

# VISION

COPING WITH CANCER



VISION, JANUARY 2016



The CanAssist Support Team are to be congratulated on the sterling work they do creating awareness of cancer at events and supporting and feeding patients undergoing treatment at State hospitals. CanAssist is a project of CanSurvive.



## Doctor: just say no

I was confused. Perhaps, I needed another cup of coffee. The chart did not make sense. Ellen, who I was about to see because she was transferring her care, was receiving medication for cancer that was a simple pill; inexpensive, with few side effects. What confused me is that it was obvious the therapy would not work.

Baffled, I called the oncologist who had been treating Ellen for two years. A nice guy, we have met casually at meetings. He is well trained, aggressive and compassionate. He knew immediately of the paradox in Ellen's records; she was receiving a very questionable drug. He explained the problem.

Ellen had refused the correct treatment, chemotherapy, because of side effects. She did not want hair loss, nausea, fatigue or the risk of infection. Ellen was so definite in her opinion, that she had demanded the worthless pill by name. Therefore, because Ellen had practically ordered the therapy, the oncologist had written the prescription.

I have practiced medicine long enough to remember the days of paternal care. Back then, the doctor was not only the one with the degree, he was the boss. The physician said, "jump" and the patient said "how high?" It was our healthcare culture that the doctor had the experience, the judgment, the wisdom. The physician determined the "right" treatment and the patient's role, the "sick role," was to comply. The doctors "orders" were, well orders.

In reality this did not work. Patients who do not understand their medical situation, are not invested or committed to their care. They did not take their medicine, show up for therapy or, often, see a doctor at all. The revolutionary shift, buttressed by massive e-data, has been toward patient involvement and responsibility. The concept of "informed consent" is no longer simply on the consent side, but on being informed. Patients demand to understand and are intimately involved in each decision.

However, often I see a further change, an imbalance toward the patient side of the equation, which threatens to undermine sound decisions and good care. I see doctors providing therapy that they think is a bad idea. In effect, I see patients ordering treatment.

We all know of the example of antibiotics prescribed for the common viral cold, because the patient insisted, "something be done."

Chemotherapy given to patients with advanced resistant cancer, even though it will likely shorten life. \$50,000 automatic defibrillator units implanted in demented 96-year-olds, so that they may die as their bodies are contorted by electric shocks. Distorting plastic surgery addictions fed by lucrative surgical excess-practice. Radiation therapy for radiation resistant illness. Kidney dialysis given to patients in complete, irreversible, liver failure. Dozens of excess consults in the last month of life.

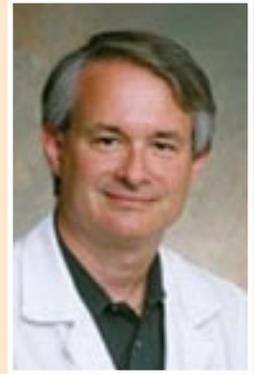
There is a basic idea, which many physicians seem to have forgotten. This concept describes the relationship of patient and doctor, even in

### 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>



the post-paternal era. Doctors order therapy. Patients consent to therapy. Patients cannot order a physician to give therapy.

This is the final check on medical decisions. The physician has the sophisticated understanding of health science, as well as the emotional distance to be objective. The patient understands their own limits and desires, how a specific therapy will affect their lives. To implement decisions properly the physician and patient must communicate clearly and completely; an interchange of ideas. In the final step, the doctor recommends, and the patient consents or refuses. The doctor orders, the patient complies by allowing care.

In Ellen's case, where we began, the medical relationship has been distorted. The patient is ordering and the doctor complies. The result is bad decisions and worse care. Ellen was getting a medicine, which, though it has few side effects, has no benefit. Therefore there are only side effects; a medicine which can only bring harm.

Even if this particular medicine does not bring Ellen any direct injury, the disruption of the relationship and decision process, is a serious problem. The likelihood of careful analysis and high quality communication is diminished. Ellen has heard the message that she can and, perhaps, must demand the "right" care. Ellen and her doctor did not understand their roles. The resulting confusion will result in chaos during future health crises, when complex decisions will be needed and emotions will run high.

Doctors must, at certain critical times, say "no." Clearly part of the wisdom, the art of medical practice, is being able to decline a patient's requests with skill and compassion. The approach should not include, "No! What a stupid idea!" Rather, it requires a gentle systematic conversation about the realities of the situation and what can or cannot help. This sort of negotiation is central to good medical practice.

However, despite best efforts, there will be moments when each practitioner must draw a hard line in the sand. Giving harmful or useless therapy, or intentionally denying comfort, undermines patient-physician communication. This threatens medical care. This is not just about being a steward of resources, but about building and maintaining a healing relationship.

I said "no," to Ellen. Actually, we spent an hour discussing her case and choices. I explained that the pill was not going to help; I avoided the label "less than worthless," though I was tempted. We agreed to explore the idea of chemotherapy at her next visit. It seemed to me that our conversation went well.

Perhaps we have established an understanding on how we will make decisions together. She talks, I listen. I teach, she learns. I advise, she considers and consents... or not. It is a foundation on which to build a cure.

### CONTRIBUTIONS FOR PUBLICATION IN "VISION" NEWSLETTER

Comments, articles, letters and events submitted for publication in VISION are welcomed and can be sent to: [cansurvive@icon.co.za](mailto:cansurvive@icon.co.za).

## Looking Good can make you Feel Better

Cancer can rob a woman of her energy, appetite and strength but it need not take away her self-confidence

The Look Good...Feel Better programme is the Cosmetic Industry helping women cancer patients, undergoing active treatment, in a practical and positive way.

Look Good...Feel Better provides free two-hour beauty workshops through a network of hospitals, oncology clinics & interim homes specially designed to assist these women to manage the appearance related side effects of chemotherapy and radiotherapy, thereby helping to restore their appearance and self image.

LGFB Cape Town regional coordinator, Helen Ohlhoff, shared a beautiful quote on what it means to her, being part of the international foundation, "The purpose of life is not only to be happy. It is to be useful, to be honourable, to be compassionate, to have it make some difference that you have lived and lived well." – Ralph Waldo Emerson

Look Good...Feel Better helps women facing the trauma and stress of cancer, assisting them to overcome the distressing appearance related side effects of their treatment.

Self-confidence and self-esteem can be at an all time low, especially after suffering hair loss, pale or sallow complexion, uneven skin tone etc.

Specially trained volunteer beauty professionals guide patients through the 12-step skin care and make up regime with each woman using her gift of products which she takes home to practice to make the very best of her appearance.

These hands on sessions provide patients with the opportunity to forget about their illness and enjoy a time of pampering, fun and laughter. They meet and share with others going through similar experiences and, most importantly, look and feel fabulous when they leave the session.



*The smiling ladies of the Look Good, Feel Better Cape Town team.*

And when a woman takes control of looking good, something wonderful happens .... she feels better too!

The Look Good ... Feel Better programme, run under the CTFA (Cosmetic, Toiletry and Fragrance Association of South Africa) is generously supported by CTFA member companies; other companies within the cosmetic industry, as well as other supporting companies and individuals.

Members donate products for the workshops and conduct training sessions for Look Good...Feel Better volunteers.

The Look Good...Feel Better programme is:

- Product neutral – no brands or products are promoted

- Non medical – it does not interfere with medical treatment or give medical advice

- It is free of charge. Workshops are free to cancer patients who receive products, used as tools in the workshop to assist them to overcome their side effects and gain confidence.

A full list of regional contacts is available on their website, [www.lgfb.co.za](http://www.lgfb.co.za).

## Brief: Cannabinoids for medicinal use

The Medical Research Council brief summarises the key points of a systematic review evaluating the medicinal use of cannabis first published by Dr Penny Whiting in the Journal of the American Medical Association (JAMA).

In February 2014, the Medical Innovation Bill, which proposes legalising the use of medical marijuana, was introduced in the South African parliament. According to the brief's authors, it is probably that further legislation on the use of medical marijuana will come before parliament in the future. Thus, the four-page brief aims to synthesise current evidence on medical marijuana to inform debate and policy-making.

The brief begins by defining marijuana or cannabis and outlining its active ingredients, estimates of its use in South Africa and its legal status. It then presents a summary of the systematic review including inclusion criteria, methods and results in regards to particular conditions including cancer and chemotherapy, HIV as well as multiple sclerosis.

The review concludes that there is evidence of moderate quality to support the use of cannabinoids for the treatment of chronic pain and to reduce spasticity in multiple sclerosis patients but the clinical significance of this is unclear.

The review also notes that low quality evidence suggests cannabinoids are associated with improvements in nausea and vomiting due to chemotherapy, and weight gain in HIV infection. It notes that there are safety concerns as reflected in the greater number of short-term adverse events reported in those using cannabinoids and the lack of long-term data from rigorous studies.

Finally it cautions that approval of any medication goes beyond effectiveness and safety. Policy-makers will be required to consider supply, regulation, route of administration, and cost-effectiveness, as well as the values and preferences of the broader population.

Download the brief:

[www.health-e.org.za/wp-content/uploads/2016/01/Cannabinoids.pdf](http://www.health-e.org.za/wp-content/uploads/2016/01/Cannabinoids.pdf)

# Laughter IS the best medicine

## Skype Laughter ~ 8pm daily from the comfort of your home

Laughter Yoga is a unique concept where anyone can learn to laugh for no reason at all! We don't need to rely on comedy or jokes. We learn unconditional laughter, connecting with our own innate joy. We practice laughter as an exercise accompanied with deep breathing, which leaves us feeling more energised and happy.

Laughter Yoga works on the scientific premise that the body does not know the difference between fake laughter and real laughter – so even when we pretend to laugh the benefits are the same. We can shift a mood within minutes. When we practice deep belly laughter for 10 to 15 minutes, endorphins are released, our stress levels reduce and the immune system increases.

Did you know we laugh to release anxiety and fear – the more stressed we are the more of a release the laughter is – laughter can be cathartic and is one of the most primal and powerful social contagions. It increases the oxygen and blood circulation, which can lead to creative thinking and regulate blood pressure. It is the quickest holiday from our stressors.

Laughter Yoga started by medical Dr Madan Kataria in 1995, and is now practiced in thousands of clubs in 100 countries around the World. Our mission Health, Joy and World Peace through Laughter.

The doctors prescription is daily laughter of 10 – 15 minutes.

This last week, cancer survivor and Laughter Yoga teacher Kate Squire-Howe, launched Skype Laughter South Africa. We laugh daily at 8pm, 365 days a year.



Skype Laughter is a conference call where we laugh unconditionally. Remember, the concept of Laughter Yoga is based on a scientific fact that the body cannot differentiate between fake and real laughter. When done with willingness, one gets the same physiological and psychological benefits.

We focus on laughter as a form of exercise. You can laugh gently, hear others laughing and enjoy as the laughter soon becomes contagious.

There is no talking, only laughing and we keep it to just audio, no visual - so don't worry if you are in your PJ's.

Joining Skype Laughter Club is as easy as 1,2,3

All you need is a computer or iPad with Skype (it is free to download [www.skype.com](http://www.skype.com)) and an internet connection.

Add "SkypeLaughterSA" to your Skype contacts. We will accept your request and you are on.

Log onto Skype 10 minutes before the session starts

Before starting a session, the coordinator of Skype Laughter Club sends out a message inviting the online contacts to join. If you wish to join the session please send a message saying "I am in... ho ho hahaha... Please call" or send a smiley sign. At the scheduled time you will get a call and you can join in.

Remember we laugh (no talking) for 15 to 20 minutes. We can chat by typing messages and sending emoticons to the group in the chat bar

There are Skype Laughter Clubs all over the World – for more information, the full schedule of Skype Laughter clubs around the World & some FAQ please email Kate on [kate@laughteryogasa.org](mailto:kate@laughteryogasa.org)

**Skype Laughter is open to all - no Skype or Laughter experience required.**

**Ho Ho Ha Ha Ha**

## Manny de Freitas Foundation Family Dinner Dance

The third Manny de Freitas Foundation (MdFF) Cancer Family Dinner Fundraiser function took place on Saturday, 5 December 2015 at the Pizza Del Forno in the Park Meadows Centre in Kensington.

The MdFF aims to, amongst its various objectives, to support alternative cancer treatment, educational and support initiatives. The MdFF was borne out after the death of IFP Member of Parliament, Mario Ambrosini who saw improvements in his condition after undergoing presently illegal alternative treatments. Before passing away, Ambrosini asked de Freitas to continue the work he started in this field. "I made a promise to Mario that I would continue his legacy that he started, explained de Freitas.

"Our fundraising event proved to be most successful thanks again with the cooperation of Carlos Cardoso, owner of the host restaurant," explained de Freitas. De Freitas said that after the dinner, the auction proved to be most successful thanks to the persuasive techniques of the Master of Ceremonies for the evening, Genevieve Le Coq who was able to convince those present to purchase various items on the auction.

"I am humbled at the overwhelming support at this function," said

*Right: (From left to right) Beverley Velosa is presented a certificate of appreciation for the constant support for the Foundation by Manny de Freitas while Master of Ceremonies, Genevieve Le Coq looks on*



*Left: (From left to right) MdFF Executive Director, Jeanette de Freitas with Johnny and Lucia Camara who bid on, and won, most of the auction items..*

an emotional de Freitas. Manny de Freitas explained that an education and information campaign will be rolled out next year, "Our campaign will aim at educating people about various alternative cancer solutions," said de Freitas. De Freitas explained that although the traditional chemotherapy may well be a solution for cancer patients, in many other cases other treatments may well prove to be more effective.

De Freitas concluded that 2016 will be an exciting year for the Manny de Freitas Foundation.

# Reflections on a Cancerversary

by Janet Freeman-Daily

*Janet Freeman-Daily is a writer, speaker, science geek and epatient with metastatic lung cancer. She uses her systems engineering background to translate the experience and science of lung cancer treatment and research into language other patients can understand. She blogs at [www.grayconnections.wordpress.com](http://www.grayconnections.wordpress.com).*

Today is my fourth cancerversary. Four years ago I first heard a confirmed diagnosis of lung cancer.

On cancerversaries I review events of the past year and assess how I've spent my time. I'm not looking to pat myself on the back for my accomplishments, or check locations off a travel list. I'm looking to see if I stayed focused on what means the most to me, and whether I need to adjust my priorities. My time is too precious to waste.

When I became a metastatic lung cancer patient, my view of life changed. I no longer had unlimited time to consider my options and wait to see what might happen. My available time was compressed, foreshortened. If I wanted people to know how I felt about them, I had to tell them — NOW. If I saw something I wanted to accomplish, I had to do it — NOW. I was more willing to take risks, without concern for personal failure, because I wanted to experience life in the time I had left. Once I was dead (which was coming all too soon), whether I failed at something wasn't going to matter.

I began to think in terms of trade-offs: If I chose to spend my time

## Wings of Hope new venue



In their 4th year the Wings of Hope are turning another page in their book of life. They are moving to new venue for their public meetings. It is the auditorium at the NETCARE Head office in Sandton. It is located right opposite the Michael Angelo Hotel and the Sandton Convention Centre just one crossing above the Gautrain terminal at 76 Maude Street C/r West Street.

If you take the train, just walk in, if you travel by car, drive through the security gate and park in front of the main entrance.

The first meeting there on the 30.01.2016 will as usual take place at 9.30 for 10.00 am and feature Dr. Sze Wai Chan with the topic "Personalised medicine - Chemo tailored just for you!"

on activity A, that means I wouldn't have time or opportunity to do B, C, D or E. If I could only choose one, which was most important to me? Might I have the chance to do it at some other time? If it remained undone when I died, would anyone care?

My tolerance for small talk and indirect answers (which wasn't too great to begin with) shrank even further. When having a conversation, I thought about what I was accomplishing by this communication. Was I communicating just because I was enjoying it? Was I helping someone else? Was I learning something?

Intense, huh?

In my cancerversary reflections, I asked myself questions. Did I stay focused on what meant the most to me? Did I show my family how I feel about them? Did I make a difference in the lives of others? Did I accomplish my most important goal? Did I behave in a way that reflects who I want to be?

My top priority is my health. I must take care of myself so I will have more time to tackle my other priorities. This means I need to get enough sleep, eat properly, exercise and take time to relax. I freely admit I'm not so good at this.

My next priority is family and friends. My bucket list really consists of two items: (1) help my autistic son become able to live a fulfilling, happy life without me, and (2) make good memories.

My third priority is to use my gifts and resources to make a positive difference for others, while enjoying what I do. I've chosen to focus on improving outcomes for lung cancer patients through writing, public speaking and social media. Unfortunately, there is no handbook that explains how to decide which activity will have the most impact. This means my advocacy work can easily snowball — the need, as well as the number of opportunities, are great. I've turned down some opportunities because they won't make as much of a difference in outcomes, some because I can't be two places at once ... and some because my own health or a family activity took precedence.

My challenge, as always, lies in maintaining a balance. So this day, for my cancerversary, I reflected on the past year and ran a perspective check. And then I watched "The History of Science Fiction" on TV — because it's fun.

<http://www.curetoday.com/community/janet-freeman-daily/2015/05/reflections-on-a-cancerversary>

## ITS OK TO TALK ABOUT CANCER!

Join us at a CanSurvive Cancer Support Group meeting

- have a cup of tea/coffee, a chat with other patients and survivors and listen to an interesting and informative talk.

**Upcoming meetings:**

**KRUGERSDORP Netcare Hospital Group -  
6 February 09:00**

**HEAD and NECK Group, Rehab Matters, Rivonia  
4 February 18:00**

**PARKTOWN GROUP, Hazeldene Hall, Parktown  
13 February 09:00**

**Enquiries:**

**Kim 082 880 1218 or [lct@global.co.za](mailto:lct@global.co.za)**

**Bernice 083 444 5182 or [bernicelass@outlook.com](mailto:bernicelass@outlook.com)**

**Chris 083 640 4949 or [cansurvive@icon.co.za](mailto:cansurvive@icon.co.za)**

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

The Groups are run in association with Cancer Buddies and is hosted by Netcare. The Group is open to any survivor, patient or caregiver. No charge is made.



# Why we love music

By Jill Suttie

I still remember when I first heard the song by Peter Gabriel, "Solsbury Hill." Something about that song—the lyrics, the melody, the unusual 7/4 time signature—gave me chills. Even now, years later, it still can make me cry.

Who among us doesn't have a similar story about a song that touched us? Whether attending a concert, listening to the radio, or singing in the shower, there's something about music that can fill us with emotion, from joy to sadness.

Music impacts us in ways that other sounds don't, and for years now, scientists have been wondering why. Now they are finally beginning to find some answers. Using fMRI technology, they're discovering why music can inspire such strong feelings and bind us so tightly to other people.

"Music affects deep emotional centres in the brain," says Valorie Salimpoor, a neuroscientist at McGill University who studies the brain on music. "A single sound tone is not really pleasurable in itself; but if these sounds are organised over time in some sort of arrangement, it's amazingly powerful."

## How music makes the brain happy

How powerful? In one of her studies, she and her colleagues hooked up participants to an fMRI machine and recorded their brain activity as they listened to a favorite piece of music. During peak emotional moments in the songs identified by the listeners, dopamine was released in the nucleus accumbens, a structure deep within the older part of our human brain.

"That's a big deal, because dopamine is released with biological rewards, like eating and sex, for example," says Salimpoor. "It's also released with drugs that are very powerful and addictive, like cocaine or amphetamines."

There's another part of the brain that seeps dopamine, specifically just before those peak emotional moments in a song: the caudate nucleus, which is involved in the anticipation of pleasure. Presumably, the anticipatory pleasure comes from familiarity with the song—you have a memory of the song you enjoyed in the past embedded in your brain, and you anticipate the high points that are coming. This pairing of anticipation and pleasure is a potent combination, one that suggests we are biologically-driven to listen to music we like.

But what happens in our brains when we like something we haven't heard before? To find out, Salimpoor again hooked up people to fMRI machines. But this time she had participants listen to unfamiliar songs, and she gave them some money, instructing them to spend it on any music they liked.

When analyzing the brain scans of the participants, she found that when they enjoyed a new song enough to buy it, dopamine was again released in the nucleus accumbens. But, she also found increased interaction between the nucleus accumbens and higher, cortical structures of the brain involved in pattern recognition, musical memory, and emotional processing.

This finding suggested to her that when people listen to unfamiliar music, their brains process the sounds through memory circuits, searching for recognizable patterns to help them make predictions

about where the song is heading. If music is too foreign-sounding, it will be hard to anticipate the song's structure, and people won't like it—meaning, no dopamine hit. But, if the music has some recognizable features—maybe a familiar beat or melodic structure—people will more likely be able to anticipate the song's emotional peaks and enjoy it more. The dopamine hit comes from having their predictions confirmed—or violated slightly, in intriguing ways.

"It's kind of like a roller coaster ride," she says, "where you know what's going to happen, but you can still be pleasantly surprised and enjoy it."

Salimpoor believes this combination of anticipation and intense emotional release may explain why people love music so much, yet have such diverse tastes in music—one's taste in music is dependent on the variety of musical sounds and patterns heard and stored in the brain over the course of a lifetime. It's why pop songs are, well, popular—their melodic structures and rhythms are fairly predictable, even when the song is unfamiliar—and why jazz, with its complicated melodies and rhythms, is more an acquired taste. On the other hand, people tend to tire of pop music more readily than they do of jazz, for the same reason—it can become too predictable.

Her findings also explain why people can hear the same song over and over again and still enjoy it. The emotional hit off of a familiar piece of music can be so intense, in fact, that it's easily re-stimulated even years later.

"If I asked you to tell me a memory from high school, you would be able to tell me a memory," says Salimpoor. "But, if you listened to a piece of music from high school, you would actually feel the emotions."

## How music synchronises brains

Ed Large, a music psychologist at the University of Connecticut, agrees that music releases powerful emotions. His studies look at how variations in the dynamics of music—slowing down or speeding up of rhythm, or softer and louder sounds within a piece, for example—resonate in the brain, affecting one's enjoyment and emotional response.

In one study, Large and colleagues had participants listen to one of two variations on a Chopin piece: In version one, the piece was played as it normally is, with dynamic variations, while in version two, the piece was played mechanically, without these variations. When the participants listened to the two versions while hooked up to an fMRI machine, their pleasure centres lit up during dynamic moments in the version one song, but didn't light up in version two. It was as if the song had lost its emotional resonance when it lost its dynamics, even though the "melody" was the same.

"In fact, when we debriefed the listeners after the experiment was over, they didn't even recognise that we were playing the same piece of music," says Large.

When playing the more dynamic version, Large also observed activity in the listener's mirror neurons—the neurons implicated in our ability to experience internally what we observe externally. The neurons fired more slowly with slower tempos, and faster with faster tempos, suggesting that mirror neurons may play an important role in processing musical dynamics and affecting how we experience music.

"Musical rhythms can directly affect your brain rhythms, and brain

(continued on page 6)



## HOLLARD DAREDEVILS

### A run with a difference that makes a difference

FRIDAY, 19 FEBRUARY 2016

Welcome, Daredevils!

It takes balls to run through peak-hour traffic wearing nothing but a Speedo. But, it's all worth it. Why? Because cancer doesn't choose age, colour or body shape. It impacts everyone – in fact, 1 in 6 South African men are affected by it in their lifetimes.

Are you brave enough to go the distance?

The Daredevil run has grown from one brave soul daring to jog through peak hour traffic in a Speedo, to a massive countrywide phenomenon with a noble cause.

The only way to beat cancer is to raise awareness through initiatives like the Daredevil Run. Because prevention is easier than cure.

So check your jewels, pull on that purple Daredevil speedo and let's run cancer outta town.

The entry fee is just R150 for adults and a donation of either R50, R100 or R150 for under 18's which includes a brand spanking (excuse the pun) new Daredevil Run Speedo and a free finger-prick PSA (Prostate Specific Antigen) cancer screening test for participants over the age of 40. The runs will take place in Johannesburg, Durban, Cape town, Nelspruit and George.



*Olivia Curlewis, Executive Manager CANSA Gauteng/NW/Limpopo and Mpumalanga, enjoying a photoshoot with some of the daredevils and another one of her associates.*

The bonus is that your entire entry fee will be donated by Hollard on your behalf to the Cancer Association of South Africa for PSA screening, cancer awareness and counselling initiatives in underprivileged communities.

Of course, if you already have a 2015 Daredevil speedo and it's in good shape, you may not need a new one. If you run in your old speedo, Hollard will donate an additional amount to CANSA (the cost of a new speedo).

Johannesburg, Durban, Cape town, Nelspruit and George.

<http://www.daredevilrun.com/enter-now/>

## Why we love music (continued from page 5)

rhythms are responsible for how you feel at any given moment," says Large.

That's why when people get together and hear the same music—such as in a concert hall—it tends to make their brains synch up in rhythmic ways, inducing a shared emotional experience, he says. Music works in much the same way language works—using a combination of sound and dynamic variations to impart a certain understanding in the listener.

"If I'm a performer and you're a listener, and what I'm playing really moves you, I've basically synchronised your brain rhythm with mine," says Large. "That's how I communicate with you."

### Different notes for different folks

Other research on music supports Large's theories. In one study, neuroscientists introduced different styles of songs to people and monitored brain activity. They found that music impacts many centres of the brain simultaneously; but, somewhat surprisingly, each style of music made its own pattern, with uptempo songs creating one kind of pattern, slower songs creating another, lyrical songs creating another, and so on. Even if people didn't like the songs or didn't have a lot of musical expertise, their brains still looked surprisingly similar to the brains of people who did.

But if our brains all synch up when we hear the same basic dynamic differences in music, why don't we all respond with the same pleasure?

Large, like Salimpoor, says that this difference in preference is due to how our neurons are wired together, which in turn is based on our

own, personal history of listening to or performing music. Rhythm is all about predictability, he says, and our predictions about music start forming from a pretty early age onward. He points to the work of Erin Hannon at the University of Nevada who found that babies as young as 8 months old already tune into the rhythms of the music from their own cultural environment.

So while activity in the nucleus accumbens may signal emotional pleasure, it doesn't explain it, says Large. Learning does. That's why musicians—who've usually been exposed to more complicated musical patterns over time—tend to have more varied musical tastes and enjoy more avant-garde musical traditions than non-musicians. Social contexts are also important, he adds, and can affect your emotional responses.

"Liking is so subjective," he says. "Music may not sound any different to you than to someone else, but you learn to associate it with something you like and you'll experience a pleasure response."

Perhaps that explains why I love "Solsbury Hill" so much. Not only does its unusual rhythm intrigue me—as a musician, I still have the urge to count it out from time to time—but it reminds me of where I was when I first heard the song: sitting next to a cute guy I had a crush on in college. No doubt my anticipatory pleasure centres were firing away for a multitude of reasons.

And, luckily, now that the pleasure pathways are now deeply embedded in my brain, the song can keep on giving that sweet emotional release.

*"Why we love Music" by Jill Suttie originally appeared on Greater Good, the online magazine of UC Berkeley's Greater Good Science Centre. To view the original article go to [http://greatergood.berkeley.edu/article/item/why\\_we\\_love\\_music](http://greatergood.berkeley.edu/article/item/why_we_love_music)*



## Support Helderberg CANSA Relay For Life

The Cancer Association of South Africa (CANSA) will this year once again be holding Relay For Life events that champion cancer survivors while raising funds to support people needing treatment.

Dalene Odendahl, a creditors clerk at Tru-Cape Fruit Marketing in Somerset West and a cancer survivor who used to be a regular runner, is one of the organisers of the Helderberg CANSA Relay For Life event.

The event, to be held on 6 February at the Hottentots-Holland High School near Somerset West in the Western Cape, raises money to support the more than 7,494 cancer patients through 152 support groups, as well as offering treatment and counselling in hospitals



### INTERNATIONAL CHILDHOOD CANCER DAY (ICCD)



Have a heart for  
children with cancer

The 15th of February is International Childhood Cancer Day (ICCD).

Join us as we raise awareness about childhood cancer and express support for children with cancer, survivors and their families.

Show your support by wearing our badge, for only R10  
or buy a delicious chocolate, for only R30 or R10!



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NPO Registration No: 001-338 NPO | PBO 930009261

CHOC is a member  
of Childhood  
Cancer International.  
[www.iccpa.org](http://www.iccpa.org)



and care centres. Raised monies also go to conducting cancer screening tests and much needed education for men, women and children.

"Knowing how much the caring counsellors at CANSA Helderberg helped me, makes Tru-Cape's donation of apples for the Relay For Life event mean that much more to me. We also really appreciate the apple cutters that Tru-Cape is donating to the survivors' goodie bags. It is great to have an employer that is behind its staff and their projects," Odendahl says.

Conrad Fick, Tru-Cape's marketing director, says that there's plenty of research to suggest that apples and other healthy foods are an important part of the diet for all. As recently as 5 January 2016, the UK newspaper Daily Mail reported about the role that apples play in beating cancer.

## Recognition for Sandi van Tonder's sterling service at Keurboom

Sandi van Tonder, Chairperson of the Liaison Committee and past Manager of the CANSA Keurboom Interim Home, was recently presented with a Certificate of Appreciation by CANSA.

For many years Sandi managed the Home and did her best to make the hundreds of patients who stayed there as comfortable as possible.

Sandi van Tonder was always acutely aware of the role that Care Homes play in the lives of so many people who are battling cancer. "The delicious, nourishing meals made by Anna werer just one aspect of what Keurboom offers," she says. "Counselling by trained volunteers is also available to all patients. And they can get together to chat, and spend time in the lovely garden for relaxation. The double rooms are very comfortable. We provide transport to and from the various oncology centres in Johannesburg, so that patients can meet their appointments on time. And it means they don't have to wait long before getting back here to rest. Most of all, we make sure that patients feel totally at home. Being with others in similar situations brings hope, courage and a sense of camaraderie into their lives."

Keurboom Care Home is one of 12 such facilities offered by the Cancer Association of South Africa (CANSA) to patients needing accommodation in major cities while they undergo cancer treatment.



## Dates to diarise

### January 2016

- 25 GVI Oncology Unit support Group, 4th Floor Rondebosch Medical centre from 6:00 to 7:30. Topic: Meditation
- 27 Advanced Breast Cancer Support Group, GVI Oncology, Panorama, Cape Town. Contact 021-9443850, emerentia.esterhuys@cancercare.co.za
- 30 Wings of Hope, Netcare Head Office Auditorium, Sandton, 9:30 for 10:00. Topic Personalised medicine - chemo tailored just for you".

### February 2016

- 4 **WORLD CANCER DAY**
- 4 CanSurvive Head and Neck Support Group, at Rehab Matters, 1 De la Rey Rd. Rivonia at 18h00
- 6 CanSurvive Cancer Support Group, Netcare Krugersdorp Hospital, 09:00
- 12 Netcare/CANSA Support Group 10:00 Clinton Oncology Centre, 62 Clinton Rd. New Redruth. Alberton. Contact Penny: 0832642216
- 13 CanSurvive Cancer Support Group, Hazeldene Hall, Parktown 9:00
- 15 **INTERNATIONAL CHILDHOOD CANCER DAY**
- 18 Cape Gate Oncology Centre support group 10:00 - 12:00. Head and neck cancers
- 24 Advanced Breast Cancer Support Group, GVI Oncology, Panorama, Cape Town. Contact 021-9443850, emerentia.esterhuys@cancercare.co.za
- 29 GVI Oncology Unit support Group, 4th Floor Rondebosch Medical centre from 6:00 to 7:30. Speaker: Oncologist

### March 2016

- 3 CanSurvive Head and Neck Support Group, at Rehab Matters, 1 De la Rey Rd. Rivonia at 18h00
- 5 CanSurvive Cancer Support Group, Netcare Krugersdorp Hospital, 09:00
- 8 Netcare/CANSA Support Group 10:00 Clinton Oncology Centre, 62 Clinton Rd. New Redruth. Alberton. Contact Penny: 0832642216
- 12 CanSurvive Cancer Support Group, Hazeldene Hall, Parktown 9:00
- 12 Wings of Hope, Netcare Head Office Auditorium, Sandton, 9:30 for 10:00.
- 17 Cape Gate Oncology Centre support group 10:00 - 12:00. Survivors stories
- 29 GVI Oncology Unit support Group, 4th Floor Rondebosch Medical centre from 6:00 to 7:30. Topic: Psychoneuroimmunology
- 30 Advanced Breast Cancer Support Group, GVI Oncology, Panorama, Cape Town. Contact 021-9443850, emerentia.esterhuys@cancercare.co.za

### April 2016

- 2 CanSurvive Cancer Support Group, Netcare Krugersdorp Hospital, 09:00

## CONTACT DETAILS

CanSurvive Cancer Support Groups - Parktown and West Rand :  
CanSurvive Head and Neck Support Group, Rivonia, Johannesburg  
Cancer Buddies Johannesburg branch  
Contacts: Kim Lucas 0828801218 or lct@global.co.za  
Chris Olivier 083 640 4949, cansurvive@icon.co.za  
Bernice Lass 083 444 5182 or bernicelass@outlook.com

Cancer Buddies/People Living with Cancer, Cape Town:  
076 775 6099, info@plwc.org.za, www.plwc.org.za

GVI Oncology /Cancer Buddies, Rondebosch Medical Centre Support Group. Contact: Linda Greeff 0825513310  
linda.greeff@cancerbuddies.org.za

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

GVI Oncology Somerset West Group for advanced and metastatic cancers. Contact person: Nicolene Andrews 0218512255

Cancer.vive, Frieda Henning 082 335 49912, info@cancervive.co.za  
Can-Sir, 021 761 6070, Ismail-Ian Fife, ismailianf@can-sir.org.za  
Support Group: 076 775 6099.

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

Prostate & Male Cancer Support Action Group, MediClinic Constantiaberg. Contact Can-Sir: 079 315 8627 or Linda Greeff 0825513310 linda.greeff@cancerbuddies.org.za

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

CANSA/Netcare Support Group 10:00 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 072 849 2901. Clinton Hospital Oncology Dept. Alberton.

Reach for Recovery (R4R) : West Rand Group. Contact Sandra on 011 953 3188 or 078 848 7343.

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, Marika Wade, 072 248 0008, swade@telkomsa.net

Reach for Recovery: Harare, Zimbabwe contact 707659.

Breast Best Friend Zimbabwe, e-mail bbfizim@gmail.com

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

### Regular aspirin use may reduce risk of dying from prostate cancer

A large observational study has found that men who take aspirin regularly may have a lower risk of dying from prostate cancer.

"It is premature to recommend aspirin for prevention of lethal prostate cancer, but men with prostate cancer who may already benefit from aspirin's cardiovascular effects could have one more reason to consider regular aspirin use," said lead study author Christopher Brian Allard, MD, Urologic Oncology Fellow at Brigham and Women's Hospital and Massachusetts General Hospital in Boston, Massachusetts. "When discussing potential benefits of aspirin with their doctors, in terms of both cardiovascular health and risk of prostate cancer death, men should also consider potential risks of regular aspirin use."

According to the authors, this is the first study to specifically focus on prevention of lethal cancer, clarifying the role aspirin may play in prevention of advanced disease. The researchers analysed data from 22,071 men enrolled in the Physicians' Health Study. Over 27 years of follow-up, 3,193 men were diagnosed with prostate cancer. Of those, 403 men developed lethal prostate cancer, defined as metastatic disease or death from prostate cancer. After adjusting for differences in age, race, body mass index, and smoking status, men without a diagnosis of prostate cancer who took aspirin regularly (more than three tablets a week) had a 24% lower risk of developing lethal prostate cancer.

Among men with prostate cancer, regular aspirin use after diagnosis was associated with a 39% lower risk of dying from prostate cancer. "We think that aspirin probably prevents progression of prostate cancer to metastases," said Dr Allard.

While the biological basis for this protective effect is unknown, pre-clinical research suggests aspirin may prevent the spread of cancer to the bone.

In contrast, use of aspirin before diagnosis did not have a measurable benefit.

### Cell harm seen in lab tests of e-cigarettes

Adding to growing evidence on the possible health risks of electronic cigarettes, a lab team at the Veterans Affairs San Diego Healthcare

## Tollfree service for cancer patients

Cancer Buddies has a tollfree number - it is

**0800 033 337**

All cancer patients now have access to free cancer support and can ask any questions about cancer and treatment of cancer; the emotional issues related to the cancer journey; questions about side effects of treatment; assistance with accessing resources like wigs, prosthesis, home nursing and hospice. Problems relating to access to treatment or services delivery issues can also be reported .

## HELP CANSURVIVE TO PROVIDE SUPPORT FOR CANCER PATIENTS



System tested two products and found they damaged cells in ways that could lead to cancer. The damage occurred even with nicotine-free versions of the products.

"Our study strongly suggests that electronic cigarettes are not as safe as their marketing makes them appear to the public," wrote the researchers, who published their findings in the journal *Oral Oncology*.

The US Food and Drug Administration does not regulate e-cigarettes like it does conventional tobacco products. But it has warned of possible health risks. So far, though, evidence is limited on what exactly e-cigarettes contain and whether those chemicals are safe, particularly in terms of cancer.

"There haven't been many good lab studies on the effects of these products on actual human cells," says Dr. Jessica Wang-Rodriguez, one of the lead researchers on the new study. She is a professor of pathology at the University of California, San Diego, and chief of pathology and laboratory medicine at the San Diego VA. She specialises in studying head and neck cancer.

Her team created an extract from the vapor of two popular brands of e-cigarettes and used it to treat human cells in petri dishes. Compared with untreated cells, the treated cells were more likely to show DNA damage and die.

The exposed cells showed several forms of damage, including DNA strand breaks. The familiar double helix that makes up DNA has two long strands of molecules that intertwine. When one or both of these strands break apart and the cellular repair process doesn't work right, the stage is set for cancer.

The affected cells were also more likely to launch into apoptosis and necrosis, which lead to cell death.

<http://www.medicalnewstoday.com/releases/305001.php?tw>

### Blood test tracks spread of melanoma

Physicians treating patients with metastatic melanoma - one of the most aggressive forms of skin cancer - may soon have a superior tool in their efforts to closely track the disease.

A new study shows that a blood test which monitors blood levels of DNA fragments from dead cancer cells does a better job than the current standard test at tracking the severity and potential spread of metastatic melanoma. The study, by researchers at NYU Langone Medical Centre and its Laura and Isaac Perlmutter Cancer Centre, is

set for publication in the January edition of *Molecular Oncology*.

The standard test, in widespread use for decades to inform treatment decisions, measures blood levels of the enzyme lactate dehydrogenase, or LDH. Levels of the enzyme tend to spike during aggressive tumour growth, but are also known to rise as part of other diseases and biological functions. The alternative test looks at levels of circulating tumour DNA, or ctDNA, released into the blood when tumour cells die and break apart to spill their contents.

<http://www.medicalnewstoday.com/releases/304981.php?tw>

## Personalised cellular therapy CTL019 for pediatric and adult blood cancers

Ninety-three percent of pediatric patients (55 of 59) with relapsed/refractory acute lymphoblastic leukemia (ALL) went into remission after receiving an investigational therapy made from their own immune cells, with continuous remissions of over one year in 18 patients and over two years in nine patients. In an emerging new use of the same therapy, known as CTL019, more than half of patients (15 of 28) with non-Hodgkin lymphoma (NHL) also responded to infusions of the personalised cellular therapy.

Findings from these two clinical trials, conducted by researchers from the Perelman School of Medicine at the University of Pennsylvania and The Children's Hospital of Philadelphia, will be presented during the 57th Annual Meeting of the American Society of Hematology (ASH).

"With each child we treat as part of this trial, we learn more about the potential of CTL019 to help patients whose cancers cannot be controlled with conventional therapies," said Stephan Grupp, MD, PhD, the Yetta Deitch Novotny Professor of Pediatrics in Penn's Perelman School of Medicine and director of the Cancer Immunotherapy Frontier Programme at The Children's Hospital of Philadelphia. "The response rate and durability we are seeing are unprecedented, and gives us hope that personalised cellular therapies will be a powerful key to long-term control of this difficult cancer."

"The field of immunotherapy has provided an array of promising new investigational treatments for blood cancers in the past few years, and our early results in this trial provides increasing evidence for the role of personalised cellular therapies in patients with NHL," said Stephen Schuster, MD, the Robert and Margarita Louis-Dreyfus Associate Professor in Chronic Lymphocytic Leukemia and Lymphoma Clinical Care and Research in Penn's Abramson Cancer Centre and Perelman School of Medicine.

<http://tinyurl.com/zwcswqh>

## Quickly identifying tumours by using antibodies

Antibodies combat viruses and bacteria. They also attach themselves to cancer cells – in a typical, characteristic way. Fraunhofer scientists are using this property to detect cancer cells in tissue samples. Such rapid tests can already be applied by surgeons during operations – within a few minutes and without expensive equipment.

The tumour glows brightly on the bluish fluorescent MRI image. The ulcer is localised. With this information, the surgeon gets to work. Now, he has to rely on his eyes. The skill lies in not cutting away too much while still completely removing the diseased tissue. "Locating tumours accurately in tissue sections is not easy. It's easy to distinguish diseased from healthy tissue at the core of the cancerous

ulcer, but not around the edges: tumours spread out asymmetrically," says Dr. Joachim Storsberg of the Fraunhofer Institute for Applied Polymer Research IAP in Potsdam-Golm. During surgery, a specially-trained professional, the histologist, examines the excised tissue samples with high-resolution microscopes. He identifies characteristic structures of cancer cells and informs the surgeon of whether or not there are any ulcers. This can take several days.

<http://tinyurl.com/jyrb6s9>

## New drug offers hope to bladder cancer patients

There was a time when Lee Eric Newton thought he only had months to live. Diagnosed with bladder cancer in 2010, he'd undergone chemotherapy but the cancer spread to his brain. With dwindling options, the 51-year-old found a trial of a new immunotherapy drug called atezolizumab.

"All of a sudden my tumours started to drop in size," Newton told CBS News.

Dr. Matt Galsky, Director of Genitourinary Medical Oncology at Icahn School of Medicine at Mount Sinai, explained that the drug works by tearing down the protective layers around the tumours.

"What these drugs do is pull back that shield and allow the immune system to recognise that the cancer is foreign and attack it," he said.

It's the first new treatment for metastatic bladder cancer in 30 years.

The drug company Roche Holding, the maker of atezolizumab, recently released what it called encouraging results around the drug's mid-stage trial of patients with locally advanced or metastatic bladder cancer. Participants with a higher expression of PD-L1 – a protein believed to play a major role in suppressing the immune system – appeared to benefit most. The therapy was generally well tolerated with common side effects of fatigue and small rashes. It showed a continued response rate in those who initially took to it.

The drug is not currently approved to treat bladder cancer, but the FDA recently granted it a "Breakthrough Therapy" designation to get it approved faster.

While atezolizumab doesn't work for everyone, Newton's been on the drug for more than a year. His cancer is stable and he's looking to the future.

Smoking causes about half of all bladder cancers, and Newton has a message for those who light up. "I used to joke around as kids and we'd say, yeah, we're gonna quit once we get cancer or die," he said. "That's when we quit. But it's not a joke anymore once you get cancer."

<http://tinyurl.com/zzfhuq9>

## Ovarian cancer with BRCA1 mutation may be treatable with arthritis drug

Auranofin – a gold-containing drug used to treat rheumatoid arthritis – could potentially improve the prognosis for ovarian cancer patients with a faulty BRCA1 gene, according to new lab research.

BRCA1 is a protein that repairs DNA. If there is a mutation in the gene that codes for it, it can lead to an insufficient amount of the protein, which results in DNA damage not being repaired. This increases the chance that affected cells will develop further gene alterations and become cancerous.

Mutations in BRCA1 increase the risk of developing ovarian and breast cancers. BRCA1 is mutated in 15-20% of ovarian cancers.

Previous studies have also suggested that breast and ovarian cancers that have BRCA1 mutations may also be more sensitive to drugs that damage DNA - the cancer cells may more easily succumb to the drugs.

Auranofin is currently undergoing trials for repurposing to treat recurrent epithelial ovarian cancer, which accounts for around 90% of diagnosed ovarian cancers.

<http://www.medicalnewstoday.com/articles/304911.php?tw>

## Study shows statins could be effective against small cell lung cancer

In a recent study, researchers at Cancer Treatment Centres of America® (CTCA) at Western Regional Medical Centre (Western), in collaboration with international colleagues, found that statins could be an effective therapeutic against metastatic small cell lung cancer (SCLC).

The study of 876 late-stage SCLC patients, published yesterday in the peer-reviewed scientific journal PLOS ONE, showed that statins, a class of drugs primarily used to lower cholesterol in patients at risk for heart disease, appeared to provide an increase in overall survival for those cancer patients who received them.

"Small cell lung cancer is one of the most aggressive types of cancer, and yet in nearly three decades, no new classes of treatments have been adopted as new benchmarks for standard therapy," said Dr. Glen Weiss, M.D., M.B.A., Director of Clinical Research and Medical Oncologist at CTCA® at Western in Goodyear, Ariz., and the study's senior author. "Our study showed that statins appear to provide a statistically significant survival benefit among patients with metastatic SCLC."

## Smoking is damaging your pet's health

If you made a New Year's resolution to stop smoking and are already struggling to stick to it, a new study may offer a further incentive: quitting the habit can benefit your pet's health as well as your own.

But it is not only smokers themselves who are at risk of such conditions; since 1964, around 2.5 million non-smokers in the US have died from exposure to secondhand smoke.

With this in mind, it is perhaps unsurprising that pets living in households where someone smokes are at greater risk for poor health.

Compared with pets living in non-smoking households, the researchers found that those living in smoking households may be at greater risk of cell damage, some cancers and weight gain. The team suggests that pets may even be at greater risk of health problems from smoke exposure than children in smoking households, noting that because pets are lower in height, they are more likely to ingest third-hand smoke - that is, tobacco chemicals present in carpets and other surfaces.

Cats are most at risk, according to the researchers, because they ingest more smoke than dogs - regardless of whether or not they

have access to outdoors. The team speculates that this may be down to the extensive self-grooming cats engage in, causing them to ingest more tobacco toxins.

Whilst you can reduce the amount of smoke your pet is exposed to by smoking outdoors and by reducing the number of tobacco products smoked by the members of the household, stopping smoking completely is the best option for your pet's future health and well-being."

So, the next time you get the urge to light up and break that New Year's resolution, just spare a thought for the health of your four-legged friend.

<http://www.medicalnewstoday.com/articles/304605.php?tw>

## Mexico approves Israeli prostate cancer drug

Mexico is the first country to approve an Israeli-developed groundbreaking therapy for the treatment of early-stage prostate cancer. Mexico's health authority Cofepris approved the therapy that combines the novel drug, Tookad Soluble, and laser illumination.

The revolutionary technique was invented at the Weizmann Institute of Science, Rehovot. Steba Biotech (Luxembourg) jointly worked on clinical development with Weizmann. And Yeda Research and Development Company, the Weizmann Institute's technology transfer arm, licensed the drug to Steba Biotech for manufacture.

"Our cooperation with Steba covers 20 years of fruitful collaboration. The commitment made by the shareholders of Steba and their personal relationship and effective collaboration with Weizmann Institute scientists and Yeda, have enabled this tremendous accomplishment," says Amir Naiberg, CEO of Yeda.

Mexico gave its approval after completion of a second Phase III clinical trial in Europe. The study involved more than 400 patients at 43 hospitals in 11 European countries and is currently under evaluation by the European Medicines Agency (EMA).

The approved therapy follows a new paradigm developed by Prof. Yoram Salomon of the Biological Regulation Department and Prof. Avigdor Scherz of the Plant and Environmental Sciences Department in the framework of photodynamic therapy. It comprises an intravenous infusion of Tookad, immediately followed by near-infrared laser illumination through thin optic fibers that are inserted into the cancer prostatic tissue, under ultrasound control.

The therapy is an outpatient procedure that lasts about 90 minutes. The focal treatment destroys diseased tissue but leaves noncancerous tissue alone.

"Patients are released a few hours later and can return to normal activities within a few days, with none of the side effects frequently associated with prostate removal by surgery or radiotherapy. This new minimally invasive technology offers a good alternative to patients diagnosed with early-stage prostate cancer," reports Weizmann Institute.

<http://www.israel21c.org/mexico-approves-prostate-cancer-drug-developed-at-weizmann/>

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