

## The Grapevine



Our Leadership

## **President Pete's report**

**Dear Members** 

I hope this Easter you are managing to entertain yourselves at home and enjoying many video chats with your extended families. The COVID-19 virus has certainly changed our lives and our economy and our Rotary Club as well.

#### ZOOM

To stay in touch as we are having a ZOOM meeting each Thursday at 4pm. To join this RCNB Zoom meeting use this link https://zoom.us/j/416185483 Last Thursday we had 23 Members join the meeting where we discussed isolation coping strategies and individual member updates from a ring-around of members we had not heard much of since "the Lockdown".



Mark Malonev





Hocking



Barry Hickman



AG Eastside



President **RCNB Pete Sutherland** 

**MEETINGS THURSDAYS** 6 for 6.30pm **Kew Golf** Club 120 Belford Road Kew 3102 Ph. 9859 6848

. ONLINE VIDEO CHATIQUETTE . HOSTING WELCOMING, INCLUSIVE









PROP YOUR SCREEN UP IN ONE SPOT

Despite assurances from some that they could not possibly manage to join a video ZOOM Meeting, they have! So don't be afraid to have a

Ring me (Peter Sutherland) for guidance if you need some help. The link will prompt you to download the app and enter the code to enter the meeting. Once in the meeting you can experiment with your screen settings but for best results you need a speaker for sound, and a microphone to speak. Laptops and phones have this built in. If you are on a pc and don't have a webcam to provide a picture and microphone you can still join the meeting but the attendees will not see you or hear you. But you will see and hear them. You will need an active internet connection

Jane has provided the tips opposite to help us get the best outcome as if everyone tries to speak at once it

President Pete's report continues on Page 2

#### **Club Diary**

Camp Getaway weekend 16-18 October 2020 Fellowship Weekend 23-25 October 2020 Read about Rotary in your area in The Progress Leader http://leader.smedia.com .au/progress/

#### APOLOGIES FOR CLUB MEETINGS

Sign the "apology sheet" at the front desk if you know in advance.

Or E-mail to apologiesrcnb@gmail.com Please apologise no later than 5pm on Tuesday.

#### Continued from page 1

#### CYLONE HAROLD

John Burley gave us a brief update on the aftermath of Cyclone Harold in Vanuatu and the news coming out is not good. You can gain some understanding of the damage here..

https://www.voutube.com/watch?v=dhWv-1uiL4E

#### 2<sup>nd</sup> Bite

Despite information given that 2<sup>nd</sup> bite was closed, we heard that Colin Sharp successfully completed a delivery to CamCare this week. We are receiving information about changes in practices to ensure social distancing is adhered to. Thanks Colin.

#### **Hot Cross Buns for Servants Community Housing**

Sam from the Village Café has kindly donated some Hot Cross Buns and asked us who in our Community would appreciate them. Nino quickly suggested Servants Community Housing. Thanks Sam!

There are four Servants Community Housing establishments

Carrical House in Hawthorn 18-20 Mason St, Hawthorn VIC 3122

(03) 9819 6073

Hamer House in Kew 535 High St, Kew VIC 3101

(03) 9853 6104

Mother Romana House in Kew 11/15 A'Beckett St, Kew VIC 3101

(03) 9853 0478

Women's House

They are always very grateful of any assistance we can direct their way. John Koa routinely provides a supply of bread to Mother Romana House in Kew.

#### A call out for help from Servants

"One of our staff members has had our supply of Glen 20 and Ajax spray disinfectant stolen from her car. It had been collected gradually following the minimum purchasing rules and was destined to be distributed amongst our 4 houses. Counting our blessings, they left the paper towel..... If you could buy and donate some extra household spray cleaning products that could be used by residents in our houses, please message us or call the office on 9819 6073".

#### Would you consider giving a live-in Servants Management couple a holiday?

"Our House Managers give and give and give. It would be great to offer them respite every few months by having a weekend away in a holiday home within a few hours of Melbourne. If you have such a place, would you consider donating a weekend away to our amazing staff? A break to reflect and refresh will do them the world of good and give them energy and patience to keep going".

#### Please consider!

#### D9800 Fire Relief

Below is an update from Clarke Ballard, Rotary Club of Balwyn – Vice President Good day all

This email is going to members of RC Balwyn, Balwyn Nth, Canterbury, Camberwell, Melbourne and Brighton, and to PDGs Jim Studebaker and Philip Archer. I have talked to nearly all of you in the past weeks about a possible combined bushfire relief project involving firstly supporting BlazeAid and secondly concentrating on the longer term needs of Mallacoota and its surrounds.

Firstly, possible support for BlazeAid.

RC Balwyn had for some months been considering a project to supply one or two of BlazeAid's standard trailers filled with fencing equipment at a cost of some \$24,000 each. When the bushfire problem became acute in NSW and Queensland, and then in Victoria, BlazeAid became very busy and short of these trailers. At the same time it has been receiving some large donations of money, and it is not clear whether the need for trailers is still unfunded or whether it has other long term unfunded needs. Continued on page 3

#### Continued from page 2

Philip Archer has a long association with BlazeAid and can represent it in discussions. The issue is further complicated by COVID-19, which has caused shut-down of the Camberwell Sunday Market, depriving RC Balwyn of its major (almost sole) fund-raising project for an unknown period. Other Clubs are doubtless similarly affected.

Secondly, possible support for the Mallacoota area.

Can the Eastside cluster clubs consider whether they want to join with Balwyn in the "support the Mallacoota area" idea? You will recall that all were involved in two Sunday Markets where the entry takings were widely advertised as going to "bushfire support in Gippsland". The money raised was \$12,638, which is still held by the Sunday Market Board, earmarked for that purpose. RC Balwyn has good contacts in Mallacoota, and Dick Menting in particular has been liaising with the Lion's Club of Mallacoota, which advises that it will probably be months before they can work out the longer term needs after "first Response" agencies have done their thing. It is likely that much of the support will be social, and will involve time and effort more than just money.

Other clubs may have ideas that we will need to work in with. For example it is understood that RC Melbourne may wish to concentrate on the Orbost area".

Jim Studebaker is on this District Committee and will answer your questions and take on your suggestions.

Jim says..

There are a few things happening with the D9800 Bushfire Relief committee.

You will be aware that the District held a 'Bushfire Relief Breakfast' at the Essendon Fields Hyatt before the CORVID shutdown. The guest speaker was Commissioner for Emergency Services, Andrew Crisp. He gave an inspiring address on the impacts of the fires and the emergency services response and acknowledged the work of Rotary (members, clubs and districts) in supporting the families in the fire impacted areas of Victoria.

At that breakfast I met with the chairs of D9790 and D9820 bushfire response committees to begin the process of coordinating relief projects in their district.

The first project was to acquire and deliver used 20' and 40' shipping containers to fire impact properties in East Gippsland (D9820) and Northeast Victoria (D9790). The containers are being used to store equipment and other materials whilst the properties are being rebuilt. Thirty four (34) shipping containers, mostly 40' containers, have been delivered to East Gippsland properties.

The District committee is presently working on a project to acquire and deliver new and used caravans to fire impacted properties so families can move back to their properties whilst the rebuilding projects begin. A number of caravans are presently being refurbished and will be available for delivery this month.

We are presently working on a process for clubs to make application to the D9800 Bushfire Relief Committee for funds to assist in financing club originated bushfire relief projects. We are rolling this out in the next week. - DG Grant will advise clubs in due course.

Jim

#### Stay Safe over Easter Everyone Key messages for the community

- The rules are clear and they don't change over Easter: if you can stay at home, you must stay at home. No Easter holiday is worth a life.
- Stay home. Protect the health system. Save lives.
- There are only four reasons to leave home: shopping for what you need food and essential supplies medical, care or compassionate needs exercise in compliance with the public gathering requirements work and study if you can't work or learn remotely Read the full update: Coronavirus-disease (COVID-19) Update 10 April 2020

#### **President Peter**

Hope last week treated you well, while you are at home and that you are not too bored or frustrated.

RCNB has had two zoom link ups which has enabled us to chat and see each. I do encourage you to join the next one on Thursday. If you need any help with zoom please give me a ring as I have managed to talk a few people through how to download and set up zoom on their computers.

The District zoom link ups are good fun and available for any Rotarian, on Monday and Wednesday nights at 6pm. They are starting to feature some of the guest speakers who were going to speak at the District Conference.

The bear hunt continues.....my bear has been testing out some wine and thought a whole barrel is good idea!!

I can also confirm that running gets easier the more you do of it but I am still not totally convinced it is good for you.

I hope to see you on the computer on Thursday.

With best wishes

Jane Pennington

Without knowing that there was a 'Teddy Bear Trail', a shop at 'The Roundabout' Belmore Road, Balwyn East, known as 'Madlegs' was displaying teddy bears. Judy took a liking to the bear in the window, however there was a notice on the door that clearly said 'Madlegs' was closed for the duration of the pandemic. By good fortune the note had the owner's email address attached.



As a birthday gift, Judy presented our daughter Jenny with her 'Comfort Bear'.

Geoff Steinicke



ther Hills





#### The Case for Wearing Masks

#### **Letter from Dr Eldad Einav**

"Last Saturday, my local hospital reached a sad milestone: We had our first COVID-19 death.

I am a staff cardiologist at the hospital in Binghamton, New York, and like hospitals everywhere, we have been anticipating a surge in patients. Personal protective equipment (PPE) is in short supply and is being rationed. We are encouraged to reuse disposable equipment multiple times, and access to surgical masks is limited.

I was concerned to see that most healthcare workers and patients are still roaming the hospital floors and the emergency department without wearing masks. Hospitals are citing guidelines from the Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) restricting mask use mostly to close encounters with symptomatic individuals or confirmed cases with COVID-19.

However, it is widely agreed that face masks (even surgical masks and non-fit-tested respirators) are an effective barrier against COVID-19, as its primary mode of transmission is through respiratory droplets. Contrary to common belief, however, respiratory droplets are released not only when sneezing or coughing, but <u>also when talking</u>.

To be clear, mask use is one of the most effective physical interventions to prevent the spread of respiratory viruses. A comprehensive <u>Cochrane</u> review examined multiple physical preventive measures (eg, screening at entry ports, isolation, quarantine, social distancing, barriers, personal protection, hand hygiene) and found that masks were the most consistent and comprehensive measure. So why not recommend universal usage, for health care workers and the community alike?

The main reason given by authorities is that there is no evidence showing that it is effective in the community. However, "there is an essential distinction between absence of evidence and evidence of absence," write Hong Kong scholars in a comment in *The Lancet\_*. The paucity of data regarding widespread mask use does not mean that masks are not effective.

In a striking contrast to prevention guidelines in the Western world, Asian countries such as China, Japan, South Korea, and Hong Kong have made masks a cornerstone of their strategy in fighting the pandemic. China has even enforced <u>compulsory face mask</u> policies in some regions.

The rationale against mask use in the community partially relies on the premise that people without symptoms don't spread the virus. But this view is changing as new data are accumulated. Even the CDC has acknowledged reports of asymptomatic and presymptomatic transmission.

A study published in the New England Journal of Medicine evaluated a group of returning travelers from Wuhan, China, to Frankfurt, Germany. The researchers discovered "that shedding of potentially infectious virus may occur in persons who have no fever and no signs or only minor signs of infection."

Asymptomatic transmission was also estimated in multiple modeling studies of the outbreak. A study published in the journal *Science\_shows* that "nondocumented infections were the infection source for 79% of documented cases." Jeffrey Shaman, the lead author, stated that this "stealth transmission" is flying under the radar and becoming a major driver of the epidemic.

As the weight of evidence shifts toward supporting a major role for asymptomatic transmission, the use of personal facemasks, especially in crowded areas, becomes instrumental in preventing community spread of the virus. We can no longer rely on symptoms or screening to tell us whether mask protection is needed.

By making the facts public, more resources may become available. The message that masks not only can protect healthcare workers but also can help control the outbreak may recruit more efforts, allocate more resources, and make this a national top priority.

This was exactly what happened in Asia, where universal mask wear has been advised. Both Taiwan and South Korea faced shortages of masks, and they responded by increasing mask production. Taiwan opened 60 new productions at various manufacturing plants across the country to produce 10 million masks a day."

Geoff

#### **Silent Spreaders May Be Infecting Others**

We've been told to avoid people who are obviously sick, coughing, and sneezing to prevent us from getting the new coronavirus. But up to 25% of people infected may never have symptoms. And in others, their symptoms may not show up until 48 hours after being infected, according to <a href="mailto:new evidence">new evidence</a>.

Several recent studies have backed this up. One study in Singapore found infection was transmitted between 2.55 and 2.89 days, respectively, before symptoms started.

Another study in China found that 12.6% of the transmissions could have occurred before symptoms began in the "source" patient.

So how exactly is the virus being spread? Chad Petit, PhD, assistant professor in the department of biochemistry and molecular genetics at the University of Alabama said, "People think, 'If I don't feel bad, I don't have it and can't give it to anyone,' and that is now misguided thinking."

Researchers don't yet have all the answers. But an expert panel from the National Academy of Sciences told White House officials Wednesday night that the <u>virus can possibly be spread through talking or just breathing.</u>

#### Why don't infected people get a fever right away?

After a person is exposed, "the virus is propagating in your body, but your immune system has not recognized that something is going on systemically," says Petit. "That's why you don't get a fever right away. Just because you don't have symptoms doesn't mean you don't have the virus."

The Singapore researchers say the spread of the virus before there are symptoms might happen "through generation of respiratory droplets or possibly through indirect transmission. Speech and other vocal activities such as singing have been shown to generate air particles, with the rate of emission corresponding to voice loudness." They cite the report about singers in Washington State attending choir practice, with 40 of 60 later testing positive for the virus.

Basically, the infection is transmitted from the silent spreaders the same ways obviously sick people do, Petit says. "If somone sneezes or coughs and wipe their nose, and those droplets get on you or your hands and you touch your face — that's thought to be the most common route of transmission at the moment," he says, although the virus shed on surfaces can also be infectious.

#### **Taking Precautions**

The Centre for Disease Control says that people are thought to be the most contagious when they are symptomatic, or sickest. But as more information emerges about how the virus spreads, more people are taking to wearing masks. On Wednesday, Los Angeles Mayor Eric Garcetti said he was not waiting on revised guidance and advised residents to wear non-medical masks when out doing essential tasks such as grocery shopping.

Academy of Sciences member Harvey Fineberg, MD, told CNN he will start wearing a homemade mask when he goes food shopping, saving the surgical masks for health care providers.

Evidence of transmission by silent spreaders reinforces the importance of measures already in place, experts agree. That means continuing to use social distancing, frequent hand-washing, and disinfecting household surfaces.

#### Geoff Steinicke

Folks, on this page are some quotes, notes, and funnies that people have forwarded. Enjoy, and hope it helps with your day.

https://www.facebook.com/1534939487/posts/10221977966148308/?d=n

Be careful because people are going crazy from being in lock down! Actually I've just been talking about this with the microwave and toaster while drinking coffee and we all agreed that things are getting bad. I didn't mention anything to the washing machine as she puts a different spin on everything. Certainly not to the fridge as he is acting cold and distant. In the end the iron straightened me out as she said everything will be fine, no situation is too pressing.

The vacuum was very unsympathetic... told me to just suck it up, but the fan was more optimistic and hoped it would all soon blow over! The toilet looked a bit flushed when I asked its opinion and it didn't say anything, but the door knob told me to get a grip. The front door said I was unhinged, and so the curtains told me to ......yes, you guessed it ....pull myself together.

Screen shot of a meeting of the coffee group now getting together via Zoom.



WATCH: Since we're stuck at home, <u>Adelaide Zoo</u> and <u>Monarto Safari Park</u> are bringing their animals to you! The zoos are now live streaming some enclosures so you can see what the chimps, rhinos and pandas get up to 24 hours a day.

Click on the following for a laugh:-

https://www.facebook.com/BensComedy/videos/557887761501552/?t=0

https://youtu.be/LyziHkIQXTo

https://www.facebook.com/LadBabyOfficial/videos/1111502279197664/

John,

I discovered FM radio station 96.5 Inner FM; good music and a 'Rotary in Action' segment each Tuesday at 3.00 pm.

Rob Head

#### BRIGHT Fellowship Weekend Oct 23, 24 & 25.

Just in case the COVID-19 virus pandemic is over by October I thought we should keep our bookings in place and build the list of attendees to see what our numbers are likely to be and if more rooms are needed.

We have reserved 22 rooms at the Bogong View Motel in Bright. Golf and hotel bookings for dinner/lunch are done.

Other bookings will follow as is possible.

10 Members have confirmed their attendance at Bright.

Sutherland, Cribbes, Ross, Matthews, McClean, Magor, Rennie, Cummings, Taylor, Walters.

Other members Please send your email

to: <u>mauriewalters@gmail.com</u> indicating you will attend for 2 or for 3 nights, or that you will NOT be attending.



Naturally at this early stage we are not requesting any payment and understand that members' circumstances may change at any time.

Maurie Walters

#### All Rotary Club of North Balwyn meetings are cancelled until further notice

This has got to be one of the cleverest
E-mails in a while.
Someone out there
Must be "deadly" at Scrabble..
(Wait till you see the last one)!

#### PRESBYTERIAN:

When you rearrange the letters: BEST IN PRAYER

#### ASTRONOMER:

When you rearrange the letters: MOON STARER

#### **DESPERATION:**

When you rearrange the letters:

A ROPE ENDS IT

#### THE EYES:

When you rearrange the letters: THEY SEE

#### THE MORSE CODE:

When you rearrange the letters: HERE COME DOTS

#### DORMITORY:

When you rearrange the letters: **DIRTY ROOM** 

#### SLOT MACHINES:

When you rearrange the letters:
CASH LOST IN ME

#### ANIMOSITY:

When you rearrange the letters: IS NO AMITY

#### **ELECTION RESULTS:**

When you rearrange the letters:
LIES - LET'S RECOUNT

#### SNOOZE ALARMS:

When you rearrange the letters: ALAS! NO MORE Z 'S

#### A DECIMAL POINT:

When you rearrange the letters:
I'M A DOT IN PLACE

#### THE EARTHQUAKES:

When you rearrange the letters: THAT QUEER SHAKE

#### **ELEVEN PLUS TWO:**

When you rearrange the letters: TWELVE PLUS ONE

#### AND FOR THE GRAND FINALE:

#### MOTHER-IN-LAW:

When you rearrange the letters: WOMAN HITLER

Bet your friends haven't seen this one!!!
DON'T FORGET TO SHARE THIS

Birthdays and Anniversaries between April 5 and April 11

**Weddings:** Jenny and Greg Cribbes

Birthdays Chris Flavelle Smith, Carmel Francis, David Cheney

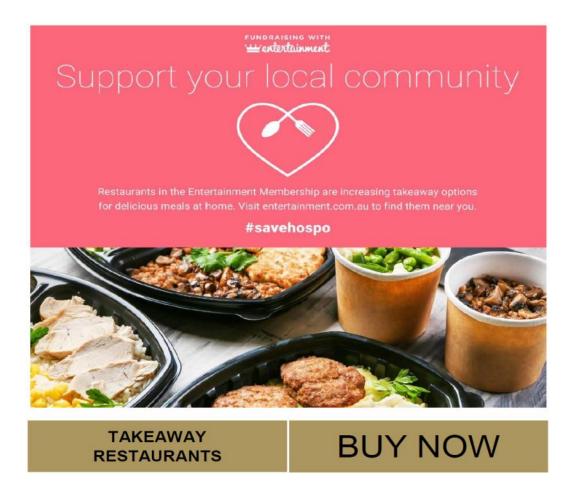
Inductions: Nil

From a friend in the USA, showing how Walmart customers are protecting themselves against the coronavirus.



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Support your local community <a href="https://www.entertainment.com.au/member-">https://www.entertainment.com.au/member-</a>



https://www.entertainment.com.au/member-information/takeaway

## Enjoy the restaurant experience at home

Our restaurants are increasing their takeaway so you can enjoy a delicious meal at home.

Check out restaurants near you and support your local community.

#savehospo

FUNDRAISING WITH

THANK YOU FOR YOUR SUPPORT!

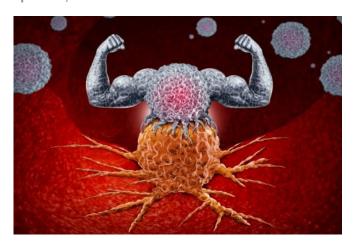
Rotary Club of North Balwyn

gwsteiniske@bigpond.com

#### Cancer immunotherapy clinical trial shows promise, but dangers remain

#### By Michael Irving

April 02, 2020



A new clinical trial of CAR T-cell therapy has shown promise against lymphoma, but there are some negative side effects

A novel form of cancer immunotherapy has shown exceptional promise in a new clinical trial. The treatment involves supercharging a patient's immune cells to fight cancer then reintroducing them to the body, and as many as 93 percent of participants in the latest trial responded positively to the therapy. But beneath the surface, serious side effects still lurk.

The immune system normally does a pretty good job of fighting off disease, but cancer is known to use all kinds of sneaky tricks to evade detection. <u>CAR T-cell therapy</u> is an emerging type of treatment that involves removing immune cells from the patient, modifying them to target cancer, and then returning them to the body.

Previous clinical trials of CAR T-cell therapy have shown success against blood cancers like leukemia and lymphoma, and the technique is beginning to be adapted to <u>solid tumors</u> too. The treatment isn't without its <u>issues though</u> – not only is it prohibitively expensive, but some of the side effects have been dangerous or even deadly.

This latest clinical trial continues both the good and bad of those trends. The team treated 68 patients with late-stage mantle cell lymphoma, which had relapsed or proven resistant to other treatments.

As many as 93 percent of patients responded positively to the treatment, with 67 percent entering remission completely within a few weeks. Follow-up exams over a year later showed 57 percent were still in remission, and overall survival was 83 percent. That's much higher than would be expected otherwise, the team says, with median survival for no treatment being just 10 months.

"This is an important new therapy that has the potential to offer patients hope," says Patrick Reagan, senior author of a study describing the trial. "Patients with mantle cell lymphoma who have relapsed after chemotherapy and targeted treatments have a poor prognosis and limited options. The response rates seen on this study are truly unprecedented and have been durable in a substantial number of patients."

Unfortunately it's not all good news. Serious side effects occurred in many cases: 94 percent experienced cytopenias, which are a reduction in levels of certain types of blood cells. Infections occurred in 32 percent of patients, with two cases being particularly severe. Another 31 percent of cases had neurologic events, and 15 percent suffered an inflammatory condition called cytokine release syndrome.

"The side effects of CAR T cells make it difficult for some patients who have other medical problems to receive these treatments," says Reagan. "Research is progressing, though, and we are trying to develop ways to deliver these types of therapies more safely and with improved effectiveness."

The results of the clinical trial were published in the New England Journal of Medicine.

Source: University of Rochester

#### Chilling concussed brain cells maintains healthy function in the lab



Associate Professor Christian Franck (right) and PhD student Harry Cramer experiment with concussed brain cells in the lab

The impacts of a concussion can be felt long after the initial incident takes place, with the injury sometimes leading to severe neurodegeneration and conditions like Parkinson's or chronic traumatic encephalopathy (CTE). In the quest to develop a treatment for these kinds of traumatic brain injuries, engineers at the University of Wisconsin-Madison (UW) have found that cooling concussed brain cells can protect them from damage and allow them to operate as normal.

"There are currently no effective medical treatments for concussions and other types of traumatic brain injuries," says Christian Franck, an associate professor of mechanical engineering at UW-Madison who led the study. "We're very excited about our findings because they could potentially pave the way for treatments we can offer patients."

Franck and his team made their breakthrough by experimenting with brain cells in a dish. When brain cells are subjected to a traumatic impact, one of the consequences can be the switching on of a biochemical pathway that drives neurodegeneration and eventually the loss of cell function. The researchers set out to find ways of intervening in this process as a way of preventing the long-term damage associated with concussion injuries.

"These pathways are like flipping on a bad molecular switch in your brain," says Franck.

To recreate these biochemical pathways in the lab, the researchers built networks of neurons in a dish. They then recreated the process of a brain injury through mechanical stimulus, which injured the cells in a similar way to a real-world concussion. The cells were then promptly cooled to a range of different temperatures and for different periods of time to find the optimal approach.

For the best results, the team found that the cooling needed to commence within four hours of the injury, and be maintained for at least six hours, though even as little as 30 minutes showed some advantages. Cooling to a temperature of 91.4 °F (33 °C) offered the most protective benefit.

Following this method, the team found that it could keep the relevant biochemical pathways switched off and keep the cells functioning normally. Notably, they found when the brought the cells back to a normal body temperature following six hours of cooling, the pathways remained turned off.

"The biggest surprise was that the molecular switches actually stayed off – permanently – through the duration of the lab experiment," Franck says. "That was huge."

How this would work in a clinical setting isn't entirely clear. The researchers note that cooling a patient's entire body is perhaps not a viable option, as this brings risks relating to the heart and immune system. For now, the team is hoping to conduct further studies in animals to better understand the mechanisms at play.

"We hope our paper will spawn renewed motivation and interest in solving the technical challenges for getting this type of treatment to patients in the future," Franck says. "For a long time, the scientific literature was inconclusive on whether this would be a successful treatment. What we showed in our study was that, yes, as far as the cell biology is concerned, this is effective. And so now it's really worth thinking about how we might implement this in practice."

The research was published in the journal PLOS One.

Source: University of Wisconsin-Madison

## Second Bite Roster April /May 20

The Roster to collect food from 2nd Bite and deliver to Camcare.

Food is picked up from 2nd Bite between 8:15 and 8:45 am every Thursday and delivered by 9:45 am to Camcare.

Food is then sorted by Camcare staff for their 11:00 am distribution to the under privileged.

Please contact Garth Symington on mobile 0419 519 899

Date		Volunteer Driver	Team Members NOT available
16	April	Geoff Haddy	
23	April	Greg Cribbes	
30	April	Rob Head	
7	May	Steven Greatorex	
14	May	Garth Symington	
21	May	Maurie Walters	
28	May		

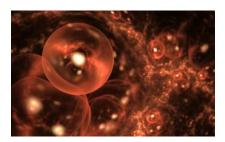




Kidney stone drug found to starve pancreatic cancer cells to death

#### **By Nick Lavars**

April 02, 2020



A drug originally developed to treat kidney and urinary tract stones has been demonstrated to starve pancreatic cells of the amino acids they need to survive

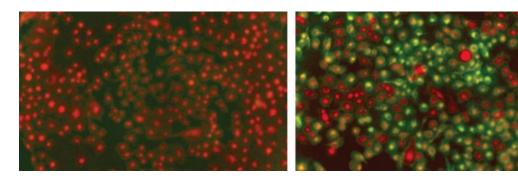
Like all cells in the body, cancerous cells need nutrients and energy to survive, which presents researchers with an opportunity to cut off the supply and slow their spread. A research team at Columbia University has made an exciting discovery in this area, finding that a compound currently under development for a rare kidney stone disease can starve pancreatic cancer cells of a key amino acid they depend on, a technique that proved to stop tumor growth in mice.

"We're very encouraged by these results," says Kenneth P. Olive, PhD, senior author of the study. "Pancreatic cancer is a uniquely lethal disease, with an average survival rate of just six months after diagnosis. We're in desperate need of new treatments."

One of the ways pancreatic cancer causes harm is by driving the production of oxidants, which can be fatal to healthy cells in the body but leave the tumor cells intact. The reason for this is an amino acid called cysteine, which the tumor cells import in huge quantities and allows them to produce molecules that neutralize the toxic effect of the oxidants.

"Since pancreatic tumors appear to depend on cysteine import for their survival, we hypothesized that it might be possible to slow tumor growth by selectively targeting this amino acid," Olive says.

The team worked with mouse models of pancreatic cancer closely resembling tumors in humans. They engineered the mice to be missing the gene that controls cysteine import and found that this missing piece led to a halt in the tumors growing and a doubling of the median survival time.



Untreated pancreatic cancer cells can be seen on the left; while the cysteine-starved cells are on the right, with green indicating cellular damage that will eventually kill the cells

Kenneth Olive, Columbia University Irving Medical Center

In another experiment, the team treated the mice with a drug called cysteinase, with similar results. This compound is under development for the treatment of a rare genetic disorder called cystinuria, in which high amounts of cysteine build up and lead to the formation of kidney and urinary tract stones. The scientists also added cysteinase to tissue culture containing human pancreatic cancer cells, causing those cells to die.

The team is now working to see if the drug's effectiveness can be ramped up by combining it with other cancer treatments, such as immunotherapy. One of the promising outcomes of this approach, the team notes, is that it appears to leave normal cells unharmed.

"You might imagine that all the cells of your body need every amino acid equally, but we knew from prior studies that most normal cells need only very low levels of cysteine," Olive says. "Our whole goal in targeting this difference between normal cells and cancer cells is to develop a treatment that is toxic to cancer and gentle on the rest of the body."

The research was published in the journal Science.

Source: Columbia University

#### ROTARY INFORMATION

Rotary International Website:- <a href="https://www.rotary.org/">https://www.rotary.org/</a>

Facebook:- <a href="https://www.facebook.com">https://www.facebook.com</a>
Twitter:- <a href="https://twitter.com/Rotary">https://twitter.com/Rotary</a>

Rotary Australia Website:- <u>rotaryaustralia.org.au</u>

Facebook:- <a href="https://www.facebook.com/RotaryAroundAustralia/">https://www.facebook.com/RotaryAroundAustralia/</a>

Facebook RDU:- <a href="https://www.facebook.com/rotarydownunder/">https://www.facebook.com/rotarydownunder/</a>

Twitter:- <a href="https://twitter.com/rotaryaustralia">https://twitter.com/rotaryaustralia</a>

District 9800 Website; <a href="https://www.rotarydistrict9800.org.au/">https://www.rotarydistrict9800.org.au/</a>

Facebook;- <a href="https://www.facebook.com/rotarydistrict9800/">https://www.facebook.com/rotarydistrict9800/</a>
Twitter:- <a href="https://twitter.com/rotaryd9800?lang=en">https://twitter.com/rotaryd9800?lang=en</a>
Networker:- <a href="mailto:rotarydistrict9800.org.au/content/54/networker">rotarydistrict9800.org.au/content/54/networker</a>

Rotary Club of North Balwyn Website;- <a href="https://www.rotarynorthbalwyn.com.au">www.rotarynorthbalwyn.com.au</a>
North Balwyn Men's Shed Website:www.northbalwynmensshed.com

Find a Rotary Club: <a href="https://my.rotary.org/en/search/club-finder">https://my.rotary.org/en/search/club-finder</a>

#### ROTARY CLUB OF NORTH BALWYN 2019/20

President: Peter Sutherland
Vice President: John Magor
Secretary: Gavan Schwartz
Treasurer: Adam Hillary

president@rotarynorthbalwyn.com.au
vicepresident@rotarynorthbalwyn.com.au
vicepresident@rotarynorthbalwyn.com.au
treasurer@rotarynorthbalwyn.com.au

Grapevine: John McBride jdmcb48@bigpond.net.au Noon Sat Weekly Deadline for submissions.

North Balwyn Probus: Michael Martin <a href="http://balwynnorthprobus.org.au">http://balwynnorthprobus.org.au</a>

North Balwyn Heights Probus: Sue Mullarvey <u>varramul@tpg.com.au</u> 98574305 0400821402

Greythorn Probus: greythornprobus.org.au 98594941.

Boroondara Ladies Probus: Janet Eddy <u>jveddey@applewood.net.au</u>

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