Krugersdorp hospitals.

She was previously a specialist consultant at Charlotte Maxeke Johannesburg Academic Hospital running the Breast Cancer Unit and lectured to fifth and sixth year medical students.



Men

Sexual problems like erectile dysfunction, which is the inability to get or maintain an erection.

Infertility due to reduced sperm count.

Secondary cancers, such as bladder cancer, in the area treated with radiation – this may take twenty years or more to occur.

An increased risk of bone fractures, particularly hip fractures.

Reduced absorption of Vitamin B-12 (cobalamin), essential for numerous aspects of health, including "cognitive function." The body will resort to the B-12 stored in the liver, so the effects may not be immediately noticed. Testing for B-12 can prevent irreversible damage.

In summary, acute reactions from radiation therapy can usually be managed conservatively and will resolve in two to three weeks after treatment. The late side effects of radiation therapy are not common, but they do occur in a small percentage of patients. However, there are effective treatments for most of these late side effects. And remember, recurrent cancer or a second primary can mimic the less common side effects of radiation therapy, so should be given more attention.

If there is any aspect of radiation you would like Dr Ramdas to cover, please email cansurvive@icon.co.za with details.

Cancersupport @Centurion

Join us at our monthly meeting for refreshments, a chat with other patients and survivors and enjoy an interesting and informative talk.

Next meeting: 17 May at 18:00

at Uitas Hospital boardroom

Please phone Marianne Ambrose

Phone 0219443700 for more info or Matjatji

Machubeng at 012 677 8271 office hours,

if you have any questions

The group is open to any survivor, patient or caregiver.

No charge is made.

The Group is hosted by Netcare.



CANCER ALLIANCE ADVOCACY TOOLKIT

Priority area #1 : Access to cancer treatment

Significant improvements are essential in the following areas:

- Access to accurate cancer diagnosis
- Quality treatment
- Palliative care services, and
- Availability of affordable essential medicines and technologies

The facts

Everyone in South Africa has the right to access proven, effective cancer treatment and services, regardless of income levels or where they live. Locally appropriate solutions that achieve effective, quality cancer care are achievable if the government, private and public sectors, and civil society, work together to address the barriers.

What do we need?

- A primary health care system that caters for the continuum of care, from early diagnosis to treatment of cancer, and should include effective follow-up care post cancer treatments, and palliative care.
- Diagnostic centres at secondary hospital level, which can also deal with basic treatments. Our suggestion will be to ensure at least one diagnostic centre per province by the end of 2017.
- Proper referral pathways for possible cancer patients need to be developed, to ensure patients receive assistance for screening and diagnostic work up, and timeous referrals for cancer treatment and adjuvant therapies. Delays to access to treatment should not be more than one month.
- Dedicated treatment centres for surgery, radiation and chemotherapy, which are situated nearer to patients' homes to ensure compliance, and to mitigate psychosocial disruption. This will only be possible if public, patient, private partnerships are seriously considered as an option to meet the growing needs of cancer patients across South Africa, as oncology resources are scarce and very costly.
- Access to affordable, effective and quality cancer medicines and technologies.
- Social protection measures to address the financial impact of cancer on patients and their families.

But we cannot achieve this without:

- Budget allocations that are dedicated to ensure accessible equi-

A lack of specialised equipment leads to life threatening delays for South Africa's cancer patients. This can't continue!

26% of SA's breast cancer patients need Herceptin but they are dying because it is not on the essential medicines list

WHO added 16 new cancer medicines for low- and middle-income countries in 2015, but SA's essential medicines list is out of date



table cancer services across South Africa – the fragmentation of cancer care in South Africa is costing us lives and money.

- Investment in infrastructure, and maintenance of existing equipment.
- A willingness on the part of the National Department of Health to reassess current available resources, and to effect redistribution to impact change sooner, rather than later.
- Investment in a skilled and supported cancer workforce, and buy-in from traditional healers.
- An updated Essential Medicines List in line with World Health Organisation (WHO) guidelines, and changes to patent laws.
- Patient Public, Private Partnerships (4P's) as an innovative option to meet the growing needs of cancer patients across South Africa as oncology resources are scarce and very costly.

How can we meet the challenges?

Challenge 1: Infrastructure and maintenance

- A willingness to consider innovative approaches
- A willingness to implement changes as a matter of urgency
- A budget that reflects the real needs, to ensure equitable access to all, is essential
- A willingness to find creative solutions to use the skilled workforce and equipment
- A willingness from public sector to investment in public – private partnerships

Challenge 2: The cancer workforce

- Investment in, and support of the cancer healthcare workers
- Curriculum changes to ensure cancer gets the priority it deserves during training of doctors, nurses and other health workers
- Basic training, continuing education, and specialist palliative care training

Challenge 3: Essential Medicines List

The Essential Medicines List is out of line with that of the WHO, which added 16 new drugs to its list of essential cancer medicines for low- and middle-income countries in 2015.

Challenge 4: 4P Principle Partnerships

Patient Public Private Partnerships between the state and private health sectors, along with civil society,

International Breast Cancer Survivor Summit



Denise Stewart is an Occupational Therapist in Brisbane, Australia and I recently spent a day with her observing patient treatment and exchanging experiences and ideas. She does a lot for breast cancer survivor rehabilitation and all of it is her own time and funding. She is a very inspirational person!

She is launching her new idea for another on-line summit and is looking for South Africa to participate.

Regards, Carin Dreijer du Plessis, OT Zone

Why is the Breast Cancer Rehabilitation & Wellness Summit needed?

Our current health resources make it very difficult for many people after breast cancer to receive timely, up to date information and

advice about new and difficult or uncomfortable experiences (often side effects) after breast cancer. The timing for annoying or painful symptoms after breast cancer diagnosis varies, they can occur during and well after the cancer treatment programme. In both instances, it may be hard to find either the energy or the right person to deal with these very complex symptoms.

Discussions with women after breast cancer and breast cancer aware health professionals, indicate there are numerous barriers to accessing recovery and wellness information and services in many communities across the world. This online Summit and Breast Cancer Rehabilitation & Wellness resource could reduce some of these barriers.

For more information on the summit go to: <https://www.breast-cancer-rehabandwellness.com/summit-deeper-dive>

Can you please contact

Denise Stewart, Occupational Therapist

Phone +61 7 3356 2497

breastandshoulderehab@gmail.com

www.breastandshoulder-rehab.com

Online training for breast cancer care health professionals

CanSurvive CANCER SUPPORT

Let's talk about cancer!

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

Upcoming meetings:

PARKTOWN Hazeldene Hall (opposite Netcare Parklane Hospital) - 13 May 09:00

CHARLOTTE MAXEKE Radiation Department, Level P4 - 17 May

SOWETO, HapyD, 1432 Buthelezi St. Jabulani - 20 May 09:00

HEAD and NECK Group, Rehab Matters, 1 De la Rey Rd. Rivonia - 1 June 18:00

KRUGERSDORP Netcare Hospital Group - 3 June 09:00

CHARLOTTE MAXEKE Radiation Department, Level P4 - 7 June

Enquiries:

Mobile 062 275 6193 or email cansurvive@icon.co.za

www.cansurvive.co.za :

www.facebook.com/cansurviveSA

The Groups are open to any survivor, patient or caregiver.
No charge is made.



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

MEET THE GROUPS

Pancreatic Cancer Group Cape Town

Pancreatic Cancer Network South Africa is a registered Non-Profit Organisation, established in 2015 to raise awareness, educate the public on early symptoms and risk factors of the disease. We also provide patient support through our care packs and monthly support group meetings.

We are a member of the Cancer Alliance and World Pancreatic Cancer Coalition. Our Founder, Carla Bailey will be attending the 2nd Annual World Pancreatic Cancer Coalition Meeting in May which will be taking place in Montreal Canada.

We have mobilised monthly support group meetings at Groote Schuur Hospital. Our support group meetings are open to patients and caregivers fighting this disease.



The photo above shows the core group of volunteers and was taken last year at Cape Town International Airport on their way to the Inaugural World Pancreatic Cancer Coalition Meeting in Orlando, Florida.

The photo left was taken at the first monthly Pancreatic Cancer Group meeting at Groote Schuur Hospital on 24 March 2017.

For more details of the group you can contact them on 082 710 8487. Facebook page: www.facebook.com/PanCanSA

Details of their next meeting of the Group are as follows:

Date: 25 May 2017, **Time:** 1pm – 2pm

Venue: Tafelberg Room, E Floor, Groote Schuur Hospital

A HUGE thank you to Groote Schuur Hospital for offering up the venue and equipment.

Growing body of evidence supports use of mind-body therapies in breast cancer treatment

In updated clinical guidelines from the Society for Integrative Oncology (SIO), researchers at some prestigious universities and organisations in the US and Canada, analysed which integrative treatments are most effective and safe for patients with breast cancer.

The researchers evaluated more than 80 different therapies and developed grades of evidence.

Based on those findings, the Society for Integrative Oncology makes the following recommendations:

- ❑ Use of music therapy, meditation, stress management and yoga for anxiety and stress reduction
- ❑ Use of meditation, relaxation, yoga, massage and music therapy for depression and mood disorders
- ❑ Use of meditation and yoga to improve quality of life
- ❑ Use of acupressure and acupuncture for reducing chemotherapy-induced nausea and vomiting
- ❑ A lack of strong evidence supporting the use of ingested dietary supplements or botanical natural products as part of supportive care and/or to manage breast cancer treatment-related side effects

"Studies show that up to 80 percent of people with a history of cancer use one or more complementary and integrative therapies, but until recently, evidence supporting the use of many of these therapies had been limited," said Heather Greenlee, ND, PhD, assistant professor of Epidemiology at Columbia University's Mailman School of Public Health, and past president of SIO.

Meditation had the strongest evidence supporting its use, and is recommended for reducing anxiety, treating symptoms of depression, and improving quality of life, based on results from five trials. Music therapy, yoga, and massage received a B grade for the same symptoms, as well as for providing benefits to breast cancer patients. Yoga received a B grade for improving quality of life based on two recent trials. Yoga and hypnosis received a C for fatigue.

Acupressure and acupuncture received a high grade as an addition to drugs used for reducing chemotherapy-induced nausea and vomiting. In general, there was a lack of strong evidence supporting the use of ingested dietary supplements and botanical natural products as part of supportive cancer care and to manage treatment-related side effects.

<http://oncologynews.com.au/growing-body-of-evidence-supports-use-of-mind-body-therapies-in-breast-cancer-treatment/>

Being a cancer patient and a caregiver

by Greg P_WN

All cancer patients will have a variety of descriptions of what it's like to be a cancer patient. There will be a lot of details about how hard treatment is, how bad the side effects are, the pain involved and the sacrifices a patient has to make just to go through treatment.

All of these will be heartfelt and true statements, but the patient usually feels like they are in control of their own situation. They are the one going through it all and can muster up the determination to keep driving through it. But, it's different for a caregiver.

Most caregivers will describe their experience in caring for their loved one as rewarding, tough, draining, exhausting and scary. Those caregivers that have also been a patient will many times include "harder than having cancer" as a description. In my case, I know how hard it was for my wife taking care of me, watching me go from being a picture of health and strong to being extremely sick, weak and at death's door. Even though I have had three diagnoses and more than my share of being at the rock bottom of health's barrel, I will join with others that say being a caregiver was the harder of the two.

Those who have never experienced both being a patient and a caregiver might say "no way". But those of us that have been there will share their feelings about how it's harder. Here are some of my own experiences with being the caregiver for my mom and dad, both of them were Stage IV cancer patients. Mom passed away from lung cancer, and dad passed away from prostate cancer. Our family took care of both of them 24 hours a day with the help of hospice during their last months of life.

Caring for Dad

Dad was always a confident man, able to do most anything he wanted. His health was fairly good in his later years despite having lived with prostate cancer for 13 years. He worked his farm and tended to his animals and was able to do his chores most of the time. He hated to ask any of us kids to help him do anything, he hated being looked at as someone not able to take care of himself.

One of his biggest fears was that his health would decline to the point that he would be dependent on someone else for even the most basic of life's needs like bathing or getting to the restroom. Sadly, in the last month of his life, he reached this point.

Caring for a parent is one of the hardest things that I have ever had to do. Physically, it's not all that challenging, although you can lose a lot of sleep, but mentally, it takes its toll.

When I am the patient and I am hurting, I can handle it. When you're the caregiver, you hurt for them, you want the pain to go away, all you can do is give the medication and sit and wait. With every groan, ouch, or shriek of pain, you cringe and search for ways to make it better. But, there is nothing you can do but sit and wait, and hope that the pain will go away.

While caring for dad, he was in a nursing home, we had the benefit of having the staff of the facility to administer meds, but other than that, we took care of his every need from getting a drink of water, feeding him, keeping him turned so his bed sores wouldn't get any worse, to cleaning him up when he messed up the bed. For 24 hours a day, for the month he was in there, one of us was with him doing all of these for him.

We talked when he was coherent, and actually enjoyed the time, but for most of the time, he was asleep except for the regular awakening with pain. He would wake up screaming, then after we gave him some pain medicine, we would talk for just a little, which usually consisted of him saying that "we should be going now, hadn't we"? He was always looking for his shoes and was ready to leave. We would have to explain to him again, that he was very sick and that he couldn't go home until he got better. He never grasped the concept of he was never going home. Then he would go back to sleep, when he woke, the whole cycle would start all over again. We lived that segment of time on three-hour intervals. We used to say that "every three hours is a new day".



The hardest part of the caregiver process for me was the helpless feeling that there is nothing we could do to make it better. No matter how many drinks of water we got them, or treats we brought from the fridge, they were never going to get better. Having the knowledge that they were going to die, right there where they were lying, was a harsh reality.

Dad's final week of his life was a little less physically demanding since by this point he basically was laying in bed getting hourly doses of pain meds to keep him sedated and comfortable, we were just waiting for what we knew was coming. But it only got harder mentally. It seems cruel or uncaring to say, but when he finally passed away, there was a sense of relief. Now his hurting was over, and hopefully, he was better off.

Caring for mom

Mom was diagnosed with inoperable lung cancer two months after Dad died. She had been coughing and couldn't shake it, we took her to the doctor to find out why and shortly afterward we were told the bad news. Treatment "might" help, but probably not. Mom chose to not have treatment and just live out what she had left.

She lived eight months after diagnosis, two months longer than was predicted. The time we spent together during those eight months were oddly some of the best we had. I learned more about her and Dad and some of our distant relatives than I did through the previous years.

We would sit and look at boxes of pictures and talk about who they were, and what was going on in them. I wrote notes on the back of the pictures to keep me from forgetting later. Those pictures mean the world to us now.

My wife Donna would cook things that mom liked to eat and that she was able to eat. Our life revolved around caring for mom at that time. She loved beef stew, so every time that Donna makes stew now, we instantly see mom's eyes getting wide and excited as she was waking up from a nap and would smell it cooking. Today, even though it's been several years since she passed, there are certain foods that instantly give us the flashback of being there in the house caring for mom, giving her some of her favorite things to eat.

Caring for mom was much like caring for dad, only it lasted longer. The emotions were that same, the simple little things we did for her were the same and the reality was the same. We knew what was coming, but there was nothing we could do to prevent it. Only make her as comfortable as possible and make her last days as painless as could be. If you think having cancer is tough, try holding your mother's hand as she is taking her last breaths and telling her that it's OK to let go and go be with dad.

(Continued on page 7)

WINGS OF HOPE GROUP MEETING

The latest public meeting of the Wings of Hope was at the Netcare Head office in Sandton on 22 April. The main topic for discussion was " Medical Aids" and two consultants from Discovery Health were faced with a barrage of questions from a very engaged audience.



PSA and male cancer support group

Monthly support groups are held at the
Boardroom at MediClinic,
Constantiaberg, Plumstead

17 May 17:45 – 19:00

For more information contact:

Helpline: 076 775 6099

Email: info@can-sir.org.za. Web: www.can-sir.org.za

Our grateful thanks to Medi-Clinic for providing a home
for our activities and refreshments for our members.

It is much appreciated by us all.

Cancer patient and caregiver (Continued from page 6)

So what's the takeaway from caring for a parent? As hard as it is to do, enjoy the time you have with them, enjoy the fact that you are taking care of the things that they used to take care of for you. Everything from paying their bills, cooking for them, feeding them, and even the unpleasant things that inevitably happen like having to clean them up if they have a restroom accident.

When you are done with this process, you will be happy and proud that you were able to be there for them to do some of the simplest, smallest things for them, at a time when those things were actually HUGE. Just think about a simple drink of water, if you can't reach the glass and hold it all you can do is lie there being thirsty until someone gives you a sip. I can still see their eyes light up and hear them saying, "boy that was good, thank you".

Dad was in a nursing home for his final days, that had some pretty strict rules about visitors and what we could give him. At this point in his life, we decided that whatever dad wanted, he would get. He was a man who loved his whiskey and chewing tobacco. We made sure that if he wanted either, he got it. I can still see his face light up when I would ask him if he wanted a shot, or a chew. As we all have heard before, "it's the little things that matter".

So, is it harder being a caregiver than a patient? My experiences say YES.

*This article is published with permission from
Whatnext.com and can be found at <https://www.whatnext.com/blog/posts/being-a-cancer-patient-and-a->*

**Support the Fighters.
Admiring Survivor.
Honoring the Take and
never. Give up Hope.**

**RACE AGAINST
CANCER**

**We...
Care 2017**

**Run/ Walk School Challenge
5km .25 June 2017. 8am
Venue: Orlando Communal Hall
Pre-Entry
5km - R80**

- * Only Pre-Entries Qualify for the Prize
- * Pre-Entries must be received by 30th May 2017
- * Only schools entries of 300 can enter for the prize
- * The school that has the most finishers will be eligible for the prize

**School Incentive Prizes
1st prize 2nd prize and 3rd prize**

**Entries: Orlando Communal Hall and Bank Deposit
Bank Details**

**T-shirts
For Pre Entries
Goodies & Medals
for all Entries**

**ABSA Bank Ace Holder: Orlando Athletic Club
Ace No: 9244206358 Branch Name: Mponya Mall
Reference: Your School Name & Surname**

**Enquiries:
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073 944 2571/ 073 684 3715/ 072 943 4840
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**CENTRAL GAUTENG
ATHLETICS**

Is your doctor a frozen turkey?

What do eggs, roofing nails, men's haircuts and plastic cups have in common? A bizarre fraternity ritual or my Saturday morning honey-do list? Gasoline, copying paper and paperclips? Shopping for a mobile accounting office? Nope. What these items share is that who ever makes them, wherever you buy them, they are essentially the same. They are "commodities." They do not vary significantly in construction or quality. The only way to tell them apart is cost.

In a consumer society, we chose between commodities by how much we want to spend. Most of us have Apps on our phones that tell us the cheapest gas price. None of those programmes tells us which gasoline is better, just its cost. On the other hand travel websites may tell hotel prices, but also rate service, location and accommodations. Not many of us go to an unfamiliar city and look only for the cheapest lodging. Hotels are not commodities.

Is medicine a commodity? Once you achieve a minimum of quality, is all healthcare the same? Doctors all went to medical school, took the same classes and passed the same boards. They do the same laparoscopic appendectomies, prescribe the same antibiotics and use identical CT scanners, which produce perfect pictures in Omaha or Oslo. Cancer doctors use the same treatment protocols and achieve the same remission rates. Does this make doctors more like gasoline than hotels?

The pressures to drive medicine into Henry Ford's assembly line world ("you can have any color, as long as it is black") are immense. Patients and payers demand safety and uniform outcomes, which result in academically derived guidelines, which are enforced by the medical profession, regulators and malpractice courts. Realising the increasingly uniform nature of medical treatment, employers, industry, the government and insurers suck money from healthcare and demand usurious savings.

An identical product differentiated only by rate is the very definition of a commodity market. Patients shop online for the cheapest joint replacement, buy drugs from the least expensive vendor and through medical tourism visit cities and countries where they would not consider walking down the street, just to get a cheaper heart valve.

Frankly, what is wrong with converting the delivery of healthcare to a cheap-cookie-cutter product, if that results in widely available good treatment? Should we conclude that just as we depend on gasoline to be the same wherever we drive, it would be a victory to have the same reassurance regarding our health, our very lives?

Allowing medicine to become a commodity would be a disaster. While we must have standards, guidelines, quality and efficiency, the next step, canned-tuna-medicine, will have multiple untoward effects.

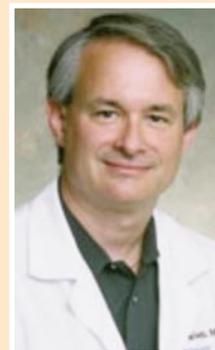
First, as a commodity is differentiated only in price, this means that the cost of medical care, whether doctors, hospitals or nursing homes, will plummet. Spending will be so low that the best comparison will be that ultimate commodity experience, the McDonalds drive-thru. Yes, you can get the same burger anywhere in the world, but accept for the most senior corporate executives, everyone else is making minimum wage. If salaries for doctors and other skilled medical providers are driven down that far, it will not be possible to spend 14 years in post-high school education, nor commit to 80-hour-work-weeks at the bedside.

James C. Salwitz, MD

Dr. Salwitz is a Clinical Professor at Robert Wood Johnson Medical School.

He lectures frequently in the community on topics related to Hospice and Palliative Care and has received numerous honours and awards, including the Physicians Leadership Award in Palliative Care.

His blog, Sunrise Rounds, can be found at <http://sunriserounds.com>



There will be no money for teaching, outreach or basic research. Healthcare is not just about individual treatments; it is about education of patients and communities, and the nurturing of future health professionals. It is about developing technologies and science. Medical innovation is dependent on academia for the development of cures. The cash-for-profit pharmaceutical and device industry has failed to develop breakthrough innovations. In a commodity driven market anything that does not drop cost or increase short-term profit will vanish.

However, this is not the major problem.

If healthcare is a commodity, always the same, than health is always the same. If the treatment is the same, the disease must be the same. Illness becomes a sort of commodity. Since people are the ones with identical disease, they themselves must be the same; patients therefore are commodities. In a commodity medical market patients are not individuals, but clones on an assembly line. The personal needs, dreams, beliefs and hopes of patients are sacrificed to a financially motivated, guideline structured, ultimate quality production model. We are all the same.

Physicians feel the threat of this transformation in their hearts. While they support the concepts of data driven, quality guided and outcome weighed therapy, they also realise that real disease and real treatment happen to real people and real people are much more complex than defined by gross biology. Each person's struggles integrate with the patterns of their life. What is important to them? What do they believe? What are their goals? What alternatives are acceptable and which not? How much do they understand and how much do they wish to know? What do health, life and death mean to each?

In the 1970s, Frank Perdue had a problem. He was a chicken producer and chicken was a commodity, all the same. Perdue was being killed by price. Therefore, he changed chicken. It still needed to be fresh and of a certain quality, but he started selling it packaged as wings, breasts, fingers, spicy, plain, dark meat or white. He gave people choice. This is what must happen in health care. We must be provide choice.

In the coming years responding to the commoditization of medicine, patients and doctors will seek ways to "humanise" care. Personal service will improve. Individual education will be vital. Issues of family, career and spirituality will be emphasised as modifying factors in therapy. Technology will allow patients access to data, treatment alternatives, communication and control. While we must standardise the physical practice of medicine, we must use that strengthened base to empower patients to choose care that suits individual lives.

Fail to achieve that goal and we will all be frozen turkeys.

CALENDAR

May 2017

- 13 CanSurvive Cancer Support Parktown Group, Hazeldene Hall, Parktown 9:00
- 13 Bosom Buddies Support Group, Hazeldene Hall, Parktown at 09:30 for 10:00
- 16 Can-Sir Malecare Support Group, Mediclinic Constantiaberg, Plumstead, Cape Town, 17:45 – 19:00
- 17 CancerSupport@Centurion support Group at Netcare Unitas Hospital, Centurion at 16:00
- 17 CanSurvive Charlotte Maxeke Group, Radiation Floor P4
- 20 CanSurvive Jabulani Group at HapyD, 1432 Buthelezi St.
- 25 Cape Gate Oncology Group, Oncology Centre 10:00. "Living with a colostomy".
- 25 Pancreatic Cancer Support Group, Groote Schuur Hospital, Tafelberg Venue 13:00 - 14:00
- 29 Cancercare Support Group, Rondebosch Medical Centre, "Video testimonies on managing cancer".

June 2017

- 1 CanSurvive Head and Neck Support Group, at Rehab Matters, 1 De la Rey Rd. Rivonia at 18h00
- 3 CanSurvive Cancer Support West Rand Group, Netcare Krugersdorp Hospital, 09:00
- 4 **World Cancer Survivors' Day**
- 5 -9 Cancercare OuteniquaSupport Group, World Cancer Survivors' Celebration Week and Art Exhibition, GVI Boardroom,3 Gloucester Ave. George 10:00 - 12:00
- 10 CanSurvive Cancer Support Parktown Group, Hazeldene Hall, Parktown 9:00
- 14 Reach for Recovery Group meeting 13:45 Lifeline offices,2 The Avenue, Cnr Henrietta Street, Norwood
- 20 Can-Sir Malecare Support Group, Mediclinic Constantiaberg, Plumstead, Cape Town, 17:45 – 19:00
- 21 CancerSupport@Centurion support Group at Netcare Unitas Hospital, Centurion at 16:00
- 21 CanSurvive Charlotte Maxeke Group, Radiation Floor P4.
- 22 Cape Gate Oncology Group, Oncology Centre 10:00. "Cancer and lymphoedema".
- 24 Bosom Buddies Support Group, Hazeldene Hall, Parktown at 09:30 for 10:00
- 26 Cancercare Support Group, Rondebosch Medical Centre, "Finding meaning in my cancer experience".

July 2017

- 1 CanSurvive Cancer Support West Rand Group, Netcare Krugersdorp Hospital, 09:00
- 5 Cancercare OuteniquaSupport Group, GVI Boardroom,3 Gloucester Ave. George 10:00 - 12:00
- 5 CanSurvive Charlotte Maxeke Group, Radiation Floor P4.
- 6 CanSurvive Head and Neck Support Group, at Rehab Matters, 1 De la Rey Rd. Rivonia at 18h00
- 8 CanSurvive Cancer Support Parktown Group, Hazeldene Hall, Parktown 9:00

CONTACT DETAILS

CanSurvive Cancer Support Parktown and West Rand Group :
CanSurvive Head and Neck Support Group, Rivonia,
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

Can-Sir, 021 761 6070, Ismail-Ian Fife, info@can-sir.org.za Helpline: 076 775 6099.

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

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

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 011 432 8891, info@wingsofhope.co.za

PinkDrive: www.pinkdrive.co.za, Johannesburg: febe@pinkdrive.co.za, 011 998 8022; Cape Town: Adeliah Jacobs 021 697 5650;
Durban: Liz Book 074 837 7836, Janice Benecke 082 557 3079

Bosom Buddies: 011 482 9492 or 0860 283 343, Netcare Rehab Hospital, Milpark. www.bosombuddies.org.za

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

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 bbfizim@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

Noninvasive imaging test shown accurate in ruling out kidney cancers

Studies led by researchers at Johns Hopkins Medicine shows that the addition of a widely available, noninvasive imaging test called sestamibi SPECT/CT to CT or MRI increases the accuracy of kidney tumour classification. The research team reports that the potential improvement in diagnostic accuracy will spare thousands of patients each year in the United States alone from having to undergo unnecessary surgery.

"Sestamibi SPECT/CT lets radiologists and urologists 'see' the most common benign kidney tumour, something CT and MRI have not succeeded in doing alone," says Mohamad E. Allaf, M.D., MEA Endowed Professor of Urology at the Johns Hopkins. "At Johns Hopkins, use of this test has already spared a number of our patients from unnecessary surgery and unnecessary removal of a kidney that would require them to be on dialysis. These results are hugely encouraging, but we need to do more studies."

Overall, the investigators said, adding sestamibi SPECT/CT helped identify seven of nine benign tumours, and conventional imaging with added sestamibi SPECT/CT outperformed conventional imaging alone.

Even for patients whose tumours were not reclassified, the addition of sestamibi SPECT/CT increased physicians' ability to more confidently classify malignant tumours, which reduces the risk of misdiagnosis and unnecessary surgery for all patients, the researchers say.

<http://tinyurl.com/mo5sb9s>

Experimental nasal spray could deliver drugs across the blood-brain barrier

Life-saving medicines could soon be sent directly to the brain with just a sniff, thanks to a new nasal spray that can cross through the blood-brain barrier.

This protective barrier keeps our brains safe from damaging toxins, but also makes it hard for beneficial drugs to be effective – so this nasal mode of delivery could enable all kinds of new treatments.

The spray has been developed by a team from Washington University, who tested it on the antennae of locusts – insects with blood-brain barriers and olfactory networks that are anatomically similar to those in humans. Based on these tests, the nasal spray method could deliver drugs to the brain in as little as 30 to 60 minutes, according to researchers.

"The shortest and possibly the easiest path to the brain is through your nose," says one of the researchers, Barani Raman. "Your nose, the olfactory bulb and then olfactory cortex: two relays and you've reached the cortex."

The researchers developed an aerosol spray made up of gold nanoparticles small enough to pass through the blood-brain barrier. Fluorescent markers were added to track the movement of the nanoparticles.

After exposing locusts to the spray, the nanoparticles moved

through the antennas, olfactory nerves, and blood-brain barrier in just a few minutes, before spreading through the brain.

What's more, no noticeable changes were seen in the olfactory neurons of the locusts after the treatment, suggesting minimal disruption to brain function.

The next stages are to adapt the technique so the gold nanoparticles can carry different types of medicines – and of course to see if the same approach could work with humans in addition to locusts.

If it does, it could be our best option yet for drug delivery to the brain. Pills aren't precise and the medications in them struggle to get through the blood-brain barrier, while injections into the brain are invasive and risk damaging tissue.

<http://tinyurl.com/ml35s4c>

Grim findings after health facilities inspections

An inspection report of over 600 public health facilities makes grim reading – both because many facilities have deep-rooted problems and because the report is riddled with mistakes

The vast majority of South Africa's clinics failed to score more than 50 percent for standards and quality of care when visited by independent inspectors, who checked things such as cleanliness, infection control, management and availability of medicines.

The inspectors, from the Office of the Health Standards Compliance (OHSC), visited 567 clinics and 51 hospitals covering district, regional, provincial and central hospitals, which offer the highest level of specialised care.

According to the office, facilities should score at least 80 percent to claim an acceptable level of care – which makes sense when you think of how dangerous a half-dirty hospital would be for a person with a weak immune system.

Only two of Limpopo's 59 clinics and five of the 53 Free State clinics scored over 50 percent. Meanwhile, only 12 of the 100 Eastern Cape clinics managed to scrape over 50 percent, while the majority scored between 30-39 percent. The province's average for clinic leadership and governance was seven percent.

<https://www.health-e.org.za/2017/04/18/grim-findings-health-facilities-inspections/>

Stereotactic radiation highly effective for kidney cancer

Patients may soon have an alternative to traditional treatments. New research at UT Southwestern Medical Centre's Kidney Cancer Programme of the Harold C. Simmons Comprehensive Cancer Centre shows that treating metastatic kidney cancer with an advanced, focused form of radiation called stereotactic ablative radiation therapy achieves more than 90 percent control of metastases.

"This study shows that stereotactic radiation provides a good non-invasive alternative to conventional treatment, and that it effectively controls the disease," said Dr. Raquibul Hannan, Assistant Professor of Radiation Oncology, co-leader of the Kidney Cancer Programme and senior author of the study. "It may also offer an alternative to patients who are not candidates for surgery due to the number and location of the metastases." See video.

The standard of care for metastatic renal cell carcinoma is systemic therapy, such as targeted drugs or immunotherapy, which often has

significant side effects like fatigue, high blood pressure, and rash. According to Dr. Hannan, the new study shows that some of these patients can be treated with stereotactic radiation therapy with the goal of being cured, or to delay systemic therapy, allowing patients to enjoy a better quality of life without the side effects of the drugs.

"This study, which represents, possibly, the largest experience reported in the medical literature, may also help medical oncologists, since stereotactic radiation could be used for patients who have limited sites of progression while receiving systemic therapy," said Dr. James Brugarolas, Associate Professor of Internal Medicine and leader of the Kidney Cancer Programme.

<http://tinyurl.com/lgdlg35>

Emerging cancer therapies providing new hope in South Africa

Scientists who are researching cancer and potential cures have long known the importance of early detection. The sooner cancer is detected, the more treatable it is and the better the outcome. Two scientists in the Department of Chemistry at the University of Cape Town have discovered a method for diagnosing cancer earlier. Dr Kevin Naidoo, SA Research Chair in Scientific Computing and Dr Jahanshah Askani focused on breast, colon, lung, kidney, ovarian, and brain cancer. They discovered that each of these types of cancer has its own genetic expression pattern, and this can improve early detection.

The two scientists used big data to classify the different types of cancer early on, based on their GT expression pattern which shows how complex carbohydrates are built. By identifying variations in the different types of cancer, they can determine the best treatment.

At this time, the research does not appear to be promising in the prevention of cancer, but its contribution to early detection is significant.

<http://www.sancta.org.za/emerging-cancer-therapies-providing-new-hope-in-south-africa/>

Tagrisso approved for treatment of certain lungcancers

The US Food and Drug Administration granted regular approval to Tagrisso (osimertinib) for the treatment of patients with metastatic epidermal growth factor receptor (EGFR) T790M mutation-positive non-small cell lung cancer (NSCLC), as detected by an FDA-approved test, whose disease has progressed on or after EGFR tyrosine kinase inhibitor (TKI) therapy.

EGFR is a type of protein that is found on the surface of many cells. It is part of a pathway involved in normal cellular growth. Mutations within the EGFR gene can result in the production of too many EGFR proteins, and can result in unregulated spread of cancer cells.

Standard treatment for patients who have too many EGFR proteins, referred to as EGFR+ cancer, includes EGFR tyrosine kinase inhibitors (EGFR TKIs). These drugs block the growth stimulatory effects of the mutations within the EGFR pathway, and reduce the spread of cancer.

Although EGFR TKIs are an effective treatment option for patients with EGFR+ NSCLC, the cancer stops responding to these agents after approximately 9-13 months of treatment. Often, the cancers will develop additional mutations that allow that cancer cells to begin growing again, despite treatment with EGFR TKIs. One such

common mutation that can develop during EGFR TKI therapy is the T790M mutation (T790M).

Tagrisso is a targeted agent that blocks the effects of T790M. It is already approved by the United States Food and Drug Administration (FDA) for the treatment of advanced EGFR+ NSCLC that has stopped responding to EGFR TKI therapy, and has the T790M.

<http://news.cancerconnect.com/tagrisso-approved-for-treatment-of-certain-lung-cancers/>

FDA expands approved use of Stivarga to treat liver cancer

The US Food and Drug Administration have expanded the approved use of Stivarga (regorafenib) to include treatment of patients with hepatocellular carcinoma (HCC or liver cancer) who have been previously treated with the drug sorafenib. This is the first FDA-approved treatment for a liver cancer in almost a decade.

"Limited treatment options are available for patients with liver cancer," said Richard Pazdur, MD, acting director of the Office of Haematology and Oncology Products in the FDA's Centre for Drug Evaluation and Research. "This is the first time patients with HCC have had an FDA-approved treatment that can be used if their cancer has stopped responding to initial treatment with sorafenib."

Stivarga is a kinase inhibitor that works by blocking several enzymes that promote cancer growth, including enzymes in the vascular endothelial growth factor pathway. Stivarga is also approved to treat colorectal cancer and gastrointestinal stromal tumours that are no longer responding to previous treatments.

FDA approves new combination treatment for acute myeloid leukemia

The US Food and Drug Administration has approved Rydapt (midostaurin) for the treatment of adult patients with newly diagnosed acute myeloid leukemia (AML) who have a specific genetic mutation called FLT3, in combination with chemotherapy. The drug is approved for use with a companion diagnostic, the LeukoStrat CDx FLT3 Mutation Assay, which is used to detect the FLT3 mutation in patients with AML.

"Rydapt is the first targeted therapy to treat patients with AML, in combination with chemotherapy," said Richard Pazdur, M.D., acting director of the Office of Hematology and Oncology Products in the FDA's Centre for Drug Evaluation and Research. "The ability to detect the gene mutation with a diagnostic test means doctors can identify specific patients who may benefit from this treatment."

Rydapt is a kinase inhibitor that works by blocking several enzymes that promote cell growth. If the FLT3 mutation is detected in blood or bone marrow samples using the LeukoStrat CDx FLT3 Mutation Assay, the patient may be eligible for treatment with Rydapt in combination with chemotherapy.

Common side effects of Rydapt in patients with AML include low levels of white blood cells with fever (febrile neutropenia), nausea, inflammation of the mucous membranes (mucositis), vomiting, headache, spots on the skin due to bleeding (petechiae), musculoskeletal pain, nosebleeds (epistaxis), device-related infection, high blood sugar (hyperglycemia) and upper respiratory tract infection. Rydapt should not be used in patients with hypersensitivity to midostaurin or other ingredients in Rydapt. Women who are pregnant or breastfeeding should not take Rydapt because it may cause harm to a developing fetus or a newborn baby. Patients who experi-

ence signs or symptoms of lung damage (pulmonary toxicity) should stop using Rydapt.

China invests in South African healthcare

The Chinese government has donated medical imaging equipment to the value of over R1.5 million to the Steve Biko Academic Hospital.

The Steve Biko Academic Hospital is the first beneficiary of a co-operation agreement in health between Africa and China that was made in 2015 during the second Forum on China–Africa Co-operation (FOCAC) Health Ministerial Meeting.

The medical equipment includes a high-end portable colour ultrasound system, SynoVent E5 Adult/Neonate ventilator and an A7 High-end anaesthesia workstation, which have all been sourced from South Africa.

During the official handover at the hospital, Chinese Vice-Premier Liu Yandong said health is a crucial segment of people-to-people co-operation and that it can take China-Africa relations to greater heights if the cooperation is prioritised.

Vice-Premier Liu added that China and Africa will improve cooperation in hospitals, child-maternal care and pharmaceutical companies.

<http://ehealthnews.co.za/china-south-african-healthcare/>

White noise can improve your health

Stress and anxiety may cause sleeping problems or make existing problems worse and having an anxiety disorder exacerbates the problem. Sleep disorders are characterised by abnormal sleep patterns that interfere with physical, mental, and emotional functioning. Stress or anxiety can cause a serious night without sleep, as do a variety of other problems.

Fortunately, white noise can help minimise the effects of stress. Psychiatrist David Neubauer, associate director of the Johns Hopkins Hospital Sleep Disorders Centre, states that white noise machines appear to have a strong benefit for people with sleeping problems.

"I am a true believer [of white noise]," says Neubauer. "I sleep with white noise myself. While most of the evidence showing that these machines help people sleep is anecdotal, we know they provide a kind of 'sound cocoon,' which is very soothing. When it's completely quiet, people with insomnia or other sleep difficulties focus more closely on small noises, which can interfere with their getting to sleep."

While you can't do much to stop the progressive effects of ageing, you can reduce the impact of stress on your brain. Recent research shows that listening to white noise may improve long-term memory by reducing the harmful effects of stress.

This research suggests that installing water features for indoors or

using a white noise machine can have a substantial effect on improving long-term memory.

Dr Ryan Howes, a psychotherapist, claims that white noise can be highly valuable for treating anxiety and depression. He even uses them in his practice to help patients feel more relaxed

<http://tinyurl.com/ku6kx2h>

Experimental drug shows promising early results

In the growing field of precision oncology, people with cancer increasingly are divided into subgroups and given therapies that target specific mutations found in their tumours. For example, two patients with breast cancer may receive distinct treatments based on the genetics of their individual cancers.

Researchers at Memorial Sloan Kettering have taken this a step further, pioneering the concept of basket trials. Basket trials test therapies on tumours regardless of where they originate in the body, as they may carry the same genetic mutations. Therefore, the same targeted drug may work against many kinds of cancer.

At this year's meeting of the American Association for Cancer Research (AACR) in Washington, DC, a multicentre international team led by David Hyman, Director of Developmental Therapeutics at MSK, reported findings from a phase II basket trial of an experimental drug called neratinib, which targets a protein called HER2. All patients treated in this study had a mutation in the HER2 gene, although the specific mutation differed from patient to patient. The study was the largest of its kind to evaluate the effectiveness of targeting these HER2 gene mutations.

"We found that in several types of cancer, neratinib showed a potential beneficial effect," Dr. Hyman says. "The next step is to move it into combinations with other drugs, which we hope will really boost the drug's efficacy."

In the trial, called SUMMIT, the drug was more effective in some kinds of cancer than in others. It worked best against breast cancer, cervical cancer, and biliary cancer (a type of liver cancer), shrinking some tumours and preventing others from growing. There also was some benefit in people with non-small cell lung cancer and tumours of the salivary gland. In other cancers, however, fewer positive effects were seen. The researchers aren't yet sure why these differences occurred, and it's something they plan to investigate.

<http://tinyurl.com/n93tshz>

New microscopic technique could help detect, diagnose metastatic melanomas

The fight against skin cancer just got a new weapon. For years, melanoma researchers have studied samples that were considered uniform in size and color, making them easier to examine by more conventional means. But melanomas don't always come in the same shape and hue; often, melanomas are irregular and dark, making them difficult to investigate. Now, researchers at the University of Missouri have devised a new tool to detect and analyze single melanoma cells that are more representative of the skin cancers developed by most patients. The study, recently reported in *Analyst* published by the Royal Society of Chemistry, outlines the new techniques that could lead to better and faster diagnoses for the life-threatening disease.

<http://tinyurl.com/ll6gr6u>

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